900 Northcrest Drive, PMB 16
Crescent City, California 95531
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Del Norte Local Transportation Commission

Tamera Leighton, Executive Director
Tamera@DNLTC.org
Desk: (707) 465-3878
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DEL NORTE LOCAL TRANSPORTATION COMMISSION
MEETING AGENDA: TUESDAY, APRIL 5, 2022 AT 3 PM
DEL NORTE COUNTY BOARD OF SUPERVISORS CHAMBERS
FLYNN ADMINISTRATIVE CENTER, 981 H STREET, CRESCENT CITY, CA

This meeting is in person.

If you cannot attend in person, there is online access: https://media.co.del-norte.ca.us/

1. Call Meeting to Order

2. Pledge of Allegiance

3. Public comment period
   Anyone wishing to make public comments regarding matters either on or off the agenda and within the Commission's jurisdiction may do so at this time; however, the Commission is not permitted to act on non-agenda items.

4. Closed Session
   CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION
   Pursuant to Government Code Section 54956.9(d)(1)
   Friends of Del Norte et al. v. California Dept. of Transportation et al.
   United States District Court Northern District of California Case No. 3:18-cv-00129

5. Adjourn to the Policy Advisory Committee
   CONSENT AGENDA for POLICY and ADMINISTRATIVE

   Items are considered routine in nature and voted on in one motion: Consider public comments or requests to pull matters from the consent agenda for separate action.

   a) Minutes of February 1, 2022
      Staff recommendation: By consensus, accept minutes of February 1, 2021.

   b) Authorize State Exchange agreements for Regional Surface Transportation Program funds
      Staff recommendation: Adopt resolution 2022 3 authorizing the executive director to execute annual Federal Apportionment Exchange Program and State Match Program agreements

   c) Authorize the transit Low Carbon Transit Operations Program project
      Staff recommendation: Adopt resolution 2022 4 authorizing Low Carbon Transit Operations Program Project: Electric Bus Infrastructure Program

d) Contract for Website, Crowdsourcing, & Social Media Development and Maintenance services
Proposed action: By polled vote, award the Website, Crowdsourcing, & Social Media Development and Maintenance Services contract to Green DOT Transportation Solutions per the proposal dated March 23, 2022.

POLICY and ADMINISTRATIVE

e) City request for $400,000 for Front Street Reconstruction from G to I Streets
TAC recommendation: By polled vote, award $400,000 of Regional Surface Transportation Program funds for Front Street Reconstruction from G to I Streets

Alternative staff recommendation: By polled vote, adopt resolutions awarding a total of $400,000 for Front Street Reconstruction from G to I streets:
   i. Resolution 2022 1 awarding $50,000 in TDA pedestrian/bicycle funding for sidewalk reconstruction, and
   ii. Resolution 2022 2 awarding $350,000 of Regional Surface Transportation Program funds for Front Street Reconstruction from G to I Streets

f) Discussion items
- Clean California presentation by Julia Peterson
- US 199 at Elk Valley Crossroad
- Last Chance Grade
- Project Milestones

6. Policy Advisory Committee comments and reports
7. Action on the recommendations of the Policy Advisory Committee
Adjourn as the Policy Advisory Committee, reconvene as the Del Norte Local Transportation Commission, and by polled vote, approve and adopt the actions taken by the Policy Advisory Committee in the items listed above.
8. Adjourn until the regular meeting on Tuesday, May 3, 2022 at 3 p.m.

Anyone requiring reasonable accommodation to participate in the meeting should contact the Executive Director Tamera Leighton, at (707) 465-3878, at least five (5) days prior to the meeting.

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CONSENT AGENDA ITEM A-D

DATE: APRIL 5, 2022
TO: DEL NORTE LOCAL TRANSPORTATION COMMISSION
FROM: TAMERA LEIGHTON, EXECUTIVE DIRECTOR
SUBJECT: CONSENT AGENDA ITEMS

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a) Minutes of February 1, 2022
Staff recommendation: By consensus, accept minutes of February 1, 2021.

b) Authorize State Exchange agreements for Regional Surface Transportation Program funds
Staff recommendation: Adopt resolution 2022 3 authorizing the executive director to execute annual Federal Apportionment Exchange Program and State Match Program agreements

This authorization is usual and customary and happens on an annual basis.

c) Authorize the transit Low Carbon Transit Operations Program project
Staff recommendation: Adopt resolution 2022 4 authorizing Low Carbon Transit Operations Program Project: Electric Bus Infrastructure Program

This authorization is usual and customary and happens on an annual basis. Redwood Coast Transit Authority is the only eligible recipient of the LCTOP funding.

d) Contract for Website, Crowdsourcing, & Social Media Development and Maintenance services
TAC recommendation and Proposed action: By polled vote, award the Website, Crowdsourcing, & Social Media Development and Maintenance Services contract to Green DOT Transportation Solutions per the proposal dated March 23, 2022.

This is not controversial. This contract is with a known consultant, and only one proposal was received. The TAC reviewed the submission in detail and recommends the contract award.

DEL NORTE TRANSPORTATION COMMISSION
REGULAR MEETING MINUTES: TUESDAY, FEBRUARY 1, 2022 AT 3 PM

Present:	Commissioner Ray Altman, City
	Commissioner Gerry Hemmingsen, County
	Commissioner Chris Howard, County (3:30PM)
	Commissioner Blake Inscore, City
	Commissioner Darrin Short, County, Vice-Chair
	Tatiana Ahlstrand, Caltrans, Policy Advisory Member
Absent:	Commissioner Jason Greenough, City, Chair
Also Present:	Susan Brown, Rural Approaches
	Andrew Leighton, City
	Tamara Leighton, Local Transportation Commission
	Joe Rye, Redwood Coast Transit

1. CALL MEETING TO ORDER
   Vice-Chair Short called the meeting to order at 3:07 p.m.

2. PLEDGE OF ALLEGIANCE
   Commissioner Altman led the Pledge of Allegiance.

3. PUBLIC COMMENT PERIOD
   Anyone wishing to make public comments regarding matters either on or off the agenda and within the Commission's jurisdiction may do so at this time; however, the Commission is not permitted to act on non-agenda items.
   The following person(s) addressed the Commission: None

4. ELECTION OF CHAIRPERSON AND VICE-CHAIRPERSON
   Requested Action: By motion, elect a Chairperson and Vice-Chairperson for 2022.
   Commissioner Hemmingsen nominated Commission Short as Chair, seconded by Commissioner Inscore. No other nominations were offered.
   Public Comment: None
   On a motion by Commissioner Hemmingsen, seconded by Commissioner Inscore, and unanimously carried on a polled vote the Del Norte Local Transportation Commission approved Commissioner Short as Chair for 2022.
   Commissioner Inscore nominated Commissioner Altman as Vice-Chair, seconded by Commissioner Hemmingsen. No other nominations were offered.
   Public Comment: None
   On a motion by Commissioner Inscore, seconded by Commissioner Hemmingsen, and unanimously carried on a polled vote the Del Norte Local Transportation Commission approved Commissioner Altman as Vice-Chair for 2022.

5. APPOINTMENT OF TWO FINANCE COMMITTEE MEMBERS.

Chair Short Appointed Commissioner Hemmingsen and Commissioner Inscore to serve on the Finance Committee.
Public Comment: None

6. TELECONFERENCING DURING THE COVID-19 STATE OF EMERGENCY

Counsel and staff recommendation: By polled vote make the following required findings pursuant to Government Code 54953(e)(3)(A-B):

- The legislative body has reconsidered the circumstances of the state of emergency; and
- One or both of the following circumstances exist:
  - The state of emergency continues to directly impact the ability of the members to meet safely in person.
  - State or local officials continue to impose or recommend measures to promote social distancing.

Public Comment: None
On a motion by Commissioner Altman, seconded by Commissioner Inscore, and unanimously carried on a polled vote the Del Norte Local Transportation Commission upheld the required findings pursuant to Government Code 54953(e)(3)(A-B)

7. ADJOURN TO THE POLICY ADVISORY COMMITTEE

CONSENT AGENDA for POLICY and ADMINISTRATIVE

Items are considered routine in nature and voted on in one motion: Consider public comments or requests to pull matters from the consent agenda for separate action.

a) Minutes of December 7, 2021

Staff recommendation: By consensus, accept minutes of December 7, 2021.

b) 202-23 Draft Overall Work Program (Moved to Policy and Administrative Item # b)

TAC and staff recommendation: Consider draft Overall Work Program products, and, by polled vote, direct staff to fully develop the 2022-23 Overall Work Program with the presented work elements.

Tamera Leighton asked to move Item b to a Policy and Administrative for discussion.
Public Comment: None
On a motion by Commissioner Hemmingsen, seconded by Commissioner Altman, and unanimously carried on a polled vote the Del Norte Local Transportation Commission approved item 7 a.

POLICY and ADMINISTRATIVE

b) 2022-2023 DRAFT OVERALL WORK PROGRAM

TAC and staff recommendation: Consider draft Overall Work Program products, and, by polled vote, direct staff to fully develop the 2022-23 Overall Work Program with the presented work elements.

Tamera Leighton reviewed the process for developing the Overall Work Program (OWP). She works with the Technical Advisory Committee (TAC) on project development and planning. A draft budget is developed, then presents the Work Elements (WE) to the Commission to get direction to fully develop the OWP. Tamera highlighted the anticipated Work Elements for the Commission. WE A is the continued Regional Mapping Project, WE B is regional planning and development, WE C includes information dissemination which includes public outreach and information, WE D is the Transportation Improvement Program, WE E is Administration and Fiscal Management. WE F & G are the Safe System and Emergency Planning. WE H includes developing a Scope of Work for the Zero-Emission Vehicles (ZEV) mandate. The ZEV mandate will require that no gas vehicles be sold in California after 2035. Many factors need to be considered to meet this mandate. The Scope of Work will outline what work needs to be done.

Public Comment: None

On a motion by Commissioner Hemmingsen, seconded by Commissioner Altman, and unanimously carried on a polled vote the Del Norte Local Transportation Commission approved item 7 b.

c) DISCUSSION ITEMS

- US 199 at Elk Valley Cross Road – Tamera Leighton reported that Caltrans is making good progress and the design phase should be completed in a few weeks.
- Last Chance Grade – Tamera Leighton reported the working group will be meeting in about a week and she will keep the Commission updated on the workgroup and project.

Public Comment: None

8. POLICY ADVISORY COMMITTEE COMMENTS AND REPORTS

Tatiana Ahlstrand reported that the Elk Valley Cross Road project completed its initial scoping last month. The next step is the Project Initiation Document. Tatiana also reported that Caltrans will host a large item dump day, and the local grant applications close today, the review phase will start next week, and the awards will be announced in March.

Commissioner Hemmingsen discussed the difficulties in attracting contractors at this time.

Commissioner Inscore reported on the Front Street Project, the city is breaking the project into sections and that maybe the Measure S funds can help with the project.
Commissioner Short expressed a citizen's concern about the intersection at Holland Hill and Elk Valley. The citizen inquired about placing a stop sign at this location. Tamera Leighton explained that a planning document showed that a stop sign would cause more collisions instead of fewer and she will share that document with the Commissioners.
Commissioner Howard expressed concerns about lighting on Highway 101 North at the new Tribal mobile home park. Commissioner Howard went on to say that he was met with resistance from Caltrans and asked the Commission to work with Caltrans on this matter.

9. ACTION ON THE RECOMMENDATIONS OF THE POLICY ADVISORY COMMITTEE

Adjourn as the Policy Advisory Committee, reconvene as the Del Norte Local Transportation Commission, and by polled vote, approve and adopt the actions taken by the Policy Advisory Committee in the items listed above.
Public Comment: None
On a motion by Commissioner Inscore, seconded by Commissioner Hemmingsen, and unanimously carried on a polled vote the Del Norte Local Transportation Commission approved items 7 a-b.

10. ADJOURN UNTIL THE REGULAR MEETING SCHEDULED ON TUESDAY, MARCH 1, 2022 AT 3:00 P.M.

With no further business before the Commission, Chair Short adjourned the regular meeting at 3:50 p.m., until the next regularly scheduled meeting on Tuesday, March 1, 2022, at 3:00 p.m.

Respectfully submitted

_____

Tamera Leighton, Executive Director

RESOLUTION NO. 2022 3

DEL NORTE LOCAL TRANSPORTATION COMMISSION (DNLTC) RESOLUTION AUTHORIZING AND DIRECTING THE EXECUTIVE DIRECTOR TO EXECUTE ANNUAL FEDERAL APPORTIONMENT EXCHANGE PROGRAM AND STATE MATCH PROGRAM AGREEMENTS WITH THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION AS THEY ARE MADE AVAILABLE TO DNLTC, AND TO EXECUTE ANY RELATED DOCUMENTS FOR THE RSTP EXCHANGE PROCESS FOR FEDERAL AID PROJECTS – MASTER FUND TRANSFER AGREEMENT 00450S

WHEREAS, Del Norte Local Transportation Commission (DNLTC), in its official capacity as the Regional Transportation Planning Agency, entered into a Master Local Agency-State Agreement for Federal Aid Programs on March 20, 2015, and,

WHEREAS, Federal transportation legislation has established annual allocations to DNLTC of Federal funds for transportation related projects; and

WHEREAS, State legislation allows DNLTC to exchange the Federal allocation for nonfederal State Highway Account funds and DNLTC has historically exchanged the Federal allocation for nonfederal State transportation funds; and

WHEREAS, DNLTC and the State are willing to enter into an agreement that specifies these State funds be used for transportation purposes in conformance with Article XIX of the California State Constitution.

NOW, THEREFORE, BE IT RESOLVED THAT the Del Norte Local Transportation Commission does hereby authorize the Executive Director of DNLTC to execute the annual Federal Apportionment Exchange and State Match Agreements with the California Department of Transportation and to execute any related documents for the Exchange process.

PASSED AND ADOPTED by the Del Norte Local Transportation Commission of Del Norte County, State of California on the 5th day of April 2022 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Darrin Short, Chair
Del Norte Local Transportation Commission

ATTEST:

_____
Tamera Leighton, Executive Director
Del Norte Local Transportation Commission

RESOLUTION 2022 4

DEL NORTE LOCAL TRANSPORTATION COMMISSION RESOLUTION AUTHORIZATING THE LOW CARBON TRANSIT OPERATIONS PROGRAM PROJECT: ELECTRIC BUS INFRASTRUCTURE PROGRAM PHASE 3 -- $69,048

WHEREAS, the Del Norte Local Transportation Commission, is the Regional Transportation Planning Agency for the Del Norte region and holds the responsibility to authorize the programming of Low Carbon Transit Operations Program (LCTOP) funding; and

WHEREAS, the Del Norte Local Transportation Commission, through its planning process including its regional transportation plan, has identified the region's significant transportation needs; and

WHEREAS, the Redwood Coast Transit Authority (RCTA) is an eligible project sponsor and may receive state funding from the LCTOP for transit projects; and

WHEREAS, the statutes related to state-funded transit projects require a local or regional implementing agency to abide by various regulations; and

WHEREAS, Senate Bill 862 (2014) named the Department of Transportation (Department) as the administrative agency for the LCTOP and the Department has developed guidelines for the purpose of administering and distributing LCTOP funds to eligible project sponsors; and

WHEREAS, DNLTC wishes for RCTA to implement the LCTOP project above and delegate authorization to execute these documents and any amendments thereto to Joseph Rye, General Manager, and

NOW, THEREFORE, BE IT RESOLVED that the fund recipient agrees to comply with all conditions and requirements set forth in the Certification and Assurances and the Authorized Agent documents and applicable statutes, regulations and guidelines for all LCTOP funded transit projects.

NOW THEREFORE, BE IT FURTHER RESOLVED that Joseph Rye be authorized to execute all required documents of the LCTOP program and any Amendments thereto with the California Department of Transportation.

NOW THEREFORE, BE IT FURTHER RESOLVED that DNLTC hereby authorizes the submittal of the following project nomination and allocation request to the Department in FY19-2020 LCTOP funds:

List project(s), including the following information:

Project Name: Electric Bus Infrastructure Project Phase 3
Amount of LCTOP funds requested: $69,084
Short description of project: Installation and use of charging facility for buses
Benefit to a Priority Populations: Health benefits to low-income and general public from use of electric buses
Amount to benefit Priority Populations: Reduce total GHG by 154 MTCO2e per bus/yr
Contributing Sponsors (if applicable): Del Norte Local Transportation Commission ($65,633), Redwood Coast Transit Authority ($3,451)

PASSED AND ADOPTED by the Del Norte Local Transportation Commission of Del Norte County, State of California on the 5th day of April 2022 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Darrin Short, Chair
Del Norte Local Transportation Commission

ATTEST:

_____
Tamera Leighton, Executive Director
Del Norte Local Transportation Commission

LCTOP FY 2021-2022

Authorized Agent

AS THE **Chair**
(Chief Executive Officer/Director/President/Secretary)

OF THE **Del Norte Local Transportation Commission**
(Name of County/City/Transit Organization)

I hereby authorize the following individual(s) to execute for and on behalf of the named Regional Entity/Transit Operator, any actions necessary for the purpose of obtaining Low Carbon Transit Operations Program (LCTOP) funds provided by the California Department of Transportation, Division of Rail and Mass Transportation. I understand that if there is a change in the authorized agent, the project sponsor must submit a new form. This form is required even when the authorized agent is the executive authority himself. I understand the Board must provide a resolution approving the Authorized Agent. The Board Resolution appointing the Authorized Agent is attached.

Tamera Leighton, DNLTC Executive Director OR
(Name and Title of Authorized Agent)

Joseph Rye, RCTA General Manager OR
(Name and Title of Authorized Agent)

Click here to enter text. OR
(Name and Title of Authorized Agent)

Click here to enter text. OR
(Name and Title of Authorized Agent)

Darrin Short, DNLTC Chair
(Title)

Approved this 5 *day of* **April** , 2022

DEL NORTE LOCAL TRANSPORTATION COMMISSION
PROFESSIONAL SERVICES AGREEMENT WITH
GREEN DOT TRANSPORTATION SOLUTIONS

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is entered into and effective as of July 1 2022 ("Effective Date"), by and between the Del Norte Local Transportation Commission ("DNLTC") and Green DOT Transportation Solutions ("Consultant") (collectively, the "Parties").

WHEREAS, the Parties enter into this Agreement for the purpose of Consultant providing professional Website, Crowdsourcing, & Social Media Development and Maintenance services to DNLTC under the terms and conditions set forth in this Agreement.

THEREFORE, in consideration of the mutual covenants contained in this Agreement, the Parties agree as follows:

1. Services. Consultant will provide the professional services as described in and in accordance with the Scope of Services and Fees set forth in Exhibit A, attached hereto and incorporated herein ("Services"). As needed by DNLTC, Services will be ordered by DNLTC by specifying the task to be performed ("Task Orders"). Task Order #1 is attached as Exhibit B. Additional Task Orders may be agreed to by the Parties and these must be numbered in series and will be set forth in similar format and attached to and become part of this Agreement.

2. Compensation.

A. For the full performance of the Services described in Exhibit A, DNLTC will compensate Consultant on a time-and-materials basis at the compensation rates specified in Consultant's Services Rate Schedule included in Exhibit A; provided, however, that total compensation for the full performance by Consultant of all Services under all Task Orders must not exceed thirty-four thousand three hundred and forty-five dollars ($34,345), the "not-to-exceed" amount.

B. Consultant must submit detailed monthly invoices reflecting all services performed during the preceding month, including a revised or re-stated schedule for performance and any additional documentation requested by DNLTC.

C. Consultant will be compensated for services in addition to those described in Exhibit A, only if Consultant and DNLTC execute a written amendment to this Agreement describing the additional services to be performed and the compensation to be paid for those services. In no case will the total compensation under this Agreement

exceed the "not-to-exceed" amount specified in Paragraph A, above, without prior written authorization from DNLTC.

D. DNLTC's obligation to pay compensation to Consultant is contingent upon Consultant's performance of the Services pursuant to the terms and conditions of this Agreement and any amendments. Before payment is disbursed, Consultant must be in compliance with Paragraph 19 of this Agreement.

3. Term. The term of this Agreement commences on the Effective Date, and terminates on June 30, 2027 unless sooner terminated in accordance with Section 4. Upon termination, any and all of DNLTC's documents or materials provided to Consultant and any and all of the documents or materials prepared for DNLTC or relating to or derived from the performance of the Services, must be delivered to DNLTC as soon as possible, but not later than fourteen (14) days after termination of the Agreement.

4. Termination. DNLTC may terminate this Agreement without cause upon ten (10) days' written notice. DNLTC may immediately terminate or suspend this Agreement for cause. Cause for immediate termination or suspension includes, but is not be limited to, any breach of this Agreement by Consultant or Consultant's bankruptcy or insolvency. Upon receipt of notice of termination or suspension for cause, Consultant must immediately stop all work in progress under this Agreement. In the event of early termination of this Agreement by DNLTC, Consultant is entitled to payment for all Services performed to the date of termination to the extent the Services were performed to the satisfaction of DNLTC in accordance with the terms and conditions of this Agreement. If DNLTC terminates this Agreement for cause, Consultant is liable to DNLTC for any excess cost DNLTC incurs for completion of the Services.

5. Consultant's Representation; Independent Contractor. Consultant represents that Consultant possesses distinct skills for performing the Services. DNLTC has relied upon that representation as a material inducement to enter into this Agreement. Consultant must, therefore, provide properly skilled and technical personnel to perform all Services. It is expressly understood that Consultant, its agents, and employees act in an independent capacity and as an independent contractor and not as officers, employees or agents of DNLTC. This Agreement may not be construed as an agreement for employment.

6. Facilities and Equipment. Consultant must, at its sole cost and expense, furnish all facilities and equipment that may be required for furnishing Services under this Agreement. DNLTC will furnish to Consultant no facilities or equipment, unless DNLTC otherwise agrees in writing to provide them.

7. Licenses, Permits, Etc. Consultant must, at Consultant's sole cost and expense, keep in effect and require its subcontractors, if any, to keep in effect at all times during the term of this Agreement any licenses, permits or other approvals that are legally required for performing the Services.

8. Time. Consultant will devote enough time to the performance of the Services as may be reasonably necessary for satisfactory performance of Consultant's obligations under this Agreement.

9. Inspection. Consultant must provide DNLTC every reasonable opportunity to ascertain that the Services are being performed in accordance with the requirements and intentions of this Agreement. All work done and materials furnished, if any, are subject to inspection and approval by DNLTC. The inspection of the work does not relieve Consultant of any of its obligations under this Agreement.

10. Progress Reports. Upon DNLTC's request, Consultant must provide, in a form acceptable to DNLTC, written progress reports of all oral and written observations, opinions, recommendations, analyses, progress and conclusions related to Consultant's performance of the Services.

11. Confidentiality. In the course of providing services for DNLTC, Consultant may have access to trade secrets and confidential information, disclosure of which is protected or limited by law. Consultant will not directly or indirectly disclose or use any confidential information, except as required for the performance of the Services.

12. Conflict of Interest. Consultant represents that it presently has no interest, and covenants that it will not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the Services. Consultant further covenants that, in the performance of this Agreement, it will not employ any subcontractor or person having a conflict of interest. Consultant represents that no one who has or will have any financial interest under the Agreement is an officer or employee of DNLTC. If a conflict of interest arises during this Agreement or any extension, Consultant will immediately advise DNLTC and DNLTC may, at its sole discretion, immediately terminate this Agreement.

13. Consultant No Agent. Except as DNLTC may specify in writing, Consultant has no authority, express or implied, to act on behalf of DNLTC in any capacity whatsoever as an agent. Consultant has no authority, express or implied, under this Agreement to obligate DNLTC in any way.

14. Standard of Performance. Consultant must perform all the Services in a manner consistent with the standards of Consultant's profession. If there is no professional standard applicable to the Services, Consultant must perform in a manner consistent with the standards applicable to Consultant or the type of work. All instruments of service, as defined by the American Institute of Architects, that Consultant delivers to DNLTC under this Agreement, must be prepared to comply with and conform to the standards of Consultant's type of work. All instruments of service become the sole and exclusive property of DNLTC upon delivery.

15. Assignment/Transfer. Consultant will make no assignment or transfer in whole or in part of this Agreement without the prior written consent of DNLTC.

16. Subcontractors. Consultant must directly perform all Services, and may not subcontract any portion of performance of the Services without the prior written consent of DNLTC. Any approved subcontractors are required to comply, to the full extent applicable, with the terms and conditions of this Agreement. Upon execution of this Agreement, Consultant must furnish a separate schedule of names and addresses of subcontractors, if any, and must notify DNLTC in advance if changes in subcontractors occur.

17. Internal Revenue Service Form W-9. Consultant will provide an Internal Revenue Service Form W-9, Request for Taxpayer Identification Number and Certification, as required by DNLTC to comply with regulations of the United States Department of the Treasury. DNLTC's Finance Department will provide Consultant with the required form. Consultant must complete and file the form with DNLTC before any payment for Services may be made.

18. Business License. Consultant must file and require all its subcontractors to file, a Business License Application as required by the appropriate local government agency. Consultant must file and require all its subcontractors to complete and file the form with the appropriate local government agency and must pay or cause to be paid the business license fee before any payment for Services under this Agreement is rendered.

19. Compliance with All Laws. Consultant and any subcontractors must comply fully with all applicable local, state and federal rules, laws, regulations and ordinances pertaining to performance of the Services, including the Americans with Disabilities Act and any copyright, patent or trademark law. To the extent that any other government agency or entity provides compensation for any Services, Consultant must comply with all rules and regulations applicable to that fiscal assistance. Consultant's failure to comply with any law(s) or regulations(s) applicable to the performance of the Services hereunder may be declared, at the discretion of DNLTC, a breach of contract.

These laws include, but are not limited to, the California Prevailing Wage Law; California Labor Code section 1720 et seq. Because the services described in Exhibit A include "work performed during the design and preconstruction phases of construction including, but not limited to, inspection and land surveying work," the services constitute public works within the definition of section 1720(a)(l) of the California Labor Code.

Therefore, the services described in Exhibit A must be performed in accordance with all applicable requirements of the California Prevailing Wage Law including, but not limited to, all applicable requirements contained in Exhibit C, which is attached to and made a part of this Agreement. To the extent that any other government agency or entity provides compensation for any services, consultant must comply with all rules and regulations applicable to the fiscal assistance.

20. Discrimination. During the performance of this Agreement, Consultant must not

discriminate against any employee or applicant for employment because of race, religion, creed, color, national origin, ancestry, gender, sexual orientation, age or physical or mental disability in violation of any applicable law.

21. Notice. Except as otherwise specified in this Agreement, all notices to be sent pursuant to this Agreement must be made in writing, and sent to the Parties at their respective addresses specified below or to any other address a Party may designate by written notice delivered to the other Party in accordance with this Section. All notices must be sent by:

A. Personal delivery, in which case notice is effective upon delivery; or

B. Certified or registered mail, return receipt requested, in which case notice will be deemed delivered on receipt if delivery is confirmed by a return receipt; or

C. Nationally recognized overnight courier, or USPS Express or Priority Mail, with tracking, with charges prepaid or charged to the sender's account, in which case notice is effective on delivery if delivery is confirmed by the delivery service; or

D. Facsimile transmission, in which case notice is deemed delivered upon transmittal, provided that (a) a duplicate copy of the notice is promptly delivered by first-class or certified mail or by overnight delivery, or (b) a transmission report is generated reflecting the accurate transmission thereof. Any notice given by facsimile is considered to have been received on the next business day if it is received after 5:00 p.m. recipient's time or on a non-business day.

DNLTC:

Tamera Leighton, Executive Director
900 Northcrest Drive #16
Crescent City, CA 95531
tamera@dnltc.org
(707) 465-3878

Consultant:

Green DOT Transportation Solutions
Jeff Schwein, President
627 Broadway, Suite 220
Chico, CA 95928
(530) 895-1109

22. Ownership of Documents. All original papers, documents or computer material on disk or microfilm, and copies thereof, produced as a result of this Agreement (collectively "Project Documents"), are the property of DNLTC and may not be used by Consultant without the written consent of DNLTC. Consultant will provide documents in electronic form in a format required by DNLTC. Copies of these documents or papers must not be disclosed to others without the written consent of the Director or their designated representative. DNLTC agrees to indemnify and hold Consultant harmless for claims resulting from DNLTC's alteration of the Project Documents for another DNLTC project.

23. Internet-Ready Deliverables. If applicable to this Agreement, each contract deliverable must be delivered as a data file suitable for publication on the Internet. The following

specifications define the formats that satisfy this requirement:

A. Brochures, reports, plan documents, catalogues, flyers with graphics included, and forms are to be formatted as screen-optimized ".pdf " files, if possible.

B. Freestanding, individual graphics such as logos, small maps and photos are to be formatted as ".tif " files, with the largest side no larger than four inches.

C. Large maps are to be formatted as ".jpg" files with the largest side no larger than four inches, unless mutually agreed otherwise by the Parties.

D. Short text documents with no graphics are to be in MS Word.

E. Freestanding charts, graphs and listings are to be in MS Excel.

24. Indemnification. To the fullest extent allowed by law, Consultant will indemnify, defend with counsel acceptable to DNLTC, and hold harmless DNLTC and its officers, officials, employees, agents and volunteers from and against any and all liability, loss, damage, claims, suits, actions, arbitrations proceedings, administrative proceedings, regulatory proceedings, civil penalties and fines, expenses and costs (including, without limitation, attorney's fees and costs and fees of litigation) (collectively, "Liability") of every nature, whether actual, alleged or threatened, arising out of or in connection with Consultant's performance of the Services or its failure to comply with any of its obligations contained in this Agreement, except such Liability caused by the sole negligence or willful misconduct of DNLTC.

The Consultant's obligation to defend and indemnify will not be excused because of the Consultant's inability to evaluate Liability or because the Consultant evaluates Liability and determines that the Consultant is not liable to the claimant. The Consultant must respond within thirty (30) days to the tender of any claim for defense and indemnity by DNLTC, unless this time has been extended by DNLTC. If the Consultant fails to accept or reject a tender of defense and indemnity within thirty (30) days, in addition to any other remedy authorized by law, so much of the money due the Consultant under and by virtue of this Agreement as is necessary for DNLTC may be retained by DNLTC until disposition has been made of the claim or suit for damages, or until the Consultant accepts or rejects the tender of defense, whichever occurs first. Furthermore, Consultant and Subcontractors' obligations to indemnify and defend DNLTC are binding on their successors and assigns and will survive the termination or completion of this Agreement for the fullest extent and duration allowed by law.

With respect to third party claims against the Consultant, the Consultant waives any and all rights of any type to express or implied indemnity against the Indemnitees.

Notwithstanding the foregoing, to the extent this Agreement is a "construction contract" as defined by California Civil Code section 2783, as may be amended from time to time, such

duties of Consultant to indemnify will not apply when to do so would be prohibited by California Civil Code Section 2782.

Notwithstanding the foregoing, to the extent that this Agreement includes design professional services under Civil Code Section 2782.8, as may be amended from time to time, such duties of Consultant to indemnify will only be to the full extent permitted by Civil Code Section 2782.8.

The defense and indemnification obligations of this Agreement are undertaken in addition to, and will not in any way be limited by, the insurance obligations contained in this Agreement. If any term or portion of this section is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, said section will be interpreted to allow the broadest indemnity permitted by law.

25. Insurance. Consultant must procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant, Consultant's agents, representatives and employees.

A. Minimum Scope of Insurance. Coverage must be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).

2. Insurance Services Office form number CA 0001 (Ed. 12/90) covering Automobile Liability, code 1(any auto), or code 8, 9 if no owned auto.

3. Workers' Compensation Insurance as required by the State of California and Employers' Liability Insurance. If no employees are utilized, the Consultant will provide a signed declaration as described in California Health and Safety Code Section 19825.

4. Professional liability insurance appropriate to the Consultant's profession. Architects' and Engineers' coverage is to be endorsed to include contractual liability.

B. Minimum Limits of Insurance. Consultant will maintain limits no less than:

1. General Liability: $2,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit must apply separately to this project/location or the general aggregate limit must be twice

the required occurrence limit.

2. Automobile Liability: $1,000,000 per accident for bodily injury and property damage.

3. Workers ' Compensation: statutory limit; Employer's Liability: $1,000,000 per accident for bodily injury or disease.

4. Professional liability: $1,000,000 per occurrence or claim.

C. Umbrella or Excess Insurance. The limits of insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance must contain or be endorsed to contain a provision that this coverage also apply on a primary and non-contributory basis for the benefit of DNLTC before DNLTC's insurance or self-insurance is called upon to protect it as a named insured.

D. Deductibles and Self-Insured Retention. Any deductibles or self-insured retentions must be declared to and approved by DNLTC and do not reduce the limits of liability. Policies containing any self-insured retention provision must provide or be endorsed to provide that the self-insured retention may be satisfied by either the named Insured or DNLTC. At the option of DNLTC, either: the insurer must reduce or eliminate the deductibles or self-insured retentions as respects DNLTC, its officers, officials, employees and volunteers, or the Consultant must provide a financial guarantee satisfactory to DNLTC guaranteeing payment of losses and related investigations, claim administration and defense expenses. DNLTC reserves the right to obtain a full certified copy of any insurance policy and endorsements. Failure to exercise this right does not constitute a waiver of right to so exercise later.

E. Other Insurance Provisions.

1. The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions:

a. DNLTC, its officers, officials, employees and volunteers (the "Additional Insureds") are to be covered as insureds as respects: liability arising out of work or operations as performed by or on behalf of the Consultant; or automobiles owned, leased, hired or borrowed by the Consultant.

b. For any claims related to this project, the Consultant's insurance coverage is primary insurance as respects DNLTC, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by DNLTC, its officers, officials, employees or volunteers is in

excess of the Consultant's insurance and does not contribute with it. The Additional Insured coverage under the Consultant's policy must be at least as broad as ISO Form CG 20 01 04 13.

c. Each insurance policy required by this clause must be endorsed to state that coverage will not be canceled by either Party, unless thirty (30) days prior written notice by certified mail, return receipt requested, has been given to DNLTC.

2. The Workers' Compensation endorsement must contain a Waiver of Subrogation against DNLTC. The Consultant will provide to DNLTC an endorsement from the Workers' Compensation insurer, if any, agreeing to waive all rights of subrogation against DNLTC for injuries to employees of the Insured resulting from work for DNLTC.

F. Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise agreed to by DNLTC.

G. Verification of Coverage. Consultant must furnish DNLTC with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements should be on forms provided by DNLTC or on other than DNLTC's forms provided those endorsements conform to DNLTC's requirements. All certificates and endorsements are to be received and approved by DNLTC before work commences.

H. Subcontractors. Consultant must include all subcontractors as insureds under its policies or furnish separate certificates and endorsements for each subcontractor prior to commencement of subcontractor's work. Consultant agrees that all contracts with subcontractors will include the same requirements stated in this Agreement with respect to indemnity and insurance. Subcontractors hired by Consultant must agree to be bound contractually to Consultant and DNLTC in the same manner and to the same extent as Consultant is bound to DNLTC under this Agreement. Subcontractors must further agree to include these same provisions with any Sub-subcontractor. A copy of these indemnity and insurance provisions must be furnished by Consultant to any subcontractor. The Consultant must require all subcontractors to provide a valid certificate of insurance and the required endorsements prior to commencement of any work by that subcontractor and Consultant will provide proof of compliance to DNLTC. If DNLTC is not furnished separate endorsements for each subcontractor prior to the commencement of subcontractor's work, then Consultant must include all subcontractors as insureds under its policies.

26. Amendment. This Agreement may be amended only by a written instrument executed by both Parties.

27. Litigation. If litigation ensues between DNLTC and a third-party, which pertains to the subject matter of Consultant's services hereunder, Consultant, upon request from DNLTC, agrees to testify therein at a reasonable and customary fee.

28. Construction. This Agreement is the product of negotiation and compromise on the part of both Parties and that the Parties agree that, notwithstanding Civil Code Section 1654, any uncertainty in the Agreement may not be construed against the drafter of the Agreement.

29. Governing Law; Venue. This Agreement must be enforced and interpreted under the laws of the State of California. Any action arising from or brought in connection with this Agreement must be venued in the Superior Court for the County of Del Norte, State of California.

30. Non-Waiver. DNLTC's failure to enforce any provision of this Agreement or the waiver thereof in a particular instance is not a general waiver of any part of that provision. The provision will remain in full force and effect.

31. Severability. If any term or portion of this Agreement is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this Agreement continue in full force and effect.

32. No Third-Party Beneficiaries. The Parties do not intend to create, and nothing in this Agreement creates, any benefit or right in any third party.

33. Mediation. The Parties agree to make a good faith attempt to resolve any dispute arising out of this Agreement through mediation prior to commencing litigation. The Parties must mutually agree upon the mediator and divide the costs of mediation equally.

34. Consultant's Books and Records.

A. Consultant must maintain any and all ledgers, books of accounts, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services, or expenditures and disbursements charged to DNLTC for a minimum period of three (3) years or for any longer period required by law, from the date of final payment to Consultant under this Agreement.

B. Consultant must maintain all documents and records which demonstrate performance under this Agreement for a minimum period of three (3) years or for any longer period required by law, from the date of termination or completion of this Agreement.

C. Any records or documents required to be maintained under this Agreement must be made available for inspection or audit, at any time during regular business hours, upon written request by the Director or their designated representative. Copies of these documents will be provided to DNLTC when it is practical to do so.

Otherwise, unless an alternative is mutually agreed upon, the records must be available at Consultant's address indicated for receipt of notices in this Agreement.

D. If DNLTC has reason to believe that records or documents may be lost or discarded due to dissolution, disbandment or termination of Consultant's business, DNLTC may, by written request by the Director, require that custody of the records be given to DNLTC and that the records and documents be maintained by DNLTC. Access to these records and documents will be granted to any party authorized by Consultant, Consultant's representatives, or Consultant's successor in interest.

35. Headings. The headings used in this Agreement are for convenience only and are not intended to affect the interpretation or construction of any provisions herein.

36. Survival. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between DNLTC and Consultant will survive the termination or completion of this Agreement.

37. Entire Agreement. This Agreement, including the exhibits attached hereto and incorporated herein, constitutes the entire agreement between the Parties with respect to the Services, and supersedes all prior agreements or understandings, oral or written, between the Parties in this regard.

[Signature page to follow]

IN WITNESS WHEREOF, the Parties have executed this document the day, month and year first above written.

DEL NORTE LOCAL TRANSPORTATION COMMISSION:

By: _____
Tamera Leighton, Director

By: _____
Darrin Short, Chair

Approved as to form:

By: _____
Joel Campbell, Attorney

CONSULTANT:

By: _____
Jeff Schwein, President
Green DOT Transportation Solutions

Proposal For The

Del Norte Local Transportation Commission

WEBSITE, CROWDSOURCING & SOCIAL MEDIA DEVELOPMENT AND MAINTENANCE

GREEN DOT
transportation solutions

Table of Contents

Cover Letter

March 23, 2022

Tamera Leighton, Executive Director
Del Norte Local Transportation Commission
900 Northcrest Drive PMB 16
Crescent City, CA 95531

RE: PROPOSAL FOR WEBSITE, CROWDSOURCING & SOCIAL MEDIA DEVELOPMENT AND MAINTENANCE

Dear Tamera,

Green DOT Transportation Solutions is pleased to submit this proposal for website, crowdsourcing and social media development and maintenance for the Del Norte Local Transportation Commission. We have worked for many years in Crescent City and Del Norte County and appreciate the value of a varied online presence for communicating with the public regarding projects and improvements in the region.

Please find the enclosed detailed scope of work, team qualifications, cost proposal, schedule of work, and comprehensive proposal. I am authorized to bind the firm and phone number and contact information is provided below.

Sincerely,

Jeff Schwein

Jeff Schwein, AICP CTP
President-Green DOT Transportation Solutions
jeff@greendottransportation.com
Green DOT Transportation Solutions
627 Broadway, Suite 220
Chico, CA 95928
530-895-1109

627 Broadway, Suite 220, Chico, CA 95928
530-895-1109

Company Overview: Firm Biography

Green DOT Transportation Solutions was started in 2011 to fill a niche role in transportation planning services. Our goal is to improve transportation facilities and the associated human travel experience through progressive planning approaches, comprehensive project development, and aggressive project delivery strategies. We work with the built, natural, and human environments to develop effective transportation plans and programs that ultimately create safe, efficient, and effective transportation solutions. The Green DOT team has extensive experience programming and monitoring transportation projects and navigating the complex federal and state processes Green DOT Transportation Solutions is a financially stable California S-Corporation and registered as a small business in California. We are strategically located in Chico providing services to public agencies throughout northern California. Green DOT Transportation Solutions is proposing to assist with website, crowdsourcing and social media services for the Del Norte Local Transportation Commission. Green DOT has reviewed the full Request for Proposals and confirms our ability to meet all requirements, including expected insurance requirements.

Green DOT Transportation Solutions Contact

Jeff Schwein, AICP CTP – **Project Manager**
627 Broadway, Suite 220
Chico, CA 95928
Phone: 530-895-1109
Fax: 530-332-9905
jeff@greendottransportation.com
www.greendottransportation.com

GREEN DOT transportation solutions

Project Management and Approach

We believe communication is an open dialogue. This open dialogue is successful when built on a solid foundation. The foundation has several significant components: knowledge, trust, solid relationships, basic courtesy and the right resources. In addition to traditional meetings, teleconference calls and email may also be used to assist in communication.

Past Performance

The Green DOT Transportation Solutions project team has a proven track record of completing projects on-time and within budget. Green DOT Transportation Solutions has never required additional budget for any of the 70+ planning projects Green DOT has been contracted for over the past 10 years. Green DOT is committed to completing projects within the anticipated time frame.

The Green DOT team will provide project management for the duration of the project to ensure the project is completed thoroughly in accordance with the agreed upon scope of work and project schedule. Proposed Project Manager Jeff Schwein will manage invoice processing and project management report review. Proposed Project Manager Jeff Schwein will provide regular project management reports to the DNLTC.

Key Personnel and Job Planning

Key Staff

For full resumes, see Attachment A.

Green DOT Transportation Solutions

Jeff Schwein

Project Manager

Principal Transportation Planner

Green DOT owner Jeff Schwein is a Certified Transportation Planner (CTP) with the American Institute of Certified Planners (AICP). Jeff has worked in the transportation planning field since 2001 on projects ranging from financial programming to multi-modal planning. His specialty is moving projects from the shelf to the ground with accessible and creative funding and delivery strategies. Jeff works with communities to define projects based on identifiable need as well as project type, in relation to available funding resources. In addition to project level transportation planning, Jeff helps communities prepare transportation plans, bicycle plans, and Safe Routes to School Plans that improve mobility options and create active transportation opportunities. Jeff is committed to progressive transportation planning and stays involved in statewide transportation circles like the Rural Counties Task Force and Regional Transportation Planning Agencies group and regularly attends meetings of the California Transportation Commission. Jeff has been working with the same clients for more than 18 years.

Green DOT Transportation Solutions

Sofia Lepore

Senior Transportation Planner

Sofia is a Senior Transportation Planner at Green DOT and is passionate about promoting active transportation and multi-modal access to equitably serve all communities. She is involved in most aspects of Green DOT delivery which includes authoring planning documents, leading grant development, producing outreach materials, and engaging with diverse communities to ensure full representation throughout the planning process. She is a graduate of California State Chico with a double BA in Geography & Planning and Spanish. She fervently believes that promoting active transportation and multi-modal access is a vital aspect of lowering greenhouse gas emissions, and enjoys working directly with communities to envision positive change.

Green DOT Transportation Solutions

Brittany White

Senior Transportation Planner

Brittany is a Senior Transportation Planner at Green DOT with seven years of cross-sector experience working in urban planning. She is passionate about projects that improve outcomes related to equity, sustainability, and overall livability. Working with California cities, counties, and tribal nations, her recently completed projects include active transportation plans, regional transportation plans, corridor studies, and emergency preparedness plans. She excels at conducting community outreach, writing and communicating with technical audiences and the general public, developing legible and concise maps and figures, and tracking and coordinating key project milestones. She has experience working with low-income communities and communities that have been historically underrepresented. Brittany has a bachelor's degree in Environmental Science and a master's degree in Community Development. Prior to her current role as a transportation planner, she worked on land use and water quality planning projects.

Green DOT Transportation Solutions

Nathaniel Redmond

Associate Transportation Planner

Nathaniel is an Associate Transportation Planner and graduated from San Francisco State University with a B.A. in Urban Studies and Planning and is a graduate of the Master of Urban Planning program at San Jose State University with a concentration in transportation planning. He has experience working with community stakeholders in the Bay Area envisioning safer and more sustainable mobility options and aims to reduce the dependency on single-occupant vehicles for daily commuters. Nathaniel strives to bring communities safer active transportation facilities and stresses the connection between public health and travel decisions.

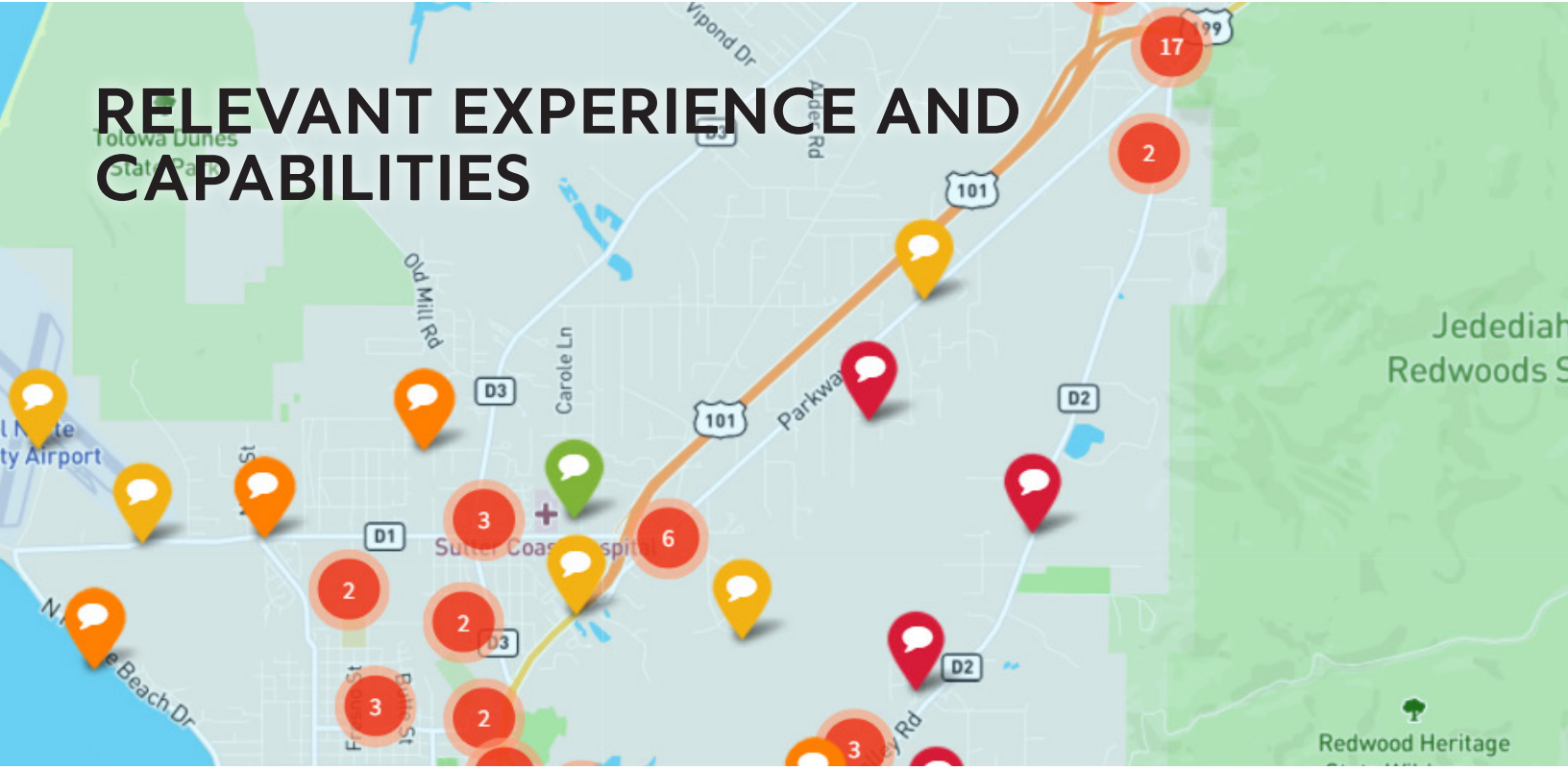
Green DOT Transportation Solutions

Sylinda Villado

Assistant Transportation Planner

Sylinda is the newest addition to the Green DOT team as an Assistant Transportation Planner. Sylinda is a senior at California State University, Chico finishing her B.A. in Geography and Planning with a concentration on Human Geography and is expected to graduate in Fall 2022. She has experience working in community outreach through a non-profit organization as well as land use planning experience in the local government sector specifically in a rural community. Sylinda is passionate in the implementation of sustainable and safe transportation infrastructure in under-represented areas and including the community to partake in such development.

RELEVANT EXPERIENCE AND CAPABILITIES



Green DOT Transportation Solutions

Commonplace Community Input Tool Development – Del Norte Local Transportation Commission

Crescent City

Project Duration

2016 — Present

Personnel

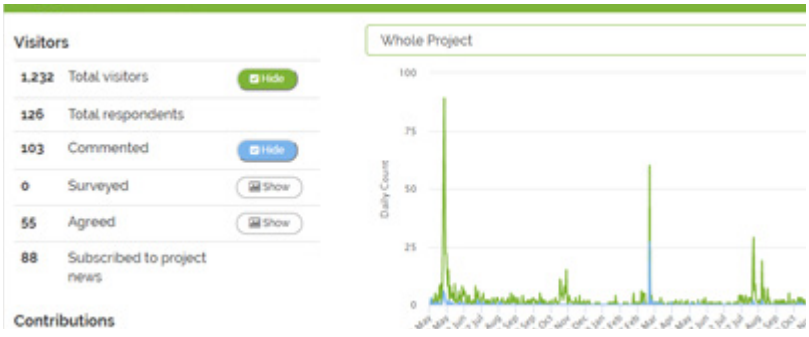
- Jeff Schwein – Principal Transportation Planner

Client Reference

Tamera Leighton
Executive Director
Del Norte Local Transportation Commission
(707) 465-3878
900 Northcrest Drive, PMB 16, Crescent City, CA

Green DOT Transportation Solutions prepared the 2016 Del Norte Regional Transportation Plan (RTP). As part of the outreach effort for the 2016 RTP, Green DOT helped develop a map-based digital tool for residents to leave feedback directly related to the area of concern using the Commonplace platform.

Since the initial development and promotion of the Commonplace tool in 2016, the tool has been leveraged for other planning projects, including the 2017 Pebble Beach Drive Improvement Project and Elk Valley Cross Road Corridor Plan. Commonplace has proven to be an invaluable tool, and several hundred community contributions have been made on the platform since it went live. This web-based tool provides the opportunity for community members to become involved in local matters who may not have the time or ability to attend traditional community meetings.



Green DOT Transportation Solutions

Del Norte County 2020 Regional Transportation Plan Update

Del Norte County

Project Duration

December 2019 — March 2021

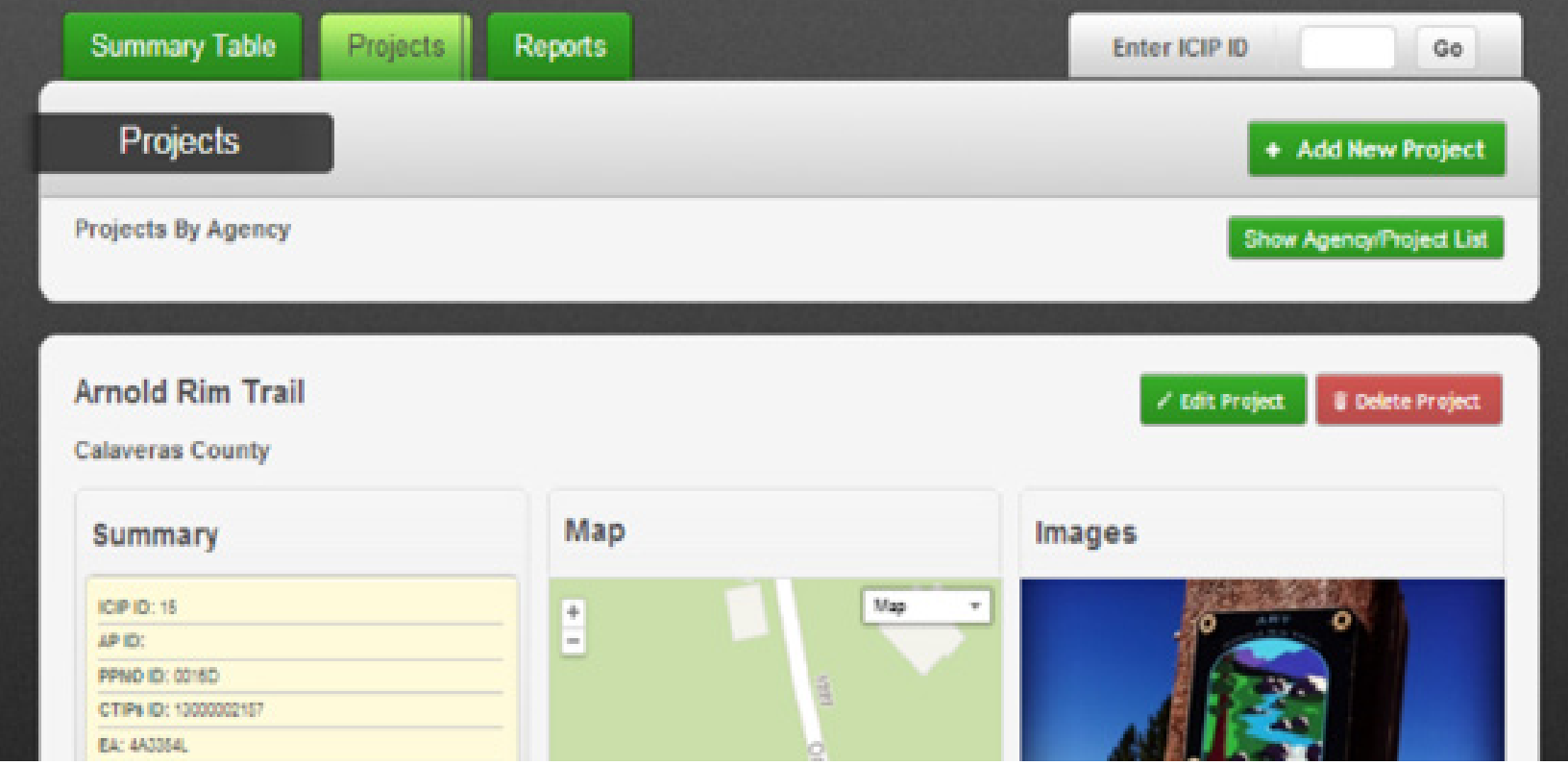
Personnel

- Jeff Schwein – Principal Transportation Planner
- Sofia Lepore – Senior Planner

Client Reference

Tamera Leighton
Executive Director
Del Norte Local Transportation Commission
(707) 465-3878
900 Northcrest Drive, PMB 16, Crescent City, CA

Green DOT was selected as the primary consultant developing the 2020 Del Norte County Regional Transportation Plan (RTP) update with assistance from De Novo Planning Group, who developed the environmental documentation. The project team worked closely with the Technical Advisory Committee (TAC) and stakeholders to identify transportation project needs in the region over the next 20 years. Projects were vetted and prioritized in coordination with the TAC, stakeholders and the public. A funding and implementation plan was developed and the 2020 Del Norte County RTP was adopted in March 2021.



Green DOT Transportation Solutions

DOT Dashboard - Calaveras Council of Governments

Calaveras Council of Governments

Project Duration

2012 — Present

Personnel

- Jeff Schwein – Principal Transportation Planner

Client Reference

Amber Collins

Executive Director

Calaveras Council of Governments

(209) 890-5114

444 East St. Charles Street/ Highway 49, San Andreas, CA 95249

In an effort to improve efficiency and eliminate duplication and errors, Green DOT Transportation Solutions developed a web-based Capital Improvement Program (CIP) for the Calaveras Council of Governments. The previous CIP system used by CCOG, City of Angels, and Calaveras County was built in an Excel platform that had many challenges. Green DOT used PHP, HTML, CSS, JavaScript, AJAX, and Google Maps AIP to develop a user-friendly web-based management system for the CIP. The system is designed with multiple user access and helps manage projects by fund type. With multi-layered user access levels, the local and regional agencies are able to provide public access to specific project information to promote their transparent programming process. The web-based system virtually eliminates duplication errors and ensures management accountability. The spatial mapping component is especially helpful for project managers and the public when querying projects. Additional functionality includes project scheduling, programming, form submittals, timely use of funds alerts, and invoice management. The programming language will accommodate future additional modules to assist the agencies manage projects and funds more effectively.

Statement of Interest and Methodology

Statement of Interest

Our Green DOT team has a comprehensive understanding of the role agencies play in the planning, development, and delivery of transportation projects, as well as the role that web-based media plays in engaging and informing community members. All projects require a progressive level of cooperative efforts, information sharing, and continued transparency. The best way to keep stakeholders appraised of project level information as well as overall administration of a regional agency is through a web-based presence, including an up-to-date website and social media presence. Not only does this fulfill a public interest requirement, but it helps inform and engage the public while creating a better relationship between agencies and those whom they serve.

Green DOT has worked on several projects in Del Norte County and Crescent City including the Del Norte County Regional Transportation Plan Update (2016 and 2020), Pebble Beach Drive Improvement Plan (2017), and Website & Social Media Development and Maintenance for DNLTC (2014-2017). Throughout these projects Green DOT engaged and informed members of the public and collected input through Facebook and an online participation platform that allows community members to easily make location-based comments on projects.

Our experience using these platforms for public engagement, as well as developing and maintaining DNLTC's website and social media, ensures that Green DOT will provide exceptional service for the next contract period. Our team stays current with developing trends and technology and will ensure that the DNLTC is equipped with the most suitable community input tool and media management styles.

Scope of Services

Methodology / Scope of Work

Website Maintenance

In 2015, Green DOT assisted with the construction of a DNLTC website and has managed it since, including a change in website platform from WordPress to the more customizable SquareSpace. Green DOT has continued to update and maintain the website aesthetic, post project updates, requests for proposals, update news items, and post meeting agendas and minutes. We also maintain a back-up catalogue of DNLTC website files. If awarded this contract, Green DOT proposes to continue all of these practices. Additionally, we will perform routine reviews of the website content, formatting and style to keep the website presence and aesthetic up to date with current news and trends.

Social Media

Green DOT proposes to facilitate community engagement by continuing to maintain and improve DNLTC's social media presence. DNLTC's website and social media profiles currently provide the public with critical platforms for community members to stay current on projects, news and engagement opportunities in the community. Social media is also an excellent way to expose the public to pertinent current trends and ideas from other regions facing similar challenges.

We propose to use the DNLTC's previously established social media platforms including Facebook, Instagram, and Twitter. Our project team will then maintain a steady stream of relevant and creative posts to these profiles through weekly postings and periodic livestreams of community events that allow members of the community to access and participate in DNLTC meetings in real-time. An initial brainstorming meeting with the DNLTC will help determine the posting goals and appropriate content, as well as any improvements from the previous methods of social media usage. Our goal for DNLTC social media is to improve and encourage greater involvement and interaction with the community. Preliminarily, the Green DOT team suggests broadening the DNLTC's social media audience by continuing to broaden the scope of posts and connections by promoting community events, sharing relevant local news and updates and further developing connections with other local organizations and groups. Both transportation-related and non-transportation related events, such as the Crescent City Farmers Market, Del Norte Trail Alliance, or Smith River Alliance events and news could be promoted on DNLTC social media pages. Organizing community events such as scenic neighborhood bike rides down Pebble Beach Drive or other coastal amenities would get more members of the community involved in local transportation, as well as promote a healthy community and lifestyle.

Scope of Services

Community Engagement

Green DOT helped the Del Norte region implement the community engagement crowdsourcing platform “Commonplace.” The platform has been valuable in collecting community comments on roadway conditions, areas of safety concern, pedestrian hazards, and other transportation-related conditions. To further engage with the community and inform the public of project development, Green DOT proposes to utilize a series of social media and public outreach crowdsourcing tools. Green DOT is experienced in quickly and efficiently developing user friendly project websites, developing and assisting in the management of map-based outreach tools and creating digital surveys on SurveyMonkey for easy distribution through project websites and social media. To foster accessible community engagement, Green DOT proposes to continue to improve and maintain the Commonplace platform that the DNLTC currently uses. This platform will continue to involve the public in planning project development and provide instant location-based feedback of the public’s opinion on projects or improvements. Our team is currently working to develop a new look, feel and function for the database to keep the platform current and highly functional. Green DOT will analyze data and provide annual reports to the DNLTC and Technical Advisory Committee. We will also seek to improve all methods of including the public voice in transportation related projects and decisions. Recommendations will be made accordingly to the DNLTC and the Technical Advisory Committee.

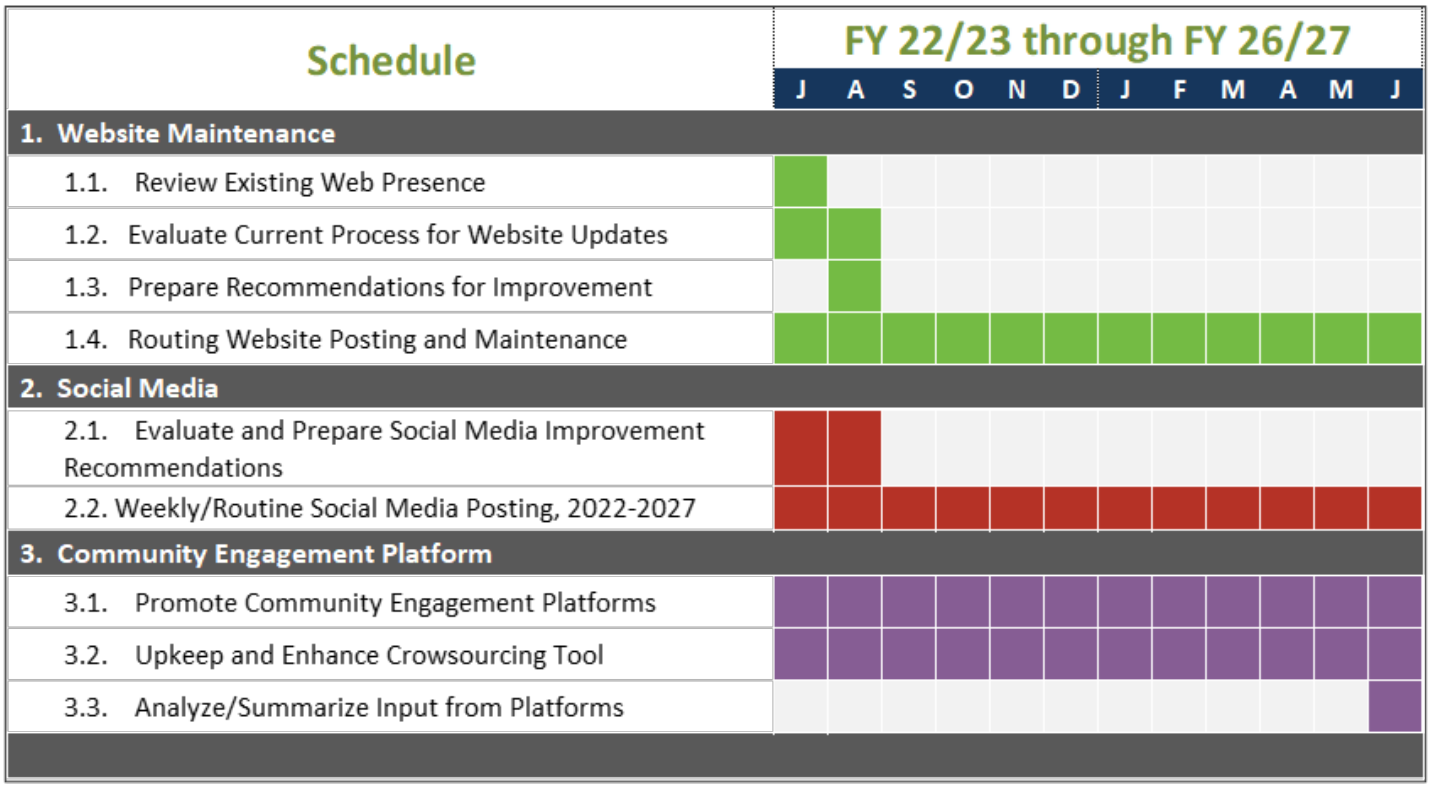
Cost Proposal

The following table summarizes the cost proposal for performing the tasks described in the scope of services:

Del Norte Local Transportation Commission Website, Crowdsourcing and Social Media Services					
	Principal	Senior	Associate	Assistant	Total
	$160.00	$145.00	$135.00	$125.00	
1 Website Maintenance					
1.1. Review Existing Web Presence				4.0	
1.2. Evaluate Current Process for Website Updates	2.0	2.0		2.0	
1.3. Prepare Recommendations for Improvement		4.0		4.0	
1.4. Routing Website Posting and Maintenance		10.0		20.0	
Total	**2.0**	**16.0**	**0.0**	**30.0**	**48**
	$320	**$2,320**	**$0**	**$3,750**	**$6,390**
2 Social Media					
2.1. Evaluate and Prepare Social Media Improvement Recommendations	2.0	2.0		6.0	
2.2. Weekly/Routine Social Media Posting, 2022-2027		40.0		45.0	
Total	**2.0**	**42.0**	**0.0**	**51.0**	**95**
	$320	**$6,090**	**$0**	**$6,375**	**$12,785**
3 Community Engagement Platform					
3.1. Promote Community Engagement Platforms		6.0		10.0	
3.2. Upkeep and Enhance Crowsourcing Tool	6.0	4.0		60.0	
3.3. Analyze/Summarize Input from Platforms	4.0	6.0		20.0	
Total	**10.0**	**16.0**	**0.0**	**90.0**	**116**
	$1,600	**$2,320**	**$0**	**$11,250**	**$15,170**
Total Hours					**259**
Total Costs					**$34,345**

Schedule of Work

The following graphic summarizes the proposed agreement timeline through June 2027. For each fiscal year (FY), the schedule of tasks listed below will repeat, ending in FY 26/27.



Attachment A: Resumes

Jeff Schwein, AICP CTP

Principal

Green DOT President Jeff Schwein is a Certified Transportation Planner (CTP) with the American Institute of Certified Planners (AICP). Jeff has worked in the transportation planning field since 2001 on projects ranging from financial programming to multi-modal planning. His specialty is moving projects from the shelf to the ground with accessible and creative funding and delivery strategies.

Qualifications

Years of Experience: 20

M.A. in Geography and Planning
California State University, Chico
2001

B.A. in Geography and Planning
California State University, Chico
1996

Affiliations

- Certified Transportation Planner, AICP CTP
- American Institute of Certified Planners
- American Planning Association Member
- Sac Valley APA Section PLAN Mentor-2014
- CSU Chico Department of Geography and Planning Advisory Board Member Chairperson

Project Experience

Transportation Planning

- Chester State Route 36 Complete Streets and Context Sensitive Streetscape Plan, 2022
- Trinity County Regional Transportation Plan, 2022
- Placer County Mobility and Infill Acceleration Study, Placer County, 2021
- Siskiyou Countywide Active Transportation Plan, SCLTC, 2021
- Alpine County Regional Transportation Plan Update, 2020
- Eureka Broadway Multimodal Transportation Corridor Plan, HCAOG, 2019/20
- Plumas County Regional Transportation Plan Update, Plumas County Transportation Commission, 2019
- Tuolumne Active Transportation Plan, Tuolumne County Transportation Council, 2019
- Mechoopda Long Range Transportation Plan, Mechoopda Indian Tribe, 2019
- Glenn County Regional Transportation Plan Update, Glenn County Public Works, 2015 and 2018/19
- Tehama County Active Transportation Plan, Tehama County Transportation Commission, 2018/19
- Coloma-Lotus Sustainable Transportation Plan, El Dorado County Transportation Commission, 2018/19
- Lassen County Regional Transportation Plan Update, Lassen County Transportation Commission, 2017
- Alpine County Active Transportation Plan, Alpine County Department of Community Development 2017
- Calaveras County Regional Transportation Plan Update, Calaveras Council of Governments, 2017
- Siskiyou County Regional Transportation Plan Update, Siskiyou County Transportation Commission, 2016
- Lassen County Park & Ride Study Report, Lassen County Transportation Commission, CA, 2014.
- Safe Routes to School Infrastructure Audit and Circulation Study-Del Norte County, 2014.

Project Development

- San Andreas Pope Street Class I Facility and Safe Routes Gap Fil Plan, Calaveras Council of Governments, 2019/20
- South Avenue Access Study, Tehama County Transportation Commission, 2018/19
- Happy Camp Complete Streets Project, Karuk Tribe, 2018
- Pebble Beach Drive Improvement Project Initiation Document, City of Crescent City, 2018
- Paradise Systematic Safety Analysis Report, Town of Paradise, 2018
- Panamnik 3C: Orleans Community Center Connectivity Project, Karuk Tribe, 2017

Funding Strategies

- Clean Transportation Program Rural Electric Vehicle (REV) Charging Grant Application, 2022
- Clean California Local Grant Program Applications, 2022
- Rebuilding American Infrastructure with Sustainability and Equity (RAISE), Tolowa Dee-ni' Nation, 2021
- Active Transportation Program Project Application Development, Various Agencies, ATP Cycle 5
- Hazard Mitigation Grant Program Grant Writing, Mechoopda Tribe, 2019
- Active Transportation Program Project Application Development, Various Agencies, ATP Cycle 2-4
- Affordable Housing & Sustainable Communities Grant Writing, Various Agencies, Ongoing
- Low or No Emission Bus Funding Grant Development, Various Agencies, Ongoing

Transit

- Connected Communities Transportation Plan, Sonoma County Human Services Department, 2019/20
- Truckee Transit Center Relocation Feasibility Study, Town of Truckee, 2018/19
- Salmon Runner Electric Bus; Redding-Sacramento Business Plan and TIRCP Grant, SRTA, 2018
- Short Range Transportation Plan, Colusa County Transit Agency, 2016

Sofia Lepore

Senior Transportation Planner

Sofia is a Senior Transportation Planner at Green DOT and is passionate about promoting active transportation and multi-modal access to equitably serve all communities. She is involved in most aspects of Green DOT delivery which includes authoring planning documents, leading grant development, producing outreach materials, and engaging with diverse communities to ensure full representation throughout the planning process. She is a graduate of California State Chico with a double BA in Geography & Planning and Spanish. She fervently believes that promoting active transportation and multi-modal access is a vital aspect of lowering greenhouse gas emissions, and enjoys working directly with communities to envision positive change.

Qualifications

Years of Experience: 2

B.A. in Planning and Spanish
California State University, Chico
2020

Affiliations

- American Planning Association Member - Northern California and Oregon
- Sac Valley APA Young Planner's Group

Project Experience

Transportation Planning

- Chester State Route 36 Complete Streets and Context Sensitive Streetscape Plan, 2022
- Trinity County Regional Transportation Plan, 2022
- Placer County Mobility and Infill Acceleration Study, Placer County, 2021
- Siskiyou Countywide Active Transportation Plan, SCLTC, 2021
- Alpine County Regional Transportation Plan Update, Alpine County Local Transportation Commission, 2020
- Del Norte Regional Transportation Plan Update, Del Norte Local Transportation Commission, 2020
- Siskiyou County Regional Transportation Plan Update, Siskiyou County Local Transportation Commission, 2020
- Alpine County Local Transportation Commission Planning Consultant, 2020
- Tehama County Transportation Commission Planning Consultant, 2020
- Karuk Tribe Transportation Planning Consultant, 2020
- Amador County Transportation Commission Transportation and Administration Consultant, 2020
- Siskiyou County Transportation Commission Executive Director, Siskiyou County Transportation Commission, 2019-Present
- North Coast Tribal Transportation Commission Planning Consultant, 2019/20

Funding Strategies

- Clean Transportation Program Rural Electric Vehicle (REV) Charging Grant Application, 2022
- Clean California Local Grant Program Applications, 2022
- Rebuilding American Infrastructure with Sustainability and Equity (RAISE), Tolowa Dee-ni' Nation, 2021
- Active Transportation Program Project Application Development, Various Agencies, ATP Cycle 5
- Caltrans Sustainable Transportation Planning Grants, Various Agencies, Ongoing
- Affordable Housing & Sustainable Communities Grant Writing, Various Agencies, Ongoing
- Low or No Emission Bus Funding Grant Development, Various Agencies, Ongoing

Project Development

- San Andreas Pope Street Class I Facility and Safe Routes Gap FIII Plan, Calaveras Council of Governments, 2019/20

Transit

- Connected Communities Transportation Plan, Sonoma County Human Services Department, 2020

Other

- El Dorado Pedestrian and Bicycle Safety Program, County of El Dorado, 2021
- Trinity General Plan, Circulation Element, 2021
- Mechoopda Indian Tribe Hazard Mitigation Plan, 2020
- Del Norte County Media Project, Del Norte Local Transportation Commission, 2020

Brittany White

Senior Transportation Planner

Brittany is a Senior Transportation Planner at Green DOT with seven years of cross-sector experience in urban planning. She is passionate about projects that improve outcomes related to equity, sustainability, and overall livability. Working with California cities, counties, and tribal nations, her recently completed projects include active transportation plans, regional transportation plans, corridor studies, and emergency preparedness plans. She excels at conducting community outreach, writing and communicating with technical audiences and the general public, developing legible and concise maps and figures, and tracking and coordinating key project milestones. She has experience working with low-income communities and communities that have been historically underrepresented. Brittany has a bachelor's degree in Environmental Science and a master's degree in Community Development. Prior to her current role as a transportation planner, she worked on land use and water quality planning projects.

Qualifications

Years of Experience: 7

B.S. in Biology
University of Cincinnati
2012

B.S. in Environmental Sciences
Northern Kentucky University
2015

M.S. in Community Development
University of California, Davis
2020

Graduate Certificate, Landscape Architecture and Environmental Design
University of California, Davis
2020

Affiliations

- American Planning Association Member
- Young Professionals in Transportation Member

Project Experience

Transportation Planning

- Chester State Route 36 Complete Streets and Context Sensitive Streetscape Plan, 2022
- Trinity County Regional Transportation Plan, 2022
- Placer County Mobility and Infill Acceleration Study, Placer County, 2021
- Siskiyou Countywide Active Transportation Plan, SCLTC, 2021
- Trinity County General Plan Update (In Progress)
- READY Nevada County Emergency Preparedness and Evacuation Plan (In Progress)
- Elk Grove Bicycle, Pedestrian, and Trails Master Plan, 2021
- Elk Grove Laguna Creek Interregional Trails Master Plan (In Progress)
- Fresno Council of Governments Eastside Transportation Corridor Improvement Study
- Windsor Old Redwood Highway Corridor Enhancement Plan (Nearing Adoption)
- Gustine Active Transportation Plan (Nearing Adoption)
- St. Helena Safe Routes to School and Active Transportation Plan Phase I

Funding Stategies

- Clean Transportation Program Rural Electric Vehicle (REV) Charging Grant Application, 2022
- Clean California Local Grant Program Applications, Various Agencies, 2022
- Rebuilding American Infrastructure with Sustainability and Equity (RAISE), Tolowa Dee-ni' Nation, 2021
- Active Transportation Program Project Application Development, Various Agencies, ATP Cycle 5
- Caltrans Sustainable Transportation Planning Grants, Various Agencies, Ongoing
- Affordable Housing & Sustainable Communities Grant Writing, Various Agencies, Ongoing
- Low or No Emission Bus Funding Grant Development, Various Agencies, Ongoing
- Tehama County, Cal FIRE Fire Prevention Grants Program, 2021
- Equitable Congestion Pricing (White paper published with support from San Francisco County Transportation Authority)

Other

- El Dorado Pedestrian and Bicycle Safety Program, County of El Dorado, 2021
- Trinity General Plan, Circulation Element, 2021
- Mechoopda Indian Tribe Hazard Mitigation Plan, 2020

Nathaniel Redmond

Associate Transportation Planner

Nathaniel is an Associate Transportation Planner at Green DOT. Nathaniel graduated from San Francisco State University with a B.A. in Urban Studies and Planning and is a graduate of the Master of Urban Planning program at San Jose State University with a concentration in transportation planning. He has experience working with community stakeholders in the Bay Area envisioning safer and more sustainable mobility options and aims to reduce the dependency on single-occupant vehicles for daily commuters. Nathaniel strives to bring communities safer active transportation facilities and and stresses the connection between public health and travel decisions.

Qualifications

Years of Experience: 3

B.A. in Urban Studies & Planning
San Francisco State University
2015

M.A. in Urban Planning (MUP)
San Jose State University
2019

Affiliations

- American Planning Association Member - Northern Califonia / Small Town & Rural Planning Divisions
- Young Professionals in Transportation Member

Project Experience

Transportation Planning

- Chester State Route 36 Complete Streets and Context Sensitive Streetscape Plan, 2022
- Trinity County Regional Transportation Plan, 2022
- Placer County Mobility and Infill Acceleration Study, Placer County, 2021
- Emerging Mobility Services and Technologies Guiding Principles, San Francisco County Transportation Authority, 2019
- Emerging Mobility Pilot Strategy, San Francisco County Transportation Authority, 2019
- Emerging Mobility Evaluation Report, San Francisco County Transportation Authority, 2019
- Downtown San Francisco Congestion Pricing Feasibility, San Francisco County Transportation Authority, 2019
- District 10 Mobility Study, San Francisco County Transportation Authority, 2019
- SoMa Freeway Ramp Intersection Safety Study, San Francisco County Transportation Authority, 2019
- Better Market Street Plan, San Francisco County Transportation Authority, 2019
- ConnectSF long range transportation plan, San Francisco County Transportation Authority, 2019
- Diridon to Downtown Community Assessment Report, San Jose State University in collaboration with the City of San Jose, 2019

Program Development

- El Dorado County Pedestrian and Bicycle Safety Program, County of El Dorado, 2021
- Treasure Island Transportation Program, San Francisco County Transportation Authority, 2018
- Scoop Carpool Oyster Point Commuter Incentive Program, Genentech gRide, 2020

Funding Stategies

- Clean Transportation Program Rural Electric Vehicle (REV) Charging Grant Application, 2022
- Clean California Local Grant Program Applications, 2022
- Prop K Sales Tax Expenditure Program, San Francisco County Transportation Authority, 2018

Transit

- Bayview Hunters Point Mobility Study, San Francisco County Transportation Authority, 2018
- Glen Park BART Oyster Point Genentech Shuttle Expansion Project, Genentech gRide, 2020
- BART Perks Test Program, San Francisco County Transportation Authority, 2019

Sylinda Villado

Assistant Transportation Planner

Sylinda is an Assistant Transportation Planner at Green DOT. Sylinda is a senior at California State University, Chico finishing her B.A. in Geography and Planning with a concentration on Human Geography and is expected to graduate in Fall 2022. She has experience working in community outreach through a non-profit organization as well as land use planning experience in the local government sector specifically in a rural community. Sylinda is passionate in the implementation of sustainable and safe transportation infrastructure in under-represented areas and including the community to partake in such development.

Qualifications

Years of Experience: 1

B.A. in Geography & Planning
California State University, Chico, Expected - Fall 2022

Affiliations

- American Planning Association Member - Northern California
- Sac Valley APA Young Planner's Group

Project Experience

Transportation Planning

- Chester State Route 36 Complete Streets and Context Sensitive Streetscape Plan, 2022
- Trinity County Regional Transportation Plan, 2022
- Placer County Mobility and Infill Acceleration Study, Placer County, 2021

Funding Strategies

- Rebuilding American Infrastructure with Sustainability and Equity (RAISE), Tolowa Dee-ni' Nation, 2022
- Active Transportation Program Project Application Development, Various Agencies, ATP Cycle 5
- Caltrans Sustainable Transportation Planning Grants, Various Agencies, Ongoing
- Low or No Emission Bus Funding Grant Development, Various Agencies, Ongoing

Transit

- City of Tehama Community Transportation Plan, City of Tehama, 2022

Other

- Trinity General Plan, Circulation Element, 2021
- Del Norte County Media Project, Del Norte Local Transportation Commission, 2020

900 Northcrest Drive, PMB 16
Crescent City, California 95531
www.dnltc.org

Del Norte Local Transportation Commission

Tamera Leighton, Executive Director
Tamera@DNLTC.org
Desk: (707) 465-3878
Cell: (707) 218-6424

REQUEST FOR PROPOSALS

for

WEBSITE, CROWDSOURCING & SOCIAL MEDIA DEVELOPMENT AND MAINTENANCE

for the Del Norte Local Transportation Commission

Proposed contract duration: July 1, 2022 to June 30, 2027

Prepared for: Del Norte Local Transportation Commission
Prepared by: Tamera Leighton, Executive Director
900 Northcrest Drive, PMB 16
Crescent City, California 95531
(707) 465-3878
Posted: March 11, 2022
Due: March 23, 2022

REQUEST FOR PROPOSALS (RFP) TO PROVIDE WEBSITE AND SOCIAL MEDIA DEVELOPMENT AND MAINTENANCE SERVICES

A. BACKGROUND

The Region The region served by the Del Norte Local Transportation Commission, the Regional Transportation Planning Agency (RTPA) for Del Norte County exists totally within the boundaries of Del Norte County. Del Norte County is California's northernmost coastal county, with a land area of approximately 1,070 square miles. The County is bounded by Curry County, Oregon, to the north, mountainous Siskiyou County to the east, Humboldt County to the south, and by the Pacific Ocean to the west. Crescent City, the county seat, is located roughly halfway between Portland, Oregon (330 miles north) and San Francisco, California, (350 miles south). Regionally, Crescent City is located approximately 85 miles north of Eureka, Humboldt County, about 26 miles south of Brookings, Oregon and 83 miles west of Grants Pass, Oregon and Interstate 5.

The Elk Valley Rancheria, Smith River Rancheria and Yurok Tribe are federally recognized Tribes that are active and essential partners and stakeholders in transportation planning and programming in the Del Norte region.

The principal north-south route through Del Norte County is US Highway 101, which provides access to coastal towns and cities to the north and south. Crescent City is located on US Highway 101. Del Norte County has two main routes providing access to inland communities: State Route, or SR 197/US Highway 199 to Hiouchi and Gasquet, and Route 169 to Klamath Glen. SR 197/US Highway 199 connects US Highway 101 to the Interstate 5 in Oregon.

The county's diverse geography includes inland mountain ranges of coniferous forests, low coastal mountain ranges with temperate forests and the Redwood State and National Parks, and rugged coastlines with gray sand beaches on the Pacific coast. The climate of Del Norte County is consistently mild along the coast, becoming more variable inland. In Crescent City and along the coastal fringe, there is minimal temperature fluctuation. Coastal daytime temperatures average 45-55 degrees during winter months. Temperatures increase to 55-65 degrees during mid summer and early fall months, with higher temperatures when coastal fog disperses. Inland, temperatures differences are more marked. Del Norte County/Crescent City area's annual rainfall generally ranges between 70 - 80 inches, with the heaviest rainfall occurring from November through March.

Population The California Department of Finance estimated the Del Norte County population at 26,840 in 2021. The population change is static. The projected population

for 2060 is 25,720. An Economic and Demographic Profile is posted on the DNLTC website under the heading Important Planning Documents: http://www.dnltc.org/planning.

Organization and Management The Del Norte Local Transportation Commission (DNLTC) is the Regional Transportation Planning Agency (RTPA) for the Del Norte County region. The DNLTC consists of six members—three members representing the Del Norte County Board of Supervisors and three members representing the City of Crescent City. With the addition of a representative of the Caltrans District 1 Director, the DNLTC Board becomes the Policy Advisory. A Technical Advisory Committee (TAC) advises the DNLTC on various transportation matters. The TAC is comprised of two representatives from the Planning and Public Works staff of the City and the County, and one representative from the Harbor District, Yurok Tribe, California Highway Patrol, Redwood Coast Transit Authority, and Caltrans.

Previous work The DNLTC website, www.dnltc.org, currently offers the community a single point of communication for regional transportation planning and programming information. Requests for proposals, agendas and minutes are also stored on the site. DNLTC is moderately involved in social networking and has an active crowdsourcing tool for all transportation topics developed by a local team and Commonplace.

B. SCOPE OF SERVICES

Objective To provide easy access to public information for regional transportation planning, to increase public awareness on issues of significance through social media outlets and to enhance the public's ability to comment on transportation services and infrastructure.

Product The Del Norte Local Transportation Commission is soliciting proposals from qualified consultants to provide website, crowdsourcing and social media maintenance services:

1. Post information and articles on relevant transportation issues to website;
2. Post Requests for Proposals;
3. Post agendas and minutes;
4. Maintain a moderate level of social media presence;
5. Maintain and enhance crowdsourcing.

Proposing consultants must present their own approach that delivers the preceding items. Establishing methodologies, tasks and schedules are the obligation of the consultant.

PROPOSAL SUBMITTAL REQUIREMENTS

Company Overview

1. Firm name and business address including phone number, fax number and web site.

2. Type of ownership and parent company if applicable.
3. The name of the proposed project manager for this project.

Key Personnel and Job Planning

4. Resumes of key personnel to be assigned to the project. Include length of service with the firm, professional education and years of experience.
5. If any part of the project cannot or is not planned to be performed in-house, describe the portion that would be subcontracted along with a profile of said subcontractor.
6. If you have multiple company offices, please identify the location where the majority of the work will be performed.

Relevant Experience and Capabilities

7. Please provide a list of three relevant projects, including year completed, project duration, cost, and client contact information.

Statement of Interest and Methodology

8. A narrative describing the firm's interest, unique abilities, and value added benefits your firm is able to bring to this project. (Please limit to two pages.)

Cost Proposal

9. Please provide a cost proposal that includes hourly rates, anticipated travel and overhead as appropriate.

The current Overall Work Program budget for the contractor's responsibilities listed above for FY 2018-19 is $7,000. This amount may be adjusted as necessary. Your proposal value is one of the selection criteria.

Schedule of Work

10. The project schedule must be clearly stated with intermittent milestones.

C. PROPOSAL EVALUATION AND SELECTION

The Technical Advisory Committee will evaluate those proposals that meet the stated requirements and will make a recommendation to the Del Norte Local Transportation Commission. Proposals will be evaluated based on the following point values:

Comprehensiveness of application:	15 points
Qualifications of Individual or Firm:	30 points
Interest/Methodology:	25 points
Value	20 points
Schedule	10 points
Total Available Points:	*100 points*

D. INSTRUCTION FOR SUBMITTING A PROPOSAL

All proposals must include the following:

1. Proposals including attachments must not exceed 10 pages;
2. Electronic copy of proposal in unlocked .PDF format. Email or USB drive by mail are acceptable. (No paper copies are requested.)

The schedule of activities related to this contract is as follows:

March 11, 2022	RFP Issued
March 21, 2022	Final questions due
March 22, 2022	Summary of questions and responses available upon request
March 23, 2022	**Proposals due to DNLTC by 5 p.m.**
March 29, 2022	TAC review of proposals and selection recommendation
April 5, 2022	Anticipated Contract Award
July 1, 2022	Contract start date
June 30, 2027	Project Completion

Please direct all questions and deliver proposals to:

Tamera Leighton, Executive Director
Del Norte Local Transportation Commission
Desk: (707) 218-6424.
E-mail: Tamera@DNLTC.org

E. TERMS AND CONDITIONS

The Del Norte Local Transportation Commission (DNLTC) is not obligated to accept any of the proposals submitted or to enter into an agreement with any of the proposers. At its discretion, the DNLTC may elect to award all or any portion of the project scope of work as defined in the RFP. DNLTC reserves the right to reject any or all responses, to waive any technical requirement, and to select the firm that, in the DNLTC's judgment, best meets the requirements of this project and the needs of the DNLTC.

F. PROTEST PROCESS

The contract protest process and procedures to be utilized by DNLTC in considering and determining all bid protests or objections regarding solicitations, proposed award of a contract, or award of a contract whether before or after award is located at http://www.dnltc.org/about-us/rfps/

G. STANDARD CONSULTING AGREEMENT

The selected firm shall be retained under the RTPAs standard professional services agreement. A sample of this agreement is available at http://www.dnltc.org/about-us/rfps/

The contract shall provide payment for services performed up to a not-to-exceed amount. The final Scope of Services and Schedule (Exhibit A to the Standard Consulting Agreement) will be negotiated by the Consultant and the Del Norte Local Transportation Commission.

PLEASE DIRECT ALL COMMUNICATIONS AND DELIVER PROPOSALS TO:

Tamera Leighton, Executive Director
Del Norte Local Transportation Commission
900 Northcrest Drive, PMB 16
Crescent City, California 95531
Desk: (707) 465-3878.
E-mail: Tamera@DNLTC.org

900 Northcrest Drive, PMB 16
Crescent City, California 95531
www.dnltc.org

Del Norte Local Transportation Commission

Tamera Leighton, Executive Director
Tamera@DNLTC.org
Desk: (707) 465-3878
Cell: (707) 218-6424

Item B Staff Report

DATE: FEBRUARY 1, 2022
TO: DEL NORTE LOCAL TRANSPORTATION COMMISSION
FROM: TAMERA LEIGHTON, EXECUTIVE DIRECTOR
SUBJECT: CITY REQUEST FOR $400,000 FOR FRONT STREET RECONSTRUCTION FROM G TO I STREETS

TAC recommendation: By polled vote, award $400,000 of Regional Surface Transportation Program funds for Front Street Reconstruction from G to I Streets

Alternative staff recommendation: By polled vote, adopt resolutions awarding a total of $400,000 for Front Street Reconstruction from G to I streets:

i. Resolution 2022 1 awarding $50,000 in TDA pedestrian/bicycle funding for sidewalk reconstruction, and
ii. Resolution 2022 2 awarding $350,000 of Regional Surface Transportation Program funds for Front Street Reconstruction from G to I Streets

BACKGROUND: The City of Crescent City request, the RSTP progress spreadsheet, and the TDA Ped/Bike spreadsheet are attached. Throughout the Del Norte region, there are high priority projects needing funding. The Commission needs to weigh the benefits of this match funding request for allocation for two blocks of Front Street reconstruction with the benefits of other high priority projects. The TAC recommends funding this request.

Following the TAC meeting, I proposed an alternative strategy to the City, and the City has agreed to this alternative that uses a combination of RSTP and TDA Ped/Bike funding. The benefit of the alternative is that it uses a fund source (TDA) with more restrictions and preserves our most flexible fund source (RSTP) for future projects.

City of Crescent City
Where the Redwoods Meet the Sea
377 J Street. Crescent City. CA 95531 • 707.464.7483 • Fax 707.465.4405 • www.crescentcity.org

March 21, 2022

Ms. Tamera Leighton, Executive Director
Del Norte Local Transportation Commission
Crescent City, CA 95531

RE: Front Street

Need:

The City is requesting $400,000 of RSTP match funding for reconstruction of Front street from G street to I street as directed by the City Council on 14 March, 2022

Background:

Front Street is vitally important to the City of Crescent City (City). It is listed by the Regional Transportation Plan (RTP) as a major collector and by Elk Valley Rancheria's Indian Reservation Road System (IRR) as a collector. It borders Beachfront Park, connects the Airport to the Harbor, provides access from Highway 101 to the commercial district of the City, and it includes the storm drain collection from northern streets and directs the water to the Pacific Ocean. Front Street between G and L streets is exhibiting foundational failure due in part to a buried seawall, abandoned underground infrastructure, other unsuitable foundational materials, and failing storm drains. The section of Front Street from G street to I street exhibits severe surface damage indicative of foundational failure, fatigue failure, and tree root heaving.

Front Street from B street to G street, completed in 2021, was funded by a Community Development Block Grant (CDBG). The project reduced flood potential in residential areas by correcting storm drainage on C, D, and F streets which all merge into the storm drain system on Front Street. CDBG funding is not available for the next phases of Front Street.

Path to Success:

The current project phase includes two blocks of Front Street from G street to I street based upon available funding and the timing of construction within this calendar year. The project will follow the original design intent of the 2012 Front Street Master Plan. The project includes, subgrade improvements, lane reduction from 4 lanes to two with traffic calming features, ADA compliant crossings, sidewalks and curbs which will encourage lower vehicle speeds and inter/multimodal transportation.

Timing for the project will be very compressed to complete the reconstruction during the 2022 summer/fall season:

City purchase of materials	3-4/2022
Design completion (G to I)	5/1/2022
Project Bid Date	6/2/2022
Contract Award	6/20/2022
Notice to Proceed	8/1/2022
Construction	8-10/2022
Notice of Completion	11/2022

Anticipated funding for this project is as follows:

ARPA funds	$ 515 k
Measure S funds	$ 515 k
General Fund	$ 770 k
Matching DNLTC funding	20% up to $400 k
Total	$ 2.2 million

Request:

The City is requesting up to $400,000 of RSTP funds from the Del Norte Local Transportation Authority as match for the reconstruction of Front Street from G street to I street.

Sincerely,

Jon Olson
City Engineer / Director of Public Works
City of Crescent City
377 J Street
Crescent City, CA 95531
(707) 464-9506 x234
jolson@crescentcity.org

RESOLUTION NO. 2022 1

DEL NORTE LOCAL TRANSPORTATION COMMISSION RESOLUTION
ALLOCATING TO THE CITY OF CRESCENT CITY UP TO $50,000 IN TRANSPORTATION DEVELOPMENT ACT PEDESTRIAN AND BICYCLE FUNDS FOR SIDEWALK RECONSTRUCTION ON FRONT STREET FROM G TO I STREETS

WHEREAS, the Del Norte Local Transportation Commission in its official capacity as the designated Regional Transportation Planning Agency (RTPA), is allocating Transportation Development Act funds for eligible purposes; and

WHEREAS, the Front Street Reconstruction Project is a long-standing top priority project in the Del Norte Regional Transportation Plan (RTP); and

WHEREAS, the project supports the RTP Goal 4: Provide a safe, convenient and efficient multi-modal transportation system that is part of a balanced overall transportation system; and

WHEREAS, the project supports the RTP Goal 5: Promote alternative transportation; and

WHEREAS, The City of Crescent City is contributing an estimated $1.8 million in other funds for a total project estimate of $2.2 million; and

WHEREAS, The City of Crescent City is also requesting $350,000 in Regional Surface Transportation Program funds for reconstruction from G to I Streets; and

NOW, THEREFORE, BE IT RESOLVED THAT DNLTC hereby allocates to the City of Crescent City on a reimbursement basis a sum of $50,000 for sidewalk reconstruction on Front Street from G to I Streets, and with a completion date no later than June 30, 2023.

PASSED AND ADOPTED by the Del Norte Local Transportation Commission on the 5th day of April 2022, by the following polled vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Darrin Short, Chair
Del Norte Local Transportation Commission

ATTEST:

_____
Tamera Leighton, Executive Director
Del Norte Local Transportation Commission

RESOLUTION NO. 2022 2

DEL NORTE LOCAL TRANSPORTATION COMMISSION RESLOLUTION
ALLOCATING $350,000 IN REGIONAL SURFACE TRANSPORTATION
PROGRAM FUNDS TO THE CITY OF CRESCENT CITY FOR
FRONT STREET RECONSTRUCTION FROM G TO I STREETS

WHEREAS, the Del Norte Local Transportation Commission in its official capacity as the designated Regional Transportation Planning Agency (RTPA), is allocating Regional Surface Transportation Program (RSTP) funds for eligible purposes; and

WHEREAS, the Front Street Reconstruction Project is a long-standing top priority project in the Del Norte Regional Transportation Plan; and

WHEREAS, Front Street is a major collector and the project meets the RSTP fund requirements; and

WHEREAS, The City of Crescent City is contributing an estimated $1.8 million in other funds for a total project estimate of $2.2 million; and

WHEREAS, The City of Crescent City is also requesting $50,000 in Transportation Development Act Pedestrian and Bicycle funds for pedestrian improvements from G to I Streets; and

NOW, THEREFORE, BE IT RESOLVED THAT DNLTC hereby allocates to the City of Crescent City on a reimbursement basis a sum of $350,000 for Front Street Reconstruction from G to I Streets, and with a completion date no later than June 30, 2023.

PASSED AND ADOPTED by the Del Norte Local Transportation Commission on the 5th day of April 2022, by the following polled vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Darrin Short, Chair
Del Norte Local Transportation Commission

ATTEST:

_____
Tamera Leighton, Executive Director
Del Norte Local Transportation Commission

Del Norte Local Transportation Commission
Bike / Ped Reserve (Fund # 637)

Begging Balance	$55,925				
Project	*Project Allocation*	*Start Date/ Due Date*	*Invoice Date*	*Payments*	*Project Balance*
There are no outstanding projects at this time.	$0				$0.00
					$0

Projects completed are gray

Reserve balance at June 30, 2021	55,925.00
Amount added for the 2021-22 fiscal year	18,490.00
Commitments	0.00
Spent fiscal year ended June 30, 2021	0.00
Total available for allocation	**74,415.00**

Del Norte Local Transportation Commission
Regional Surface Transportation Program (RSTP/Fund #619)

Description	Year Approved	Allocation Amount	Payee	Invoice or Rescinded Date	Amount Paid or Rescinded	Reserved Balance
Sunset Circle Match	2015	160,000	City of Crescent City	Jun-19	$ 160,000.00	0.00
Sunset Circle Scope Change	2018	42,000	City of Crescent City	Jun-19	$ 42,000.00	0.00
Sunset Circle Scope Change 2	2020	60,000	City of Crescent City	Jul-20	$ 27,493.01	0.00
Bluff Stabilization Match*	2017	266,000	County of Del Norte		$ -	$ 266,000.00
Bluff Stabilization Match*	2018	85,140	City of Crescent City	Jul 21 - Ongoing	$ 18,798.95	$ 66,341.05
Washington Boulevard Culvert*	2020	321218	County of Del Norte		$ -	$ 321,218.00
						$ 653,559.05

* Preliminary and will increase.
** Match is 3%

Fund Balance June 30, 2021 (audited)	1,343,190.00
Invoices paid: July 1, 2021 to current	(18,798.95)
2021-22 Deposit	0.00
Interest income 2021-22 (not yet available)	0.00
Less outstanding project commitments	(653,559.05)
Available for projects	**670,832.00**

Updated to March 30, 2022

Del Norte Dump Days

		Vehicles	Tires	Cubic Yards of Debris	Accepted E-Waste	Interesting Item
2/27/2022	**Klamath**	168	1400	455	yes	Boat
3/20/2022	**Gasquet**	58	400	200	yes	Hot Tub

Accepted:

Appliances, tires, mattresses, furniture, all bulky items

AGENCY COORDINATION PLAN

for the

LAST CHANCE GRADE PERMANENT RESTORATION PROJECT

DEL NORTE COUNTY, CALIFORNIA
DISTRICT 1 – DN – 101 (Post Miles 12.0 to 15.5)
EA 01-0F280 / EFIS 0115000099

Prepared by the
State of California Department of Transportation

January 2022

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Chapter 1. Overview

1.1 Agency Coordination Plan Purpose

This Agency Coordination Plan was prepared to meet the requirements of "Efficient Environmental Reviews for Project Decision-Making," codified in 23 USC 139, which was introduced in 2005 by Section 6002 of the *Safe, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFTEA-LU), and amended in 2012 by the *Moving Ahead for Progress in the 21st Century Act* (MAP-21) and in 2015 by the *Fixing America's Surface Transportation Act* (FAST Act). This environmental review process is intended to promote efficient project management and enhanced coordination during the project development process and applies to projects requiring an Environmental Impact Statement (EIS), as defined by the National Environmental Policy Act (NEPA).

The Agency Coordination Plan establishes an approach for agency (lead, participating, and cooperating) and public participation during the environmental review process for the Last Chance Grade Permanent Restoration Project (LCG Project).

The Agency Coordination Plan:

- Identifies lead, participating, and cooperating agencies.
- Identifies coordination points and responsibilities.
- Establishes timing and format for public and agency participation.

1.2 Project Background

The LCG Project, commonly referred to as the Last Chance Grade project, is on a segment of U.S. Highway 101 (US 101) in Del Norte County, south of Crescent City (Figure 1). LCG has a history of geologic instability, including deep-seated landslides and slipouts, presenting a long-term challenge to roadway stability and maintenance. Over the years, Caltrans has conducted many projects and maintenance activities, including the construction of retaining walls, drainage improvements, and roadway repairs to keep the highway open; these activities cost millions of dollars. A long-term, sustainable solution is needed at LCG for many reasons, including the economic ramifications of a long-term failure, risk of delay and/or detour to the traveling public, increasing maintenance costs, and the increasing frequency and severity of large storm events caused by climate change.

The purpose of the proposed project is to develop a long-term solution to the instability and roadway failure. The project would consider alternatives that provide a more reliable connection, reduce maintenance costs, and protect the economy, natural resources, and cultural landscapes.

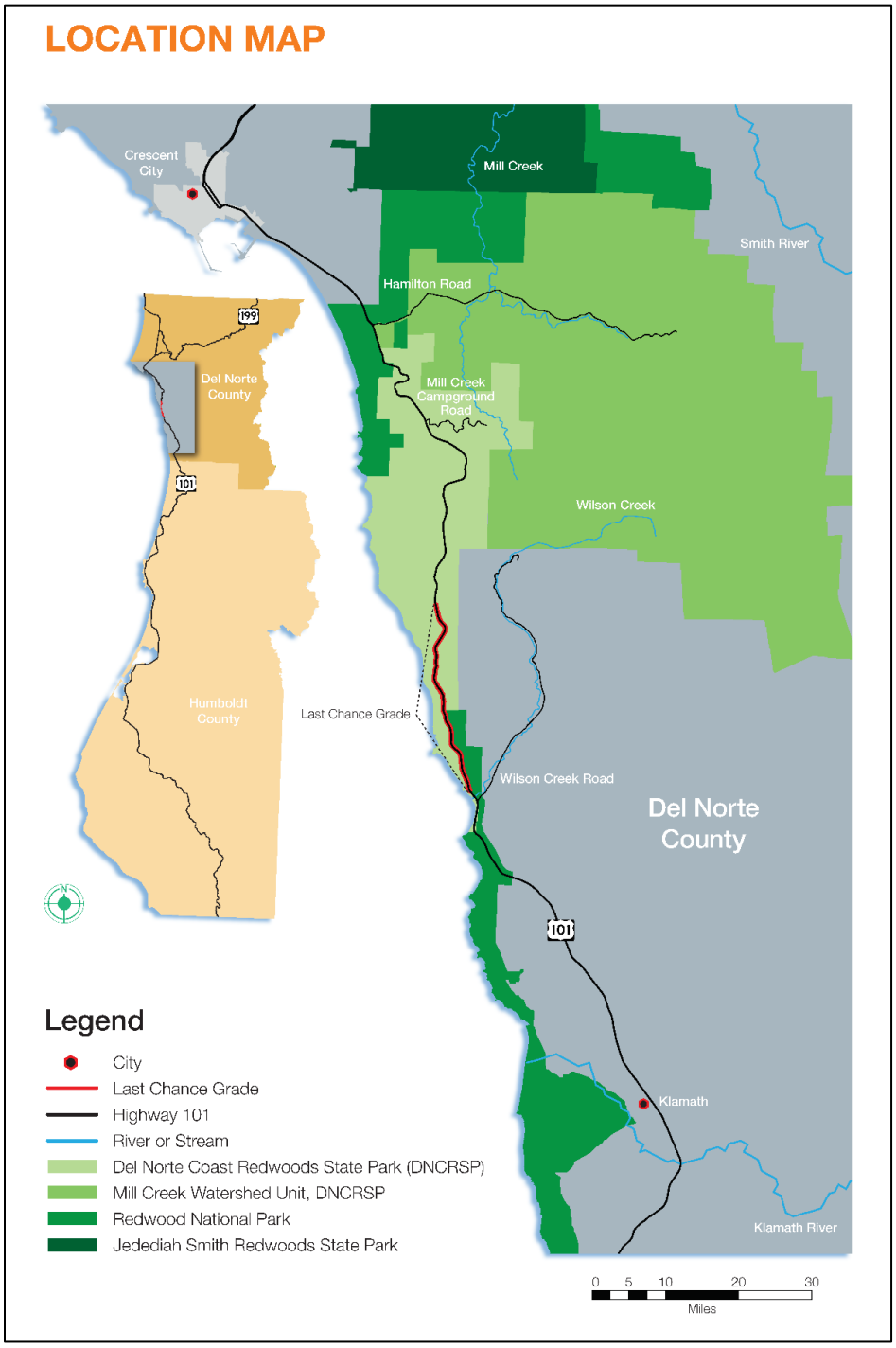

Figure 1. Project Location

1.3 Agency Responsibilities

There are three types of agencies described under 23 USC 139: lead, participating, and cooperating. Responsibilities of these types of agencies are described in the sections below.

1.3.1 Lead Agencies

Under 23 USC 139, the lead agency is the U.S. Department of Transportation (i.e., the Federal Highway Administration [FHWA]); Caltrans, as the direct recipient of federal funds, must be a joint lead agency. However, under NEPA Assignment (23 USC 327), Caltrans serves as the federal lead agency for transportation projects, and thus serves both roles.

In addition to preparing the EIS and associated functions, lead agency responsibilities include:

- Identifying and involving participating and cooperating agencies.
- Developing a coordination plan.
- Providing opportunities for public and participating agency involvement in defining the purpose and need and determining the range of alternatives.
- Collaborating with participating agencies in determining methodologies and the level of detail for the analysis of alternatives.
- Providing increased oversight in managing the process and resolving issues.

1.3.2 Participating Agencies

Participating agencies are any federal, state, tribal, local, and regional government agencies that may have an interest in the project. The roles and responsibilities of participating agencies include:

- Participating in the NEPA process starting at the earliest possible time.
- Identifying, as early as practicable, any issues of concern.
- Providing meaningful and timely input on unresolved issues.
- Participating in the scoping process.
- Reviewing proposed project schedule and providing concurrence and/or comments.
- Reviewing draft environmental documentation.

Accepting the designation as a participating agency does not indicate project support and does not provide an agency with increased oversight or approval authority beyond any applicable statutory authority.

1.3.3 Cooperating Agencies

As defined by the Council on Environmental Quality (CEQ), a cooperating agency is any federal agency (and state, tribal, or local agency with agreement of the lead agency), other than a lead agency, that has jurisdiction by law or special expertise with respect to any environmental impact in a proposed project or project alternative (40 CFR 1508.1). All cooperating agencies are, by definition, participating agencies. The roles and responsibilities of cooperating and participating agencies are similar, though cooperating agencies have a higher degree of authority, responsibility, and involvement in the environmental review process. Distinguishing features of cooperating agencies, as provided by the CEQ include:

- On request of the lead agency, assuming responsibility for developing information and preparing environmental analysis, including portions of the EIS concerning which the cooperating agency has special expertise (40 CFR 1501.8(b)(3)).
- Adoption of the EIS without recirculation after an independent review if the cooperating agency concludes that its comments and suggestions have been satisfied (40 CFR 1506.3(c)).

Chapter 2. Lead/Participating/Cooperating Agencies

The following section provides information on the lead, participating, and cooperating agencies identified for the LCG Permanent Restoration Project.

A Notice of Intent (NOI) to prepare an EIS was published in the Federal Register on November 4, 2021, and invitations for agency participation and cooperation were sent out on November 10, 2021. The agencies indicated in Table 1 accepted the designation as a participating and/or cooperating agency.

Table 1. Participating and Cooperating Agencies

Agency	Role	Contact	Responsibilities
State and Federal Agencies			
Caltrans	Lead	Jaime Matteoli Project Manager (707) 441-2097 jaime.matteoli@dot.ca.gov Steve Croteau Sr. Environmental Planner (707) 572-7149 steven.croteau@dot.ca.gov	Manage environmental review process; prepare EIS; provide opportunity for agency and public involvement; provide oversight of the process and resolving issues
National Park Service (NPS)—Redwood National Park	Participating/ Cooperating Agency	Steve Mietz Superintendent 707-464-6101 steven_mietz@nps.gov	Section 4(f) consultation; park lands and resource expertise
U.S. Army Corps of Engineers (USACE)	Participating/ Cooperating Agency	Dan Breen Sr. Regulatory Project Manager 415-503-6803 Daniel.B.Breen@usace.army.mil	Clean Water Act Section 404 permitting
U.S. Environmental Protection Agency (U.S. EPA)	Participating/ Cooperating Agency	Carolyn Mulvihill NEPA Reviewer—Transportation 415-947-3554 mulvihill.carolyn@epa.gov	NEPA expertise
U.S. Fish and Wildlife Service (USFWS)	Participating/ Cooperating Agency	Greg Schmidt Fish and Wildlife Biologist 707-825-5103 Gregory_Schmidt@fws.gov	Section 7 Endangered Species Act consultation; natural resource expertise

Agency	Role	Contact	Responsibilities
National Marine Fisheries Service (NMFS)	Participating/ Cooperating Agency	Jeff Jahn South Coast Branch Chief Northern California Office 707-217-9097 jeffrey.jahn@noaa.gov	Section 7 Endangered Species Act consultation; aquatic resource expertise
California State Parks—Del Norte Coast Redwoods State Park (DNCRSP)	Participating Agency	Victor Bjelajac District Superintendent II 707-445-6547 Victor.Bjelajac@parks.ca.gov	Section 4(f) consultation; park lands and resource expertise
State Water Quality Regional Control Board—North Coast Regional Water Quality Control Board (NCRWQCB)	Participating Agency	Susan Stewart Environmental Scientist 707-576-2657 Susan.Stewart@waterboards.ca.gov	Clean Water Act Section 401 permitting
Local and Regional Agencies			
Del Norte County Local Transportation Commission	Participating Agency	Tamera Leighton Executive Director 707-465-3878 Tamera@dnltc.org	Transportation Systems
Tribes			
Elk Valley Rancheria	Participating Agency	Dale Miller Tribal Chairman 707-465-2624 dmiller@elk-valley.com	Cultural resource expertise

2.1 Invited Agencies

Invitations for agency participation and cooperation were sent on November 10, 2021. Eight agencies accepted the invitation, zero declined, and eleven did not respond (Table 2).

A federal agency invited to participate is designated a participating agency unless the agency declines the invitation by the specified deadline (23 USC 139(d)(3)). If a federal agency chooses to decline, the agency must do so in writing indicating that the agency (1) has no jurisdiction or authority with respect to the project, (2) has no expertise or information relevant to the project, and (3) does not intend to submit comments on the project (23 USC 139(d)(3)). If the federal agency's response does not state the agency's position in these terms, then the agency will be treated as a participating agency. A state, tribal, or local agency is expected to respond affirmatively to the invitation to be designated as a participating agency. If the state, tribal, or local agency fails to respond by the stated deadline or declines the invitation, regardless the reasons for declining, the agency will not be considered a participating agency. If a potential cooperating federal agency declines the participating agency invitation, indicating items (1), (2), and (3) above, that federal agency does not meet the criteria to be a cooperating agency.

Although most participating agencies should be known and identified prior to formally beginning the NEPA process, some participating agencies may be identified by the lead agencies later during the scoping process when their interests become known. As soon as an agency's interest is identified, the lead agencies should invite it to become a participating agency.

Table 2. Invited Agencies

Agency	Participating or Cooperating	Accepted	Declined	Did Not Respond
National Park Service (Redwood National Park)	Cooperating and Participating	X		
U.S. Army Corps of Engineers	Cooperating and Participating			X
U.S. Environmental Protection Agency	Cooperating and Participating	X		
U.S. Fish and Wildlife Service	Cooperating and Participating	X		
National Marine Fisheries Service	Cooperating and Participating	X		
California State Parks	Participating	X		

Agency	Participating or Cooperating	Accepted	Declined	Did Not Respond
North Coast Regional Water Quality Control Board	Participating	**X**		
California Coastal Commission (CCC)	Participating			**X**
California Department of Fish and Wildlife	Participating			**X**
City of Crescent City	Participating			**X**
Del Norte County Board of Supervisors	Participating			**X**
Del Norte County Local Transportation Commission	Participating	**X**		
Humboldt County Board of Supervisors	Participating			**X**
Humboldt County Association of Governments (HCOG)	Participating			**X**
Yurok Tribe	Participating			**X**
Elk Valley Rancheria	Participating	**X**		
Resighini Rancheria	Participating			**X**
Tolowa Dee-Ni' Nation	Participating			**X**
Tolowa Nation	Participating			**X**

Chapter 3. Coordination Points, Responsibilities, and Target Schedule

In accordance with revisions to 23 USC 139 made by the FAST Act, the lead agency, after consultation with and concurrence of each participating agency for the project, must establish a schedule for the completion of the environmental review process for the project (23 USC 139(g)). The schedule includes key coordination points/milestones and decision-making deadlines for each agency approval. The project schedule is shown in Table 3. Some of the key coordination points have already occurred.

Table 3. Coordination Points, Responsibilities, and Target Schedule

Coordination Point	Caltrans-Provided Information	Target Date	Parties Involved	Input	Target Comment Need-By Date
Notice of Intent (NOI) to prepare EIS	NOI; publish notice in newspaper; invite agencies and public to scoping meeting	November 5, 2021	Participating / Cooperating Agencies / Public	Comments on NOI	December 6, 2021
NOI Scoping Meeting	Held scoping meeting	November 18, 2021	Participating / Cooperating Agencies / Public	Comments on NOI	December 6, 2021
Purpose and Need	Draft purpose and need statement	Ongoing between 2015–Spring 2021	Participating / Cooperating Agencies / Public	Comments on Purpose and Need	December 6, 2021
Range of Alternatives	Alternatives being considered	Ongoing between 2015–Spring 2021	Participating / Cooperating Agencies	Comments on Range of Alternatives	Spring 2021
Collaboration on impact assessment methodologies	Methodologies and level of detail used in the analysis of alternatives	Fall 2019–Spring 2021	Participating / Cooperating Agencies	Comments on methodologies and identification of any issues that could delay the project	Spring 2021
Collaboration on mitigation	Potential resources affected	Spring 2022–Fall 2022	Participating / Cooperating Agencies / Stakeholder Groups	Opportunities, ratio, criteria	Summer/ Fall 2022

Coordination Point	Caltrans-Provided Information	Target Date	Parties Involved	Input	Target Comment Need-By Date
SHPO Concurrence	HPSR/ASR/ HRER	Fall 2023	SHPO	Concurrence	Fall 2023
Circulation of Draft EIS (DEIS) and Draft Section 4(f) Evaluation	DEIS	Fall 2023	Participating / Cooperating Agencies / Public	Comments on DEIS and Draft Section 4(f) Evaluation	Fall 2023
Identify Preferred Alternative	Present Preferred Alternative	Spring 2024	Participating / Cooperating Agencies	Comments on Preferred Alternative	Spring 2024
FESA Consultation	Biological Assessment	Spring 2024	USFWS	Biological Opinion	Summer 2024
FESA Consultation	Biological Assessment	Spring 2024	USFWS	Letter of Concurrence	Summer 2024
CESA Consultation	Biological Assessment	Spring 2024	CDFW	Consistency Determination or Incidental Take Permit	Summer 2024
Section 4(f) Evaluation Concurrence	Evaluation	Summer 2024	California State Parks, National Park Service	Concurrence	Fall 2024
SHPO Concurrence	Findings of Effect and Cultural Mitigation Plan	Fall 2024	SHPO	Concurrence	Fall 2024
Circulation of Final EIS (FEIS)/Record of Decision (ROD) and Final Section 4(f) Evaluation	FEIS/ROD/ Section 4(f) Evaluation	Fall 2025	Participating / Cooperating Agencies / Public	Comments on FEIS and Final Section 4(f) Evaluation	Fall 2025
Project Permits, Agreements, and Certifications	Applications	Winter 2025–2026	CDFW, CA Coastal Commission, USACE, NRWQCB	Issue permits, agreements, and certifications	Summer 2026

3.1 Initial Coordination

Caltrans has regularly engaged stakeholders, including the public, in the LCG Project since 2014. This effort has included conducting community meetings and establishing working groups that include federal, state, and local governments; local tribes; private sector industry groups; non-governmental organizations (NGOs); and other concerned citizen groups. Information on the coordination for this project can be found on the project website at lastchancegrade.com.

3.2 Notice of Intent

A Notice of Intent to prepare an EIS for the project was published in the Federal Register on November 4, 2021, and a public scoping meeting was held on November 18, 2021. The meeting included a presentation on the scoping process, the project's purpose and need, the proposed alternatives for evaluation in the EIS (Alternatives X, F, and No-Build), and included a question and answer session. The deadline for formal NOI comments was December 6, 2021. Comments received during the scoping period will be included in the EIS.

3.3 Purpose and Need, Range of Alternatives, and Methodologies

Discussions on the project's purpose and need, range of alternatives, and methodologies began soon after initiation of the project. These included community workshops to present project information—including the alternatives—and to provide opportunities for public and stakeholder comments. Meetings with the project working groups were held to discuss topics relevant to stakeholders. Furthermore, a scoping meeting was held to provide an opportunity for comment, as described above (Section 3.2).

As part of the process, and to reach consensus among working group members regarding the purpose and need and range of alternatives, workshops were held between December 2020 and April 2021. These alternatives analysis meetings included discussion regarding the range of alternatives, evaluation of alternatives, screening methodologies, and resulted in the identification of alternatives for further study in the EIS (Alternatives X, F, and No-Build). This process was documented in an Alternatives Analysis Report (Attachment A). These workshops included all invited participating and cooperating agencies identified in this Agency Coordination Plan.

Chapter 4. Revision History

This chapter will document any revisions to the Coordination Plan. Revised plans would be redistributed to all participating and cooperating agencies.

Table 4. Revision History

Version	Date	Name	Description

Chapter 5. Additional Information

The LCG Permanent Restoration Project maintains a website (lastchancegrade.com), which contains project information and documentation and allows interested parties to sign up for project updates.

Attachment A. Alternatives Analysis Report

Last Chance Grade Permanent Restoration Project

Alternatives Analysis Report

Submittal SUB#031
November 2021

EA# 01-0F280
Project EFIS# 0115000099
Del Norte County, U.S. 101,
PM 12.0/15.5

Caltrans

LAST CHANCE GRADE

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1 Introduction

"Last Chance Grade", the section of United States Highway 101 (US 101) that extends from Wilson Creek to nine miles south of Crescent City in Del Norte County (post miles [PM] 12.0 to 15.5) (Figure 1), has been progressively sliding towards the Pacific Ocean since the roadway was first constructed. Due to the continual movement, ongoing construction and maintenance activities are necessary to keep the highway open to the traveling public. In order to find a long-term sustainable solution, the California Department of Transportation (Caltrans) has studied multiple alternative alignments and design options for the Last Chance Grade (LCG) Permanent Restoration Project.

The purpose of this report is to provide a summary of how the alternative alignments were developed, including screening, stakeholder outreach and participation, performance measure applications, analysis results, and the identification of the alternatives that will be carried forward for environmental review in the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) to be prepared in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

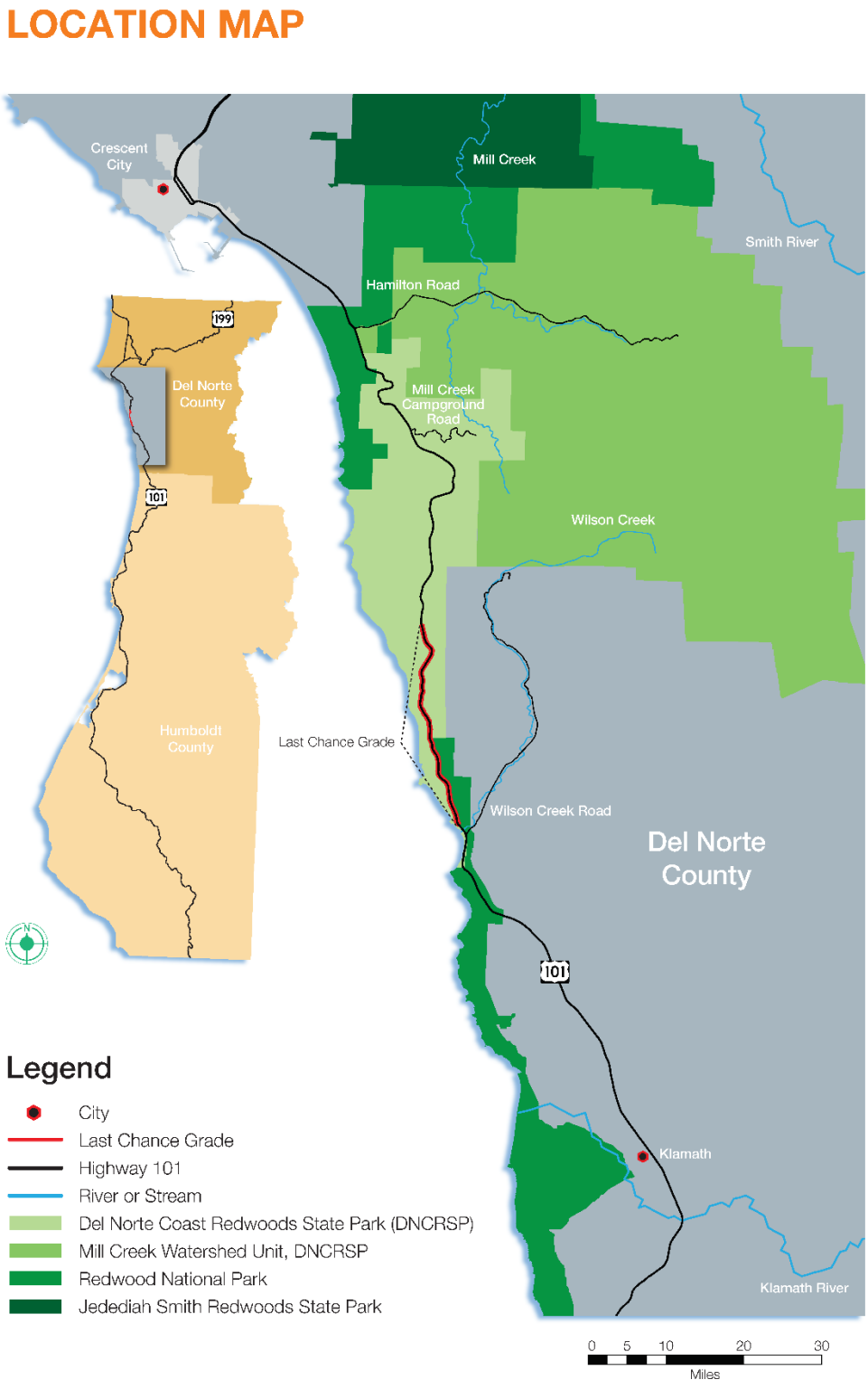
2 Project Purpose and Need

The purpose of the project is to develop a permanent solution to the instability and potential roadway failure at LCG. The project would consider alternatives that provide a more reliable connection and reduce maintenance costs while protecting the economy, natural resources, and cultural landscapes.

Landslides and road failures at LCG have been an ongoing problem for decades. A geologic study in 2000 conducted for Caltrans by the California Geological Survey mapped over 200 historical and active landslides (both deep-seated and shallow) within the corridor between Wilson Creek and Crescent City. Over the years, Caltrans has conducted a considerable number of construction projects and maintenance activities in the LCG area in order to keep the roadway open. Since 1981, landslide mitigation projects, including retaining walls, drainage improvements, and roadway repairs have cost over $54 million ($33 million Emergency Response Projects, $21 million Non-Emergency Response Projects). A long-term sustainable solution at LCG is needed for many reasons, including the following:

- Economic ramifications of a long-term failure and closure;
- Risk of delay/detour to traveling public;
- Increasing maintenance and emergency project costs; and
- Increase in frequency and severity of large storm events caused by climate change.

Figure 1. Project Location



3 Project Stakeholders and Working Group Workshops

Close coordination and collaboration with local, regional, and state partners is imperative for this project, as US 101 is a critical route, and there are various sensitive resources within the project area. This close coordination began in March 2014 when Caltrans established the LCG Partnership to create an active, working relationship with the agencies and groups that have management responsibilities for lands and resources that could be directly impacted by any realignment of the highway. In coordination with the LCG Partnership, four stakeholder Working Groups were created that include federal, state, and local governments, federally and non-federally recognized tribes, private sector industry groups, NGOs, and other concerned citizen groups. A list of participant organizations from each Working Group is provided in the LCG Fact Sheet (Attachment A).

- *Congressman Huffman's Stakeholder Working Group*: Representatives from local governments, Tribal groups, businesses, agencies, and environmental groups.
- *LCG Partners Working Group*: Stakeholders with land ownership and land management responsibilities.
- *Cultural Resources Working Group*: Stakeholders with responsibility for and expertise in cultural resource management and preservation.
- *Biological Resources Working Group*: Stakeholders with responsibilities for and expertise in natural resource management and permitting.

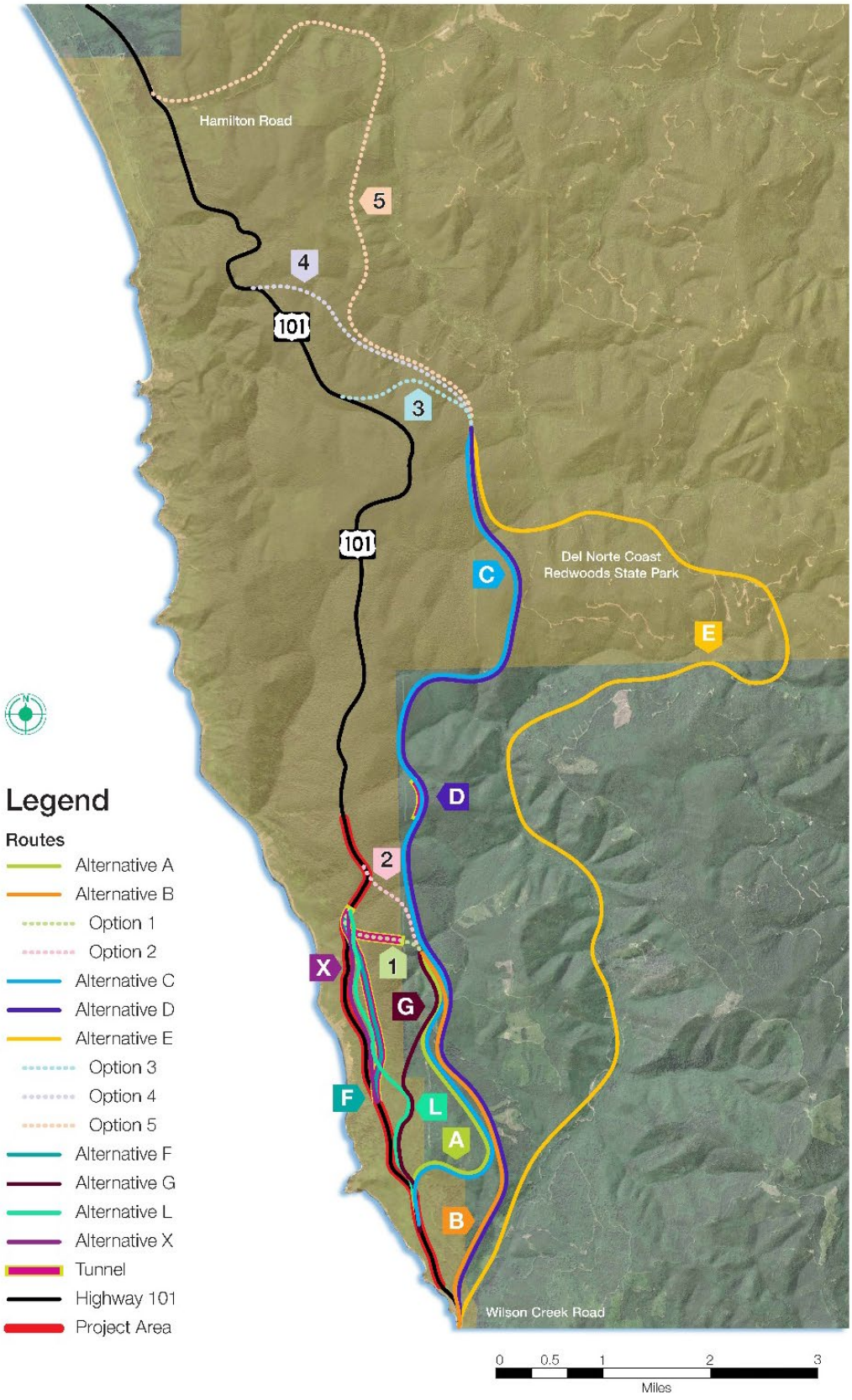
4 Alternatives Development and Evaluation (2015 – 2019)

Caltrans, in coordination with LCG Partnership stakeholders, completed preliminary engineering, economic, geotechnical, and environmental studies to identify potential long-term solutions for the project. The early planning and design efforts listed below[1] examined a broad range of design options and rejected options (Figure 2, Table 4) that would not meet the project purpose and need.

- 2015 Engineered Feasibility Study considered fourteen alternatives and rejected eight
- 2016 Project Study Report considered six alternatives
- 2018 Expert-based Risk Assessment added two alternatives
- 2018 Value Analysis Study Report rejected three alternatives
- 2019 Project Study Report Addendum added two alternatives

[1] The LCG project reports referenced herein are available on the LCG Project website's document library: www.lastchancegrade.com.

Figure 2. Alternatives Evaluated During 2015-2019 Planning Efforts



The 2015 Engineered Feasibility Study considered 14 alternatives to minimize or avoid the risk of roadway failure and reduce ongoing maintenance costs, while considering environmental and cultural factors. The study developed the alternatives using design criteria based on constructability, adherence to design standards, and impacts to the environment and sensitive resources. Based on the results of this study, eight alternatives were eliminated, and the remaining six recommended for further study:

2015 Engineered Feasibility Study	
Alternatives Considered	**Recommended for Study**
A1: Rudisill Road to LCG Tunnel	A1: Rudisill Road to LCG Tunnel
A2: Rudisill Road to Damnation Trailhead	A2: Rudisill Road to Damnation Trailhead
B1: Wilson Creek Bridge to LCG Tunnel	
B2: Wilson Creek Bridge to Damnation Trailhead	
C3: Rudisill Road to South of Mill Creek Access	C3: Rudisill Road to South of Mill Creek Access
C4: Rudisill Road to North of Mill Creek Access	C4: Rudisill Road to North of Mill Creek Access
C5: Rudisill Road to Hamilton Road	C5: Rudisill Road to Hamilton Road
D3: Wilson Creek Bridge to South of Mill Creek Access	
D4: Wilson Creek Bridge to North of Mill Creek Access	
D5: Wilson Creek Bridge to Hamilton Road	
E3: Wilson Creek Road to South of Mill Creek Access	
E4: Wilson Creek Road to North of Mill Creek Access	
E5: Wilson Creek Road to Hamilton Road	
F: Tunnel Bypass	F: Tunnel Bypass

The 2016 Project Study Report (PSR) performed a more detailed analysis and refinement of the six alternatives recommended by the Engineered Feasibility Study.

In 2018, the Geotechnical Expert-based Risk Assessment estimated the risks of the alignments with respect to cost, mobility, and closure for up to a 50-year project life. The analysis included two additional alternatives: Alternative X, an alignment approximately along the existing highway to determine whether a lower cost alternative with less right of way needs may be feasible, and Alternative L as a possible improvement to Alternative X from a geotechnical perspective.

2018 Geotechnical Expert-based Risk Assessment	
Alternatives Considered	**Recommended for Study**
A1: Rudisill Road to LCG Tunnel	A1: Rudisill Road to LCG Tunnel
A2: Rudisill Road to Damnation Trailhead	A2: Rudisill Road to Damnation Trailhead
C3: Rudisill Road to South of Mill Creek Access	C3: Rudisill Road to South of Mill Creek Access
C4: Rudisill Road to North of Mill Creek Access	C4: Rudisill Road to North of Mill Creek Access
C5: Rudisill Road to Hamilton Road	C5: Rudisill Road to Hamilton Road
F: Tunnel Bypass	F: Tunnel Bypass
	L: Upslope Realignment from Rudisill Road to South of Damnation Trailhead
	X: End-to-End Re-engineering On Alignment

The 2018 Value Analysis Study analyzed the eight alternatives from the 2015 Engineered Feasibility Study and 2018 Expert-based Risk Assessment and provided possible cost,

schedule, and/or performance improvement recommendations. The 2018 Value Analysis Study recommended removing three alternatives (C3, C4, and C5) from further consideration due to environmental effects.

2018 Value Analysis Study	
Alternatives Considered	**Recommended for Study**
A1: Rudisill Road to LCG Tunnel	A1: Rudisill Road to LCG Tunnel
A2: Rudisill Road to Damnation Trailhead	A2: Rudisill Road to Damnation Trailhead
C3: Rudisill Road to South of Mill Creek Access	
C4: Rudisill Road to North of Mill Creek Access	
C5: Rudisill Road to Hamilton Road	
F: Tunnel Bypass	F: Tunnel Bypass
L: Upslope Realignment from Rudisill Road to South of Damnation Trailhead	L: Upslope Realignment from Rudisill Road to South of Damnation Trailhead
X: End-to-End Re-engineering On Alignment	X: End-to-End Re-engineering On Alignment

In 2019, Caltrans issued an addendum to the 2016 PSR to describe the changes to the project's scope, alignments, and design concepts. In the addendum, two new eastern alignment alternatives were added to reduce the longer, "S-curve" portions of the A alignments.

2019 PSR Addendum	
Alternatives Considered	**Recommended for Study**
A1: Rudisill Road to LCG Tunnel	A1: Rudisill Road to LCG Tunnel
A2: Rudisill Road to Damnation Trailhead	A2: Rudisill Road to Damnation Trailhead
F: Tunnel Bypass	F: Tunnel Bypass
	G1: Retreat from Rudisill Road to LCG Tunnel
	G2: Retreat from Rudisill Road to Damnation Trailhead
L: Upslope Realignment from Rudisill Road to South of Damnation Trailhead	L: Upslope Realignment from Rudisill Road to South of Damnation Trailhead
X: End-to-End Re-engineering On Alignment	X: End-to-End Re-engineering On Alignment

5 Alternatives Considered During Screening Process (2020 – 2021)

Based on the results of the alternatives development and evaluation process described above, the seven Build Alternatives from the 2019 PSR Addendum were identified for further analysis and refinement. Figure 3 shows the location of the alternatives, and Table 1 contains a summary of each alternative. Additional information is provided in the January 2020 LCG Fact Sheet (Attachment A).

Figure 3. Alternatives Considered During 2020/2021 Screening Process

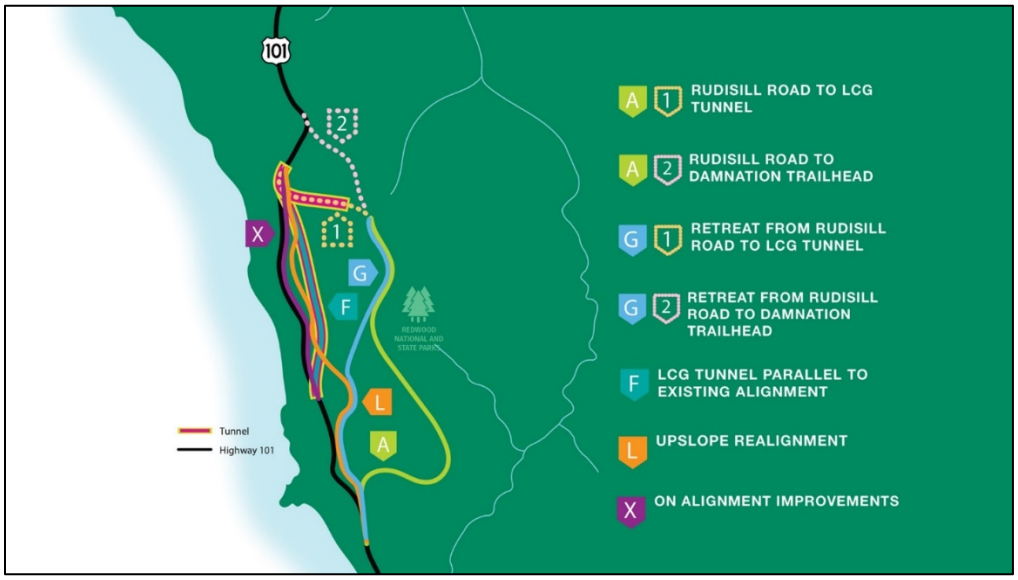


Table 1. Alternatives Considered during 2020/2021 Screening Process

Alternative	Description	Construction Length (miles)	Estimated Footprint Size (acres)	Estimated Capital Cost ($ Millions)[a]
A1	Departs US 101 at PM 13.47, heading inland, and reconnects with US 101 at PM 15.56. A1 includes a 2,425-foot-long tunnel that begins inland and ends near PM 15.56.	3.4 miles	359.9 acres	$1,078M
A2	Follows Alternative A1 for the initial 2.3 miles where it then continues northward, reconnecting to US 101 at PM 15.92. A2 does not include a tunnel.	3.5 miles	371.6 acres	$690M
F	Constructs a 5,600-foot-long tunnel. Departs US 101 at PM 14.06 and reconnects with US 101 at PM 15.56.	1.5 miles	15.4 acres	$930M
G1	Departs US 101 at PM 13.47, and reconnects with US 101 at PM 15.56. Shares the same southern alignment as Alternative L (below) and the same northern alignment as Alternative A1. Includes the same 2,425-foot-long tunnel alignment as A1.	3.0 miles	348.7 acres	$880M
G2	Follows Alternative G1 for the initial 2.4 miles and reconnects to US 101 at PM 15.92. Shares the same northern alignment as Alternative A2. Alternative G2 does not include a tunnel.	3.1 miles	359.5 acres	$520M
L	Departs the existing alignment at PM 13.47, remains upslope of the existing alignment, and reconnects to US 101 at PM 15.56.	2.2 miles	167.5 acres	$360M
X	Maintains the existing US 101 alignment with segments of realignment and a dewatering component to improve the stability of the slide.	1.1 miles	35.7 acres	$220M

[a] These estimated capital costs are taken from the Alternatives Analysis process in February 2021.

6 Alternatives Screening Process

Caltrans held workshops with the Working Groups in December 2020, March 2021, and April 2021 to present the alternatives screening methodology, receive input on the process used to assess the alternatives, and provide a transparent and defensible process for eliminating alternatives. Working Group members provided constructive input on the alternatives, evaluation methodologies, and performance measures.

Working Group meeting presentations and summaries are provided in Attachment B. The Alternative Screening Process and summary of the results are described below.

Screening alternatives is a process of comparing and evaluating alternatives to determine which options are technically feasible, responsive to the region's unique geotechnical conditions, and cost-effective, while respecting important natural and cultural resources. Screening adds value to the preliminary engineering and environmental phase because it:

- Assesses the range of possible alternatives,
- Identifies the technically and economically feasible alternatives for further detailed study in the environmental document,
- Saves time and resources by narrowing the footprint area for detailed studies,
- Reduces the area and extent of ground-disturbing studies for selection of the final alternative, and
- Provides higher level of certainty and a lowered risk of schedule delay in the environmental phase.

Step 1. Identify Performance Measures and Screening Methodology

The first step in the screening process was to identify performance measures to use to evaluate alternatives. These measures were developed based on the project purpose and the consensus-based list of values and benefits contained in the December 2015 *Huffman Stakeholder Group Consensus White Paper*[1]. The performance measures focus on measurable criteria, such as probability of long-term closure, using available data. The initial sixteen performance measures are listed in the Workshop #1 presentation materials (Attachment B1).

During Workshop #1 in December 2020, the identified performance measures were presented to each Working Group; group members then suggested additions and refinements. For example, the Biological Resources Working Group encouraged the use of tree counts over reporting acreage by forest/habitat type alone. The Working Groups also considered how to weight the performance measures, identified risks to project success, and discussed the relative importance of performance measures. See the Workshop #1 summary in Attachment B1 for more information.

After Workshop #1, Caltrans revised the list of performance measures and their measurable criteria, established a weighting method for the performance measures, and recognized "core factors" — performance measures that were consistently acknowledged as most important by all Working Groups. Core factors include cost to build, cost to mitigate, and tree impacts.

Step 2. Apply Weighted Performance Measures to Alternatives

During the next step in the screening process, Caltrans collected and analyzed data and applied the weighted performance measures to each Build Alternative. Preliminary results of the alternatives analysis were presented to the Working Groups in March 2021, at Workshop #2 (Attachment B2).

Data Sources - Sources of information used to evaluate the alternatives included qualitative assessments, engineering assessments, geographic information system (GIS) analyses, and field inspections of the potential project locations.

Qualitative Assessment - Qualitative performance measures were developed to describe the alternative alignments, including constructability, traffic mobility, geotechnical risks, cost to maintain, and cost to mitigate for environmental effects. Metrics for qualitative assessments included general scales (e.g., high, medium, low) and percentages/probabilities.

Engineering Assessment - Engineering assessments were provided for a number of measures that could be readily quantified at this stage of project development, such as project length, travel time, construction duration, capital costs, cut/fill material balance, and key features of the alignment.

GIS Analysis - The bulk of the analysis was performed using GIS data to assess impacts to sensitive habitats, aquatic resources (i.e., streams), wildlife connectivity, edge effects, and recreational facilities (e.g., trails and campgrounds). A memo describing the environmental constraints mapping and associated data sources is provided in Attachment C. Attachment C also displays sample maps used in the analysis.

Field Inspections - Experienced engineers, biologists, and environmental analysts conducted field reviews of the potential alternatives to identify conditions not visible in aerial photos or on maps. Most notably, sample plots within mapped vegetation communities in the project area were used to identify tree sizes and densities. These plots were extrapolated using aerial photo interpretation to estimate the number and size of trees to be potentially affected by each alternative. Refer to Workshop #2 presentation materials in Attachment B2 for estimated tree removal results.

Core Factors and Performance Measure Weighting - To normalize the metrics across performance measures, Caltrans applied a normalizing scale, which allowed for the comparison of data with different units. In other words, performance measures ranked high, medium, and low could be compared to measures reported in acres. The measures were normalized to a scale of 1 to 5, with 1 representing the lowest level of impact, least amount of time, lowest cost, etc., and 5 representing the highest level of impact, most amount of time, highest cost.

Weighting of core factors was developed based on input from the Working Groups and the Caltrans team. A weighting factor of 1 to 5 was applied to each performance measure, with 5 being given to the measures deemed most important. The performance measures and their associated weight are shown in Table 2.

To determine the effects of weighting on the ranking of alternatives, a sensitivity analysis was conducted to compare various scenarios of normalizing and weighting performance measures. For example, the weight of core factors was doubled or tripled, weighting was eliminated, weighting was adjusted for operational factors, or just the natural or core factors were used. The analysis concluded that the weighting did not produce substantially different results in alternative ranking.

Once the performance measures were normalized and weighted, the numbers were multiplied to receive a final score, and determine the ranking of alternatives. For example, the normalized score for trees for each alternative was multiplied by the factor weight of 5 for a final score for each alternative. Normalized scores, weighted scores, and results are displayed in Attachment D.

Table 2. Performance Measures and Weighting Factors

Performance Measure	Factor Weight
CORE FACTORS	
Trees	5
Cost to construct	5
Cost of mitigation	5
OPERATIONAL FACTORS	
Road closure potential	4
Cost to maintain (relative to existing)	1
Traffic mobility	3
CONSTRUCTION FACTORS	
Footprint size	4
Time to construct	3
Cut/fill deposited within project area	4
Cut/fill to be deposited offsite	4
Trail relocation potential	2

Performance Measure	Factor Weight
NATURAL FACTORS - VEGETATION	
Red Alder	3
Coastal Scrub/Grassland	3
New edges in National and State Parks	3
New edges in Green Diamond land	1
Logged and other young conifer/redwood lands	2
NATURAL FACTORS - WILDLIFE	
Marbled murrelet occupied habitat	4
Marbled murrelet designated critical habitat	2
Marten core habitat	3
Northern spotted owl suitable habitat	4
Potential to disrupt wildlife connectivity	3
NATURAL FACTORS – AQUATIC	
New tributary crossings	3
Wilson Creek watershed disturbance	1

Preliminary Analysis Results

The preliminary results of the alternatives analysis were presented at Workshop #2 (Attachment B2 and Table 3): alternatives F (Tunnel Bypass) and X (Re-Engineered Existing Alignment) scored and ranked best overall.

- Alternative F consistently scored in the top two for all categories of performance measures (i.e., core factors, operational factors, construction factors, and natural factors).
- Alternative X scored in the top two for all categories except in operational factors, where it ranked in the bottom two.
- Alternative G1 and G2 consistently scored worse than the other alternatives except in operational factors, where the G alternatives outperformed Alternatives X and L.
- Alternative A1 and A2 ranked fourth and third overall; the A alternatives performed well in operational factors.
- Alternative L ranked fifth overall, performing worst in operational factors.

The sensitivity analysis showed that rankings remained essentially stable until/unless weightings were significantly increased beyond the 1 to 5 scale.

Table 3. Alternatives Analysis Results Summary

Performance Measure Category	Weighted Scores by Alternative							Possible Score Range (Lowest = Best)
	X	L	F	A1	A2	G1	G2	
Core Factors (Trees, Construction and Mitigation Costs)	35	55	45	55	55	65	55	15 - 75
Operational Factors	40	40	8	8	8	24	24	8 - 40
Construction Factors (Time to Construct, Cut/Fill Volumes, etc.)	35	55	31	59	55	59	59	17 - 85
Natural Resource Factors (Animals, Vegetation, Aquatic)	42	86	38	94	94	110	110	32 - 160
All Factors	152	236	122	216	212	258	248	72 - 360
Alternatives Ranking (1-7) for All Factors	2	5	1	4	3	7	6	n/a

Step 3. Request Stakeholder Concurrence of Alternatives Ranking

In April 2021, all Working Groups met in one session for Workshop #3. Results of the analyses recommended eliminating Alternatives A1, A2, G1, G2, and L from further study and carrying forward Alternatives X and F for further refinement.

- Alternatives F and X performed best during the alternatives analysis. By moving forward with these alternatives, there would be fewer environmental impacts (including less tree removal), study cost would be reduced, and the area required for assessment would be reduced, shortening the project schedule by one year.

- Alternatives G1 and G2 ranked worst overall and were eliminated because they have a longer construction duration and larger project footprint, resulting in substantially higher environmental impacts than Alternatives X or F.

- Alternatives A1 and A2 ranked fourth and third overall, but were also eliminated for their substantially higher environmental impacts than Alternatives X or F.

- Alternative L, ranked fifth overall, was also eliminated based on core and natural resource factors, combined with geotechnical risks.

Workshop #3 gave stakeholders an opportunity to provide feedback on the process and on the final determination on what alternatives to move forward into the draft environmental document. Polling results from the meeting (Attachment B3) indicated there was general support for the

recommendation to proceed with further study of Alternatives F and X, and to remove Alternatives L, A1, A2, G1 and G2 from further study at this time. There was concern voiced related to narrowing the field to only two build alternatives, based on perceptions that Alternatives F and X are not feasible, are too expensive, and/or lack popular support. However, the majority of stakeholders expressed trust in the process and satisfaction with progress made.

7 Results: Alternatives Carried Forward and Eliminated from Further Evaluation

Alternatives F (Tunnel Bypass) and X (Re-Engineered Existing Alignment) will be carried forward as the Build Alternatives for further study in the draft environmental document.

2021 Alternatives Analysis	
Alternatives Considered	**Recommended for Study**
A1: Rudisill Road to LCG Tunnel	
A2: Rudisill Road to Damnation Trailhead	
F: Tunnel Bypass	F: Tunnel Bypass
G1: Retreat from Rudisill Road to LCG Tunnel	
G2: Retreat from Rudisill Road to Damnation Trailhead	
L: Upslope Realignment from Rudisill Road to South of Damnation Trailhead	
X: End-to-End Re-engineering On Alignment	X: End-to-End Re-engineering On Alignment

Other alternatives considered during the project development and alternatives screening process have been eliminated. See Table 4 for a summary of the alternatives eliminated from further analysis, including the rationale for elimination, and refer to Attachment D for detailed results of the Alternative Analysis performance measure analysis.

Table 4. Alternatives Considered but Rejected from Further Study

Alternative	Description	Justification for Eliminating this Alternative	Source Document[1]
A1	Rudisill Road to LCG Tunnel	Alternatives A1 and A2 had a longer construction duration and larger project footprint than Alternatives X or F, resulting in substantially higher environmental impacts. For these reasons, these alternatives were rejected.	Alternatives Analysis 2021
A2	Rudisill Road to Damnation Trailhead		
B1	Wilson Creek Bridge to LCG Tunnel	Alternatives B1 and B2 had greater habitat and cultural landscape impacts, larger construction footprint, and more earthmoving than Alternatives A1 and A2, without added value. For these reasons, these alternatives were rejected.	Engineered Feasibility Study 2015
B2	Wilson Creek Bridge to Damnation Trailhead		
C3	Rudisill Road to South of Mill Creek Access	Alternatives C3, C4, and C5 had the greatest project footprints and substantial old growth redwood and wildlife impacts. For these reasons, these alternatives were rejected.	Value Analysis Study 2018
C4	Rudisill Road to North of Mill Creek Access		
C5	Rudisill Road to Hamilton Road		
D3	Wilson Creek Bridge to South of Mill Creek Access	Alternatives D3, D4, and D5 had greater potential impacts on habitat and cultural landscapes than the C alternatives, without added value. For these reasons, these alternatives were rejected.	Engineered Feasibility Study 2015
D4	Wilson Creek Bridge to North of Mill Creek Access		
D5	Wilson Creek Bridge to Hamilton Road		
E3	Wilson Creek Road to South of Mill Creek Access	The E alternatives had larger habitat impacts than the C and D alternatives, with no advantage over those other alternatives. The E alternatives also added additional travel time and had greatest potential barrier to wildlife connectivity and watershed integrity. For these reasons, these alternatives were rejected.	Engineered Feasibility Study 2015
E4	Wilson Creek Road to North of Mill Creek Access		
E5	Wilson Creek Road to Hamilton Road		
G1	Retreat from Rudisill Road to LCG Tunnel	Alternatives G1 and G2 had a longer construction duration and larger project footprint than Alternatives X or F, resulting in substantially higher environmental impacts. Alternatives G1 and G2 also had a "medium" geotechnical risk. For these reasons, these alternatives were rejected.	Alternatives Analysis 2021
G2	Retreat from Rudisill Road to Damnation Trailhead		
L	Upslope Realignment from Rudisill Road to South of Damnation Trailhead	Alternative L had a "medium" geotechnical risk and a larger project footprint than Alternatives F or X, resulting in higher environmental impacts and impacts to parklands. For these reasons, this alternative was rejected.	Alternatives Analysis 2021

[1] The LCG project reports referenced are available for review on the LCG Project website's document library: www.lastchancegrade.com.

8 Value Analysis 2021

Based on the results of the 2020-2021 screening process, Caltrans conducted a Value Analysis (VA) that focused on evaluating improvements to Alternatives F and X for potential further refinement. The VA was conducted on July 7-9 and July 13-15, 2021, and included design, tunnel, and dewatering experts, as well as representatives from State Parks and the National Park Service. The VA developed five (5) recommendations for Alternative X, three (3) recommendations for Alternative F, and one (1) recommendation that would merge Alternatives X and F (Table 5). These recommendations included concepts for dewatering the landslides, scheduled daily road closures during construction, construction phase procurement strategies, and providing for an on-site construction staging area to facilitate construction of the north portal, in addition to other recommendations. Review and consideration of the VA alternatives by Caltrans Executive staff resulted in the decision to carry forward some of these refined design options. Table 5 summarizes these refined alternatives and rationale for rejecting or carrying them forward.

Table 5. Summary of Value Analysis Results

VA Alternative	Description	Determination
X-1: Construct a drainage gallery in stable ground below the slip surfaces	Construct several horizontal drain collection tunnels about 9 feet in diameter. This alternative also includes drainage wells that radially fan upward and convey water from the slope. It eliminates the tributary tunnels and vertical drainage wells in the baseline design.	**Retained for Further Study.** The drainage gallery alternative will be developed as part of the process of refining Alternative X.
X-2: Implement one 4-hour and one 2-hour full closure daily	This VA alternative proposes to implement two full closures daily (one 4-hour and one 2-hour closure) to reduce the project construction duration by approximately three months. The main benefit of this VA alternative would be to provide unobstructed use of the project site.	**Rejected.** Although the temporary closures could reduce the construction schedule by approximately 3 months, the temporary impacts to local economy and quality of life override schedule benefits.
X-3: Use separate contract for retaining wall construction and for global dewatering	Two separate contractors would be used: one for the retaining wall work and a second for subsurface drainage work. This alternative results in a reduction in contractor overhead, which is estimated at 1% of the total project cost.	**Retained for Further Study.** The concept of separate contracts should be considered as this approach could result in cost savings. This option should be studied in refining both Alternative X and Alternative F.
X-4: Construct subdrains with multiple lines above proposed retaining walls	This idea would supplement the construction of subdrains with multiple connecting lines in the slopes above the retaining walls. These lines would intercept water before it can cause localized slides and/or recharge of the groundwater. The main benefit of this VA alternative is to reduce the water pressure on the retaining walls in order to improve slope stability.	**Retained for Further Study.** The subdrain features are expected to reduce geotechnical risk.
X-5: Narrow the retaining wall terrace width from 60feet to 20 feet	This idea suggests reducing the terrace width to 20 feet in order to keep a stable slope. This will narrow the project's footprint. The 60-foot width proposed in the original project plans may be too wide. This idea requires geotechnical analysis.	**Retained for Further Study.** This option could narrow the project's footprint, reducing environmental impacts, saving costs, and shortening construction duration.

F-1: Construct a smaller single-bore tunnel with one egress corridor	This VA alternative proposes to construct a smaller single-bore tunnel and include one egress corridor in lieu of two egress corridors. It would reduce the external diameter to 60 feet and the crown to 32 feet above the roadway. The main benefit of this VA alternative is to save excavation costs, as it would eliminate one egress tunnel and its related costs.	**Retained for Further Study.** The single-bore option would be studied as a cost-saving tunnel design. However, the twin-bore tunnel would remain the default option for Alternative F.
F-2: Extend and realign south portal tunnels to span poor geological soil conditions	Realign the south portal tunnels further east by approximately 75 feet and extend their length by 500 feet to avoid unstable geologic conditions that the baseline design involves.	**Retained for Further Study.** This optional tunnel design will be developed within the current footprint of environmental studies as part of the process of refining Alternative F.
F-3: Provide an additional one-acre staging area by the north portal	The baseline design does not show the details of the north portal staging area. This VA alternative proposes to reconfigure the north portal area to provide an additional construction staging area, which would help facilitate construction and provide significant time savings. At the time of the VA study there were too many unknowns to accurately quantify cost impacts for this idea.	**Rejected.** The staging area would create excessive impacts to State Parks so was rejected; however, the team would investigate using the existing passing lane north of the portal location as an additional staging area.
C-1: Construct 9,800-foot single-bore tunnel for NB traffic and rehabilitate existing US-101 for SB traffic	This VA alternative proposes to combine elements of Alt. X and Alt. F to construct a single-bore tunnel for NB US-101 traffic and rehabilitate the existing US-101 alignment for SB traffic. This rehabilitation of US-101 would also include accommodations for cyclists and pedestrians.	**Rejected.** Although this approach would meet the purpose and need, it would result in environmental impacts from both Alternative X and F. The environmental impacts outweigh the cost and schedule benefits of this hybrid alternative.

ATTACHMENT A

LAST CHANCE GRADE 2020 FACT SHEET

LAST CHANCE GRADE

Fact Sheet

The Last Chance Grade (LCG) Project is a collaborative effort to find a permanent solution to instability and roadway failure on a 3-mile segment of US Highway 101 in Del Norte County, extending from Wilson Creek to 9 miles south of Crescent City.

To be successful, the LCG project requires close coordination and collaboration among local, regional, and state partners. We have assembled a diverse group of stakeholders to analyze potential alternatives for the highway. Because the project area is located within a UNESCO World Heritage site, contains old-growth redwoods, and protected animal and plant species, we must be diligent in our approach to each alternative. A complete, thorough, and inclusive process now can help ensure the efficient implementation of the chosen alternative in the future.

SCHEDULE

2018–2026

Environmental Document process initiated (8 years)

- Ground surveys
- Botanical studies (2 years)
- Geotechnical studies
- Wetland delineations
- US Fish and Wildlife Service Biological Assessment and Biological Opinion
- National Marine Fisheries Service (NMFS) Biological Assessment and Biological Opinion
- Traffic studies
- Other studies and analysis
- CEQA/NEPA Public Workshops and Comment period

2026–2031

Design and Permitting Phase

2031–2039

Construction Phase

CURRENT FUNDING

$50M

is funded to complete the Project Approval and Environmental Document (PA&ED) phase.

$4.5M

has been spent on the environmental and Geotech studies.

Updated on 1/1/2020

Caltrans

QUICK FACTS

A 2018 regional economic study estimated that a full one-year closure of Last Chance Grade would cost the region hundreds of millions of dollars, including:

$236M
in travel costs

$417M
in foregone trips

3,800
jobs lost

$456M
in reduced business output

An emergency closure of the current highway would require a

320 MILE (6 HOUR)
detour between Eureka (Humboldt County) and Crescent City.

Since 1997, Caltrans has spent approximately **$85M** maintaining the existing alignment and may need to spend up to **$35M** more for existing needs.

COMPLETED Phase 1 geotechnical investigations of alternatives in the fall of 2018.

BEGAN Phase 2 analyses in the summer of 2019.

PROJECT ALTERNATIVES

The Last Chance Grade project is developing seven build alternatives that are described below. Here are a few key points about the alternatives:

- Construction capital costs range from roughly $295M to $1.1B.
- Each alignment has at least some impacts to old growth redwood trees, cultural resources and/or protected species.
- All build alternatives are located within a UNESCO World Heritage Site.

ALTERNATIVE A1
Departs from US 101 at PM 13.47, heading inland, and reconnects with 101 at PM 15.56. A1 includes a 2,425 ft. tunnel near PM 15.56.

ESTIMATED CAPITAL COST:
$672M

ALTERNATIVE A2
Follows Alternative A1 for the initial 2.3 miles and reconnects to existing US 101 at PM 15.92. A2 does not include a tunnel, but it passes through a section of old growth forest.

ESTIMATED CAPITAL COST:
$300M

ALTERNATIVE G1
Shares the same northern alignment as Alternative A1 (including the tunnel) and the same southern alignment as Alternative L below.

ESTIMATED CAPITAL COST:
$672M

ALTERNATIVE G2
Shares the same northern alignment as Alternative A2 and the same southern alignment as Alternative L below. It also passes through a section of old growth forest.

ESTIMATED CAPITAL COST:
$295M

ALTERNATIVE F
Includes construction of a 5,600 ft. tunnel, departing US 101 at PM 14.24 and reconnecting at PM 15.56.

ESTIMATED CAPITAL COST:
$1.1B

ALTERNATIVE L
Retreats up to 650 feet inland from the current alignment. The alignment includes cuts, structures, surface and subsurface drainage, and a resilient roadway prism.

ESTIMATED CAPITAL COST:
$300M

ALTERNATIVE X
Retains the existing alignment, with two areas that straighten curves and one that retreats approximately 130 feet inland for geotechnical stability and longevity.

ESTIMATED CAPITAL COST:
$300M

PROJECT INFORMATION	
EA	01-0F280
EFIS	0115000099
Location	DN 101 PM 12.0/15.5
Project Description	Del Norte County from Wilson Creek Bridge to 3.8 miles north of Wilson Creek Bridge

PROJECT PARTNERS

The Last Chance Grade Project is a collaborative effort between Caltrans and its many partners. Together, we are working to find the most viable and least impactful alternative. A list of current Last Chance Grade project partners is provided below.

COLLABORATIVE GROUPS

Congressman Huffman's Stakeholder Group
Along with Caltrans, the group includes representatives from local government, tribal groups, businesses, agencies, and environmental groups who provide feedback to all the partners involved.

Last Chance Grade Partners
The members of this group all have land ownership and land management responsibilities.

Biological Resources Working Group
These members have responsibilities for natural resource management and permitting.

Cultural Resources Sub-Working Group
These members have responsibilities for cultural resources management and permitting.

CITIZEN GROUPS	
Crescent City-Del Norte Chamber of Commerce	●
Environmental Protection Information Center (EPIC)	●
Friends of Del Norte	●
Last Chance Grade Advisory Committee	●
Save the Redwoods League	●

ELECTED OFFICIALS	
Assembly Member Jim Wood, 2nd District	
Congressman Jared Huffman	●
Congressman Peter DeFazio, 4th District Oregon	
State Senator Mike McGuire, 2nd District	

GOVERNMENT AGENCIES	
California Highway Patrol	●
Caltrans	● ▲ ■ ◆
City of Crescent City	●
Crescent City Harbor Commission	
Curry County (OR)	●
Del Norte County	●
Del Norte Local Transportation Commission (DNLTC)	●
Federal Highway Administration (FHWA) Sacramento	
FHWA Geotech, Colorado	
Humboldt County	●
Humboldt County Association of Governments	●

LAND MANAGERS		*Permits Provided to the Project*
California Department of Parks and Recreation	● ▲ ■ ◆	*ROE, Scientific Investigation Permit, 4f*
Green Diamond Resource Co.	● ■	*Permit to Enter (PTE)*
National Park Service	● ▲ ■ ◆	*ARPA Permit, 4f, ROE, Scientific Collection Permit*

LOCAL BUSINESSES	
C. Renner Petroleum	●
Rumiano Cheese	●

RESOURCE & PERMITTING AGENCIES		*Permits Provided to the Project*
Army Corps of Engineers	▲	*404 Permit*
California Coastal Commission	▲	*Coastal Development Permit*
California Department of Fish and Wildlife	▲	*1600 Permit, CESA Consultation*
NOAA Fisheries (NMFS)	▲	*ESA Consultation*
North Coast Regional Water Quality Control Board	▲	*401 Permit, NEPA*
United States Environmental Protection Agency (EPA)	▲	*401 Permit, NEPA*
US Fish and Wildlife	▲	*ESA Consultation*

TRIBES	
Elk Valley Rancheria	● ▲ ■ ◆
Resighini Rancheria	■ ◆
Tolowa Dee-ni' Nation	● ▲ ■ ◆
Tolowa Nation	◆
Yurok Tribe	● ▲ ■ ◆

For more information, visit LastChanceGrade.com or contact: Jaime Matteoli,
Last Chance Grade Project Manager, lastchancegrade@dot.ca.gov, (707) 441-2097, TTY 711

Caltrans

ATTACHMENT B

WORKING GROUP MEETING MATERIALS AND SUMMARIES

B1. Workshop 1 Series – December 2020

B2. Workshop 2 Series – March 2021

B3. Workshop 3 Combined Meeting – April 2021

Last Chance Grade
Alternatives Assessment Workshop #1
December 2020
Summary of Results

Prepared by:

Moore Iacofano Goltsman, Inc.
800 Hearst Avenue
Berkeley, CA 94710

December 2020

I. Introduction

Workshop Purpose and Format

As part of the ongoing process to select a safe, reliable long-term alternative at Last Chance Grade in on U.S. Highway 101 in Del Norte County, California, Caltrans is currently considering whether any of the seven remaining build alternatives can be eliminated from further study and which will be moved forward into the EIR/EIS process. To that end, they are developing an alternatives analysis tool based upon criteria and related performance measures for each of the project's major objectives. Caltrans hosted the first in a series of three workshops designed to solicit and refine Last Chance Grade stakeholder input on the methodology and criteria. The full process will be as follows:

- **Workshop 1:** Purpose—get stakeholder input on the initial proposed methodology and criteria used to select the alternatives. The Workshop 1 series was completed December 14-17, 2020.
- **Workshop 2:**
  - Prior to Workshop 2, the project team will refine the methodology, considering all criteria and measurements suggested by the stakeholders during Workshop 1. They will take into account the data needed to achieve a metric, whether another metric could serve as a proxy, and if the criteria or metric is of significance to differentiate one alternative from another. They will then apply it to the remaining alternatives.
  - Workshop 2 Purpose—discuss results of initial application of methodology; discuss potential further refinements to methodology and criteria. The Workshop 2 series will be scheduled for the week of March 15, 2021.
- **Workshop 3:**
  - Prior to Workshop 3, the project team will complete the alternatives analysis using the refined criteria and methodology.
  - Workshop 3 Purpose—share results of final alternatives analysis as completed using refined criteria and methodology. The Workshop 3 series will be scheduled in late April 2021.

The same workshop was held four times for the benefit of each of the four Last Chance Grade working groups. These include:

- Cultural Resources Working Group: Members have responsibilities for cultural resources management and permitting.
- Biological Resources Working Group: Members have responsibilities for natural resource management and permitting.
- Last Chance Grade Partners: Members have land ownership and land management responsibilities.
- Congressman Huffman's Stakeholder Group: Along with Caltrans, the group includes representatives from local government, tribal groups, businesses, agencies, and environmental groups who provide feedback to all the partners involved.

Some organizations are members of more than one working group. Participants belonging to multiple groups were welcomed to participate in multiple meetings if their schedule permitted. However, if they preferred to limit their attendance, they were encouraged to choose the group or groups wherein they'd most like to share their viewpoints.

The workshops, held via Zoom, were designed to be interactive. Participants viewed a presentation reviewing the alternatives analysis process, timeline, project need and purpose, history of alternative selection, and proposed criteria and performance measures for five major objectives of the alternatives analysis process. The presentation is attached as Appendix A, "Workshop Materials."

The presentation provided context for how criteria will be used to evaluate alternatives both in the current and future stages of the project. Caltrans is hoping to identify criteria that can be measured, for which there is adequate data, and that represent comprehensive objectives. Not all criteria may be used for evaluating which alternatives move forward in the EIR/EIS. Some might be used in future steps of the alternatives analysis. It was also noted that weighting the different criteria is not crucial at this point since the preferred alternative is not being selected at this point; it is only necessary to determine which alternatives will be removed from consideration prior to the EIR/EIS process.

Following the presentation, they were asked to review and discuss the suggested criteria and metrics for each objective, considering the following:

- Do these criteria reflect what is valued?
- Are there any gaps or duplicates?
- Do the performance measures quantify what is important to assess this criteria?
- Should any of these be weighted much higher than others?

Participants used a combination of the Zoom Chat feature and spoken discussion to provide input. Their comments, along with information from the project team in response to their questions, were recorded on a digital whiteboard. The full digital whiteboards are reproduced in Appendix B, "Workshop Results."

Following the discussion, participants were asked to respond to a series of polling questions gauging their level of support. First, they were asked to identify their level of support for the overall alternatives analysis process as described during the workshop (highly supportive, somewhat supportive, neutral, somewhat unsupportive, or do not support). Then they were asked to identify to what degree they supported the revisions as discussed for each objective and associated criteria (highly supportive, somewhat supportive, neutral, somewhat unsupportive, or not supportive – revisions do not address my concerns). It was emphasized that this was not intended to be a binding vote, but simply a way to get a sense of the general level of support for the revisions that were discussed. The polling results are also included in Appendix B.

Workshop Attendance

In addition to Caltrans District 1 and project team staff, the following organizations were represented at the four workshops:

Cultural Resources Working Group ▪ California State Parks ▪ National Park Service / Redwood National Park	**Partner Working Group** ▪ California State Parks ▪ Elk Valley Rancheria ▪ Green Diamond Resource Company ▪ Redwood National Parks ▪ Tolowa Dee-Ni' Nation ▪ Yurok Tribe
Biological Resources Working Group ▪ California Coastal Commission ▪ California Department of Fish and Wildlife ▪ California State Parks ▪ Elk Valley Rancheria ▪ National Oceanic and Atmospheric Administration ▪ National Park Services ▪ State Water Resources Control Board ▪ Tolowa Dee-Ni' Nation ▪ US Army Corps of Engineers ▪ US Environmental Protection Agency ▪ US Fish and Wildlife Service	**Huffman Stakeholder Group** ▪ Crescent City-Del Norte Chamber of Commerce ▪ Del Norte County Board of Supervisors ▪ Del Norte Local Transportation Commission ▪ Environmental Protection Information Center ▪ California State Parks ▪ Friends of Del Norte ▪ Green Diamond Resource Company ▪ Humboldt County Association of Governments ▪ Humboldt County Board of Supervisors ▪ Office of Representative Jared Huffman ▪ Redwood National Parks ▪ Resighini Rancheria ▪ Save the Redwoods League

II. Key Findings

A high-level summary of stakeholders' consensus across all workshops regarding each objective and the overall methodology is provided below.

A. Objective: Long-Term Safe, Reliable Roadway

- It is crucial to consider economic and social impacts on the communities for both of the criteria to be considered for this objective.

Criteria: Road Closure

- All groups are comfortable with this metric and agreed that it makes sense.
- Avoiding long-term road closure is extremely important to preserve access to schools, businesses, tribal offices, and public safety / health services.
- What is the duration of closure used in the metric? It might be useful to differentiate short-term and long-term closures.
- Closures should be kept as brief as possible, ideally less than one week; longer than that is a significant concern.

Criteria: Traffic Mobility

- All groups agreed that they had no concerns regarding this as a useful metric.

- This criteria is key to identifying the most sustainable alternative that will avoid the likelihood of lane reduction and the associate impact on travel time. The frequency of traffic mobility impact is important to consider. An additional performance metric might be the percentage of time that lane reductions would be likely. This impacts the ongoing maintenance and economic objectives as well.
- Consider whether alternatives are in landslide areas since most lane reductions occur due to landslides. This metric is related to natural resources impacts due to associated sediment which may impact watersheds.

B. Objective: Reduce Maintenance Costs

Criteria: Maintenance Cost

- All groups agreed this was a good and important performance measure to be used moving forward.
- A baseline for benchmarking should be set based on current maintenance costs.
- Maintenance cost is also affected by the traffic mobility criterion for the Long-Term Safe, Reliable Roadway objective.

C. Objective: Protect the Economy

- "Protect the economy" seems like an odd way to characterize the objective; it's more related to feasibility of the project and responsible stewardship of resources.

Criteria: Capital Costs

- All groups agreed that this is a useful and straightforward metric.
- Consider adding the duration of construction as a metric.

Criteria: Mitigation Costs

- Important to focus on mitigation, which may be a make-or-break for the process. More mitigation creates less litigation, which may equal quicker implementation.
- Crucial to ensure that this metric will not be used to avoid the full cost of mitigation, and therefore incentivize doing minimal mitigation, which would externalize the cost onto the environment.
- Consider how to measure mitigation costs beyond fiscal concerns, including socioeconomic, environmental and cultural impacts. Some alternatives may include extra mitigation costs or challenges due to impacts such as old growth tree loss that are difficult to assign a dollar amount to or to mitigate. It may be necessary to consider how remaining resources might help mitigate for the loss of natural resources.
- Consider avoiding cultural resources to greatest extent possible rather than mitigation.
- Additional costs that should be included in calculating mitigation costs include: purchase of off-site land to mitigate for loss of wetlands; the cost of monitoring any mitigation; removing or creating new uses for the existing roadway, and maintenance costs for these new uses.

Criteria: Litigation Costs

- An important consideration that is complex to predict or adequately estimate. How will litigation costs be gauged (based on historic cases or on projections)? Ranking alternatives as high / medium / low risk for litigation may be a sufficiently meaningful criterion for this objective.
- In addition to the cost of the litigation itself, delays caused by litigation would also escalate construction costs over passing years, increase time for project completion and therefore affect project feasibility as well.
- Mitigation and litigation may not be mutually exclusive. Although there are other criteria that may determine or influence litigation, must consider that minimal mitigation may cause the project to wind up in court; substantial mitigation planned at the start (as possible under the CEQA process) will help avoid litigation delays.
- Continuing the current inclusive, trusted process, with good communications, meaningful consultations with tribes, making and fulfilling front-end agreements (where geology allows) may help avoid litigation. All stakeholders want a project that happens sooner rather than later and works for all.

D. Objective: Protect Natural Resources

- Need to specify considering impacts on water / aquatic resources. Criteria might include number of stream crossings; cut-and-fill volumes and associated risk of sedimentation; potential to fill wetlands. Must also consider impact on aquatic habitats, whether directly, through downstream impacts, or through risk of sediment delivery to stream system from watercourse crossings. This is a complex measure that is influenced by many factors.
- Consider amounts of cut and fill material to be deposited within project area or moved elsewhere, and the associated impacts including environmental, wildlife habitat and connectivity, edge effects, construction traffic and air quality.
- Natural resources fall under cultural resources for tribes. Must consider each impacted area's significance to tribes and its link to cultural resource value.

Criteria: Trees/Forests

- Should measure acres directly impacted.
- This criteria also affects habitat for plants and animal species.

Performance Measure: Old growth redwood forest (acres)

- This criteria will be the biggest driver of controversy that could derail the project. It will also be a primary metric for habitat and other impacts.
- Impacts and a qualitative assessment of the old growth redwood forest to be impacted must be considered beyond just acreage. This includes size of trees (since the public is responsive to big trees regardless of age); whether the acres are continuous; long-term impacts to the health of trees located along the edges of new roads; effects on water quality and habitat; and loss of carbon sequestration. Characteristics of old growth forest that are lost or impacted will need to be compared to any candidate "old growth" forest that may be considered as mitigation habitat. It will likely be necessary to measure and assess every tree.

- Old growth redwood wood from removed trees should be given to the tribes.

Performance Measures: Young growth / mixed forest (acres); Mature mixed coniferous forest (acres); Other types, i.e. coastal scrub (acres)

- How is the distinction between young and mature forest defined?
- Mixing forest type and habitat types is confusing; suggest capturing “mature forest” in habitat acres only.

Criteria: Habitat

- Important to consider impacts on multiple species, both animals and plants, particularly sensitive species; might be missing something by focusing only on specific protected species. Consider whether some umbrella species can be identified to capture habitats that are essential to many different species.
- Environmentally sensitive habitat areas must be protected. Will need to make qualitative assessments beyond just acreage to determine habitat value for different species. Mitigation may include adding protections such as purchasing lands with similar habitats.

Performance Measure: Marbled murrelet habitat (acres); Northern spotted owl habitat (acres)

- No comments specific to these performance measures.

Performance Measure: Marten/fisher habitat (acres)

- These two species have different habitat requirements, so they should be considered in separate performance measures.

Criteria: Wildlife Connectivity

- Connectivity is an important criteria.
- Consider the ability of each alternative to incorporate migration corridors or wildlife crossing features, and its impacts on permeability for wildlife movement, which may vary across species. Also remember to consider water habitat connectivity.

Criteria: Recreational Resources

- Important to maintain access and connectivity to these resources. Include consideration of impacts to amenities such as vista points and parking lots and to tribal / culturally valuable routes.
- This criterion is easily mitigated, providing many opportunities to improve access and recreational facilities, leaving the impacted resources better than before.

E. Objective: Protect Cultural Resources

Criteria: Cultural Resources

- Determining impacts on cultural resources requires close coordination with the tribes within the cultural resources working group.

- Not all sites have equal value, and their value is influenced by many factors. Possible approaches include categorizing or ranking sites by high / medium / low risk but must go deeper than standard archeological information to assess ethnographic significate. Tribal input is required to clarify how they assign cultural resource values, which may include holistic significance of sites and how sites relate to one another; access and connectivity to sites and cultural trails; mythological connections to specific locations; cultural significance of natural resources (e.g., plant species, fisheries). May not be able to specify precise considerations of cultural value.
- Again, this is strongly related to mitigation and its potential costs. High / medium / low assessment of risk may not provide enough detail to assess mitigation. Consider avoiding cultural resource impacts as much as possible rather than mitigation.

F. Comments on Overall Process and Methodology

- The "big nasties" that are most likely to be controversial and "blow up" the project—e.g., impacts to old growth redwoods—must be heavily weighted as drivers for decision making. Doing so may help clearly eliminate some alternatives.
- Consider the most sustainable alignment with least resource impacts, but must factor in cost to build, since a low-impact but very high-cost alternative might not be feasible.
- Concerned about the lack of updated information regarding the geotechnical risks; it's difficult to assess criteria, impacts and needs or eliminate alternatives without this.
- Additional metrics and criteria suggested included:
  - Consider time needed to adjust if running into complications once project is started. This will impact several of the objectives and associated criteria, including traffic mobility and capital costs.
  - Consider how well alternatives would accommodate multi-modal travel (e.g., bike travel), as this relates to equity.
- Questions asked regarding: when the number of alternatives for further may be reduced; getting more information on other working groups' activities and input; opportunities for accelerating process.

G. Polling on Level of Support

The level of support for the overall process as described was neutral or greater across all four workshops, with the exception of a single "somewhat unsupportive" response from the Huffman Stakeholder group. There were no responses of "do not support." In each case, the percentage of those who were either highly or somewhat supportive was greater than the percentage of those who were neutral. The highest level of agreement was among Partner group members, who were 100% highly supportive.

The level of support for the revisions to objectives as discussed for participants across all four groups was much the same: neutral or greater, with the exception of a single "somewhat unsupportive" response for revisions discussed to the Objective: Protect the Economy from the Huffman Stakeholder group. There were no responses of "not supportive – revisions do not address my concerns." In all cases, the percentage of those who were either highly or somewhat supportive was equal to or greater than the percentage of those were who were

neutral. Again, the highest level of agreement was among Partner group members, who were 100% highly supportive of the revisions discussed for all five objectives.

Appendix A: Workshop Materials

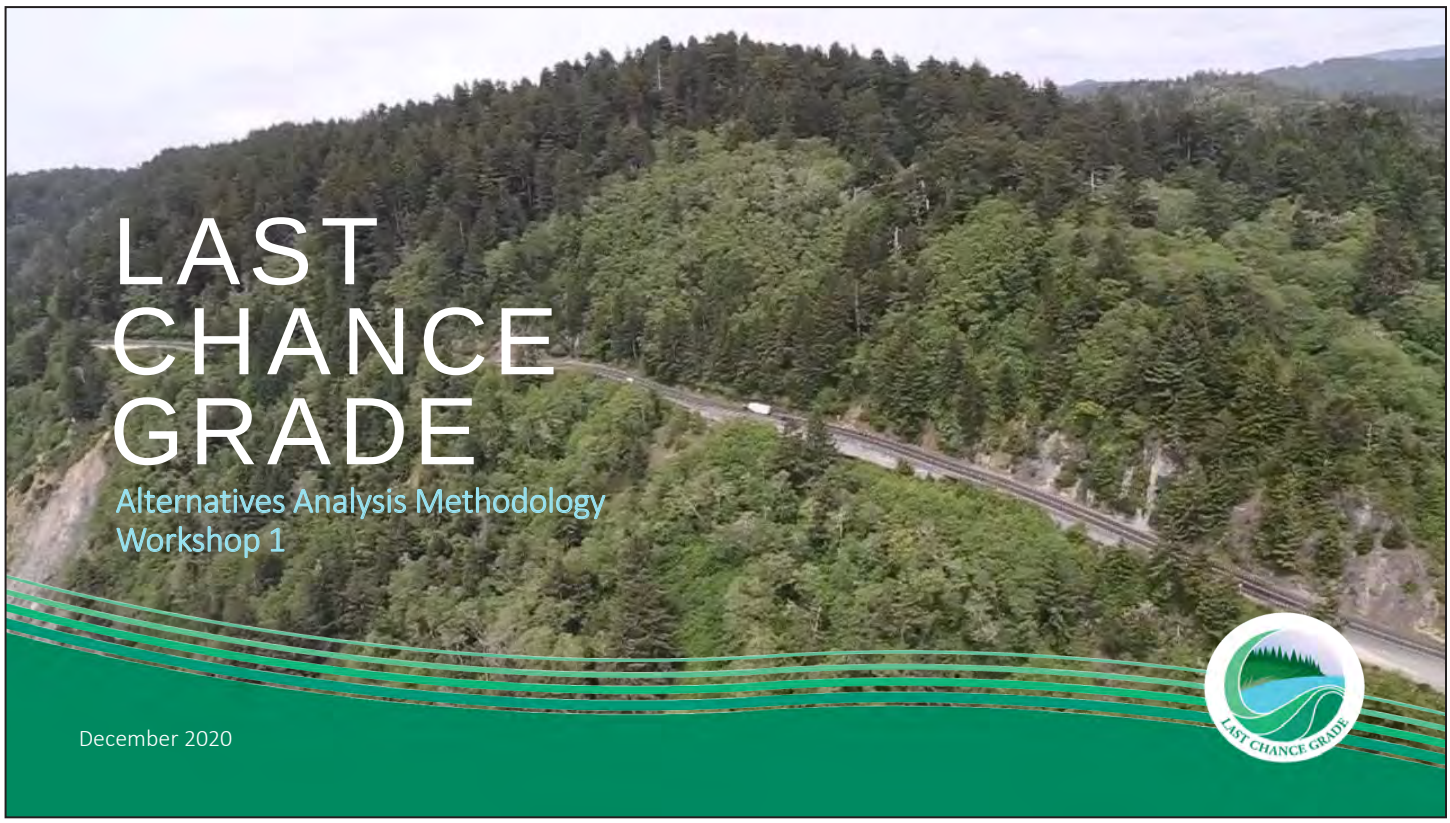
Alternatives Assessment – Workshop #1
Cultural Resources Working Group
Monday, December 14, 2020
1:00 p.m. – 3:00 p.m.

Biological Resources Working Group
Tuesday, December 15, 2020
1:00 p.m. – 3:00 p.m.

Partner Working Group
Wednesday, December 16, 2020
9:00 p.m. – 11:00 a.m.

Huffman Stakeholder Group
Thursday, December 17, 2020
1:00 p.m. – 3:00 p.m.

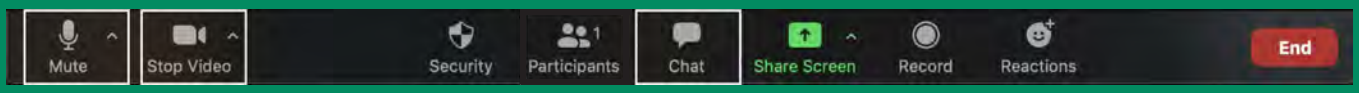
Topic	Speaker	Discussion Tool
I. Welcome and Introductions	Joan Chaplick, MIG Jaime Matteoli, Caltrans	
II. Alternatives Analysis Process and Input	Jaime Matteoli	
III. Project Need, Purpose and History of Alternatives	Jaime Matteoli	
IV. Proposed Methodology and Criteria	Dina Potter, HNTB	Chat and Raise Hands
V. Review of Criteria by Objective	Joan Chaplick, MIG All participants	Chat and Raise Hands
VI. Level of Support for Criteria by Objective	Joan Chaplick, MIG All participants	Polling, Chat and Raise Hands
VII. Next Steps and Closing Comments	Jaime Matteoli	



Meeting Purpose

- Get stakeholder input on the process for assessing the alternatives
- Conduct a transparent and defensible process
- In today's meeting, we will:
  - Describe the approach and methodology
  - Get your input on the criteria and performance metrics that will be used
  - Gauge the level of support for the process and the comments we have discussed

Virtual participation on Zoom



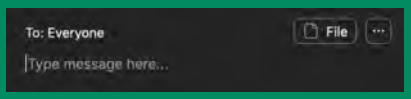
1 Audio & Video

Computer
- Use the toolbar

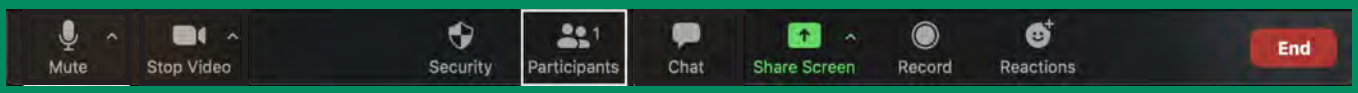
Phone
- Access dial-in number
- Use *9 to raise hand

2 Chat

- Click on the chat and type your comments and questions
- We'll take comments throughout the workshop



Virtual participation on Zoom



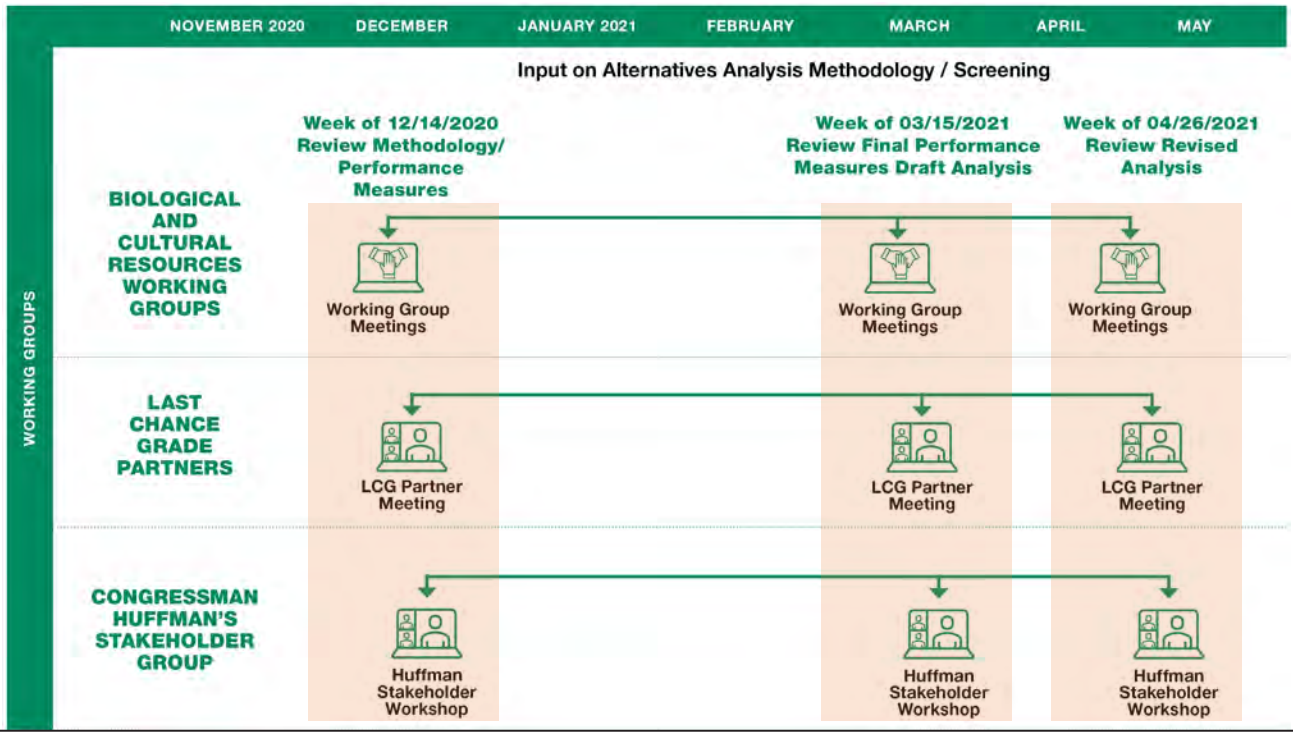
Participants

- Select icon on the toolbar to open the participants' window
- Select 'Raise Hand' button

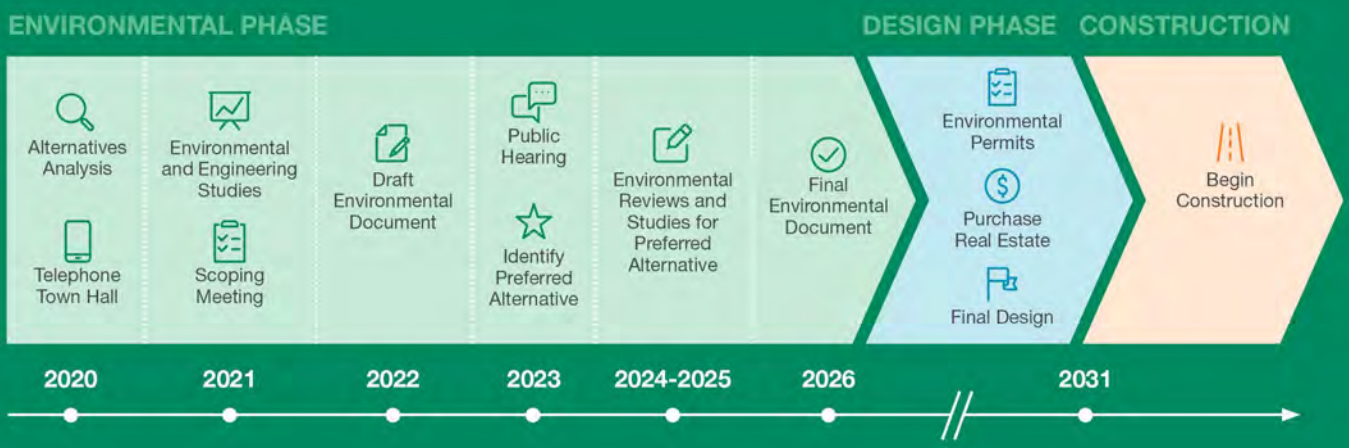
Workshop Agenda + Input Opportunities

- Welcome and Introductions
- Alternatives analysis process and input
  - *Questions via chat*
- Project need, purpose, and history of alternatives
  - *Questions via chat*
- Proposed criteria and proposed performance measures
  - *Discussion and comments via chat, with digital note taking*
- Review of criteria based on objectives
  - *Discussion and comments via chat, with digital note taking*
  - *Polling on level of agreement with proposed revisions*
- Summary and Next Steps

Alternatives Analysis Process



Project Timeline



Project Need

Landslides and road failure at LCG have been an ongoing problem for decades. A long-term sustainable solution at LCG is needed for the following reasons:

- Economic ramifications of a long-term failure;
- Risk of delay/ detour to traveling public;
- Increasing maintenance costs and;
- Increase in frequency and severity of large storm events caused by climate change

Project Purpose

The purpose of this project is to develop a long-term solution to the instability and potential roadway failure at LCG.

The project will consider alternatives that:

- Provide a more **reliable connection**,
- Reduce **maintenance costs**, and
- Protect the **economy, natural resources, and cultural resources**.

Sunday night on LCG

History of Alternatives

- 2015 Feasibility Study considered 14 alternatives and rejected eight
- 2016 Project Study Report considered six alternatives
- 2018 Risk Assessment added alternatives L and X
- 2018 Value Analysis rejected alternatives C3, C4 and C5
- 2019 Project Study Report Addendum added alternatives G1 and G2
- 2020 Seven build alternatives will be assessed and evaluated

Objectives + Performance Measures

Purpose

To develop a long-term solution to the instability and potential roadway failure at LCG.

Consider alternatives that:

- Provide a more reliable connection,
- Reduce maintenance costs, and
- Protect the economy, natural resources, and cultural resources

Value

- Reliable roadway
- "No-Build" alternative is not an option
- Secure the regions economic future
- Tunnels will be considered part of options
- Minimize construction impacts
- High value considerations
  - o *Natural resources*
  - o *Old growth trees and habitat*
  - o *Aquatic resources*
  - o *Wildlife*
  - o *Restoration potential*
  - o *Mitigated measures*
  - o *Cultural resources*
  - o *Existing and future recreation opportunities*
  - o *Aesthetics*

OBJECTIVES

- LONG TERM, SAFE RELIABLE ROADWAY
- REDUCE MAINTENANCE COSTS
- PROTECT THE ECONOMY
- PROTECT NATURAL RESOURCES
- PROTECT CULTURAL RESOURCES

Long-Term Safe, Reliable Roadway

Criteria	Performance Measure	How Measured
Road closure	Probability of long-term closure	Expert-based risk assessment including probability of deep ground displacement
Traffic mobility	Probability of lane reduction and mobility impact	Expert-based risk assessment including probability of unmitigable landslide activity / hydrogeological changes

Reduce Maintenance Costs

Criteria	Performance Measure	How Measured
Maintenance cost	Probability of increased maintenance costs	Expert-based risk assessment including probability of unmitigable earth movement

Protect the Economy

Criteria	Performance Measure	How Measured
Capital costs	Construction cost (millions)	Engineers' Order of Magnitude estimate
Mitigation costs	Mitigation cost range (high / medium / low)	Expert environmental estimate with historical cost data
Litigation costs	Risk of litigation (millions)	Risk based on costs of delay and level of potential controversy

Protect Natural Resources

Criteria	Performance Measure	How Measured
Trees / Forests	Old growth redwood forest (acres)	Aerials / field review information
	Mature mixed coniferous forest (acres)	
	Young growth / mixed forest (acres)	
	Other types, i.e., coastal scrub (acres)	
Habitat	Marbled murrelet habitat (acres)	Aerials / existing reports
	Marten/fisher habitat (acres)	
	Northern spotted owl habitat (acres)	
Wildlife connectivity	New habitat islands generated (acres)	Aerials
Recreational resources	Number and type of sites / trails affected	Aerials / LiDAR

Protect Cultural Resources

Criteria	Performance Measure	How Measured
Cultural resources	Expert assessment of risk	Record search and pedestrian survey

Discussion of Criteria and Performance Measures by Objective

- Review the suggested criteria and metrics for each objective

  Consider the following:

  – Do these criteria reflect what is valued?

  – Are there any gaps or duplicates?

  – Do the performance measures quantify what is important to assess this criteria?

  – Should any of these be weighted much higher than others?

Discussion

Polling on Overall Methodology

- What is your level of support for the overall process that has been described today?
  - Highly supportive
  - Somewhat supportive
  - Neutral
  - Somewhat unsupportive
  - Do not support

Polling on Each Objective

- *The poll is anonymous and is is not a binding vote. Its purpose is intended as a way to gauge general support for the comments that were discussed.*
- To what degree do you support the revisions as discussed?
- Levels of Support:
  - Highly supportive
  - Somewhat supportive
  - Neutral
  - Somewhat unsupportive
  - Not supportive - revisions do not address my concerns

Next Steps and Next Meeting

- Meeting format is being replicated with all four groups
- Project Team will collectively review feedback and refine the methodology accordingly
- Project Team will apply the refined methodology will be applied to the alternatives and present the results for discussion at the next meeting
- Next workshop will be scheduled during the week of March 15

Appendix B: Workshop Results

Cultural Resources Working Group - 12.14.2020
Alternatives Assessment Workshop #1

Overall Methodology

- Caltrans asks: will we need more collaboration / interim meeting prior to March workshop?
- Maybe yes. It may depend on the participation of Tribes in the next few meetings. Will the results be shared out from all the meetings? (Caltrans response: Yes.)
- Of value; cannot move forward without tribes' participation
- Do think it would be valuable.
- Would be valuable ✔

General Comments / Questions

- Add socioeconomic costs beyond just fiscal?
- Close coordination with tribes is necessary

Long-Term Safe, Reliable Roadway

Criteria	Performance Measure	How Measured
Road closure	Probability of long-term closure	Expert-based risk assessment including probability of deep ground displacement
Traffic mobility	Probability of lane reductions and mobility impact	Expert-based risk assessment including probability of unmitigable landslide activity / hydrogeological changes

Criteria: Road closure
Performance Measure: Probability of long-term closure

- No concerns about this particular performance measure.
- Yes, comfortable with this metric
- Thumbs up

Criteria: Traffic mobility
Performance Measure: Probability of lane reduction and mobility impact

- No concerns with Traffic Mobility as performance measure

Reduce Maintenance Costs

Criteria	Performance Measure	How Measured
Maintenance cost	Probability of increased maintenance costs	Expert-based risk assessment including probability of unmitigable earth movement

Criteria: Maintenance cost
Performance Measure: Probability of increased maintenance costs

- maintenance costs should be a performance measure moving forward
- Thumbs up ✔✔

Protect the Economy

Criteria	Performance Measure	How Measured
Capital costs	Construction cost (millions)	Engineers' Order of Magnitude estimate
Mitigation costs	Mitigation cost range (high / medium / low)	Expert environmental estimate with historical cost data
Litigation costs	Risk of litigation (millions)	Risk based on costs of delay and level of potential controversy

Criteria: Capital costs
Performance Measure: Construction cost (millions)

- Looks good, thumbs up

Criteria: Litigation costs
Performance Measure: Risk of litigation (millions)

- No comments

Criteria: Mitigation costs
Performance Measure: Mitigation cost range (high / medium / low)

- no concerns. However I'm waiting for some other indirect costs to see if they are considered later
- Includes socioeconomic costs beyond fiscal concerns
- This is just environmental?
- Response: Could include ROW, utilities, but largely cost of mitigating environmental impacts
- Thumbs up, Looks good
- Add socioeconomic costs beyond just fiscal?
- If adding a new metric, consider how to mitigate
- Also includes cost of cultural mitigation

Protect Natural Resources

Criteria	Performance Measure	How Measured
Trees / Forests	Old growth redwood forest (acres)	Aerials / field review - information
	Mature mixed coniferous forest (acres)	
	Young growth / mixed forest (acres)	
	Other types, i.e., coastal scrub (acres)	
Habitat	Marbled murrelet habitat (acres)	Aerials / existing reports
	Marten/fisher habitat (acres)	
	Northern spotted owl habitat (acres)	
Wildlife connectivity	New habitat islands generated (acres)	Aerials
Recreational resources	Number and type of sites / trails affected	Aerials / LiDAR

Criteria: Trees / Forests

Criteria: Trees / Forests
Performance Measure: Old growth redwood forest (acres)

- Just by acres? Or by trees?
- Suggest potentially doing so by tree; an individual tree can be a habitat for species
- Depends on the situation
- Crosses line between natural & cultural resources; will be tricky to evaluate
- Recent point of contention in considering removal of one tree
- What is the definition of old growth?
  - Size of individual trees needs to be captured; public is responsive to big trees regardless of age
  - Add DBH or some kind of measure
  - Caltrans: Have tree counts w/diameters for some areas
  - Don't have count for Green Diamond; will count every tree during environmental process

Criteria: Trees / Forests
Performance Measure: Other types, i.e. coastal scrub (acres)

- By adding "other types" you seem to cover all types

Criteria: Trees / Forests
Performance Measure: Young growth / mixed forest (acres)

- No comments

Criteria: Trees / Forests
Performance Measure: Mature mixed coniferous forest (acres)

- No comments

Criteria: Wildlife connectivity
Performance Measure: New habitat island generated (acres)

- No comments

Criteria: Habitat

- Consider changing measurements on habitat from acres to trees
- Or both trees and acres depending ...
- what about plant communities not trees, wetlands, etc..
- Again, plants may be cultural resources as well

Criteria: Recreational resources
Performance Measure: Number and type of sites / trails affected

- Will any new opportunities be added?
- This seems to speak to existing sites / trails only
- Road originally created for tourists, need to consider those resources

Protect Cultural Resources

Criteria	Performance Measure	How Measured
Cultural resources	Expert assessment of risk	Record search and pedestrian survey

Criteria: Cultural Resources
Performance Measure: Expert Assessment of Risk

- Possible approach: preliminary info, 22 sites and 18 isolates
- Not all sites have equal value by size, significance, etc.
- Project in D9: had to do least risk analysis with ranking/scoring system for site types
- Chart created by Jay King, D9
- Categories per amount / type of artifacts, complexity, etc.
- Historics more difficult to quantify
- Tribes may object to sites being ranked
- Rankings may be too subjective; but sites do not have equal value
- May be able to look at acreage
- Find way to assess potential mitigation, cost, timeline, etc.
- Like idea of categorizing or ranking sites, but need tribes involved to discuss
- Need to know how tribes assign value and how the sites relate to each other
- Need feedback from tribes on cultural significance of plant populations
- Consider how visual attributes of resources are affected
- Ethnographic studies assessing indirect effects to resources
- E.g., mythological connections to specific locations
- Must consider beyond bounds of alignments
- Who considers these resources valuable and how are they valuable?
- Go deeper than standard archeological info and consider it
- Caltrans: Is it reasonable to take all info and assign a high / medium / low value?
  - A matter of building relationship among committee, clear and open communication
  - Will take some work and creativity to get there; can only be achieved through consistent open communication
  - Group has been doing well so far
- Agreed on working well as group, understanding issues holistically
- Still in midst of collecting info; values identified will change
- In process of developing understanding; work in progress
- Another approach: use sensitivity model developed in D9
  - Takes distance to water, slope, geology, etc. into account
  - Only a few areas are high sensitivity by that metric
  - Fairly easy GIS analysis; also useful for finding deposits during construction
  - Could be helpful with pre-contact archeological info
  - Other types of sites that need to be gauged; harder to determine types of risks
- HNTB: How would ranking approach work best?
  - Create chart and submit to tribes or start from scratch?
  - How much detail to go into?
  - Participant responses: Hard to state what works best; tribal partners need to speak for themselves
  - Requires close coordination with tribes
  - Have follow-up conversations if necessary
- Leads back to mitigation and potential costs for cultural mitigation
- May be more detailed than just 3 categories
- Overlap between environmental and cultural mitigation


Biological Resources Working Group - 12.15.2020
Alternatives Assessment Workshop #1
Long-Term Safe, Reliable Roadway
Criteria | Performance Measure | How Measured
Road closure | Probability of long-term closure | Expert-based risk assessment including probability of deep ground displacement
Traffic mobility | Probability of lane reduction and mobility impact | Expert-based risk assessment including probability of unmitigable landslide activity / hydrogeological changes
Criteria: Road closure
Performance Measure: Probability of long-term closure
acceptable no questions or comments
No comment from several people
Consider community impacts - economic and social
Road closures usually mean slides & sediment potentially impacts to waters
Criteria: Traffic mobility
Performance Measure: Probability of lane reduction and mobility impact
Consider community impacts
Otherwise no comments
Reduce Maintenance Costs
Criteria | Performance Measure | How Measured
Maintenance cost | Probability of increased maintenance costs | Expert-based risk assessment including probability of unmitigable earth movement
Criteria: Maintenance cost
Performance Measure: Probability of increased maintenance costs
No comments
Protect the Economy
Criteria | Performance Measure | How Measured
Capital costs | Construction cost (millions) | Engineers' Order of Magnitude estimate
Mitigation costs | Mitigation cost range (high / medium / low) | Expert environmental estimate with historical cost data
Litigation costs | Risk of litigation (millions) | Risk based on costs of delay and level of potential controversy
Criteria: Mitigation costs
Performance Measure: Mitigation cost range (high / medium / low)
Loss of trees from state parks would be a cost
There may be extra mitigation costs for some alternatives. The loss of trees could affect that cost.
Obviously mitigation can far outpace construction costs but Caltran is considering
Mitigation costs could should include the cost of monitoring any mitigation
Old growth tree loss cannot be mitigated, which may be difficult to analyze under this process.
Mitigation may require purchase of off-site mitigation for wetlands/ waters of the state.
it is vital to consider mitigation costs
Criteria: Capital costs
Performance Measure: Construction cost (millions)
What is the cost of doing nothing?
Caltrans: addressed in no build alternative - heavily considered, not a sustainable path forward
Criteria: Litigation costs
Performance Measure: Risk of litigation (millions)
Can you adequately estimate cost of litigation?
Caltrans: comes down to judgement of legal teams and estimate of those costs
Should be adequate for the purpose of screening alternatives to carry forward
Example: project with smaller impact held up 15 years
Even if an alternative is supported, suit may come from anywhere due to World Heritage Site designation
This may impact A2 and G2 alternatives in particular
Never heard of using litigation potential as a decision criteria - should at least be considered in the analysis matrix. An extraordinarily complex thing to try to predict.
Delay would also escalate construction costs over passing years
Litigation is an important consideration.
Protect Natural Resources
Criteria | Performance Measure | How Measured
Trees / Forests | Old growth redwood forest (acres) | Aerials / field review information
 | Mature mixed coniferous forest (acres) |
 | Young growth / mixed forest (acres) |
 | Other types, i.e., coastal scrub (acres) |
Habitat | Marbled murrelet habitat (acres) | Aerials / existing reports
 | Marten/fisher habitat (acres) |
 | Northern spotted owl habitat (acres) |
Wildlife connectivity | New habitat islands generated (acres) | Aerials
Recreational resources | Number and type of sites / trails affected | Aerials / LiDAR
Protect Natural Resources - Water is not on the list?
I do not see aquatic resources (e.g., tributaries, wetlands) on this list. This is the key resource regulated by the Corps.
Criteria: Trees / Forests
Criteria: Trees / Forests
Performance Measure: Old growth redwood forest (acres)
Caltrans: considering eliminating A2 and G2 which cut into old growth
consider the number of trees along newly created edges that may later die or be damaged or be considered hazardous
This category will be the biggest driver of any controversy or value, it should be heavily weighted beyond just acres. Young forest acres does not equal old growth forest.
Agree, you need a metric to assess value of the conditional difference provided by these forests
loss of carbon sequestration from trees removed
Edge effect if putting in a highway adjacent to old growth or other forest type.
Removal of old growth redwoods will be the primary metric for a MAMU, NSO , and marten ESA jeopardy analysis
Redwoods a resource you can't mitigate for - an invaluable resource
Agree, old growth impacts pose the highest risk to the project.
If acres of old growth forest used to determine the acres of old growth forest to be mitigated for, additional metrics of the characteristics of the old growth forest lost/impacted,
will need to be compared to any candidate 'old growth' forest that may be considered as mitigation habitat.
A qualitative assessment for the old growth is imperative on many levels.
Also affects water quality, habitat, etc. - important aspect to look at
Can aerial surveys and estimates be done based on mapping?
Caltrans: yes, we have aerials and tree counts in some areas; others would require on-the-ground surveys
Caltrans: hoping that acreage will serve as measurement to help screen
Does group feel that tree diameters are needed?
It may come down to measuring every tree
HNTB: that's the plan, question is whether now or later
Caltrans: in support of using tree counts for old growth only?
both are important - acres and individual trees
Does this consider just direct impacts of old growth forest lost or also the acres of new edge created be each alternative? An alternative creating more old growth edge than other may have a greater impact on trees and wildlife.
and the contiguous-ness of the acres. Either fragmented or continuous.
Caltrans: can't answer now but could consider - possibly more qualitatively
Acre descriptions (i.e. non tree counts) in the non old growth forest types should be suitable for this exercise.
Can tree counts in old growth and mixed forests be estimated from mapping resources?
Caltrans: somewhat; can look at crown diameters through LiDAR but diameter and shape requires looking on ground
Related to loss of carbon sequestration from loss of temperate rainforest are effects on climate change
Criteria: Trees / Forests
Performance Measure: Other types, i.e. coastal scrub (acres)
No comments on this specific measure
Criteria: Trees / Forests
Performance Measure: Young growth / mixed forest (acres)
Criteria: Trees / Forests
Performance Measure: Mature mixed coniferous forest (acres)
We should discuss how you are defining young and mature forests. What is the difference/cutoff between these two?
Caltrans: Young forest is Green Diamond area
Mature forest in park east of road, landslide area
Old growth never cut, outside landslides is different habitat - that's mature forest
I would suggest not mixing forest type and habitat type, it gets pretty confusing. Capture the "mature forest" in the habitat acres only.
Criteria: Wildlife connectivity
Performance Measure: New habitat island generated (acres)
Wildlife Connectivity - measure: probability of number of animals that may be hit on each alternative
Wildlife connectivity: ability of each alternative to incorporate migration corridors into the design(s)
For connectivity, alternatives may also have greater or lesser impacts to the permeability of each alternative for wildlife movement.
New habitat islands created assumes the permeability of alternatives is fixed across species.
For example, and alternative that can incorporate wildlife crossing features versus one that doesn't will have more impact on connectivity than just considering the acres fragmented by the alternative.
A tunnel verses a surface road is probably the greatest contrast for connectiviy represented by the alternative.
Agree with everything said re. habitat connectivity above
Agree re wildlife connectivity, and also remember fish habitat and stream connectivity
Caltrans: appreciated; some things are difficult to quantify.
Need expert assessment on level of impact for these, e.g. connectivity.
Criteria: Habitat
Suitability of various ESA species
Agree with need for qualitative assessments in sufficient detail to determine habitat value for different species.
Agree, acres of habitat will have to be weighted because they are not equal across species.
Habitat - will you use other sensitive species as performance measures?
Will other sensitive species be considered?
Bats, plants, migratory nesting birds
amphibians - understudied
Response: Caltrans will consider others but these habitat areas will help determine alts to move forward
Need to come up with some umbrella species that capture different habitats that are essential to many interconnected trophic levels,.
We may need to give this some more thought - might be missing something by only considering those 3 species
The Coastal Act requires protection of all environmentally sensitive habitat areas (ESHAs) from non-resource dependent uses - hesitate to oversimplify between one sensitive species and another.
Would be helpful to know the difference in acreage of habitat impacts, perhaps a ranking of various "qualities" of ESHA (eg, o.g. redwoods).
Also, the Coastal Act has other provisions so it would also be important to evaluate the effects of various alternatives in relation to minimizing risks from hazards, maximizing public access, etc.
Need to evaluate what is most consistent with policies and resolve conflicts
Must look at hazards: e.g., how would on-alignment alternative affect risks from hazards?
Criteria: Habitat
Performance Measure: Marbled murrelet habitat (acres)
No comments specific to this measure
Criteria: Habitat
Performance Measure: Northern spotted owl habitat (acres)
No comments specific to this measure
Criteria: Habitat
Performance Measure: Marten/fisher habitat (acres)
Martens and fishers: 1. have different habitat requirements
2. the value of the habitat impacted or mitigated for will have vastly different impacts for the overall conservation of these species.
(e.g., 5 acres of suitable marten habitat not equivalent to 5 acres of fisher habitat with respect to their impact of benefit for respective conservation)
For these reasons, they should really be considered separate performance measures.
Fishers aren't listed in NW CA
Criteria: Recreational resources
Performance Measure: Number and type of sites / trails affected
This may be controversial, but the recreational infrastructure DeMartin Backcountry Campground and the Coastal Trail that may be destroyed
or have to be moved is not extraordinarily important, it is only moderately important. They are not irreplaceable, could be modified.
noise effects to Mill Creek Campground
Disregard my comment on Mill Creek Campground - those alternatives have already been dropped
Protect Cultural Resources
Criteria | Performance Measure | How Measured
Cultural resources | Expert assessment of risk | Record search and pedestrian survey
Criteria: Cultural Resources
Performance Measure: Expert Assessment of Risk
Caltrans: must be sensitive to tribal preferences for information sharing
No comments on cultural resources - should be handled in that working group.
As long as the tribes' comments are addressed, the Corps has no comments on cultural resources.
Thank you for your comments Jaime. No further comments from Elk Valley.
Consider fisheries value to tribes and cultural resources.
Overall Methodology
Group has captured "the big nasties:" things that can "blow up" project
Need to be drivers for decision making
Weighting some of these criteria can get us most of the way
Caltrans: hope to use expert-based qualitative judgments
Remember: worst case is just studying all 7 build alternatives - more expense and time
Hoping that presentation of results will help eliminate some alternatives
General Comments / Questions
Not sure where to mention multi modal issues as they relate to equity and the coastal bike trail. How would a tunnel accomodate these modes of travel?

Partner Working Group - 12.16.2020
Alternatives Assessment Workshop #1

Overall Methodology

Are these criteria and measures for each alternative route?
Answer: yes

criteria, most sustainable alignment, least resource impacts

If assessing impacts of each alternative, what area is being assessed - footprint / ROW or cumulative impacts for each alt?

Caltrans response: for this tool, just looking at footprint / direct construction & long term impact

In environmental phase, must look at bigger picture

Need your help to determine critical criteria

yes, should focus on protection with realistic expectations based on cost to build. A no impact trillion dollar project might not be feasible ; -)

On front end, based on geology, then look at impacts with regard to cultural & natural resources, activities, etc.

General Comments / Questions

I think this was very supportive, thank you very much

Long-Term Safe, Reliable Roadway

Criteria	Performance Measure	How Measured
Road closure	Probability of long-term closure	Expert-based risk assessment including probability of deep ground displacement
Traffic mobility	Probability of lane reduction and mobility impact	Expert-based risk assessment including probability of unmitigable landslide activity / hydrogeological changes

Criteria: Road closure
Performance Measure: Probability of long-term closure

- Need a sustainable route
- Looks good ✔
- This is a really important, especially for schoolchildren, businesses, tribal offices in CC and Klamath
- Plus safety, access to hospitals
- agree with these thoughts re importance of sustainable route for access

Criteria: Traffic mobility
Performance Measure: Probability of lane reduction and mobility impact

- Consider frequency of traffic impact
- Fine - is this a measure of alternative as built? Caltrans response: yes, will be assessing each and comparing
- Are they in landslide area and therefore still prone to possibility of lane reduction?
- Is there a related metric of what percentage of time when there would be a lane reduction?
- Caltrans response: Believe it's still in same number but will have to clarify
- Modeling what was done in expert-based risk assessment; probability of event w/ in time periods
- So baseline for existing route would be 100% on this metric, correct?
- Caltrans response: yes, no build as a baseline
- This goes to ongoing maintenance and long term costs. Most sustainable route again. Look to avoid closures and possibility for re-routes once it is built
- We do not want to shift the route and in ten years be back to tens of millions to maintain the new route after all the resource impacts to change the location
- completely agree re prior comments. also an impact on travel time for the community of Klamath for essential services such as school, food, health care etc.
- Don't want to be back in this same position we are in now where travel times are high
- agree with thoughts re most sustainable route
- Where is limit if running into complications once project is started?
- Caltrans response: Good question, haven't considered for this effort
- Any alternatives have that risk. Considering litigation risk, for instance
- Can build time for changing conditions into time to build metric
- No cap to time for repairing existing location. Have not experienced lack of emergency funds
- On construction, will document risk of changing conditions and apply for more $ if needed

Reduce Maintenance Costs

Criteria	Performance Measure	How Measured
Maintenance cost	Probability of increased maintenance costs	Expert-based risk assessment including probability of unmitigable earth movement

Criteria: Maintenance cost
Performance Measure: Probability of increased maintenance costs

- Traffic mobility criterion goes to ongoing maintenance and long term costs. Most sustainable route again. Look to avoid closures and possibility for re-routes once it is built
- This is a good measure
- want to reduce maintenance costs especially in light of resource impacts associated with a new alignment
- Seems fine but needs to be benchmarked against current maintenance costs
- Response: would be benchmark used; have lots of data
- Good with me, super-important for Caltrans
- Nothing at this time
- No comments

Protect the Economy

Criteria	Performance Measure	How Measured
Capital costs	Construction cost (millions)	Engineers' Order of Magnitude estimate
Mitigation costs	Mitigation cost range (high / medium / low)	Expert environmental estimate with historical cost data
Litigation costs	Risk of litigation (millions)	Risk based on costs of delay and level of potential controversy

Criteria: Capital costs
Performance Measure: Construction cost (millions)

- No comments at this time from most
- Are mitigation costs rolled into this criteria? Response: no, they're separate
- Is "sustainable" interpreted as reliability or sustainability for the use of resources?
- Response: will consider whether it's sustainable and costs of maintaining
- Add duration of construction?

Criteria: Mitigation costs
Performance Measure: Mitigation cost range (high / medium / low)

- Count on 20% of project cost for mitigation
- Avoid cultural resources as much as possible rather than mitigation
- What will happen to the existing 101? Will there be a cost to take it down?
- Response: still uncertain; part of mitigation potential
- May use as recreational resource. Varies from alternative to alternative
- What maintenance costs are needed for these new uses?

Criteria: Litigation costs
Performance Measure: Risk of litigation (millions)

- Agreed upon actions on the front end, stick to decisions where geology allows, continue communications and we should not have litigation.
- I agree, also keeping local tribes included in the process and having real meaningful consultation will help with not having litigation
- Litigation and mitigation costs may not be mutually exclusive; costs for one may reduce other
- How will you gauge litigation costs? Based on historic cases or just projections?
- Response: Historic #'s and looking at costs to repair this road; e.g., $10M per year
- Or could make high / medium / low determination of risk. #'s are estimated
- Believe this can be ranked as H / M / L risk - a meaningful criterion for this objective

Protect Natural Resources

Criteria	Performance Measure	How Measured
Trees / Forests	Old growth redwood forest (acres)	Aerials / field review information
	Mature mixed coniferous forest (acres)	
	Young growth / mixed forest (acres)	
	Other types, i.e., coastal scrub (acres)	
Habitat	Marbled murrelet habitat (acres)	Aerials / existing reports
	Marten/fisher habitat (acres)	
	Northern spotted owl habitat (acres)	
Wildlife connectivity	New habitat islands generated (acres)	Aerials
Recreational resources	Number and type of sites / trails affected	Aerials / LiDAR

- Agree on avoidance, not mitigation for both cultural and natural resource impacts
- Natural resources fall under cultural for tribes
- Seek ways to use mitigation to enhance habitat / natural resources, for instance thin conifers in old growth areas
- Can look at an area based on what it contains but must consider significance for tribes, link to cultural resource value

Criteria: Trees / Forests

Criteria: Trees / Forests
Performance Measure: Old growth redwood forest (acres)

- Question: Where will the old growth logs be going? Local Tribes?
- Response: have not yet considered; big question requiring work with parks and tribes
- we have talked about in the cultural resource group, could be part of mitigation
- We've discussed it and noted the desire of tribes to be provided any old growth
- Suggest: give to tribes to create artworks to be displayed
- Parks have agreements re old growth wood, will honor
- Elk Valley is absolutely interested in obtaining redwood resources if/ when available
- Other items Caltrans is considering related to comment re wood for artworks are aesthetic project treatments to highlight tribal their ancestral connections

Criteria: Trees / Forests
Performance Measure: Young growth / mixed forest (acres)

Criteria: Trees / Forests
Performance Measure: Mature mixed coniferous forest (acres)

Criteria: Trees / Forests
Performance Measure: Other types, i.e. coastal scrub (acres)

No comments regarding these specific criteria

Criteria: Habitat

- No comments on specific habitats
- Could impact multiple species; would have to determine if habitat is impacted by each alt and characteristics such as tree type
- Very important for other species as well, e.g. elk
- Consider creative mitigation, ways to improve habitat in nearby areas
- Can't ignore aquatic habitat even if it doesn't impact specific species; may be downstream impacts
- Measure risk of sediment delivery to stream system; more watercourse crossings, more impact
- Plus volume, scope and size of watercourse impact
- Agreed. Biological group will be looking at this
- Adding, reaching out to Tribal Natural Resources to see what they have been doing and how they can assist the project
- Should already be staff from tribes in those groups
- Proposed: create category for # of stream crossings
- Can more deeply investigate water impacts in later stages
- Stick to aquatic resource impacts as a criterion; stream crossings are a specific metric, not a major category
- May also be influenced by other factors re. water
- This is a multi-dimensional consideration
- Amount of fill may be a factor, for instance; broaden the metric to be multi-dimensional
- Must consider more than just # of crossings
- Agreed, must take into consideration
- Like idea of adding this performance measure, agree more complex than just # of crossings

Criteria: Wildlife connectivity
Performance Measure: New habitat island generated (acres)

- Good to see this metric, nothing to add
- connectivity will be critical for any alternative

Criteria: Recreational resources
Performance Measure: Number and type of sites / trails affected

- Access to these resources must be considered; connectivity for humans to be considered along w/ wildlife
- Agreed; performance measure is looking at existing
- Criterion very easily mitigated; many opportunities to improve access and recreational opportunity in project area
- Therefore almost beside the point
- Agreed with both; add an element of tribal access
- Some tribal routes already impacted; those areas still accessed, even if pre-contact
- Agree, accessibility was one of the opportunities overlooked with the Prairie Creek bypass
- Important; consider impacts to vista points, parking areas, etc.
- Don't just provide another opportunity for people to trash area
- Opportunity to include that component, think of area going through, magnitude of potential impacts
- More than just road going through

Protect Cultural Resources

Criteria	Performance Measure	How Measured
Cultural resources	Expert assessment of risk	Record search and pedestrian survey

Criteria: Cultural Resources
Performance Measure: Expert Assessment of Risk

- Question: Where will the old growth logs be going? Local Tribes?
- Caltrans response: have not yet considered; big question requiring work with parks and tribes
- we have talked about in the cultural resource group, could be part of mitigation
- We've discussed it and noted the desire of tribes to be provided any old growth
- Parks have agreements re old growth wood, will honor
- Elk Valley is absolutely interested in obtaining redwood resources if/ when available
- Suggest: give to tribes to create artworks to be displayed
- Other items Caltrans is considering related to that suggestion are aesthetic project treatments to highlight tribal ancestral connections
- Redwood to tribes could fall under mitigation ✔✔
- Natural resources fall under cultural for tribes
- Can look at an area based on what it contains but must consider significance for tribes, link to cultural resource value
- Agreed re protecting access for humans; add an element of tribal access
- Some tribal routes already impacted; those areas still accessed, even if pre-contact
- Can look at an area based on what it contains but must consider significance for tribes, link to cultural resource value
- Avoid cultural resources as much as possible rather than mitigation
- Agree on avoidance for both cultural and natural resource impacts
- Elk Valley would appreciate continued consultation as they were unavailable for Cultural Resources Group Monday
- Tribes don't distinguish between sites; need to take oral histories, traditional cultural landscape, etc. into account
- Factors on a larger scale and how individual sites play into context of tribes
- Impact to cultural resources and properties very important criterion to tribes
- Hard to break resources down into individual sites
- Consider having a cultural monitor on hand
- Caltrans: acknowledged and will be key to project; talk to Amanda from Tolowa who knows details of how we'll proceed
- Appreciate tribe's trust in the process
- Caltrans doing a good job reaching out to all, treating with sensitivity and respect
- Agree with what was said; can consider from a material perspective, but also consider holistic significance of area, connection to other areas
- Consider how areas relate to each other re. access, etc.
- May not be able to specify precise considerations
- Have big picture in mind, not just from a material perspective, informed by tribes

Huffman Stakeholder Group - 12.17.2020
Alternatives Assessment Workshop #1

Overall Methodology

Seems we're always behind on info; would be more effective if we had info prior to meetings (e.g., geotechnical)

Long-Term Safe, Reliable Roadway

Criteria	Performance Measure	How Measured
Road closure	Probability of long-term closure	Expert-based risk assessment including probability of deep ground displacement
Traffic mobility	Probability of lane reduction and mobility impact	Expert-based risk assessment including probability of unmitigable landslide activity / hydrogeological changes

These 2 criteria and metrics make sense.

Criteria: Road closure
Performance Measure: Probability of long-term closure

- Makes sense ✔
- No comment
- These 2 criteria and metrics make sense.
- What is the duration of the "closure" used in the metric? They make sense, just wondering. — Caltrans: not certain, but think approximately a week used in study - will get back to you
- This seems appropriate and straight forward
- Might be good to differentiate short term closure and long term
- Caltrans asks: Does a week make sense? → I would be concerned of long term of more than 1 week / Short term 1 week or less long term longer than 1 week
- is there a way to keep closure to part of a day period? — Caltrans response: yes, if construction closure; may be longer if not under our control

Criteria: Traffic mobility
Performance Measure: Probability of lane reduction and mobility impact

- This seems less important than long-term closure. We have lived with this as the "normal" for a while now. Not ideal, but not the worst!

Reduce Maintenance Costs

Criteria	Performance Measure	How Measured
Maintenance cost	Probability of increased maintenance costs	Expert-based risk assessment including probability of unmitigable earth movement

Criteria: Maintenance cost
Performance Measure: Probability of increased maintenance costs

- No comment
- This seems like a smart criteria/performance measure. We can seemingly keep the current road open but the long-term upkeep costs are jumping up
- Increased from what? Not sure if increase is the right way to phrase, but having maintenance costs a consideration is key → Caltrans: We will estimate and compare the future maintenance costs for each alternative. The current maintenance costs will serve as a baseline. → using that as as baseline makes sense

Protect Cultural Resources

Criteria	Performance Measure	How Measured
Cultural resources	Expert assessment of risk	Record search and pedestrian survey

Criteria: Cultural Resources
Performance Measure: Expert Assessment of Risk

- Where are cultral trails included?
- Caltrans: developed list at other meetings, will share
- Will tap tribal knowledge, must rely on that as most important input
- Sharing only what tribes are comfortable sharing
- I will wait to learn more from what came from the CR group. Thanks
- Huffman group out of the loop on this criteria

Protect the Economy

Criteria	Performance Measure	How Measured
Capital costs	Construction cost (millions)	Engineers' Order of Magnitude estimate
Mitigation costs	Mitigation cost range (high / medium / low)	Expert environmental estimate with historical cost data
Litigation costs	Risk of litigation (millions)	Risk based on costs of delay and level of potential controversy

These seem weird to group under "protect the economy"

Criteria: Capital costs
Performance Measure: Construction cost (millions)

- This seems more related to feasibility of the project, so if the costs are too high then the likelihood of project completion is more difficult
- Capital costs are straightforward.
- Question for Jaime, is there any requirement for local government contributions?
- Caltrans response: not that we're aware of

Criteria: Mitigation costs
Performance Measure: Mitigation cost range (high / medium / low)

- Could occur to sway one alt higher than another: for Caltrans to declare cost of mitigation has exceeded some degree of possibility
- Could choose to limit mitigation. important not to assume we'll use this to avoid full cost of mitigation
- That would externalize cost onto the environment → Caltrans response: will put thought into that
- Mitigation process important; old growth redwoods hardest to overcome
- Should rethink this measure; hadn't considered that project success would be based on mitigation cost
- Incentivizes doing as little mitigation as possible
- However, haven't given this angle much thought; different ways to look at it
- Agree that mitigation will be make-or-break; must put in forefront, not have it be elephant in room
- It is something we must take seriously, understand what it means to each chosen route
- Hoping to see what comes out of geo studies, hope that helps us eliminate some alts
- Mitigation is a big focus; how to measure cost of mitigation?
- Possibly use other Caltrans projects as benchmarks
- More mitigation creates less litigation which equals sooner implementation
- How would you put a dollar amount on mitigation?
- For example, if different #s of tree, would you use an amount per tree? How would you apply?
- Caltrans: noted that an old growth tree is not mitigatible; will do our best to determine H / M / L
- ...since you can't compare apples to oranges. If spending too much to mitigate, consider spending more to avoid impact instead
- Don't want to minimize value of old growth, but many old growth redwoods.
- May need to move beyond attitude of protecting one specific plant or tree
- Consider what else can be done to mitigate

Criteria: Litigation costs
Performance Measure: Risk of litigation (millions)

- I think risk of litigation could be both a financial cost but also a cost of time for project completion
- Caltrans: yes, discussing cost of greater time to complete project
- Mitigation is going to determine litigation
- That is the quote of the day
- Mitigation and litigation may not be mutually exclusive
- Revelation that alternatives have different attributes needing mitigation, so those will be weighed
- Agree in part that mitigation could influence litigation but it is only one criteria (As someone who has sued Caltrans)
- Good point that this cost is less about dollars than about time and project feasibility.
- Important point; perhaps most important. Value Congressman Huffman's process
- All of us want a project that happens sooner than later and works for all
- This will be the tipping point; if only bottom-line mitigation will wind up in court
- If we come up with substantial mitigation right at the start, can avoid delay
- Not sure how we do that through CEQA process, but can proceed differently from usual

Protect Natural Resources

Criteria	Performance Measure	How Measured
Trees / Forests	Old growth redwood forest (acres)	Aerials / field review information
	Mature mixed coniferous forest (acres)	
	Young growth / mixed forest (acres)	
	Other types, i.e., coastal scrub (acres)	
Habitat	Marbled murrelet habitat (acres)	Aerials / existing reports
	Marten/fisher habitat (acres)	
	Northern spotted owl habitat (acres)	
Wildlife connectivity	New habitat islands generated (acres)	Aerials
Recreational resources	Number and type of sites / trails affected	Aerials / LiDAR

- I think considerations of water (stormwater runoff, erosion, stream alteration, etc.) should be included.
- Also wondering why sensitive plants aren't a consideration? I realize there are many areas of NR that could be included, but these seem key
- I had a similar thought. In addition to acres, measures of success could be based on hydrologic function and forest ecosystem function
- Agree with adding an aquatic criteria as discussed yesterday (sedimentation into streams).
- To the extent that there are large amounts of fill to be deposited elsewhere, are there specific measures for alts where that would be criterion? → HNTB: We are calculating cut and fill; not certain where it's going but important to consider and evaluate
- Great point about the spill disposal sites. If we look regionally there may be projects in need of some fill.
- The trick will be timing so that when we need to dispose there are areas ready to accept the fill.

Criteria: Trees / Forests
Criteria: Trees / Forests
Performance Measure: Old growth redwood forest (acres)

- Old growth can be harmed by adjacent effects, not just by cutting.
- For instance, on Hwy 101 along Ave of Giants show tree die off due to the changes in ground water flow and ambient moisture availability.
- That area is a 4 lane hwy and many old growth trees have died back 50-100 feet. Dead tops abound.
- Mitigation process important; old growth redwoods hardest to overcome
- Old growth redwood is going to be the key to this project.

Criteria: Trees / Forests
Performance Measure: Mature mixed coniferous forest (acres)

Criteria: Trees / Forests
Performance Measure: Young growth / mixed forest (acres)

Criteria: Trees / Forests
Performance Measure: Other types, i.e. coastal scrub (acres)

- No specific comments on these measures

Criteria: Habitat

- Habitat continuity/ performance is an important, albeit harder to quantify, criteria
- Some of the mitigation options may include adding protections to some of these habitats.
- i.e., ..such as a purchase of lands from GDRC that have Murrelet habitat in temporary protection that if added to the park would be more permanent protection.

Criteria: Wildlife connectivity
Performance Measure: New habitat island generated (acres)

- Habitat continuity/ performance is an important, albeit harder to quantify, criteria
- Glad to see connectivity in there

Criteria: Recreational resources
Performance Measure: Number and type of sites / trails affected

- new access can be more thoughtfully planned and make it better so that the highway isn't a "wall" for recreation and habitat connectivity both.
- These two criteria makes sense to me but I'm curious what measuring wildlife connectivity with acres look like.
- Generating new habitat islands would not guarantee increased wildlife habitat connectivity.
- Where are cultural trails included?
- Caltrans: developed list at other meetings, will share
- On recreational access I think everyone's assumption is that the project can mitigate to improve whatever is impacted and leave it better than before
- Opportunity to create new recreational opportunities / enhance access to this resource

General Comments / Questions

- Late coming to this group, playing catch-up.
- Still have same alts; when will we drill down? → Caltrans: hopefully by 3rd series of meetings
- Hope to get stakeholder buy-in; building tool to help us narrow down
- What are other groups working on? When will we hear their thoughts? → Caltrans: did exact process 4 times; you will all see all whiteboards
- Will ramp up communication about all 4 working groups
- Last summer, Huffman mentioned trying to accelerate process
- Caltrans: this is part of it; could speed up if we eliminate alternatives
- Project in 1980s planned with more embankment than excavation; oppty for slides and slipouts
- Started looking for disposal sites right away so were ready when needed
- That said, big determinant is what's going on with geotechnical
- Have been drilling for 4 months; haven't heard anything
- Huge unknown; need the data; might eliminate alts or rise to the top; need that info soon
- HNTB: taking longer than expected; still struggling to confirm info; should finish in January
- Caltrans: won't have complete info until we complete geotech but will consider all information in assessing risks in first two performance measures
- You're right; geotech will determine footprint
- Hoping we would be able to identify routes that won't work; hope that will tell us more
- Caltrans update on geotech: team has embarked on aggressive investigation as of late September
- Hoping to complete by January or February
- "Staggering" breadth of investigation; all hands on deck getting it completed
- In data collection mode; just starting to interpret
- Will do laboratory testing, analysis, etc. and then be able to provide info
- Have been working with consultant team to ensure that every piece of data is correlated to geotech risk
- Very selective about boring locations
- Results in early 2021
- I appreciate comments on the geotechnical work.
- Usually projects are designed to balance cut and fill as best as possible because hauling spoils off site, especially if it is a long ways away, is very expensive.
- How does that element work on this project?
- I was surprised to not see the power line right of way as an alternative given from the aerial it looks like a good cut and fill balance with construction rig already logged and impacted areas.
- Caltrans: not an option considered; could be grade issues
- ICF: interesting observation; must consider if worth quick study to consider maximum grades, component structures
- There is a lot of undulation along that line.
- If on east side of ridge, must determine where to cut back to west side

Last Chance Grade Working Group Alternative Workshop 1 - Polling Results

1. Overall Methodology: What is your level of support for the overall process that has been described today?	Highly supportive		Somewhat supportive		Neutral		Somewhat		Do not support		Total #
	%	#	%	#	%	#	%	#	%	#	
Cultural Resources Working Group	33%	2	50%	3	17%	1	0%	0	0%	0	**6**
Biological Resources Working Group	46%	6	23%	3	31%	4	0%	0	0%	0	**13**
LCG Partners	100%	6	0%	0	0%	0	0%	0	0%	0	**6**
Huffman Stakeholder Group	50%	5	40%	4	0%	0	10%	1	0%	0	**10**

2. Objective: Long-Term Safe, Reliable Roadway - To what degree do you support the revisions as discussed for the Objective: Long-Term Safe, Reliable Roadway?	Highly supportive		Somewhat supportive		Neutral		Somewhat unsupportive		Not supportive - revisions do not address my concerns		Total #
	%	#	%	#	%	#	%	#	%	#	
Cultural Resources Working Group	33%	2	17%	1	50%	3	0%	0	0%	0	**6**
Biological Resources Working Group	56%	9	25%	4	19%	3	0%	0	0%	0	**16**
LCG Partners	100%	6	0%	0	0%	0	0%	0	0%	0	**6**
Huffman Stakeholder Group	33%	3	44%	4	22%	2	0%	0	0%	0	**9**

3. Objective: Reduce Maintenance Costs - To what degree do you support the revisions as discussed for the Objective: Reduce Maintenance Costs?	Highly supportive		Somewhat supportive		Neutral		Somewhat unsupportive		Not supportive - revisions do not address my concerns		Total #
	%	#	%	#	%	#	%	#	%	#	
Cultural Resources Working Group	33%	2	17%	1	50%	3	0%	0	0%	0	**6**
Biological Resources Working Group	36%	5	43%	6	21%	3	0%	0	0%	0	**14**
LCG Partners	100%	6	0%	0	0%	0	0%	0	0%	0	**6**
Huffman Stakeholder Group	22%	2	33%	3	44%	4	0%	0	0%	0	**9**

4. Objective: Protect the Economy - To what degree do you support the revisions as discussed for the Objective: Protect the Economy?	Highly supportive		Somewhat supportive		Neutral		Somewhat unsupportive		Not supportive - revisions do not address my concerns		Total #
	%	#	%	#	%	#	%	#	%	#	
Cultural Resources Working Group	0%	0	50%	3	50%	3	0%	0	0%	0	**6**
Biological Resources Working Group	21%	3	50%	7	29%	4	0%	0	0%	0	**14**
LCG Partners	100%	6	0%	0	0%	0	0%	0	0%	0	**6**
Huffman Stakeholder Group	25%	2	50%	4	13%	1	13%	1	0%	0	**8**

5. Objective: Protect Natural Resources - To what degree do you support the revisions as discussed for the Objective: Protect Natural Resources?	Highly supportive		Somewhat supportive		Neutral		Somewhat unsupportive		Not supportive - revisions do not address my concerns		Total #
	%	#	%	#	%	#	%	#	%	#	
Cultural Resources Working Group	0%	0	50%	3	50%	3	0%	0	0%	0	**6**
Biological Resources Working Group	27%	4	47%	7	27%	4	0%	0	0%	0	**15**
LCG Partners	100%	6	0%	0	0%	0	0%	0	0%	0	**6**
Huffman Stakeholder Group	38%	3	25%	2	38%	3	0%	0	0%	0	**8**

6. Objective: Protect Cultural Resources - To what degree do you support the revisions as discussed for the Objective: Protect Cultural Resources?	Highly supportive		Somewhat supportive		Neutral		Somewhat unsupportive		Not supportive - revisions do not address my concerns		Total #
	%	#	%	#	%	#	%	#	%	#	
Cultural Resources Working Group	0%	0	100%	6	0%	0	0%	0	0%	0	**6**
Biological Resources Working Group	33%	4	33%	4	33%	4	0%	0	0%	0	**12**
LCG Partners	100%	6	0%	0	0%	0	0%	0	0%	0	**6**
Huffman Stakeholder Group	63%	5	0%	0	38%	3	0%	0	0%	0	**8**

B2. Workshop 2

Last Chance Grade Permanent Restoration Project

Alternatives Analysis Methodology Workshop #2 Summary of Results

Submittal #029
April 2021

EA# 01-0F280
Project EFIS# 0115000099
Del Norte County, U.S. 101,
PM 12.0/15.5

Caltrans

LAST CHANCE GRADE

Table of Contents

Appendices

I. Introduction

Workshop Purpose and Format

The Last Chance Grade (LCG) Permanent Restoration Project is a project proposed by the California Department of Transportation (Caltrans) to find a permanent solution to the instability and roadway failure on a 3-mile segment of U.S. Highway 101 in Del Norte County. As part of the process in selecting a safe and reliable long-term solution to this problem, Caltrans is conducting an alternatives analysis to determine if any of the seven build alternatives can be eliminated from further study. An alternatives analysis tool is being developed based on criteria and performance measures for the project's major objectives, which include providing a long-term safe and reliable roadway, reducing maintenance costs, and protecting the economy and natural and cultural resources.

Caltrans is hosting a series of workshops to solicit and refine LCG stakeholder input on the methodology and criteria. The purpose of each round of workshops is as follows:

- **Workshop Round 1:** Present initial alternatives analysis methodology and obtain initial stakeholder input. Based on stakeholder input, consider data needed to achieve each metric, determine whether another metric could serve as a proxy, or if the metric is useful in differentiating one alternative from another.
- **Workshop Round 2:** Discuss initial alternatives analysis results and recommended alternatives for further study using refined methodology and criteria. Assess further refinements to methodology and criteria based on stakeholder input.
- **Workshop Round 3:** Share the results of the final alternative analysis results and alternatives for further study completed using the refined criteria and methodology.

The structure of the process was to conduct the same workshop with each of the four working groups. These groups include:

- Cultural Resources Working Group: Members have responsibilities for cultural resources management.
- Biological Resources Working Group: Members have responsibilities for natural resource management and permitting.
- Last Chance Grade Partners: Members have land ownership and land management responsibilities.
- Congressman Huffman's Stakeholder Group: Members include representatives from local governments, tribal groups, businesses, agencies, and environmental groups who provide feedback to all the partners involved.

The first workshop of this series was conducted with each of the four working groups between December 14 and 17, 2020. Participants identified the metrics of greatest importance and identified additional metrics for consideration. The results of the workshops were documented in a summary report, dated February 2021, that was provided to workshop participants.

During the second round of workshops, which was again conducted with each of the four working groups between March 1 and 4, 2021, the project team presented the results of the

initial alternatives analysis using the refined methodology based on stakeholder input, an assessment of each alternative, and solicited stakeholder input on these results.

Workshop 3 will be scheduled in April 2021 and will most likely be convened as one workshop for all four working groups.

Some organizations are members of more than one working group and were welcome to participate in multiple meetings; however, if they were limited on time, they were encouraged to choose the group(s) in which they'd most like to share their views.

The workshops, three of which were held via Zoom and one using Webex, were designed to be interactive. Participants viewed a presentation (Appendix A) on the alternatives analysis process, purpose, and timeline, the value of screening alternatives prior to further study, highlights of the findings from Workshop 1, and preliminary results of the alternatives assessment.

The presentation explained the process whereby the alternatives were assessed. The analysis criteria and performance metrics were refined and grouped into categories based on stakeholder input during the initial round of workshops. These categories included:

- Core factors identified as most important across all working groups. These included major trees including old growth redwoods, construction costs, and mitigation costs, and were weighted most heavily in the analysis.
- Operational factors: road closure potential and cost to maintain
- Construction factors: time to construct, cut and fill amounts, etc.
- Natural resource factors: impacts on animals, vegetation, and waters

It should be noted that that two types of criteria and performance metrics were removed from consideration as part of the assessment tool. Metrics related to cultural resources were removed since the suggested metrics did not appropriately describe the resources and the resources will be discussed in greater detail during direct communications with Native American tribes in the area. There is also close alignment of cultural resources and natural resources. The performance metrics related to the risk of litigation were also removed. The project team found the metrics were highly speculative and did not speak to impacts which is the focus of the current assessment.

The Project Team developed numeric-based metrics and identified high, medium, and low risk ranges with corresponding color-coding in red, yellow, and green. The lowest scores, coded green, were considered most desirable in terms of each of the metrics. The performance of each alternative was assessed based on the metrics and assigned weighting. The team also varied the assigned weights for the metrics and tested the results to demonstrate how weighting variations could change the score. However, in several scenarios tested, while the scoring changed, the rank order by performance did not. Of the seven build scenarios currently under

consideration, Alternatives F and X consistently ranked highest; the A1 and A2 alternatives ranked strong in terms of operational factors but in the middle of the pack for all other factors; and Alternatives G1 and G2 consistently ranked low.

For more information on the alternatives, see the presentation reproduced in Appendix A. The proposed alignment maps and matrix showing how scores were assigned based on various combinations of factors and information on how the criteria were assessed are included in Appendix B.

The team demonstrated that based on the evaluation matrix, alternatives X and F scored higher and were likely to be carried forward for further study and the other alternatives dropped from consideration.

Upon stakeholder request, the project team provided more detailed information regarding the assessment process and results, including: how the criteria and performance metrics were refined; details regarding data collection methods; specific examples of how weighting variations would affect the results; maps showing construction and resource impact footprints for the different alternatives; and a chart comparing estimated tree removal counts by type for each of the alternatives.

Following the presentation, participants were asked to provide feedback, as well as ask any questions they might have regarding the alternatives assessment process and preliminary results.

Participants used the videoconferencing chat feature and spoken discussion to provide input. Their comments, along with information from the project team in response to their questions, were recorded on a digital whiteboard (Appendix B). Note that project information as represented in the digital whiteboard comments is not necessarily complete or presented with full context; it is intended to show the types of questions and comments shared and include a summarized record of the project team's responses to stakeholder questions and comments.

Following the discussion, participants were asked to identify their level of support for the alternatives assessment process and recommendations as discussed. Options for levels of support included: highly supportive, somewhat supportive, neutral, somewhat unsupportive, or do not support. It was emphasized that this was not intended to be a binding vote, but simply a way to get a sense of the general level of support for the process as discussed. The polling results are also included in Appendix B.

Workshop Attendance

In addition to Caltrans District 1 and project team staff, the following organizations were represented at the four workshops:

Cultural Resources Working Group ▪ California State Parks ▪ Elk Valley Rancheria ▪ Redwood National and State Parks ▪ Resighini Rancheria ▪ Tolowa Dee-Ni' Nation ▪ Tolowa Nation	**Partner Working Group** ▪ California State Parks ▪ Elk Valley Rancheria ▪ Redwood National and State Parks ▪ Tolowa Dee-Ni' Nation
Biological Resources Working Group ▪ California Coastal Commission ▪ California State Parks ▪ National Park Service ▪ Resighini Rancheria ▪ State Water Resources Control Board ▪ US Army Corps of Engineers ▪ US Environmental Protection Agency ▪ US Fish and Wildlife Service	**Huffman Stakeholder Group** ▪ California State Parks ▪ Crescent City ▪ Crescent City-Del Norte Chamber of Commerce ▪ Del Norte County Board of Supervisors ▪ Del Norte Local Transportation Commission ▪ Environmental Protection Information Center (EPIC) ▪ Friends of Del Norte ▪ Green Diamond Resource Company ▪ Humboldt County Association of Governments ▪ Humboldt County Board of Supervisors ▪ Office of Representative Jared Huffman ▪ Redwood National and State Parks ▪ Resighini Rancheria

II. Key Findings

A. Results of the Alternatives Analysis

The following summarizes the preliminary results of the alternatives assessment that was shared with the participants.

The initial application of the criteria and performance metrics yielded the following assessment of each of the alternatives. The Project Team developed numeric metrics and identified ranges (high, medium, and low) with corresponding colors red, yellow, and green. High scores correlated with high impacts and were coded red. Scores in the medium range were coded yellow and low scores, considered most desirable, were coded green.

The project team assessed the performance of each alternative. The team also assigned weights and tested the results to demonstrate how weighting could influence the final score. The team looked at a variety of scenarios that changed the final scores but there were few modifications that resulted in a change in the rankings. They alternatives are listed in rank order of performance from lowest (or best performing) to highest (or worst performing).

Alternative X – Re-Engineering along Generally Current Alignment
Alternative X was developed at the request of the Federal Highway Administration (FHWA). FHWA wanted to make sure that Caltrans had given full consideration to a holistic effort to reengineer a roadway generally along the current alignment to increase long-term stability through large-scale dewatering, walls and other structures, terracing, alignment retreat in specific locations and other improvements. To date, most repairs and improvements made to Last Chance Grade have been in reaction to earth movement. Alternative X had positive performance on most of the criteria and performance metrics. For example, Alternative X has by far the lowest construction cost and the smallest project footprint, limiting potential impacts. However, Alternative X performed relatively poorly on the operations metrics, eliciting concerns from some working group participants. Caltrans responded to such concerns by noting its successful implementation of dewatering activities at other locations and intention to further develop and refine this alternative prior to the environmental document.

Alternative F – LCG Tunnel
Alternative F includes approximately one mile of tunnel that runs generally parallel to the existing alignment to greatly reduce potential impacts to natural and cultural resources including old growth trees. Limited geotechnical studies support the feasibility of this alternative. While Alternative F is the second highest cost alternative (scoring poorly), Alternative F has lower resource and construction impacts and performs well on operation metrics. Alternative F's relatively lower environmental impacts also correlate with reduced mitigation costs.

Alternative L – Upslope Realignment
Alternative L is an alignment that would be located upslope of the existing roadway. The intention of Alternative L was to achieve a higher level of stability relative to the existing roadway. Recent geotechnical analysis revealed unanticipated results that the desired level of stability would likely not be achieved. The poor performance on the related metrics, along with the substantial impacts created by cutting a new path through current park land, resulted in a higher than expected score on this alternative and potential for it to be removed from consideration. While no formal decision was made, there were no voiced objections to removing Alternative L from further study.

Alternatives A – East Side Realignment (A1 Short Tunnel, A2 Long Bridge)
A1 and A2 go to the east of the ridge above Last Chance Landslides. A1 includes a short section of tunnel to rejoin US 101 on the north and A2 includes a long bridge to rejoin US 101 on the north. Both have significant cuts and fills creating a very large footprint that would require significant soil disposal and other construction impacts, which strongly impact environmental resources. While A1 performs well on operations, A1 is mostly located in current park land resulting in poor scores in related metrics. There were no voiced objections to removing the A alternatives from further study.

Alternatives G – West Side Realignment (G1 Short Tunnel, G2 Long Bridge)
Alternatives G1 and G2 are just east of the ridge above the Last Chance Grade Landslides in Redwood National Park and Del Norte Coast Redwood State Park. These were the two lowest performing alternatives across all metrics. Like alternatives A1 and A2, these have a large project footprint and thus substantial construction impacts. GI and G2 were consistently scored medium and high in the metrics; the alternatives did not receive a "green" rating on any of the

performance metrics. There were no objections voiced in response to a suggestion to drop the two alternatives from further consideration.

B. Overall Assessment Process

A summary of stakeholders' comments from across the four workshops is provided below. The project team will consider all comments received in preparation for the final workshop.

Participants were largely satisfied with the detail included in the analysis and expressed confidence or satisfaction with the analysis process. Some expressed their appreciation for the rigor used in the process and how clearly it was explained during the workshop. Some found the maps and charts very useful, adding considerably to their understanding of the impacts and footprints of each alternative and their ability to provide useful feedback. Some participants were surprised by the initial results, but the explanation and additional information led to a change of opinion regarding the perceived impacts of particular alternatives.

- There were requests for more detailed information, including:
  - A complete summary of the information in the preliminary analysis;
  - Maps that clearly show the position of the most likely alternatives and associated structures, as well as potential new edges;
  - An overall timeline of the project including what studies are ongoing and which are scheduled to begin soon;
  - More specific information regarding natural resources metrics and mitigation (see below); and
  - A copy of the analyses and presentation slides.
- Overall, participants supported reducing the list of alternatives to be studied to increase efficiency, decrease costs and lessen the time needed for analyses. However, they noted the importance of including an analysis of the alternatives eliminated from further study in the environmental document. This will help clarify to the public why they are no longer being studied / considered, as well as satisfying the requirements of some permit evaluation processes.
- Although most felt that the rankings of the alternatives were consistent with their expectations, some were surprised that various alternatives ranked either higher or lower than they expected.
- Comments and questions about the metrical analysis and ranking process included:
  - It is important to note the concerns expressed even when they did not change the score for the metrics or alternatives.
  - Did any of the scoring take engineering feasibility into account?
  - How did climate change resiliency – specifically, planning for extreme weather events – figure into these metrics?
- Working Group participants responded positively to a proposal by Caltrans that Workshop 3 should be convened as one large meeting rather than four separate stakeholder group meetings. They also asked that information used in the alternatives analysis process be sent to all working group members.

- Participants expressed their appreciation for Caltrans' ongoing work to identify a long-term solution while keeping the current road open during landslide repairs. Several noted that they find Caltrans very open to stakeholder input and appreciate their willingness to provide project information. They appreciate the dialogue between stakeholders with a variety of perspectives and consider that reducing the alternatives to be studied to a manageable number is a great accomplishment.

C. Comments on Specific Metrics

Operations

- Some participants elevated the importance of operations as a metric, especially given closures due to the recent rock and landslides, emphasizing that the entire purpose of the project is to keep the road open and safe. Although there was agreement that it is crucial to avoid or mitigate impacts to the environment, they questioned whether the risk of road closure should be considered among the core factors and/or weighted more heavily.

Cultural Resources

- Participants expressed some concern that cultural resources were eliminated as a metric because those resources are an important consideration in the selection of an alternative. They were pleased that the project team considers these resources to be a key concern and will present detailed information for discussion at tribal council meetings, as well as performing ethnographic interviews with tribes, in the very near future. Tribal input is paramount in the consideration of impacts to cultural resources.
- Tribal participants explained that natural resources and cultural resources overlap, even though the law defines them separately. Some stakeholders were curious to know whether the value of natural resources metrics would be increased if their cultural value were integrated.
- It was appreciated that traditional cultural properties and gathering areas were mentioned, since resources of significance include more than those discovered through archeological activities. The value of cultural resources cannot be determined by prioritizing them based on the number or location of artifacts or other specific metrics.
- It is an ongoing challenge to share cultural knowledge with young people given the loss of access to resources caused by growing population and other existing impacts. It is therefore crucial to avoid further impacts as much as possible.
- Recommendations for providing information to tribal councils included:
  - Provide a breakdown of details for the natural resource metrics.
  - Visuals such as maps are very helpful; they should include topographic and landscape details to clarify how the alternatives are situated in the landscape.
  - For tribal council presentations only, document the general location of tribal cultural resources on maps.
  - Information should be sent out prior to the council meetings.
  - Operational measures must also be discussed as closures have had a profound impact on tribal government.

Natural Resources

- Concerns and questions expressed regarding impacts to trees included:
  - Knowing approximately how many trees are likely to be removed per alternative will help stakeholders give better feedback on the assessments.
  - Trees should be documented regardless of size as they are still valuable resources—both natural and cultural.
  - People were curious to know whether trees come down during slides, rather than just resulting from construction impacts. The video of trees sliding down the ridge during the current slide was a great illustration that trees are indeed impacted by landslides.
  - Heavy winds often create blow-overs after logging. Has the possibility of blow-overs on the ridgeline or new edges created by construction been considered among the impacts?
- Other natural resources related concerns and questions included:
  - Have the impacts of the alternatives on all animals been considered, studied and documented?
  - Is there any flat land that could be offered as a new state park or other recreational asset, possibly as a source of revenue?

Mitigation

- Stakeholders wanted to know more about Caltrans' plans for mitigation, including methods, locations, and costs. Specific questions included:
  - Were construction costs were weighted similarly to an equivalent amount in mitigation costs?
  - Were the number of acres considered in relation to the cost of mitigation?
  - Is Caltrans considering the acquisition of offsite lands to assist in mitigation, and have those costs been factored into the analysis?

D. Highest Ranking Alternatives

Stakeholders were generally comfortable with the designation of alternatives X and F as the highest ranking, particularly because they seem the least impactful. While many were satisfied with the recommendation to limit further study to these two alternatives, some concern was expressed for limiting further study to only two build alternatives, especially given doubts about Alternative X and whether these two alternatives will be accepted by the public (see below for more details).

Alternative X

- Stakeholders requested a better understanding of Alternative X, including:
  - How distinct is this alternative from the current alignment; what distinguishes it from simply continuing to repair the current road?
  - How long it will take to obtain additional data to assess its feasibility and compare it to the better studied alternatives?
  - How well does it perform in terms of the operations metrics? Will it require closing the roadway during construction?

    - If dewatering is potential mitigation for slope instability, should it be part of the ongoing process of road repair already? How does dewatering affect erosion and does it lower the risk of slope instability?
    - Do the estimated costs for alternative X include funding for current repairs?
- Some were uncomfortable with the high ranking of Alternative X and that all but one other build alternative may be eliminated from study without knowing whether X is feasible. It may be difficult to get popular support for this option because many people are frustrated with the never-ending repairs on the existing road, and have difficulty believing that Alternative X is different from just continuing to fix the existing road. It is likely that many will object to anything being done on the current alignment.
- Information provided in the workshop makes the distinction clear and clarifies why Alternative X is being considered, but this needs to be carefully explained to stakeholders and the broader public. Recommendations for doing so include:
    - Present X with well-considered messaging. Characterize it as a proactive, holistic, global solution that addresses root causes, and emphasize that it is a new build. Focus on the lack of tree impacts and cost savings from discontinuing study of the alternatives with much larger footprints.
    - Present the alternatives that are top performers first and those that perform less well last.
    - Use visuals to convey the message, such as an aerial view with an outline to give a better idea of how it will look that can be played on a loop at the opening of meetings.
    - If people call for bringing the “A” alternatives back online for study, be prepared to clarify how they perform less well as demonstrated by metrics. Demonstrate that they provide no more advantage for the larger cost and impacts.

Alternative F

- Some were surprised by the high ranking of Alternative F, and that its cost and impacts were lower than expected; many expected it to be recommended for elimination from study. Satisfaction was expressed that it ranked high given its comparatively low impacts and good performance on operations metrics.
- Concerns and questions included:
    - Has Alternative F been determined to be viable, given the geotechnical and safety concerns? Curious to know what kept it in consideration.
    - How far underground will the tunnel be in relation to the forested landscape (both surface and roots)?
    - What is the extent of tree impacts at the tunnel portals?
    - Has a bike lane been considered in the tunnel?
- Suggestion that many members of the public are not in favor of this alternative. Public comfort with the alternative may include:
    - Explain that more certainly has been gained about the stability of the tunnel due to completed and ongoing studies; note how it reduces impacts on the surface.

  - Consider using music or sound effects in the tunnel to help relieve stress and claustrophobia (e.g., I-5 bridge outside Eugene which plays a melody as you cross).
  - Turn the tunnel into an amenity through the addition of art installations or other features.

E. Lower Ranking Alternatives

Alternatives A1 and A2

- Stakeholders were mostly satisfied with the idea of removing these alternatives from further study, given their large footprints, significant construction and natural resource impacts, and overlap with tribal lands.

Alternative L

- Some stakeholders were surprised that L did not rank more highly. They had hoped that its location upslope from the current alignment would provide more geologic stability. They had not understood that L has an entirely new footprint and would have significant natural resource impacts, including a large number of old growth redwoods.

Alternatives G1 and G2

- Stakeholders agreed that eliminating the G alternatives from further study or consideration is logical based on the analysis and prior discussion. They do not seem viable due to their large scale, high impacts, and poor performance in the metrical analysis.

III. General Findings

Participant comments and feedback from the four workshops indicated there was general support for the criteria and performance metrics used and the rigor of the analysis applied to the assessment that identified Alternative X and F as the two highest performing. Given the substantial difference in performance between X and F and the remaining alternatives, participants appeared open to the recommendation to drop the other five alternatives from further study. There was concern voiced related to studying X given the history of the roadway, current slide activity and little information known about its viability. Should X prove not to be viable, the process would have only one build alternative which features a tunnel.

IV. Polling on Level of Support

Before the close of each meeting, participants were asked to identify their level of support for the refined criteria and initial alternatives assessment. The polling was not considered a binding vote but was intended as feedback on the direction provided to the project team.

The level of support for the overall process as described was neutral or greater across all four workshops, except for a single “somewhat unsupportive” response from Congressman Huffman’s Stakeholder Working Group. There were no responses of “do not support.” The Cultural Resources Working Group had the highest percentage of those who were neutral (43%); in all other groups, the percentage of those who were either highly or somewhat supportive was greater than the percentage of those who were neutral. The highest level of

agreement was among members of the LCG Partners Working Group, with 100% highly supportive.

When asked to comment on responses that were less than supportive, stakeholders replied as follows:

- So much of the discussion, particularly in relation to cultural resources, rests on tribal input rather than on metrical analysis.
- As a relative newcomer to the group, currently just listening and learning.

Appendix A: Workshop Materials

Alternatives Analysis Methodology – Workshop #2
Cultural Resources Working Group
Monday, March 1, 2021
10:00 a.m. – 12:00 p.m.

Biological Resources Working Group
Tuesday, March 2, 2021
3:00 p.m. – 5:00 p.m.

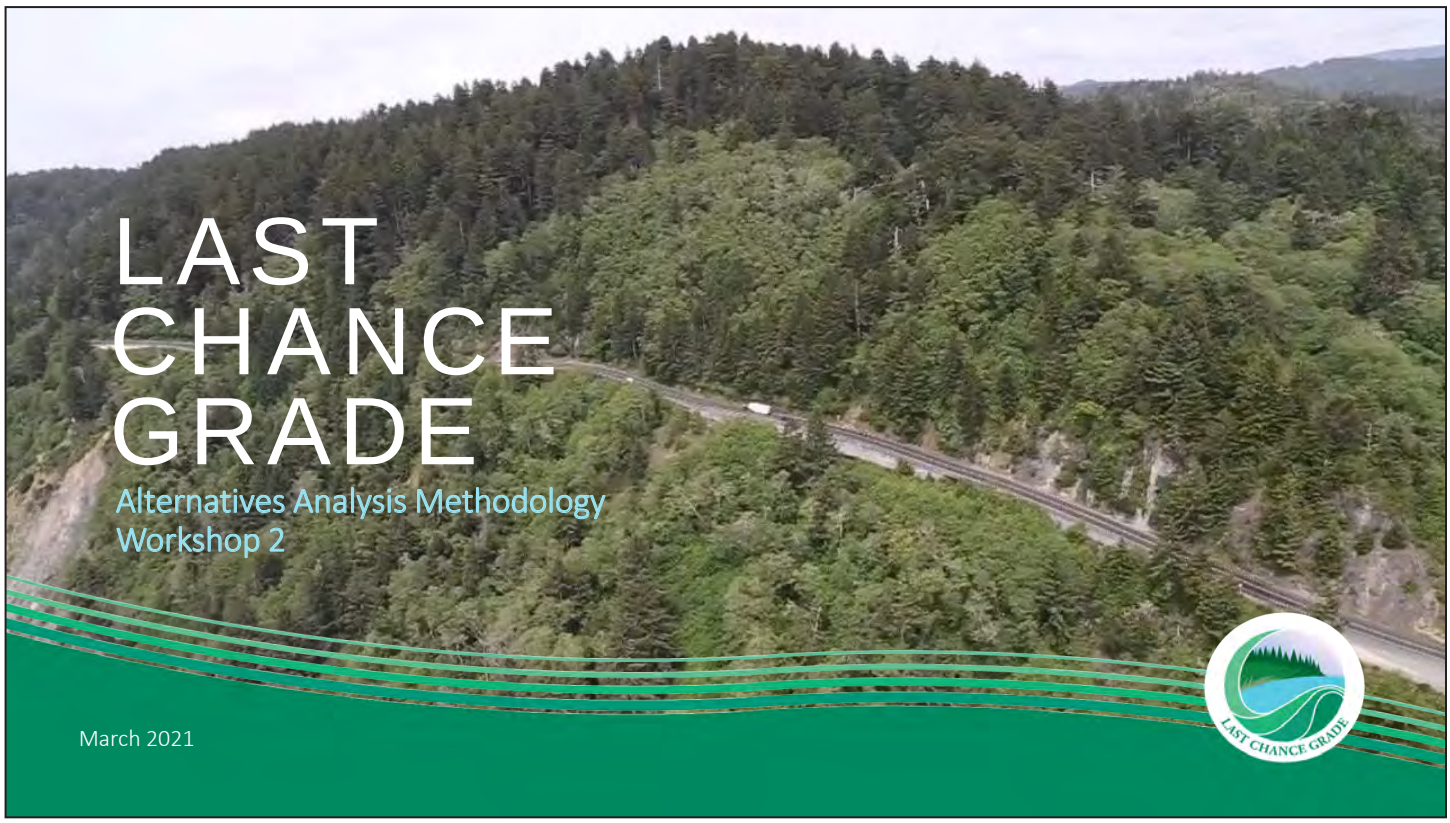
Partner Working Group
Wednesday, March 3, 2021
3:00 p.m. – 5:00 p.m.

Huffman Stakeholder Group
Thursday, March 4, 2021
3:00 p.m. – 5:00 p.m.

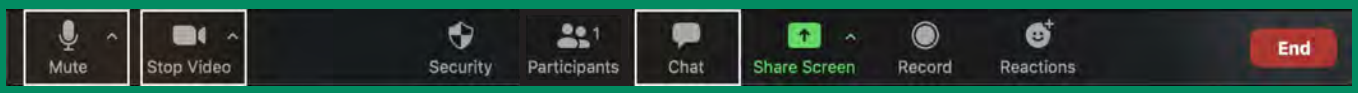
Workshop Objectives:

- Review how the results from Workshop #1 were integrated into the process of the alternatives analysis.
- Get agreement on the process for evaluating the alternatives.
- Get agreement on the results of the assessment and the alternatives to be fully studied.

Topic	Speaker	Discussion Tool
Welcome and Agenda Review	Jaime Matteoli, Caltrans Joan Chaplick, MIG	Chat and Raise Hands
Highlights of the findings from Alternatives Analysis Workshop #1	Joan Chaplick, MIG	Chat and Raise Hands
Overview of revisions to the criteria and performance metrics	Dina Potter, HNTB John Cook, ICF	Chat and Raise Hands
Presentation and discussion of the initial application of criteria and performance metrics	John Cook, ICF Joan Chaplick, MIG All participants	Chat and Raise Hands
Level of Support for Process to Date	Joan Chaplick, MIG All participants	Polling, Chat and Raise Hands
Next Steps and Closing Comments	Jaime Matteoli	Chat and Raise Hands



Virtual participation on Zoom



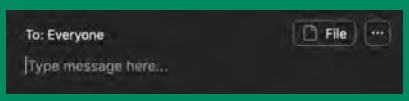
1 Audio & Video

Computer
- Use the toolbar

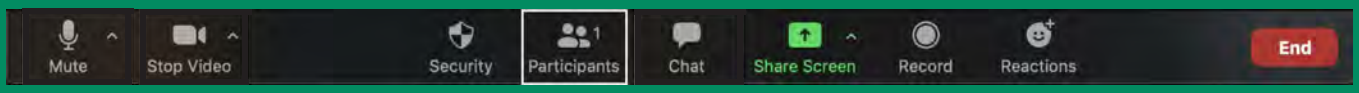
Phone
- Access dial-in number
- Use *9 to raise hand

2 Chat

- Click on the chat and type your comments and questions
- We'll take comments throughout the workshop



Virtual participation on Zoom



Participants

- Select icon on the toolbar to open the participants' window
- Select 'Raise Hand' button

Purpose

Purpose of the Alternatives Analysis

- Assess the alternatives and advance those that best meet the project objectives to be further studied in the environmental document

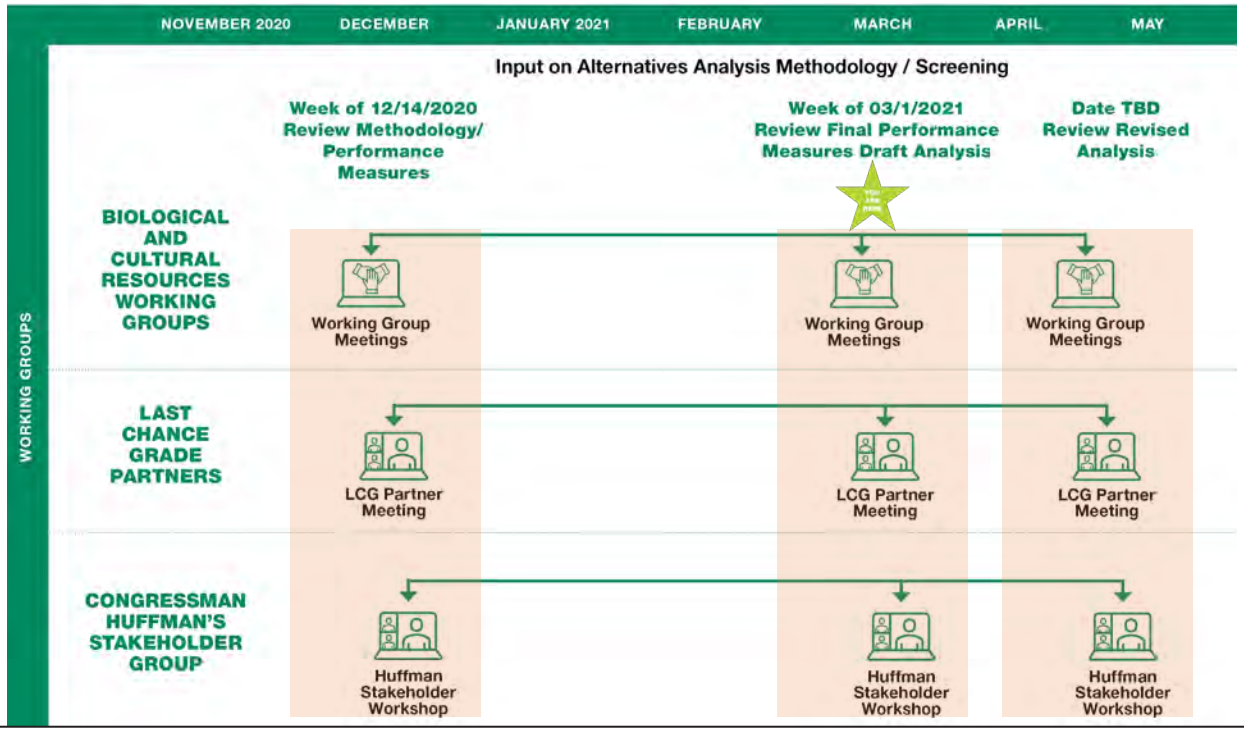
Purpose of Today's Workshop

- Get agreement on how the alternatives are assessed by providing input on the criteria and performance measures and potential weighting
- Review and discuss the results of the assessment
- **Explore the best alternatives** to carry forward into the environmental document

Value of Screening Alternatives

- Save time and resources – reduce footprint to be studied and cost of studies, select final alternative sooner
- Reduces extent of ground-disturbing studies
- Recognize alternatives that don't perform well when assessed based on these metrics
- Design and study resources go further, allowing for more in-depth work
- Provides higher level of certainty, lowered risk of schedule delay

Alternatives Analysis Process



Agenda

- Highlights of the Findings from Workshop #1
- Revisions to the Criteria and Performance Metrics
- Discussion of the Results of the Initial Application of the Criteria & Performance Metrics
- Levels of Support for Process to Date
- Next Steps and Closing Comments

Project Alternatives

Workshop 1

Highlights of Findings

Highlights of Results of Workshop #1

- Assessed five objectives, 11 criteria with 16 performance measures
- Identified the core factors that seemed most important across groups
- Removed criteria and performance metrics related to cultural resources
- Removed litigation as a performance metric; focus of assessment is impacts
- Refined and added metrics related to natural resources

Preliminary Results of Alternatives Assessment

Preliminary Results of Alternatives Assessment

- F and X rise to the top when looking at **all** factors
  - F consistently ranks in top 2
  - X strong except in Operations
- G Alternatives consistently rank low
- A Alts rank strong in Operations but middle of pack for all other factors

- Core Factors (Major Trees, Construction Costs, Mitigation Cost)

X	L	F	A1	A2	G1	G2
1	3	2	3	3	7	3

- Operational Factors (Road Closure Potential, Cost to Maintain)

X	L	F	A1	A2	G1	G2
6	6	1	1	1	4	4

- Construction Factors (Time to Construct, Cut and Fill, etc)

X	L	F	A1	A2	G1	G2
2	3	1	5	3	5	5

- Natural Resource Factors (Animals, Vegetation, Waters)

X	L	F	A1	A2	G1	G2
2	3	1	4	4	6	6

- All Factors Together

X	L	F	A1	A2	G1	G2
2	5	1	4	3	7	6

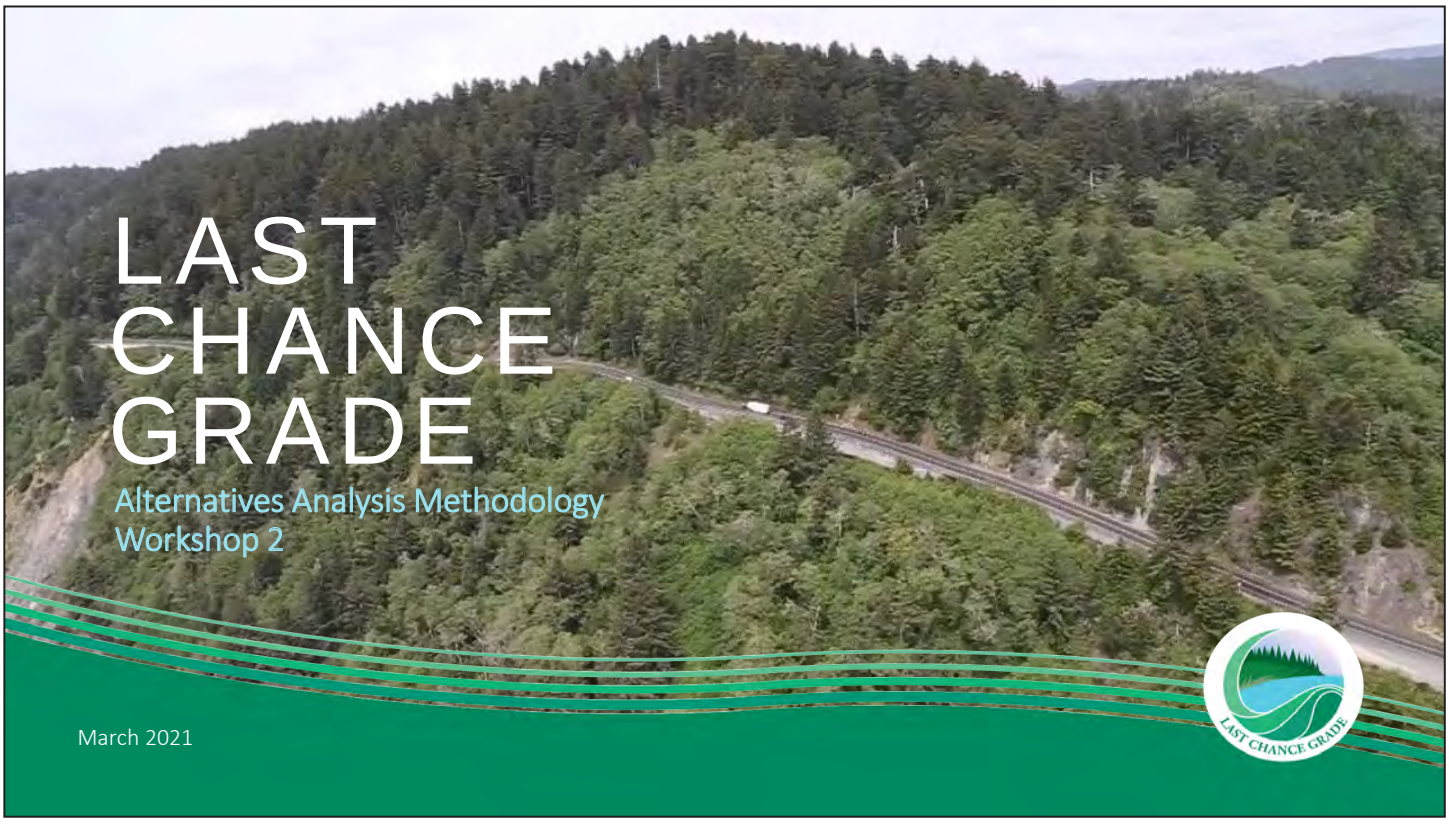
Discussion

Polling on Overall Process in Today's Workshop

- *The poll is anonymous and is not a binding vote. It is intended as a way to gauge general support for the process that has been discussed.*
- What is your level of support for the alternatives assessment process as discussed today?
  - Highly supportive
  - Somewhat supportive
  - Neutral
  - Somewhat unsupportive
  - Do not support

Next Steps and Next Meeting

- Meeting format is being replicated with all four groups
- Project Team will collectively review feedback and update the analysis
- Project Team will recommend to the groups the alternatives that will be included in the impact analysis
- Project Team will seek agreement with the groups on the alternatives



How We Responded to the Comments and Requested Revisions

- Looked at the availability of the data
- Considered if the requested data is needed now (at the alternatives stage) or would it be more definitive during the impact analysis
- Looked at the criteria and metrics in the context of other metrics- collectively what do they tell us about the alternative

Methodology

- Working Group feedback informed:
  - Refinements/Additions to factors
  - Grouping of factors
    - Core Factors
  - Weighting of Factors
    - Scoring System
      - Core Factors: weighted most heavily (5 out of 5)
      - Others: Weights assigned by staff, based on Working Group feedback

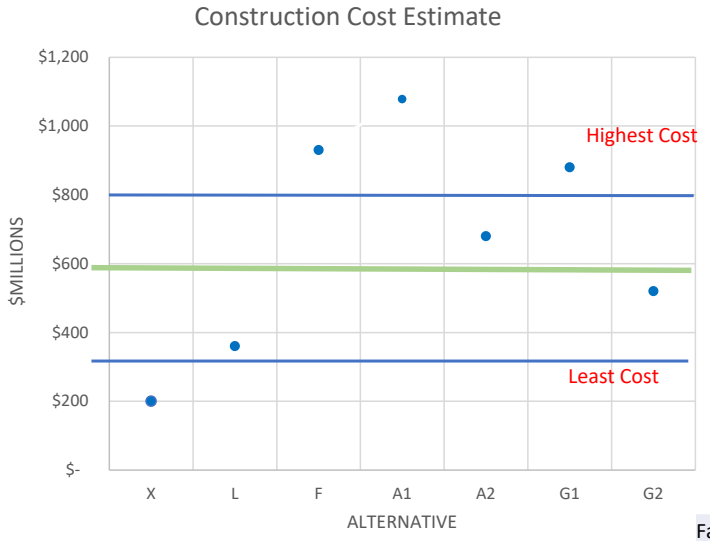
Cost to construct, millions	X	L	F	A1	A2	G1	G2
Weighted Score	$220	$360	$930	$1,078	$690	$880	$520
Cost to Construct Score	1	1	5	5	3	5	3

Core Factors

- Trees - Areas predominantly:
  - Redwoods
    - Old Growth
    - Mature (Slide Compromised)
    - Green Diamond Marbled Murrelet preserve area
  - Other Mature Conifers
- Cost to build
- Cost to mitigate

Example: Cost to Construct

- District 1 identified Construction Cost as one of many important performance measures
- Working Group Round 1 Meetings – broad agreement cost is "make or break"
- District 1 elevated cost to a "**Core Factor**"
- Scoring/Weighting
  - **Score**
    - Costs for each alternative compared against each other
      - **Lowest** cost → Lowest (best) score (1 on scale of 1 to 5)
      - **Middle** Cost → 3 on scale of 1-5
      - **Highest** cost → Highest (worst) score (5 on scale of 1 to 5)
  - **Weight**
    - "Core Factors" have heaviest possible weight (5 on scale of 1 to 5)
  - **Weighted Score** = Score X Weight
    - Best Possible = 5
    - Worst Possible = 25



Factor Weight
5

	X	L	F	A1	A2	G1	G2
Cost to construct, millions	$220	$360	$930	$1,078	$690	$880	$520
Score	1	1	5	5	3	5	3
Weighted Score	5	5	25	25	15	25	15

Alternatives Ranking Matrix

CORE FACTORS	X	L	F	A1	A2	G1	G2	Factor Weight	Equalized Factor Weight
Trees (Sum of all Redwoods (incl GDRC MAMU Preserve) + Other Mature Conifers - acres)	13.9	72.5	1.6	2.3	4.7	4.9	7.2	**5**	3
Weight	3	5	1	1	3	3	3		
Tree Score (Weight Score X Factor Weight)	15	25	5	5	15	15	15		
Cost to construct, millions	$220	$360	$930	$1,078	$690	$880	$520	**5**	3
Weighted Score	1	1	5	5	3	5	3		
Cost to Construct Score	5	5	25	25	15	25	15		
Cost of Mitigation	Medium	Very High	Medium	Very High	Very High	Very High	Very High	**5**	3
Weight	3	5	3	5	5	5	5		
Cost of Mitigation Score	15	25	15	25	25	25	25		
Total Score, Core Factors	**35**	**55**	**45**	**55**	**55**	**65**	**55**		
Best Possible Core Factors Score									
15									
Worst Possible Core Factors Score									
75	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**		
Ranking, Just the Core Factors	1	3	2	3	3	7	3		

Key:
Green / low number - Best; Red / high number - Worst
GDRC = Green Diamond Resource Company
MAMU = marbeled murrelet (protected species)

Alternatives Ranking Matrix, Page 2

OPERATIONAL FACTORS	X	L	F	A1	A2	G1	G2	Factor Weight	Equalized Factor Weight
Road Closure Potential	H	H	L	L	L	M	M	**4**	3
Weight	5	5	1	1	1	3	3		
Road Closure Potential Score	20	20	4	4	4	12	12		
Cost to maintain (relative to existing)	H	H	L	L	L	M	M	**1**	3
Weight	5	5	1	1	1	3	3		
Cost to maintain Score	5	5	1	1	1	3	3		
Traffic Mobility	H	H	L	L	L	M	M	3	3
Weight	5	5	1	1	1	3	3		
Traffic Mobility Score	15	15	3	3	3	9	9		
	X	**L**	**F**	**A1**	**A2**	**G1**	**G2**		
Total Score, Operational Factors	**40**	**40**	**8**	**8**	**8**	**24**	**24**		
Best Possible Operational Score									
8									
Worst Possible Operational Score									
40	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**		
Ranking, Just Operational Factors	6	6	1	1	1	4	4		

Key:
Green / low number - Best; Red / high number - Worst

Alternatives Ranking Matrix, Page 3

CONSTRUCTION FACTORS	X	L	F	A1	A2	G1	G2	Factor Weight	Equalized Factor Weight
Footprint Size (acres)	35.7	167.5	15.4	359.9	371.6	348.7	359.5	4	3
Weight	**1**	**3**	**1**	**5**	**5**	**5**	**5**		
Footprint Size Score	**4**	**12**	**4**	**20**	**20**	**20**	**20**		
Time to Construct (years)	3.5	3.5	7	5	3	5	3	3	3
Weight	3	3	3	3	3	3	3		
Time to Construct score	9	9	9	9	9	9	9		
CY of cut/fill deposited **within project area**	0	0	0	6.8M	7.1M	5.6M	5.9M	4	3
Weight	1	1	1	5	5	5	5		
CY cut/fill deposited on site score	4	4	4	20	20	20	20		
CY of cut/fill to be ***deposited offsite***	400K	2.4M	650K	0	0	0	0	4	3
Weight	3	5	3	1	1	1	1		
CY cut/fill deposited off site score	12	20	12	4	4	4	4		
Trail Relocation Potential (number of trail intersections)	3	7	2	4	2	3	3	2	3
Weight	3	5	1	3	1	3	3		
Trail Relocation Score	6	10	2	6	2	6	6		
Total Score, Construction Factors	**35**	**55**	**31**	**59**	**55**	**59**	**59**		
Best Possible Construction Score									
17									
Worst Possible Construction Score									
85	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**		
Ranking, Just Construction Factors	2	3	1	5	3	5	5		

Key:
Green / low number - Best; Red / high number - Worst
CY = Cubic yards

Alternatives Ranking Matrix, Page 4

NATURAL FACTORS	X	L	F	A1	A2	G1	G2	Factor Weight	Equalized Factor Weight
Other Vegetation-Related Natural Factors (Excludes Redwoods and Mature Conifers - see Core Issues)									
Red Alder (Parks + GDRC)	12.3	61.1	8.0	69.4	69.4	102.9	103.2	3	3
Weight	**1**	**3**	**1**	**3**	**3**	**5**	**5**		
Red Alder Score	3	9	3	9	9	15	15		
Coastal Scrub/Grassland (Parks + GDRC)	2.5	19.7	0.5	6.0	6.0	23.2	23.4	3	3
Weight	**1**	**5**	**1**	**1**	**1**	**5**	**5**		
Coast Scrub/Grassland	3	15	3	3	3	15	15		
New Edges - Natl + State Parks (miles)	**1.4**	**2.7**	**1.7**	**0.8**	**0.5**	**2.2**	**1.9**	3	3
Weight	**1**	**5**	**3**	**1**	**1**	**3**	**3**		
New Edges - Natl + State Parks	3	15	9	3	3	9	9		
New Edges - GDRC	**0.0**	**0.0**	**0.0**	**2.2**	**2.5**	**1.0**	**1.3**	1	3
Weight	**1**	**1**	**1**	**5**	**5**	**3**	**3**		
New Edges - GDRC	1	1	1	5	5	3	3		
Other Green Diamond Land (e.g., logged 2000-2010, logged 2010-2020, other conifer young, and young redwood)	0	0	0	273.3	282.9	192	200.2	2	3
Weight	1	1	1	5	5	5	5		
Other Green Diamond Land Score	2	2	2	10	10	10	10		
	X	**L**	**F**	**A1**	**A2**	**G1**	**G2**		
Combined Score, Other Vegetation-Related Natural Factors	**12**	**42**	**18**	**30**	**30**	**52**	**52**		
Best Possible Other Vegetation Score									
12									
Worst Possible Other Vegetation Score									
60									
Vegetation Factors - Ranking	1	5	2	3	3	6	6		

Key:
Green / low number - Best; Red / high number - Worst
GDRC = Green Diamond Resource Company

Alternatives Ranking Matrix, Page 5

NATURAL FACTORS (continued)	X	L	F	A1	A2	G1	G2	Factor Weight	Equalized Factor Weight
Wildlife-Related Natural Factors									
MAMU ***occupied*** habitat	0.0	0.0	0.0	0.4	0.4	0.4	0.4	4	3
Weight	1	1	1	1	1	1	1		
MAMU occupied habitat score	4	4	4	4	4	4	4		
MAMU ***designated critical habitat*** (acres)	57.2	137.7	13.7	7.60	10.0	54.8	57.1	2	3
Weight	3	5	1	1	1	3	3		
MAMU critical habitat score	6	10	2	2	2	6	6		
Marten ***Core*** habitat (acres)	17.2	36.6	2.4	44.70	56.9	46.1	56.2	3	3
Weight	3	3	1	3	3	3	3		
Marten core habitat score	9	9	3	9	9	9	9		
Potential to Disrupt Wildlife Connectivity (Rating)	Low (1.5)	Low (2)	Low (1.0)	High (4.5)	High (5)	High (3.5)	High (4)	3	3
Weight	1	1	1	5	5	5	5		
Wildlife Connectivity Score	3	3	3	15	15	15	15		
NSO suitable habitat (acres)	14.0	72.5	3.9	146.6	152.5	72.6	79.2	4	3
Weight	1	3	1	5	5	3	3		
NSO suitable habitat score	4	12	4	20	20	12	12		
Combined Score, Wildlife-Related Natural Factors	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**		
Best Possible Wildlife Score	**26**	**38**	**16**	**50**	**50**	**46**	**46**		
16.0									
Worst Possible Wildlife Score									
80									
Ranking: Wildlife Factors	2	3	1	6	6	4	4		

Key:
Green / low number - Best; Red / high number - Worst
MAMU = marbeled murrelet (protected species)
NSO = northern spotted owl (protected species)

Alternatives Ranking Matrix, Page 6

NATURAL FACTORS (continued)	X	L	F	A1	A2	G1	G2	Factor Weight	Equalized Factor Weight
Waters-Related Factors									
New Tributary Crossings	0	1	0	7	8	5	7	3	3
Weight	1	1	1	3	3	3	3		
New Tributary Crossings Score	3	3	3	9	9	9	9		
Wilson Creek Watershed disturbance (acres)	1	66.2	4.5	159	177.6	83.6	91.2	1	3
Weight	1	3	1	5	5	3	3		
Wilson Creek watershed disturbance score	1	3	1	5	5	3	3		
	X	**L**	**F**	**A1**	**A2**	**G1**	**G2**		
Combined Natural Factors (Vegetation + Wildlife + Waters)	42	86	38	94	94	110	110		
Best Possible Natural Factors Score									
32									
Worst Possible Natural Factors Score									
160	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**		
Ranking: All Natural Factors	2	3	1	4	4	6	6		

Key:
Green / low number - Best; Red / high number - Worst

Alternatives Ranking Matrix, Page 7

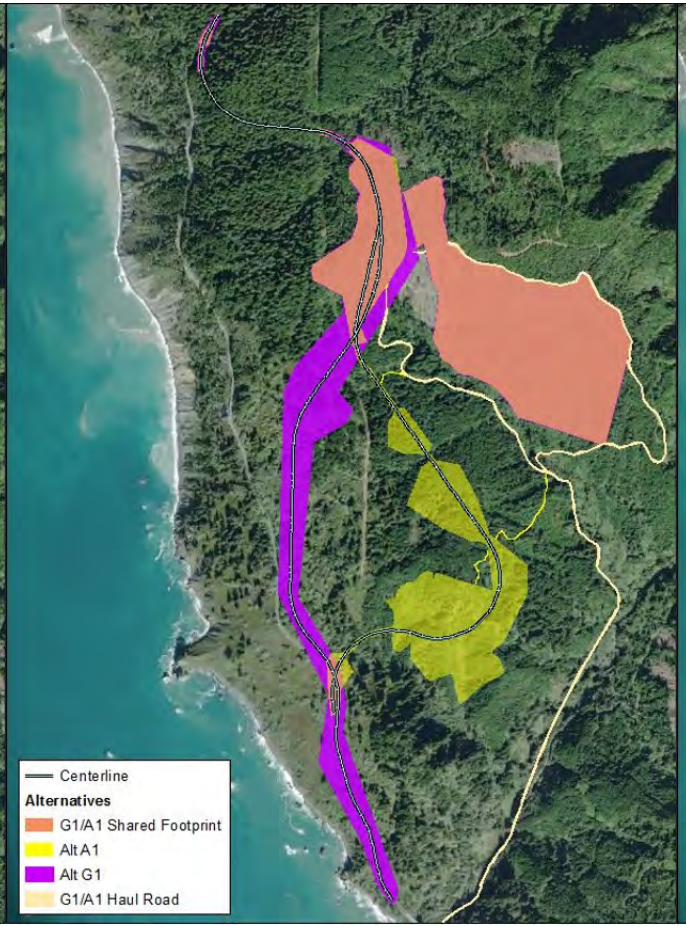
	X	L	F	A1	A2	G1	G2
ALL FACTORS COMBINED - WEIGHTED	152	236	122	216	212	258	248
Best Possible Score							
72							
Worst Possible Score							
360	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**
Ranking All Factors Combined, Weighted	2	5	1	4	3	7	6
	X	**L**	**F**	**A1**	**A2**	**G1**	**G2**
ALL FACTORS COMBINED - ALL FACTORS WEIGHTED EQUALLY (3)	147	225	105	207	201	243	237
Best Possible Score							
72							
Worst Possible Score							
360	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**
Ranking: All Factors Equal Weight	2	5	1	4	3	7	6
Core Factors + Natural Factors	77	141	83	149	149	175	165
Best Possible Score							
47.0							
Worst Possible Score							
235							
Ranking: Just Core Factors + Natural Factors	1	3	2	4	4	7	6

Key:
Green / low number - Best; Red / high number - Worst

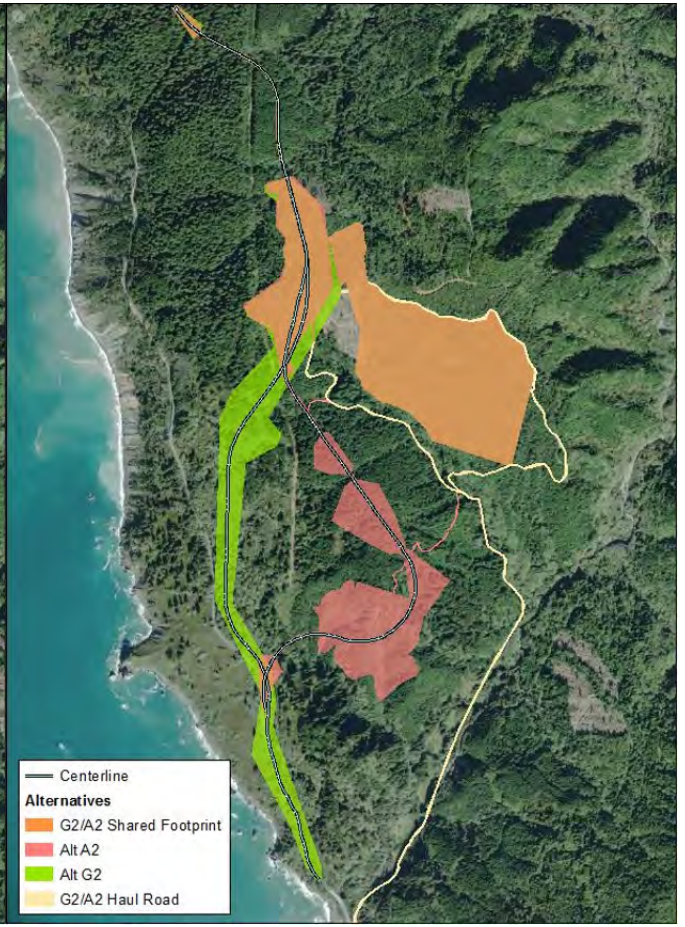
Alternatives Maps: Proposed Alignments
Overview

"West Side"
X (Yellow), F (Red), and L (Peach)

A1 and G1

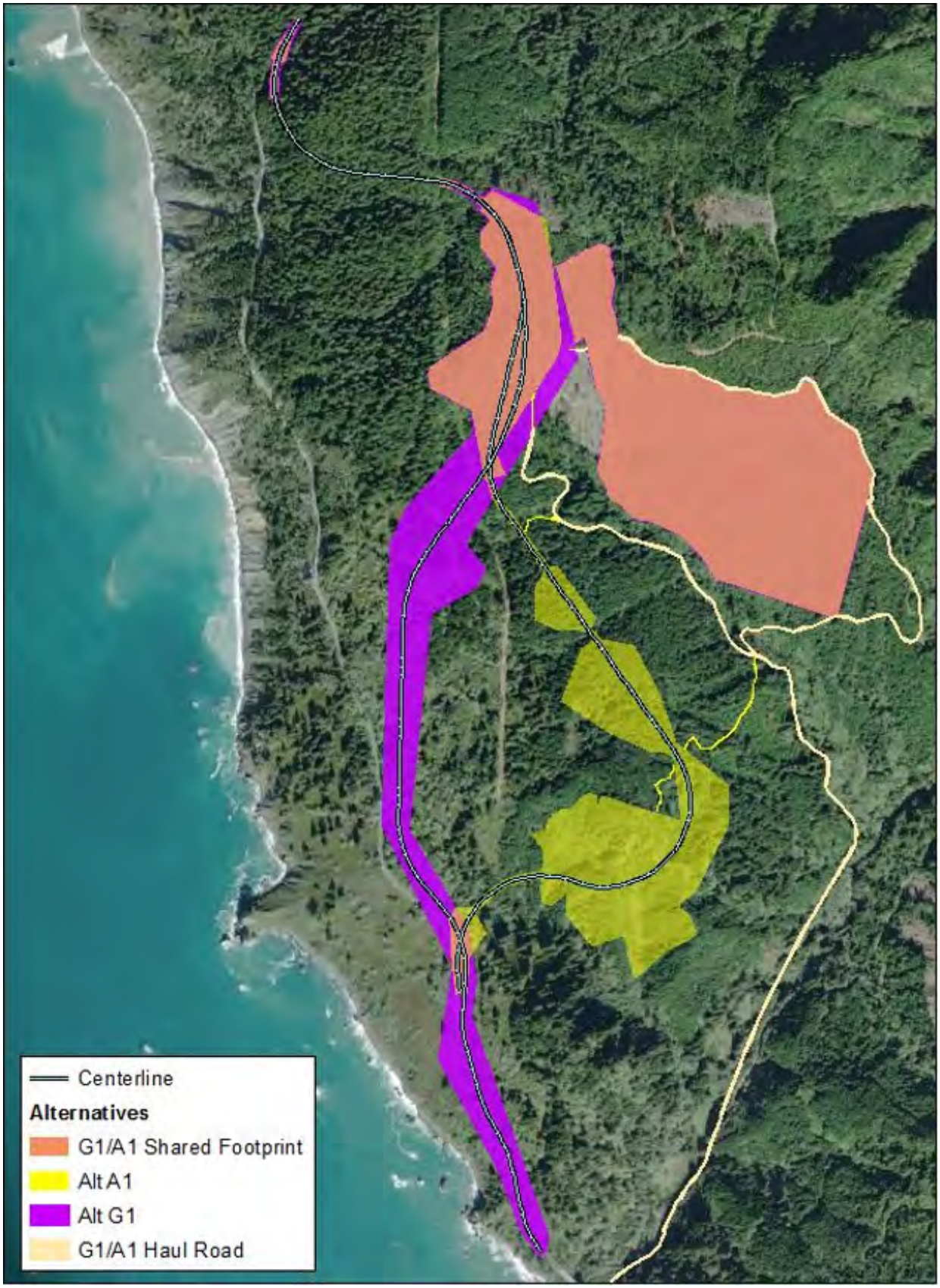


A2 and G2

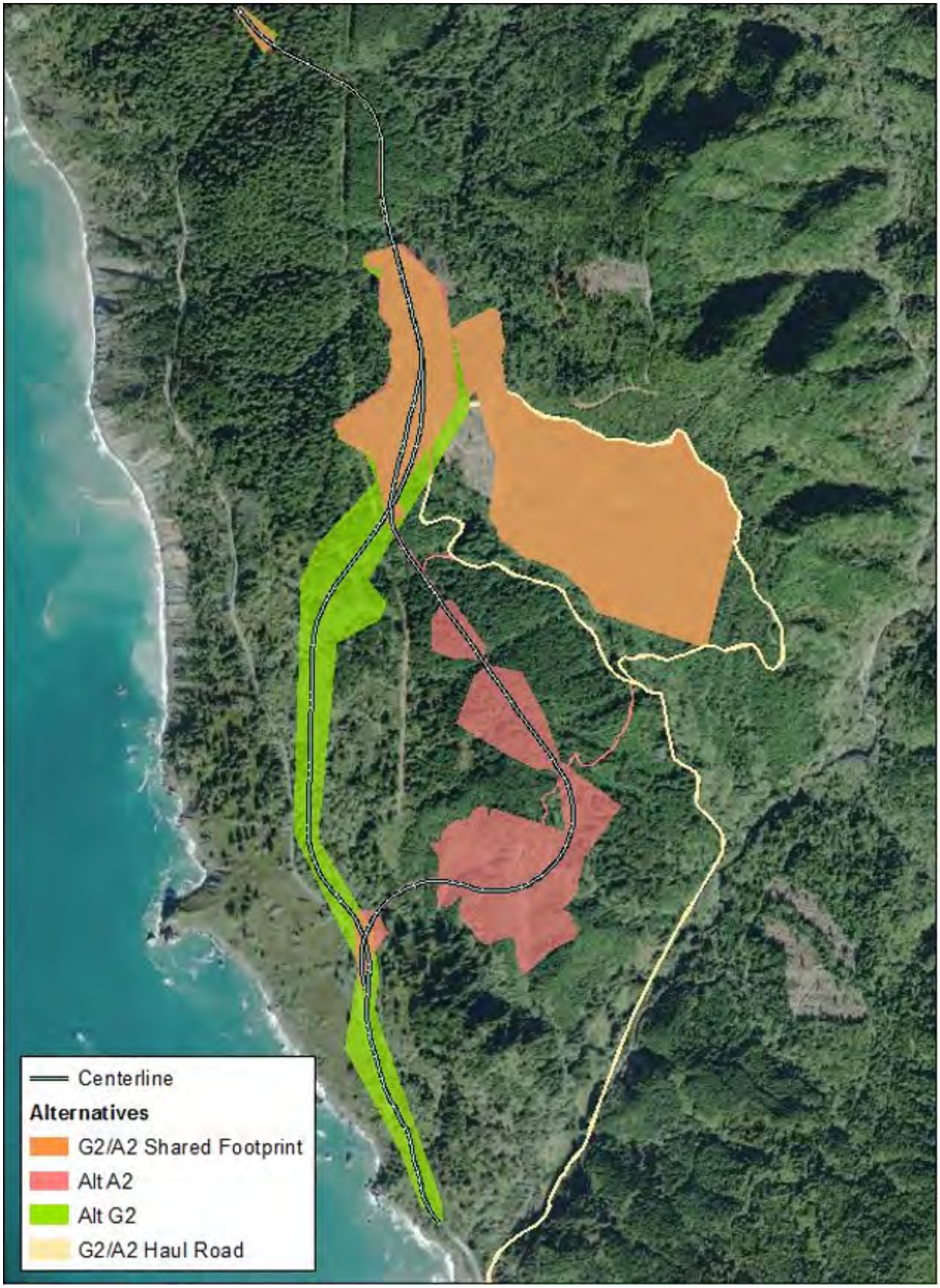


"West Side"
X (Yellow), F (Red), and L (Peach)

A1 and G1


Centerline
Alternatives
G1/A1 Shared Footprint
Alt A1
Alt G1
G1/A1 Haul Road

A2 and G2


Centerline
Alternatives
G2/A2 Shared Footprint
Alt A2
Alt G2
G2/A2 Haul Road

Appendix C: Workshop Attendance, Polling and Whiteboard Results

Last Chance Grade Permanent Restoration Project
Alternatives Analysis Methodology – Workshop #2
Record of Working Group Invitations and Attendance

Cultural Resources Working Group ***Monday, March 1, 2021, 10:00 a.m. – 12:00 p.m.***	
Attended	**Invited, Did Not Attend**
Stakeholders	
California State Parks • Greg Colins, Cultural Resources Program Manager, North Coast Redwoods District **Elk Valley Rancheria** • Dale Miller, Chairman • Crista Stewart, Tribal Historic Preservation Officer (THPO) • Richard Warner, Vice-Chairman, Transportation **National Park Service / Redwood National & State Parks** • Karin Grantham, Chief, Resource Management and Science • Kevin McCardle, Historical Landscape Architect • Saylor Moss, Chief of Planning and Compliance **Resighini Rancheria** • Kathy Dowd, THPO, Councilperson • Megan Van Pelt, Executive Director **Tolowa Dee-ni' Nation** • Leann Babcock, Chair • Amanda O'Connell, Tribal Historic Preservation Officer (THPO) **Tolowa Nation** • Charlene Storr, North Coast Director	**California State Parks** • Amber Barton, Associate State Archaeologist **Elk Valley Rancheria** • Kevin Mealue, Cultural Resource Specialist (Att. 3/3) **Resighini Rancheria** • Shaunna McCovey, Director of Natural Resources & Governmental Affairs **Tolowa Dee-ni' Nation** • Karin Levy, Cultural Resource Specialist • Marvin Richards, Senior Tribal Council **Tolowa Nation** • Max Keyes, Chairman • Raja Storr **Yurok Tribe** • Don Barnes, Director, Office of Self-Governance • Rosie Clayburn, Tribal Historic Preservation Officer (THPO) • Grant Klopmeyer, Transportation Planner • Brandi Natt, Transportation (no longer works for Yurok Tribe) • Samantha Reid, Cultural Resource Specialist
Project Staff	
Caltrans District 1 Staff • Steven Croteau, Senior Environmental Planner, North Region Environmental • Tim Keefe, Senior Environmental Planner • Alexis Kelso, Project Planning Liaison • Jaime Matteoli, Last Chance Grade Project Manager • Whitney Petrey, District 1 Native American Coordinator, North Region • Stacey Zolnoski, Associate Environmental Planner / Archaeologist **Project Team (Consultants)** *HNTB* • Dina Potter, Project Manager • John Litzinger, Group Director / Senior Project Manager *ICF* • John Cook, Environmental Planning Principal *MIG* • Joan Chaplick, Public Engagement Manager • Maria Mayer, Senior Project Associate	**Caltrans District 1 Staff** • Sara Atchley-Thomas, District Native American Liaison • Alexandra Thiel, Environmental Planning, Biologist (Att. 3/2) **Project Team (Consultants)** *ICF* • Karin Lilienbecker, Environmental Manager *Area West Environmental* • Aimee Dour-Smith (Att. 3/2)

Biological Resources Working Group *Tuesday, March 2, 2021, 3:00 – 5:00 p.m.*	
Attended	**Invited, Did Not Attend**
Stakeholders	
California Coastal Commission • Tamara Gedik, Coastal Program Analyst • Amber Leavitt, Transportation Program Analyst • Bob Merrill, North Coast Director **California State Parks** • Lathrop Leonard, Forester I • Keith Slauson, Wildlife Program Leader • Carol Wilson, Environmental Scientist **National Park Service / Redwood National and State Parks** • Leonel Arguello, Chief, Resource Management and Science • Keith Bensen, Fish and Wildlife Biologist, Redwood National Park **Resighini Rancheria** • Kathy Dowd, THPO, Councilperson (Att. 3/1) **State Water Resources Control Board** • Susan Stewart, North Coast Regional Water Control Board **US Army Corps of Engineers** • Daniel B. Breen, Senior Regulatory Project Manager **US Environmental Protection Agency** • Carolyn Mulvihill, NEPA Reviewer - Transportation **US Fish and Wildlife Service** • Gregory Schmidt, Fish and Wildlife Biologist	**California Coastal Comission** • Tami Grove, Transportation Program Manager **California Department of Fish and Wildlife** • Jennifer Olson, Senior Environmental Scientist, Coastal Conservation Planning **California State Parks** • Victor Bjelajac, District Superintendent II (Att. 3/3 & 3/4) • Shannon Dempsey, North Coast Redwoods District • Amber Transou, Environmental Scientist - North Coast Redwoods District • Brett Silver, District Superintendent I **County of Del Norte** • Taylor Carsley, Planner **Elk Valley Rancheria** • Crista Stewart, THPO (Att. 3/1) • Kevin Mealue, Cultural Resource Specialist (Att. 3/3) **National Oceanic and Atmospheric Administration** • Dan Free, Fisheries Biologist • Jeffrey Jahn, Branch Chief, West Coast Regional Office • Mike Kelly, Fisheries Biologist **National Park Service** • David Best, GIS Coordinator, Redwood National Park **National Park Service / Redwood National and State Parks** • Dave Roemer, Deputy Superintendent (Att. 3/3 & 3/4) **Resighini Rancheria** • Brad Norman, Wetlands Coordinator • Megan Van Pelt, Executive Director (Att. 3/1 & 3/4) • Erika Partee, Natural Resources Director • Karin Levy, Cultural Resource Specialist **US Army Corps of Engineers** • Sarah M. Firestone • L.K. Sirkin, Lead Biologist **US Environmental Protection Agency** • Jennifer Siu, Wetlands Section **Yurok Tribe** • Chris West, Senior Wildlife Biologist • Dave Hillemeier, Director, Fisheries Department • Joseph James, Chairman • Louisa McCovey, Environmental Director • Matthew Hanington, Water Division Manager • Richard Nelson, Director, Watershed Restoration • Rosie Clayburn, THPO • Suzanne Fluharty, Division Manager, Community and Ecosystems

Biological Resources Working Group *Tuesday, March 2, 2021, 3:00 – 5:00 p.m.*	
Attended	**Invited, Did Not Attend**
Project Staff	
Caltrans District 1 Staff • Alex Arevalo, NPDES Storm Water Coordinator • Steven Croteau, Senior Environmental Planner, North Region Environmental • Kellie Eldridge, Environmental Planner • Stephanie Frederickson, Senior Resource Specialist • Alexis Kelso, Project Planning Liaison • Jaime Matteoli, Last Chance Grade Project Manager • Alexandra Thiel, Environmental Planning, Biologist **Project Team (Consultants)** *HNTB* • Dina Potter, Project Manager • John Litzinger, Group Director / Senior Project Manager *ICF* • John Cook, Environmental Planning Principal *Area West Environmental* • Aimee Dour-Smith *MIG* • Joan Chaplick, Public Engagement Manager • Maria Mayer, Senior Project Associate	**Caltrans District 1 Staff** • Brandon Larsen, Senior Environmental Planner **Project Team (Consultants)** *ICF* • Karin Lilienbecker, Environmental Manager

Partner Working Group *Wednesday, March 3, 2021, 3:00 – 5:00 p.m.*	
Attended	**Invited, Did Not Attend**
Stakeholders	
California State Parks • Victor Bejlaiac, District Superintendent II **Elk Valley Rancheria** • Kevin Mealue, Cultural Resource Specialist **National Park Service / Redwood National and State Parks** • Steve Mietz, Superintendent, Redwood National and State Parks • Dave Roemer, Deputy Superintendent **Tolowa Dee-Ni' Nation** • Zack Chapman, TERO Director	**California State Parks** • Brett Silver, District Superintendent I **Elk Valley Rancheria** • Crista Stewart, THPO (Att. 3/1) • Richard Warner, Vice-Chairman, Transportation (Att. 3/1) **Green Diamond Resource Company** • Craig Compton, North Coast Director **Resighini Rancheria** • Kathy Dowd, THPO, Councilperson (Att. 3/1) • Moonchay Dowd, Vice-Chairperson, General Assistance Program (GAP) Manager • Megan Van Pelt, Executive Director (Att. 3/1 & 3/4) **Tolowa Dee-ni' Nation** • Tim Hoone, Transportation Planning Director • Amanda O'Connell, Tribal Historic Preservation Officer (THPO) (Att. 3/1) **Yurok Tribe** • Rosie Clayburn, Tribal Historic Preservation Officer (THPO) • Joseph James, Chairman • Brandi Natt, Transportation (no longer employed by Tribe)
Project Staff	
Caltrans District 1 Staff • Steven Croteau, Senior Environmental Planner, North Region Environmental • Alexis Kelso, Project Planning Liaison • Jaime Matteoli, Last Chance Grade Project Manager **Project Team (Consultants)** *HNTB* • Dina Potter, Project Manager • John Litzinger, Group Director / Senior Project Manager *ICF* • John Cook, Environmental Planning Principal *MIG* • Joan Chaplick, Public Engagement Manager • Maria Mayer, Senior Project Associate	**Caltrans District 1 Staff** • Sara Atchley-Thomas, District Native American Liaison • Tim Keefe, Senior Environmental Planner (Att. 3/1) • Rebecca Law, Project Management Support **Project Team (Consultants)** *ICF* • Karin Lilienbecker, Environmental Manager *Area West Environmental* • Aimee Dour-Smith (Att. 3/2)

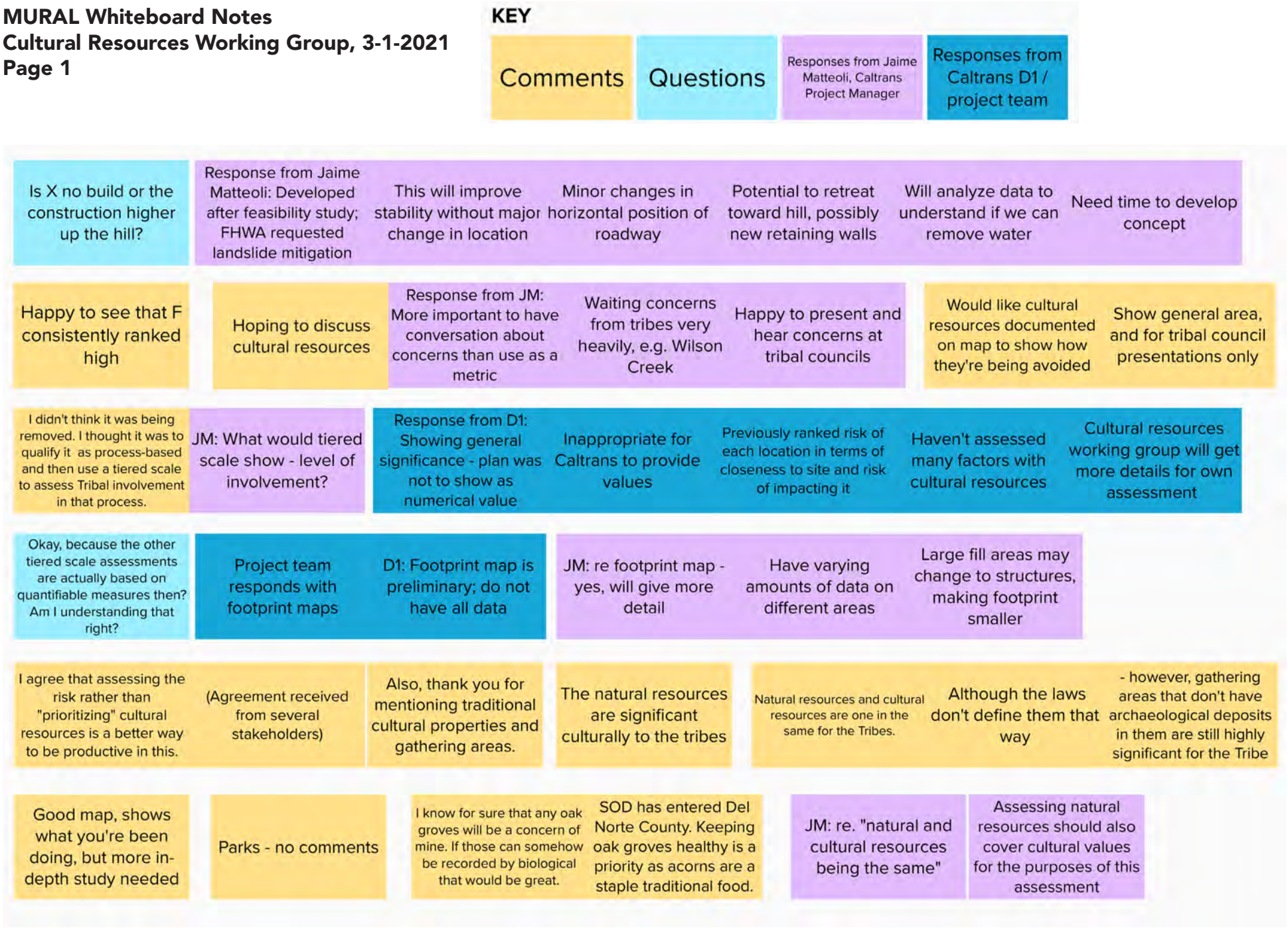
Huffman Stakeholder Group *Thursday, March 4, 2021, 3:00 – 5:00 p.m.*	
Attended	**Invited, Did Not Attend**
Stakeholders	
California State Parks • Victor Bjelajac, District Superintendent II **Community Representative** • Kurt Stremberg **Crescent City** • Jason Greenough, Mayor **Crescent City-Del Norte Chamber of Commerce** • Cindy Vosburg, Executive Director **Del Norte County Board of Supervisors** • Valerie Starkey, Supervisor, 2nd District **Del Norte Local Transportation Commission** • Gerry Hemmingsen, Commissioner; Del Norte County Board of Supervisors, District 4 **EPIC** • Tom Wheeler, Executive Director **Friends of Del Norte** • Don Gillespie **Green Diamond Resource Company** • Craig Compton, North Coast Director **Humboldt County Association of Governments** • Gordon Johnson, Council Member, City of Rio Dell **Humboldt County Board of Supervisors** • Steve Madrone, Supervisor, 5th District **Office of Representative Jared Huffman** • Ciara Emery, Field Representative • John Driscoll, District Representative **Redwood National Parks** • Dave Roemer, Deputy Superintendent **Resighini Rancheria** • Megan Van Pelt, Executive Director	**C. Renner Petroleum** • Sabina Renner, CEO / Secretary **California Highway Patrol** • Lieutenant Larry Depee, Commander **California State Parks** • Brett Silver, District Superintendent I **Elk Valley Rancheria** • Richard Warner, Vice-Chairman, Transportation (Att. 3/1) **Rumiano Cheese** • Gary Smits **Save the Redwoods League** • Laura Lalemand, Forest Ecologist **Yurok Tribe** • Joseph James, Chairman

Huffman Stakeholder Group *Thursday, March 4, 2021, 3:00 – 5:00 p.m.*	
Attended	**Invited, Did Not Attend**
Project Staff	
Caltrans District 1 Staff • Steven Croteau, Senior Environmental Planner, North Region Environmental • Alexis Kelso, Project Planning Liaison • Clayton Malmberg • Jaime Matteoli, Last Chance Grade Project Manager • Charlie Narwold, Chief of Geotechnical Services • Karen Sanders, Transportation Engineer, RE, Emergency LCG Projects • Matt Smith, Design **Project Team (Consultants)** *National Center for Conflict Resolution* • Joy Keller-Weidman, Senior Program Manager, Huffman Stakeholder Group Facilitator *HNTB* • John Litzinger, Group Director / Senior Project Manager *ICF* • John Cook, Environmental Planning Principal *MIG* • Joan Chaplick, Public Engagement Manager • Maria Mayer, Senior Project Associate	**Caltrans District 1 Staff** • Sebastian Cohen, Construction Management **Project Team (Consultants)** *HNTB* • Dina Potter, Project Manager (attended all other meetings, had conflict on this date) *ICF* • Karin Lilienbecker, Environmental Manager *Area West Environmental* • Aimee Dour-Smith (Att. 3/2)

Last Chance Grade Working Group Alternatives Analysis Methodology Workshop 2 - Polling Results

What is your level of support for the alternatives assessment process as discussed today?	Highly supportive		Somewhat supportive		Neutral		Somewhat unsupportive		Do not support		Total #
	%	#	%	#	%	#	%	#	%	#	
Cultural Resources Working Group	43%	3	14%	1	43%	3	0%	0	0%	0	**7**
Biological Resources Working Group	82%	9	0%	0	18%	2	0%	0	0%	0	**11**
LCG Partners	100%	4	0%	0	0%	0	0%	0	0%	0	**4**
Huffman Stakeholder Group	62%	8	31%	4	0%	0	8%	1	0%	0	**13**

MURAL Whiteboard Notes
Cultural Resources Working Group, 3-1-2021
Page 1



MURAL Whiteboard Notes
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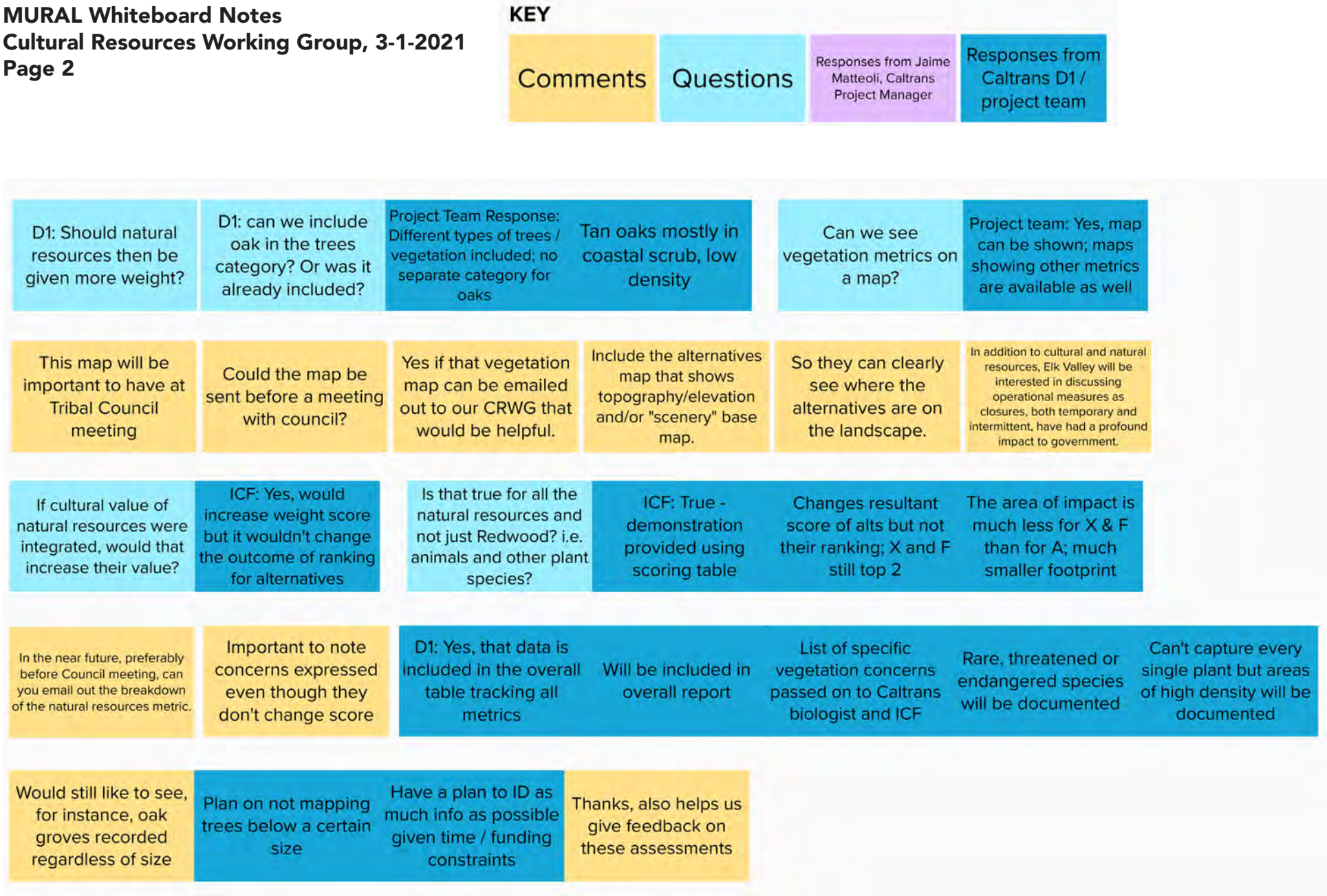

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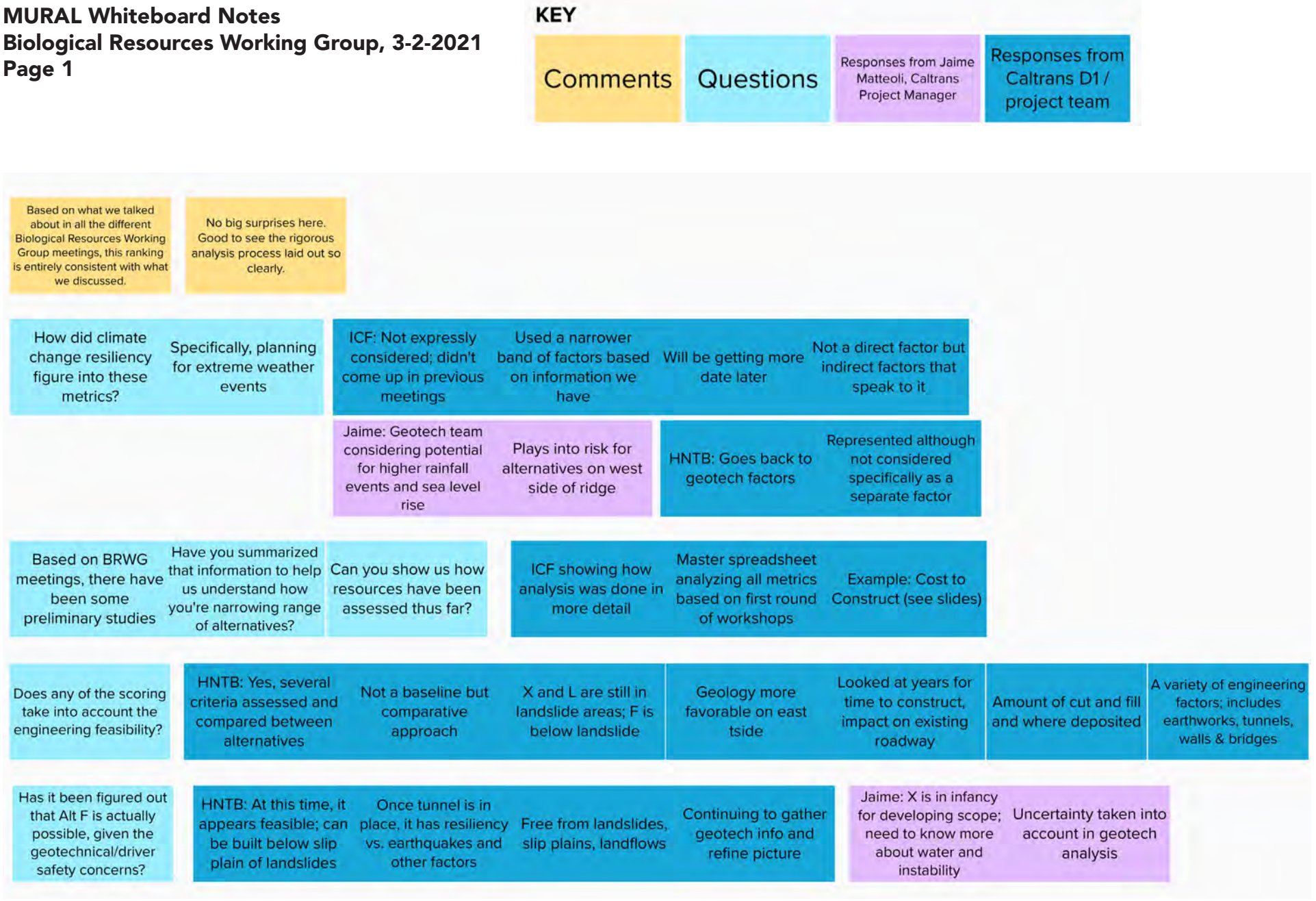
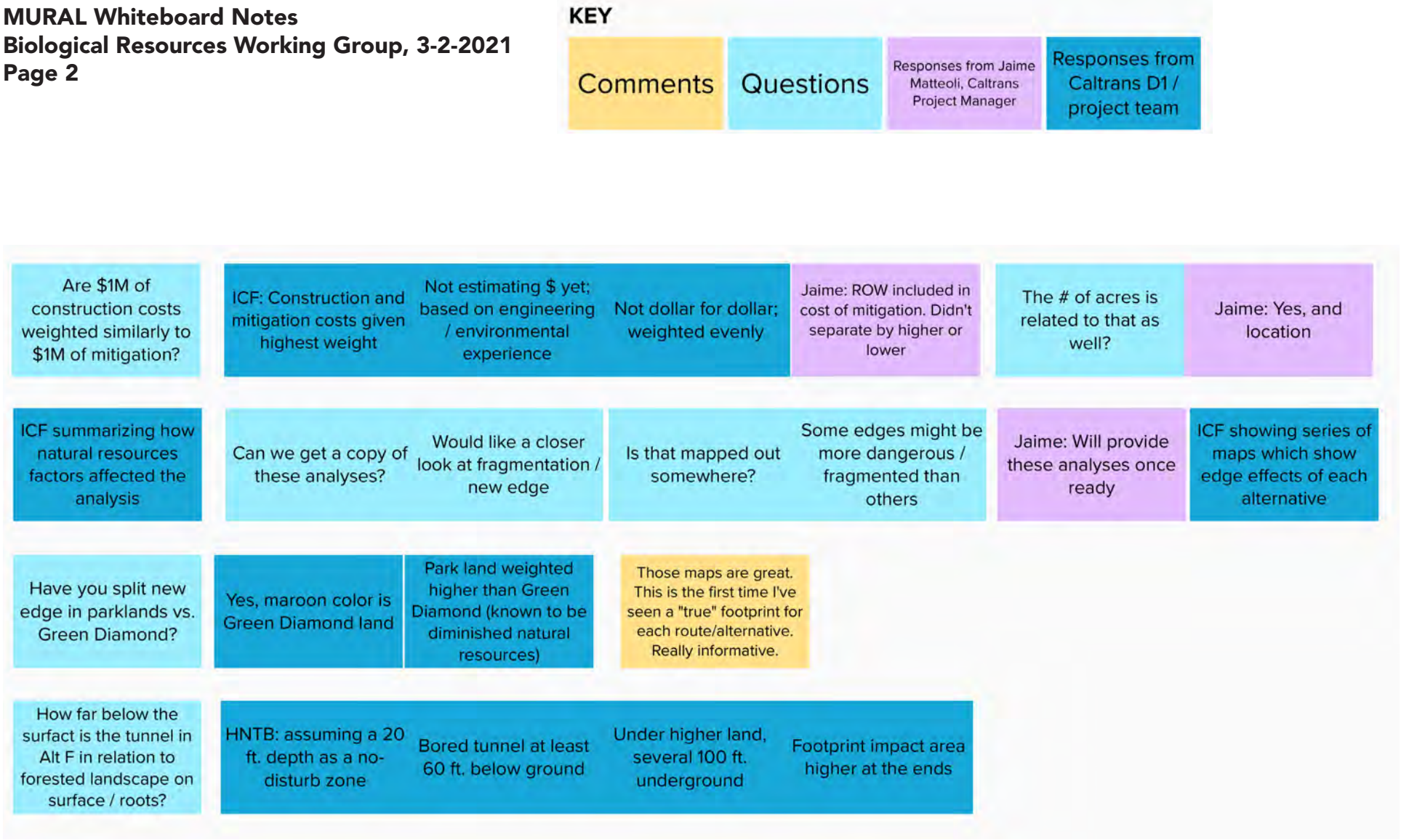
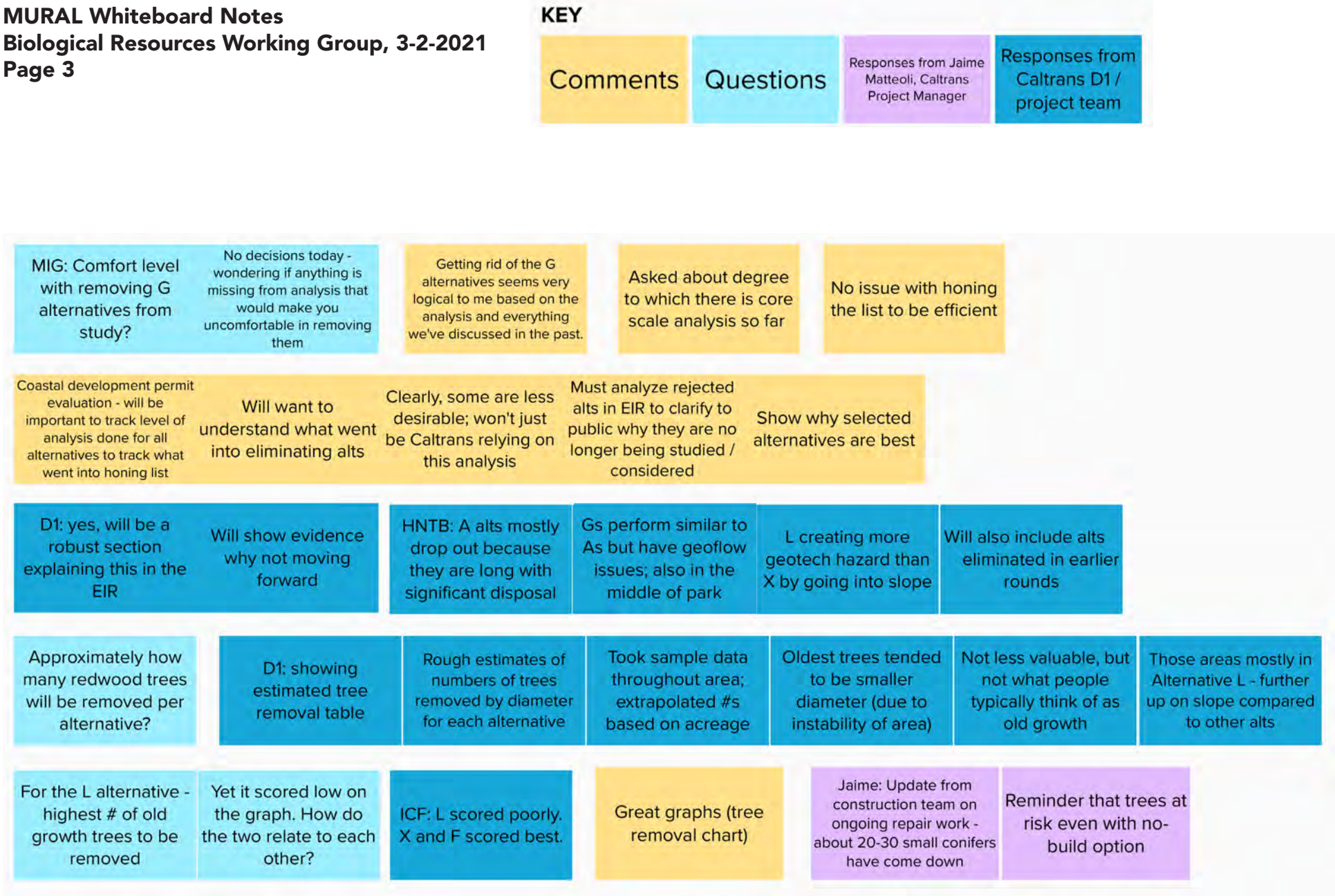



KEY
Comments
Questions
Responses from Jaime Matteoli, Caltrans Project Manager
Responses from Caltrans D1 / project team
Are $1M of construction costs weighted similarly to $1M of mitigation?
ICF: Construction and mitigation costs given highest weight
Not estimating $ yet; based on engineering / environmental experience
Not dollar for dollar; weighted evenly
Jaime: ROW included in cost of mitigation. Didn't separate by higher or lower
The # of acres is related to that as well?
Jaime: Yes, and location
ICF summarizing how natural resources factors affected the analysis
Can we get a copy of these analyses?
Would like a closer look at fragmentation / new edge
Is that mapped out somewhere?
Some edges might be more dangerous / fragmented than others
Jaime: Will provide these analyses once ready
ICF showing series of maps which show edge effects of each alternative
Have you split new edge in parklands vs. Green Diamond?
Yes, maroon color is Green Diamond land
Park land weighted higher than Green Diamond (known to be diminished natural resources)
Those maps are great. This is the first time I've seen a "true" footprint for each route/alternative. Really informative.
How far below the surfact is the tunnel in Alt F in relation to forested landscape on surface / roots?
HNTB: assuming a 20 ft. depth as a no-disturb zone
Bored tunnel at least 60 ft. below ground
Under higher land, several 100 ft. underground
Footprint impact area higher at the ends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Responses from Caltrans D1 / project team
MIG: Comfort level with removing G alternatives from study?
No decisions today - wondering if anything is missing from analysis that would make you uncomfortable in removing them
Getting rid of the G alternatives seems very logical to me based on the analysis and everything we've discussed in the past.
Asked about degree to which there is core scale analysis so far
No issue with honing the list to be efficient
Coastal development permit evaluation - will be important to track level of analysis done for all alternatives to track what went into honing list
Will want to understand what went into eliminating alts
Clearly, some are less desirable; won't just be Caltrans relying on this analysis
Must analyze rejected alts in EIR to clarify to public why they are no longer being studied / considered
Show why selected alternatives are best
D1: yes, will be a robust section explaining this in the EIR
Will show evidence why not moving forward
HNTB: A alts mostly drop out because they are long with significant disposal
Gs perform similar to As but have geoflow issues; also in the middle of park
L creating more geotech hazard than X by going into slope
Will also include alts eliminated in earlier rounds
Approximately how many redwood trees will be removed per alternative?
D1: showing estimated tree removal table
Rough estimates of numbers of trees removed by diameter for each alternative
Took sample data throughout area; extrapolated #s based on acreage
Oldest trees tended to be smaller diameter (due to instability of area)
Not less valuable, but not what people typically think of as old growth
Those areas mostly in Alternative L - further up on slope compared to other alts
For the L alternative - highest # of old growth trees to be removed
Yet it scored low on the graph. How do the two relate to each other?
ICF: L scored poorly. X and F scored best.
Great graphs (tree removal chart)
Jaime: Update from construction team on ongoing repair work - about 20-30 small conifers have come down
Reminder that trees at risk even with no-build option


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Old growth trees are within portion of park considered to be old growth?
D1: yes, that is considered the community type, not largest trees; includes Doug Firs, etc.
Showing vegetation map; negligible effect on A's and G's, none in X, F, L
Trees in parkland mostly alder and coastal scrub; no old growth or mature site compromised on Green Diamond Land
How and where is Caltrans looking at mitigation?
Are you considering lands offsite, etc.?
Would be ideal to see planning for advanced mitigation
Jaime: have thought more about process than mitigation at this point
Need more data to discuss mitigation - will be engaged, complex, and require agreement on what will best mitigate
Need to know more about impacts, then bring people to and keep them at the table
Caltrans preparing a document for work at Red Schoolhouse; possible opportunities for advance mitigation
D1: mitigation top of our priority list; will have group meetings, make sure all is considered
Are you thinking about costs in terms of land acquisition?
Remind us how you're considering that
Jaime: thinking in terms of some land acquisition
Best approach is to work with working groups; go with what is already considered a good idea!
Neutral on poll because I'm just listening and learning at this point
I agree that you could probably drop the G alternatives
Jaime: what do people think of having one big workshop for Round 3? Any concerns?
I like the idea
Yes, a big meeting would be good
Large group meeting sounds good

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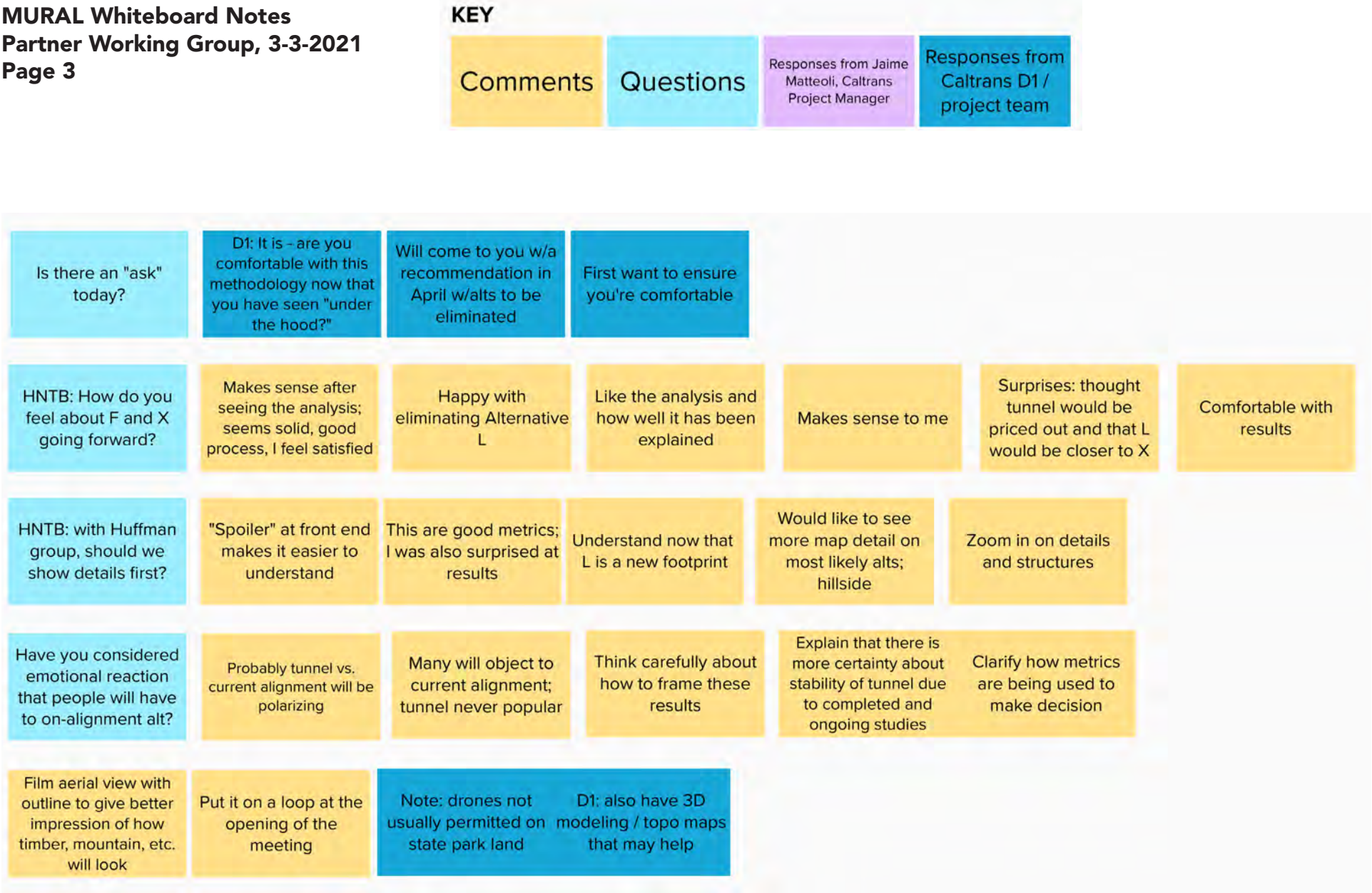

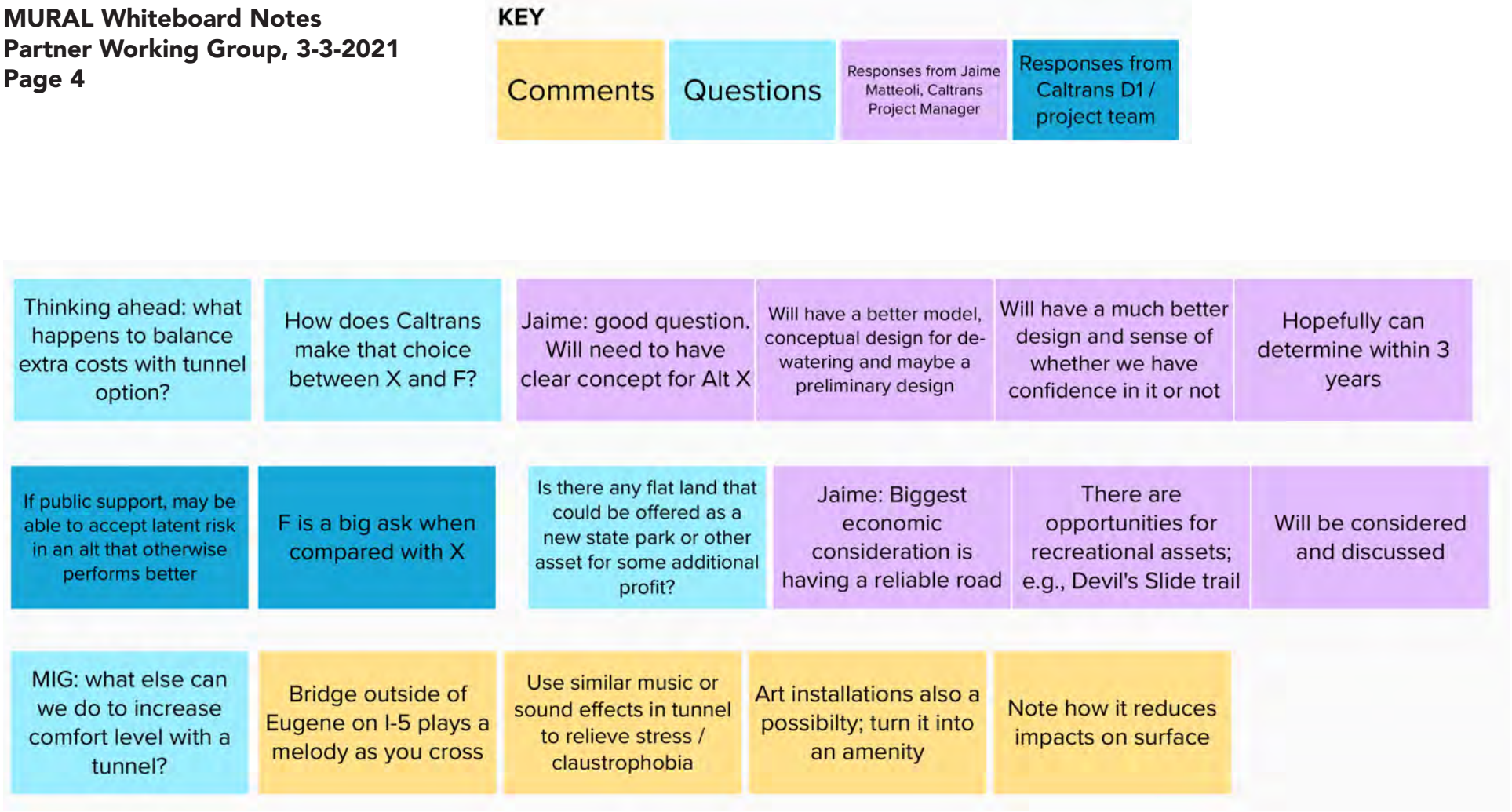
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Responses from Caltrans D1 / project team
Thinking ahead: what happens to balance extra costs with tunnel option?
How does Caltrans make that choice between X and F?
Jaime: good question. Will need to have clear concept for Alt X
Will have a better model, conceptual design for de-watering and maybe a preliminary design
Will have a much better design and sense of whether we have confidence in it or not
Hopefully can determine within 3 years
If public support, may be able to accept latent risk in an alt that otherwise performs better
F is a big ask when compared with X
Is there any flat land that could be offered as a new state park or other asset for some additional profit?
Jaime: Biggest economic consideration is having a reliable road
There are opportunities for recreational assets; e.g., Devil's Slide trail
Will be considered and discussed
MIG: what else can we do to increase comfort level with a tunnel?
Bridge outside of Eugene on I-5 plays a melody as you cross
Use similar music or sound effects in tunnel to relieve stress / claustrophobia
Art installations also a possibilty; turn it into an amenity
Note how it reduces impacts on surface

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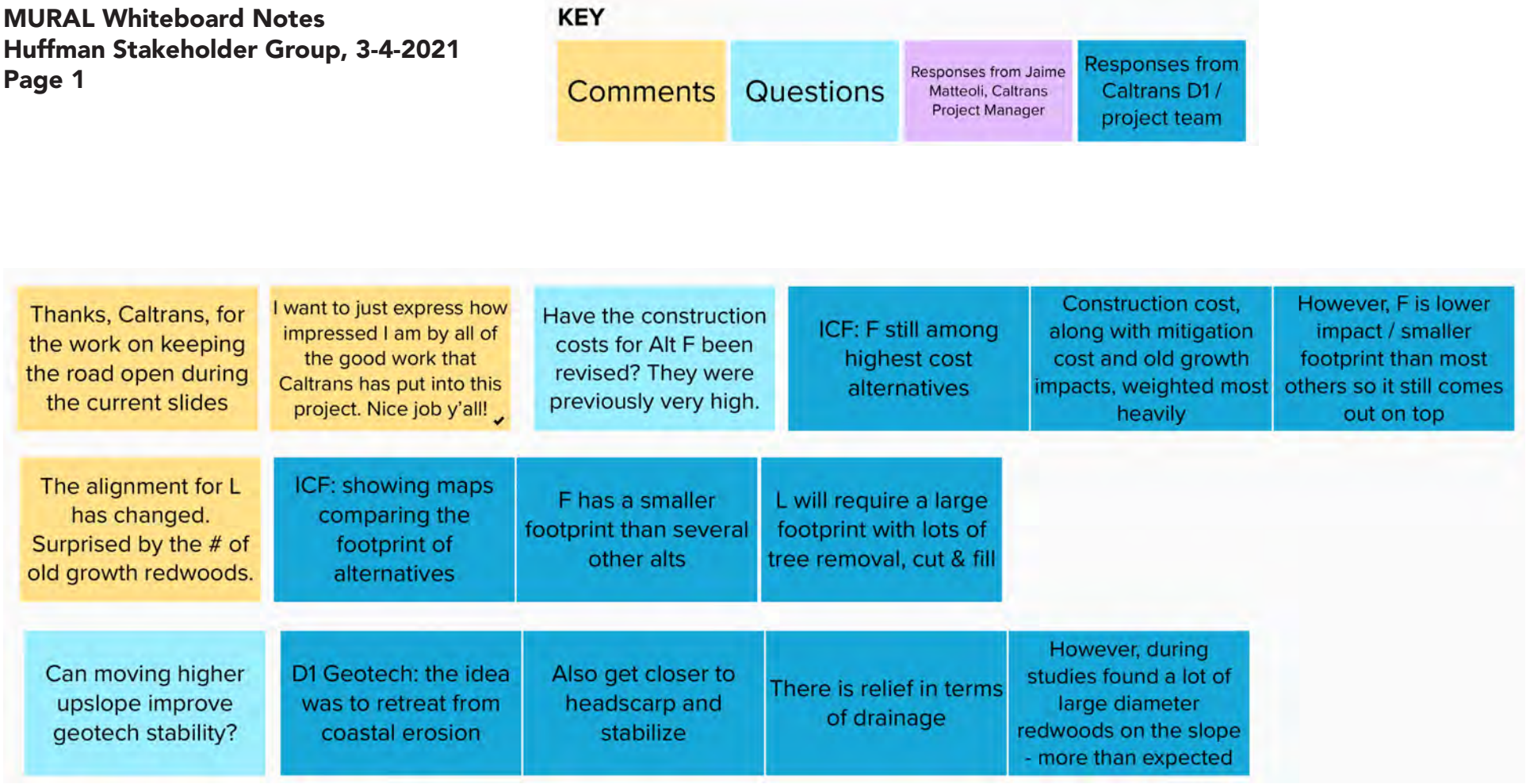

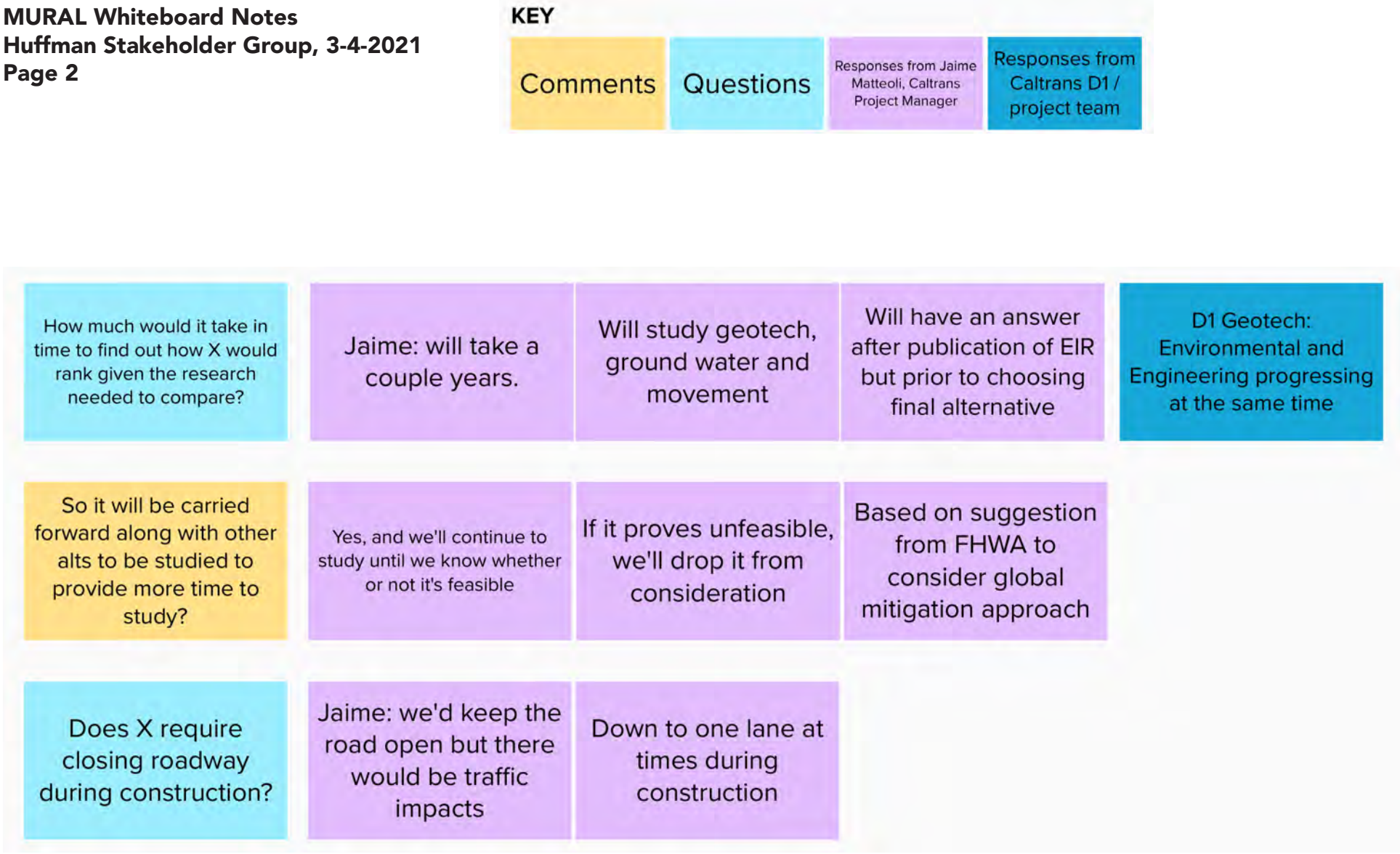
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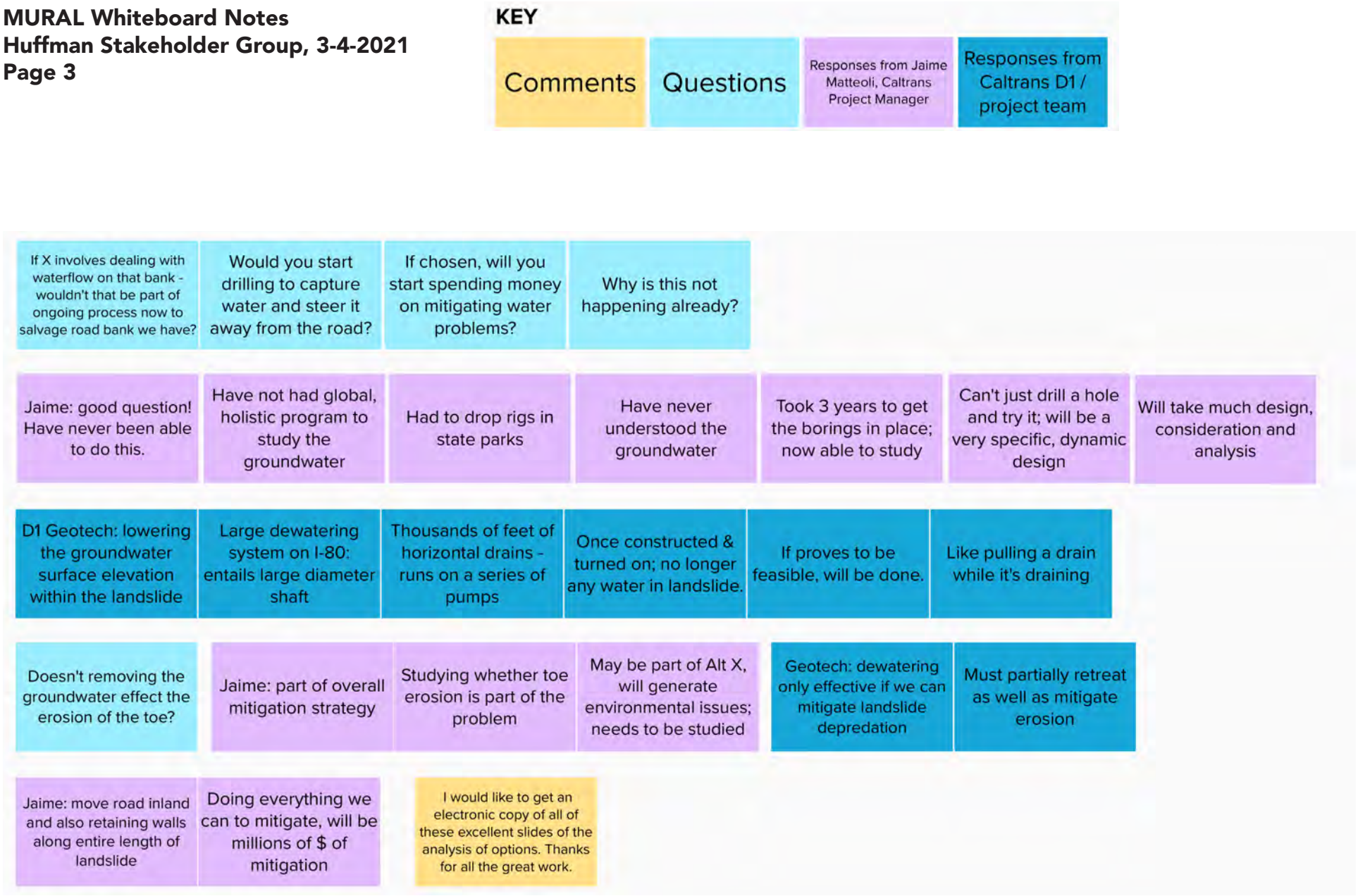
How much would it take in time to find out how X would rank given the research needed to compare?
Jaime: will take a couple years.
Will study geotech, ground water and movement
Will have an answer after publication of EIR but prior to choosing final alternative
D1 Geotech: Environmental and Engineering progressing at the same time
So it will be carried forward along with other alts to be studied to provide more time to study?
Yes, and we'll continue to study until we know whether or not it's feasible
If it proves unfeasible, we'll drop it from consideration
Based on suggestion from FHWA to consider global mitigation approach
Does X require closing roadway during construction?
Jaime: we'd keep the road open but there would be traffic impacts
Down to one lane at times during construction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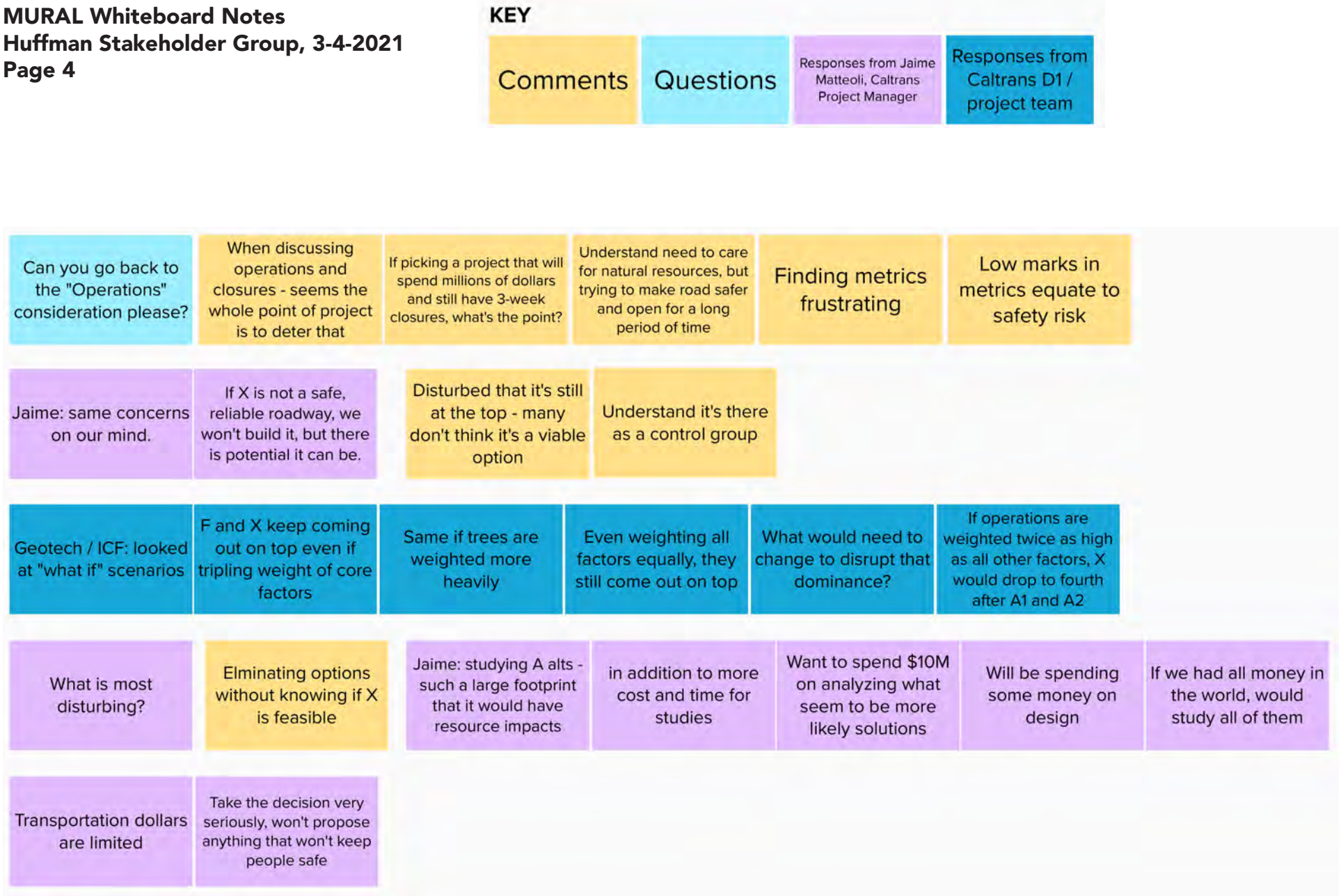
If X involves dealing with waterflow on that bank - wouldn't that be part of ongoing process now to salvage road bank we have?
Would you start drilling to capture water and steer it away from the road?
If chosen, will you start spending money on mitigating water problems?
Why is this not happening already?
Jaime: good question! Have never been able to do this.
Have not had global, holistic program to study the groundwater
Had to drop rigs in state parks
Have never understood the groundwater
Took 3 years to get the borings in place; now able to study
Can't just drill a hole and try it; will be a very specific, dynamic design
Will take much design, consideration and analysis
D1 Geotech: lowering the groundwater surface elevation within the landslide
Large dewatering system on I-80: entails large diameter shaft
Thousands of feet of horizontal drains - runs on a series of pumps
Once constructed & turned on; no longer any water in landslide.
If proves to be feasible, will be done.
Like pulling a drain while it's draining
Doesn't removing the groundwater effect the erosion of the toe?
Jaime: part of overall mitigation strategy
Studying whether toe erosion is part of the problem
May be part of Alt X, will generate environmental issues; needs to be studied
Geotech: dewatering only effective if we can mitigate landslide depredation
Must partially retreat as well as mitigate erosion
Jaime: move road inland and also retaining walls along entire length of landslide
Doing everything we can to mitigate, will be millions of $ of mitigation
I would like to get an electronic copy of all of these excellent slides of the analysis of options. Thanks for all the great work.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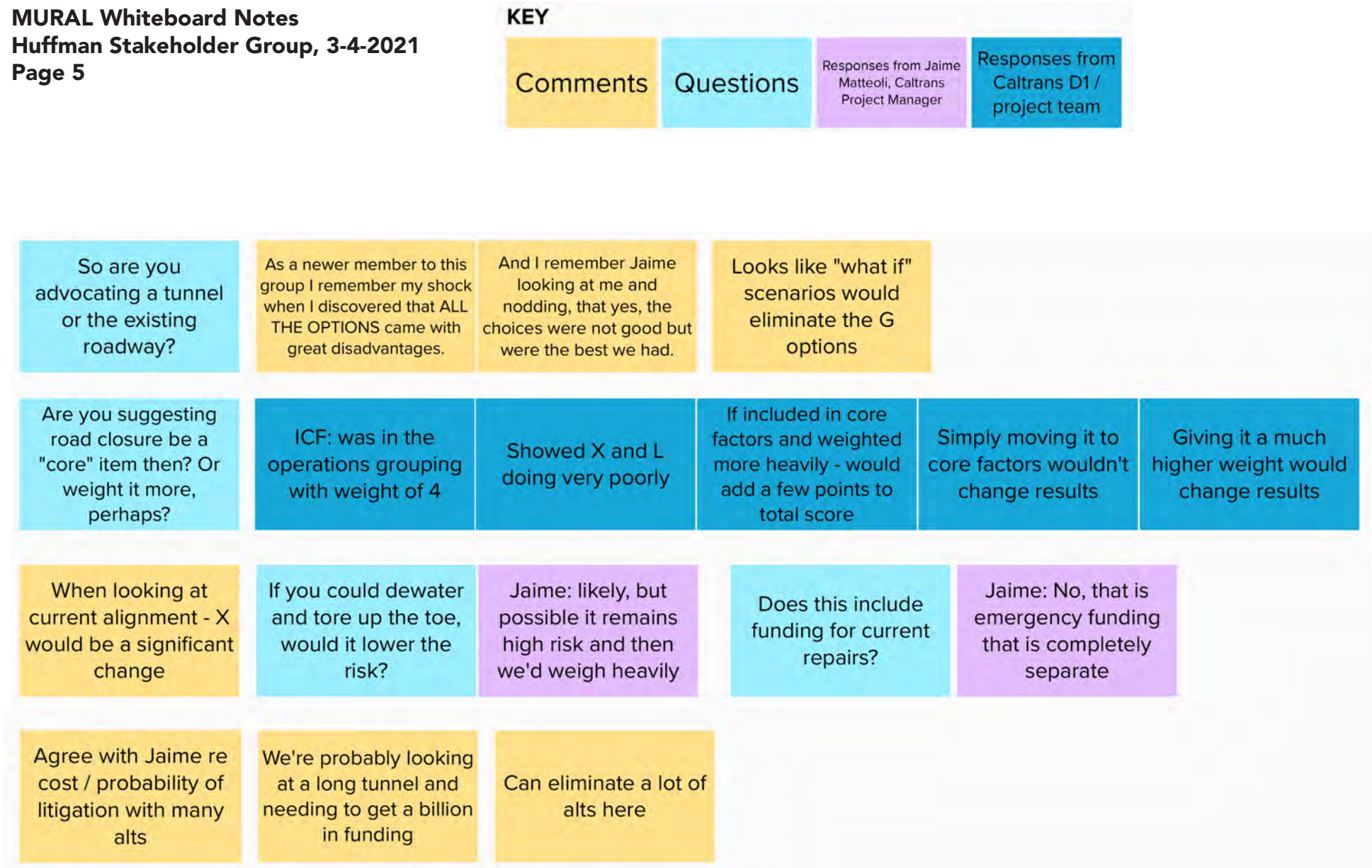
Responses from Caltrans D1 / project team
Can you go back to the "Operations" consideration please?
When discussing operations and closures - seems the whole point of project is to deter that
If picking a project that will spend millions of dollars and still have 3-week closures, what's the point?
Understand need to care for natural resources, but trying to make road safer and open for a long period of time
Finding metrics frustrating
Low marks in metrics equate to safety risk
Jaime: same concerns on our mind.
If X is not a safe, reliable roadway, we won't build it, but there is potential it can be.
Disturbed that it's still at the top - many don't think it's a viable option
Understand it's there as a control group
Geotech / ICF: looked at "what if" scenarios
F and X keep coming out on top even if tripling weight of core factors
Same if trees are weighted more heavily
Even weighting all factors equally, they still come out on top
What would need to change to disrupt that dominance?
If operations are weighted twice as high as all other factors, X would drop to fourth after A1 and A2
What is most disturbing?
Elminating options without knowing if X is feasible
Jaime: studying A alts - such a large footprint that it would have resource impacts
in addition to more cost and time for studies
Want to spend $10M on analyzing what seem to be more likely solutions
Will be spending some money on design
If we had all money in the world, would study all of them
Transportation dollars are limited
Take the decision very seriously, won't propose anything that won't keep people safe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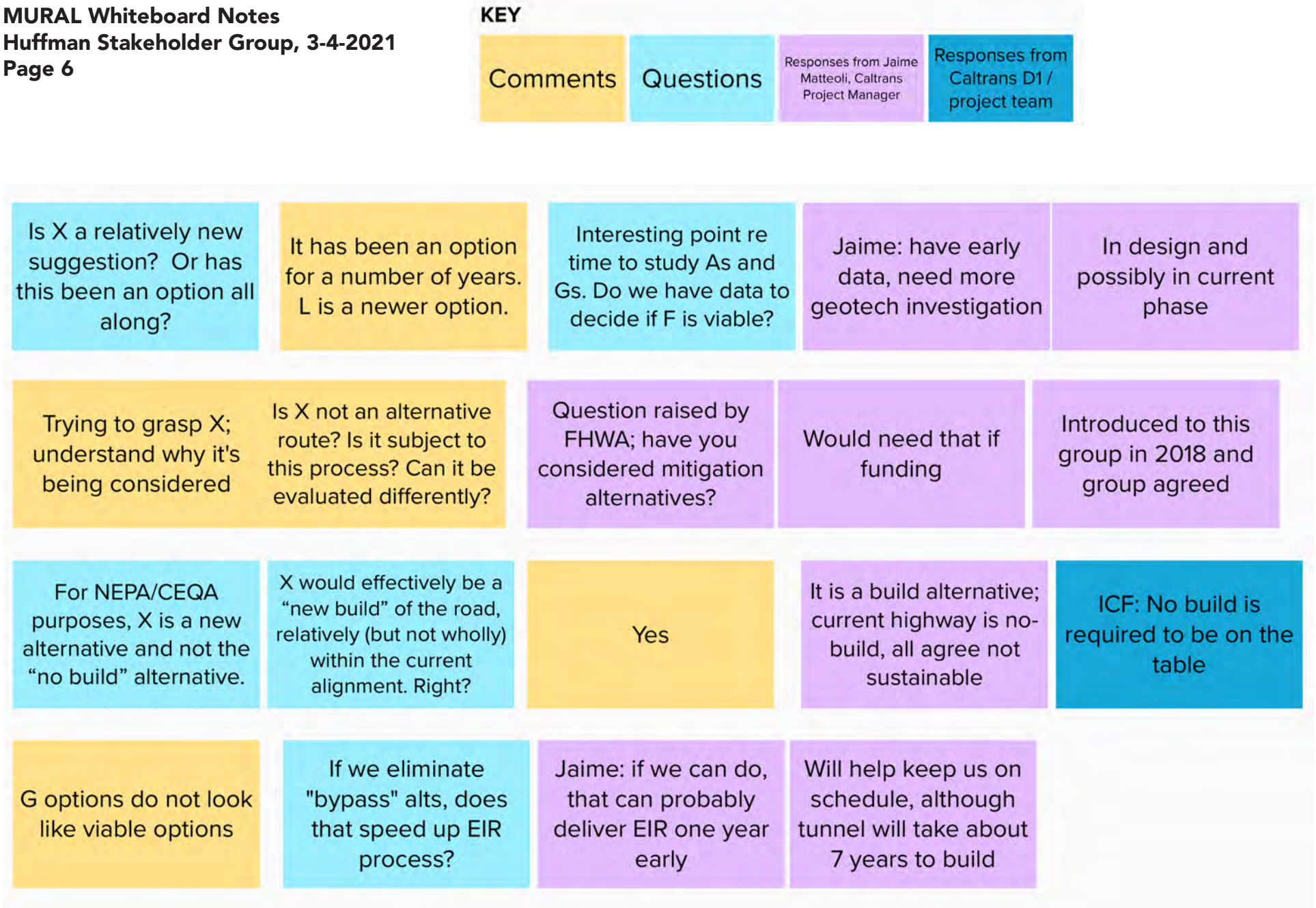
So are you advocating a tunnel or the existing roadway?
As a newer member to this group I remember my shock when I discovered that ALL THE OPTIONS came with great disadvantages.
And I remember Jaime looking at me and nodding, that yes, the choices were not good but were the best we had.
Looks like "what if" scenarios would eliminate the G options
Are you suggesting road closure be a "core" item then? Or weight it more, perhaps?
ICF: was in the operations grouping with weight of 4
Showed X and L doing very poorly
If included in core factors and weighted more heavily - would add a few points to total score
Simply moving it to core factors wouldn't change results
Giving it a much higher weight would change results
When looking at current alignment - X would be a significant change
If you could dewater and tore up the toe, would it lower the risk?
Jaime: likely, but possible it remains high risk and then we'd weigh heavily
Does this include funding for current repairs?
Jaime: No, that is emergency funding that is completely separate
Agree with Jaime re cost / probability of litigation with many alts
We're probably looking at a long tunnel and needing to get a billion in funding
Can eliminate a lot of alts here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Responses from Caltrans D1 / project team
Is X a relatively new suggestion? Or has this been an option all along?
It has been an option for a number of years. L is a newer option.
Interesting point re time to study As and Gs. Do we have data to decide if F is viable?
Jaime: have early data, need more geotech investigation
In design and possibly in current phase
Trying to grasp X; understand why it's being considered
Is X not an alternative route? Is it subject to this process? Can it be evaluated differently?
Question raised by FHWA; have you considered mitigation alternatives?
Would need that if funding
Introduced to this group in 2018 and group agreed
For NEPA/CEQA purposes, X is a new alternative and not the "no build" alternative.
X would effectively be a "new build" of the road, relatively (but not wholly) within the current alignment. Right?
Yes
It is a build alternative; current highway is no-build, all agree not sustainable
ICF: No build is required to be on the table
G options do not look like viable options
If we eliminate "bypass" alts, does that speed up EIR process?
Jaime: if we can do, that can probably deliver EIR one year early
Will help keep us on schedule, although tunnel will take about 7 years to build

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Huffman Stakeholder Group, 3-4-2021
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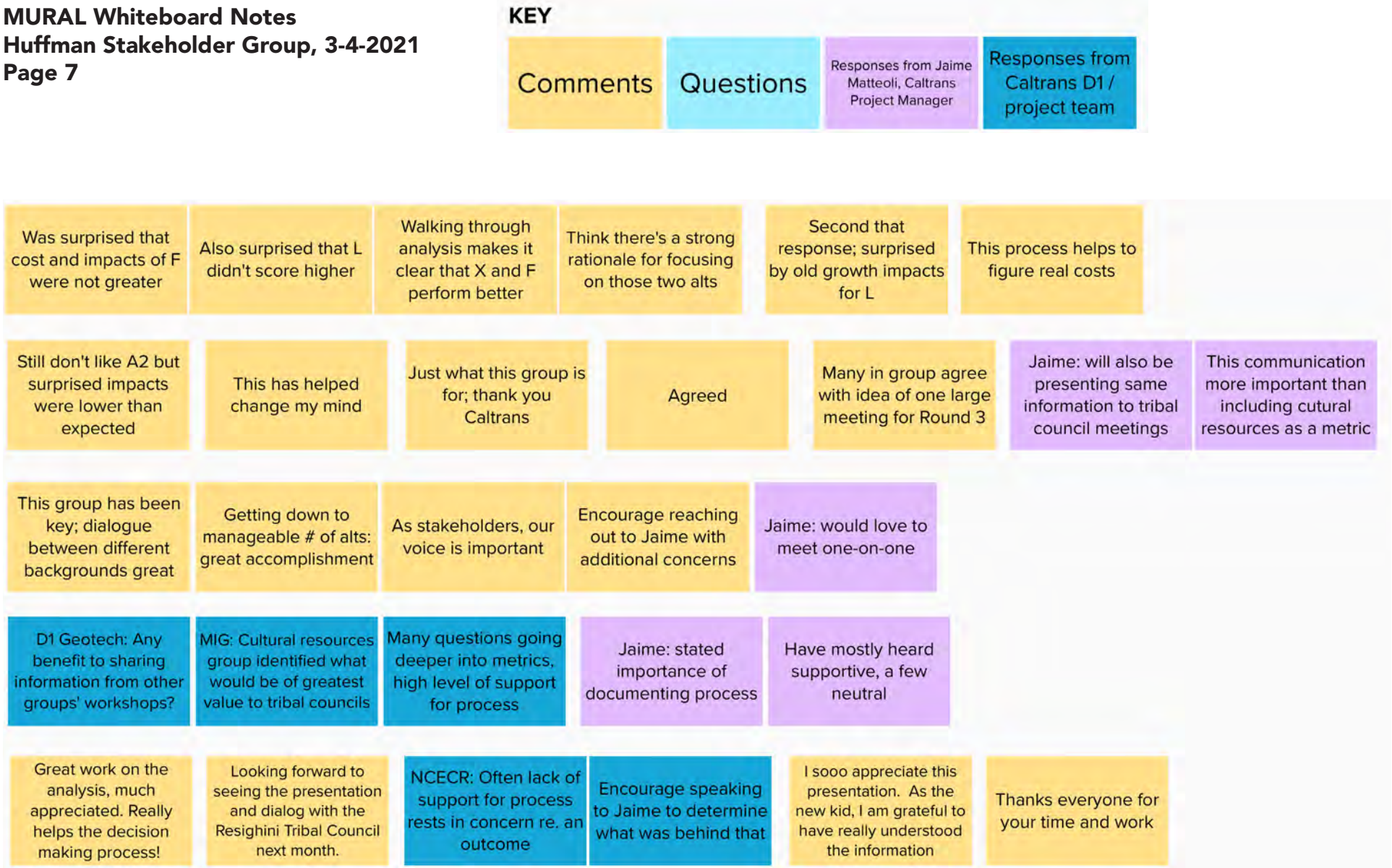
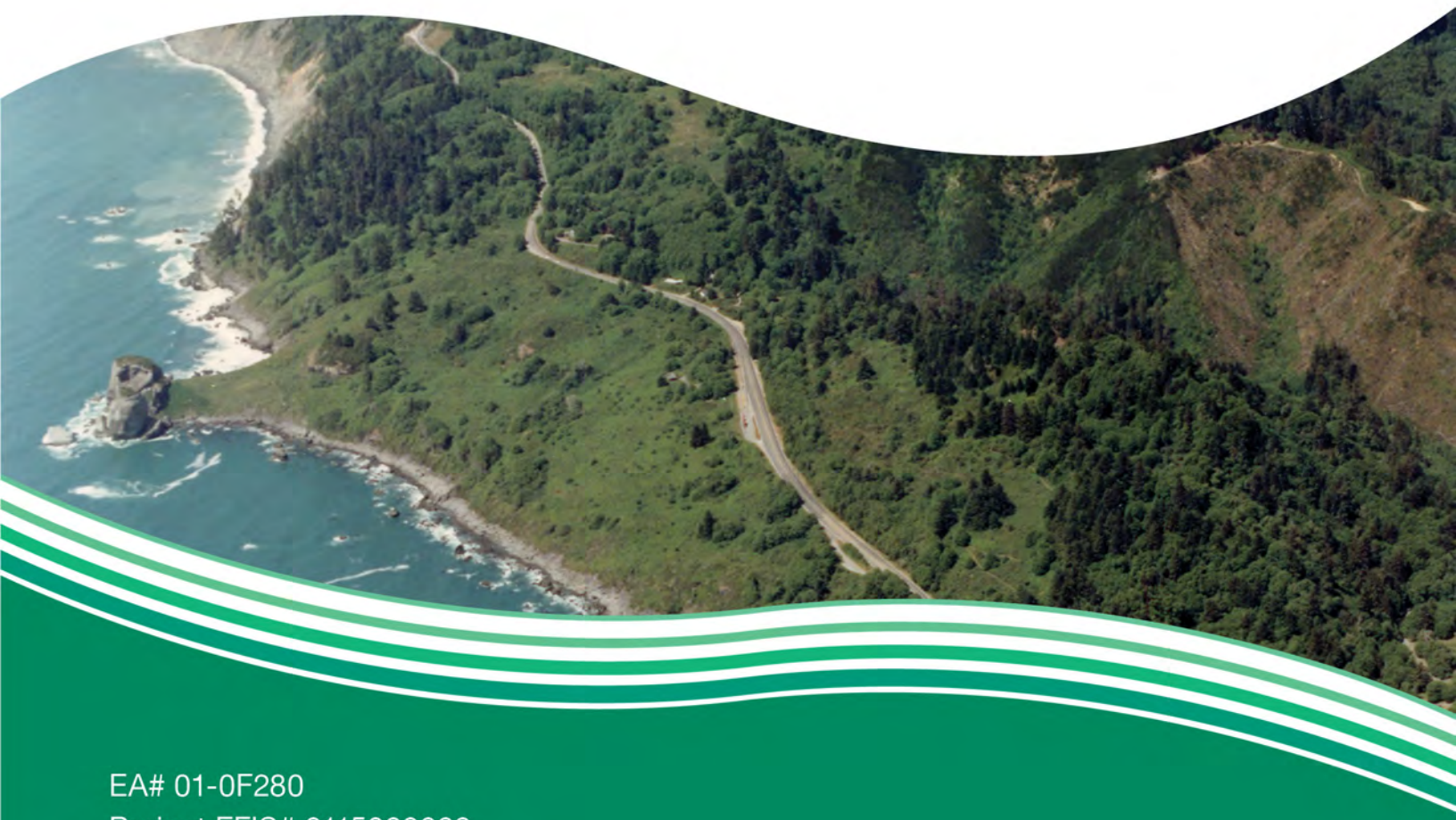


B3. Workshop 3

Last Chance Grade Permanent Restoration Project

Alternatives Analysis Methodology Workshop #3 Summary of Results - Final

Submittal #SUB-030
July, 2021



EA# 01-0F280
Project EFIS# 0115000099
Del Norte County, U.S. 101,
PM 12.0/15.5

Caltrans

LAST CHANCE GRADE

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Appendix

I. Introduction

Workshop Purpose and Format

The Last Chance Grade (LCG) Permanent Restoration Project is a project proposed by the California Department of Transportation (Caltrans) to find a permanent solution to the instability and roadway failure on a 3-mile segment of U.S. Highway 101 in Del Norte County. As part of the process in selecting a safe and reliable long-term solution to this problem, Caltrans conducted an alternatives analysis to determine which of the seven build alternatives should be studied further in the environmental impact analysis. The alternatives analysis process was developed with input from the four working groups. The analysis was based on criteria and performance measures related to the project's major objectives, which include providing a long-term safe and reliable roadway, reducing maintenance costs, and protecting the economy and natural and cultural resources. The analysis resulted in Alternatives X and F being selected for further study.

The purpose of the alternatives analysis was to:

- Assess the range of possible alternatives and determine how well they performed when evaluated using specific criteria and performance metrics
- Identify the technically and economically feasible alternatives for further detailed study in the environmental document
- Save time and resources by conducting detailed studies on a smaller footprint area
- Reduce the area and extent of ground-disturbing studies for selection of the final alternative
- Provide a higher level of certainty and lowered risk of schedule delay

Caltrans hosted a series of workshops to solicit and refine LCG stakeholder input on the methodology and criteria. The purpose of each round of workshops was as follows:

- **Workshop Round 1:** Present initial alternatives analysis methodology and obtain initial stakeholder input. Based on stakeholder input, consider data needed to achieve each metric, determine whether another metric could serve as a proxy, or if the metric is useful in differentiating one alternative from another.
- **Workshop Round 2:** Discuss initial alternatives analysis results and recommended alternatives for further study using refined methodology and criteria. Assess further refinements to methodology and criteria based on stakeholder input.
- **Workshop Round 3:** Share the final alternative analysis results and the alternatives selected for further study as completed using the refined criteria and methodology. Allow stakeholders to review and support the process and understand the alternatives selected. Assess the level of support for Caltrans' decision.

The structure of Rounds 1 and 2 of the process was to conduct the same workshop with each of the four working groups. These groups include:

- Cultural Resources Working Group: Members have responsibilities for cultural resources management.
- Biological Resources Working Group: Members have responsibilities for natural resource management and permitting.

- Last Chance Grade Partners: Members have land ownership and land management responsibilities.
- Congressman Huffman's Stakeholder Group: Members include representatives from local governments, tribal groups, businesses, agencies, and environmental groups who provide feedback to all the partners involved.

The first workshop of this series was conducted with each of the four working groups between December 14 and 17, 2020. Participants identified the metrics of greatest importance and identified additional metrics for consideration. The results of the workshops were documented in a summary report, dated February 2021, that was provided to workshop participants.

During the second round of workshops, which was again conducted with each of the four working groups between March 1 and 4, 2021, the Project Team presented the results of the initial alternatives analysis using the refined methodology based on stakeholder input, an assessment of each alternative, and solicited stakeholder input on these results.

Workshop 3 was convened as one workshop for all four working groups, so that everyone could hear each other's questions and comments. It was held using Webex and designed to be interactive. Participants viewed a presentation (Appendix A) on the alternatives analysis process, timeline, value, and results, including clarification on the alternatives either selected for or removed from further detailed study, and the reasons behind those selections.

The presentation explained how the alternatives analysis process was used to select alternatives for further study and it detailed why these alternatives were being studied further.

Criteria and performance metrics were grouped into four general categories. They included:

- **Core factors** identified as most important across all working groups. These included major trees including old growth redwoods, construction costs, and mitigation costs, and were weighted most heavily in the analysis.
- **Operational factors**: road closure potential and cost to maintain
- **Construction factors**: time to construct, cut and fill amounts, etc.
- **Natural resource factors**: impacts on animals, vegetation, and waters

The Project Team developed numeric-based metrics and identified high, medium, and low risk ranges with corresponding color-coding in red, yellow, and green. The lowest scores, coded green, were considered most desirable in terms of each of the metrics. The performance of each alternative was assessed based on the metrics and assigned weighting. The team also varied the assigned weights for the metrics and tested the results to demonstrate how weighting variations could change the score. Of the seven build scenarios under consideration, Alternatives F and X consistently ranked most desirable in terms of the metrics. Next steps will include environmental field studies; a value analysis/constructability review; a CEQA/NEPA scoping meeting; engineering and environmental technical studies; release of a draft Environmental Document; a public hearing on the draft document; and release of a Final Environmental Document.

For more information on the alternatives, see section II.A below, as well as the presentation reproduced in Appendix A.

Following the presentation, participants were asked to provide feedback using the videoconferencing Chat feature, answering the question: "What's still on your mind?" Participants were asked to share any lingering questions, comments, and requests for clarification. Stakeholders were asked to enter comments or questions, or, if they had no further questions and felt satisfied with the process and conclusions, they were asked to identify themselves and enter "Ok" in the Chat. Once all had responded, there was a ten-minute break while project staff entered a breakout room to clarify responses to the questions received. After the break, project staff provided responses to stakeholders' questions, and invited further questions or comments either via the Chat feature or through spoken discussion.

At the conclusion of the discussion, participants were asked to identify their level of support for the overall alternatives assessment process, the recommendations for further study of Alternatives X and F, and the recommendations to remove Alternatives L, A1, A2, G1 and G2 from further study. Options for levels of support included: highly supportive, somewhat supportive, neutral, somewhat unsupportive, or do not support. Stakeholders participating by phone, who were unable to participate in the polling, were contacted after the workshop with an opportunity to provide their responses. The full polling results are included in Appendix B.

Workshop Attendance

In addition to Caltrans District 1 and project team staff, the following organizations were represented at Workshop 3:

- California Coastal Commission
- California Department of Fish and Wildlife
- California State Parks
- City of Crescent City
- Community Representative Kurt Stremburg
- Crescent City-Del Norte Chamber of Commerce
- Del Norte County Board of Supervisors
- Del Norte Local Transportation Commission
- Elk Valley Rancheria
- Environmental Protection Information Center (EPIC)
- Friends of Del Norte
- Green Diamond Resource Co
- Humboldt County Association of Governments
- Humboldt County Board of Supervisors
- National Oceanic and Atmospheric Administration
- National Park Service
- Office of Representative Jared Huffman
- Office of Senator Mike McGuire
- National Park Service
- Save the Redwoods League
- State Water Resources Control Board
- Tolowa Nation
- US Army Corps of Engineers
- US Environmental Protection Agency
- US Fish and Wildlife Service
- Yurok Tribe

II. Final Alternatives Assessment Results

The Project Team developed numeric metrics and identified ranges (high, medium, and low) with corresponding colors red, yellow, and green. High scores correlated with high impacts and were coded red. Scores in the medium range were coded yellow and low scores, considered most desirable, were coded green.

The Project Team assessed the performance of each alternative. The team also assigned weights and tested the results to demonstrate how weighting could influence the final score. The team looked at a variety of scenarios that changed the final scores but there were few modifications that resulted in a change in the rankings.

Alternatives X and F, which ranked the most desirable in overall performance, were recommended for further study. They are the best performers using the agreed-upon criteria and performance metrics. Due to their smaller project footprint, Caltrans will save $10 million and can potentially reduce the project schedule by up to one year. Alternatives A1, A2, G1, G2, and L were found to perform less well and had higher potential impacts. As a result, they were recommended for removal from further study at this time. All have substantially higher environmental impacts; G1, G2, and L have an assessment of “medium” geotechnical risk, and both Alternatives A and G would have a much longer duration of construction.

There are two elements necessary for creating a long-term safe, reliable alternative at Last Chance Grade: landslide stabilization and avoidance. The Project Team described how the current process of making emergency repairs differed substantially from Alternatives X and F. Emergency repairs are localized and make use of very limited stabilization methods—chiefly retaining structures such as ground anchors and steel-reinforced concrete walls. Alternatives X and F, by contrast, both cover Last Chance Grade from end-to-end. Alternative X provides mitigation for the landslide and multiple purpose-engineered solutions including retaining structures, dewatering / subsurface drainage, and soil/rock removal, regrading, and benching. Alternative F provides landslide avoidance through creating a tunnel realignment, plus retaining structures and dewatering / subsurface drainage for stabilization at both portals.

Alternative X – Holistic Re-Engineering and Mitigation

Alternative X was developed at the request of the Federal Highway Administration (FHWA). FHWA wanted to ensure there was full consideration given to a holistic effort to reengineer a roadway generally along the current alignment to increase long-term stability through large-scale dewatering, walls and other structures, terracing, alignment retreat in specific locations and other improvements. To date, most repairs and improvements made to Last Chance Grade have been in reaction to earth movement.

Alternative X had positive performance on most of the criteria and performance metrics. For example, Alternative X has the lowest construction cost and the smallest project footprint (in the ranking with Alternative F), limiting potential impacts. However, Alternative X performed relatively poorly on the operations metrics related to potential for road closure and maintenance costs, eliciting concerns from some participants. Caltrans responded to such concerns by noting its successful implementation of dewatering activities at other locations and intention to further develop and refine this alternative prior to the environmental document.

Alternative X is notably distinct from the current practice of continuing to repair the existing alignment. It is an intentionally engineered end-to-end alternative, adding a much wider range of purpose-built engineering elements to what has been deployed for emergency repairs, and approaching the entire slide holistically to shift from reactive to proactive mode. Alternative X may include an end-to-end underground dewatering system. At certain locations along its limits, it would retreat inland from the current alignment and be buffered by walls both uphill and

downhill. It would likely include multiple retaining structures including tiered walls, soldier pile-lagging / ground anchors, and steel-reinforced concrete walls, and also remove soil and rock to allow for regrading at a flatter angle.

Alternative X is being studied further because it is currently considered technically feasible, with lower environmental impacts and costs relative to Alternatives A1, A2, G1, G2, and L. Caltrans has a fiduciary responsibility to study this alternative in more detail. Further study of Alternative X does not mean it would be built, only that it must be studied further to confirm feasibility.

Alternative F – LCG Tunnel
Alternative F includes approximately one mile of tunnel that runs generally parallel to the existing alignment to greatly reduce potential impacts to natural and cultural resources including old growth trees. While Alternative F is the second highest cost alternative, Alternative F has lower resource and construction impacts and performs well on operational metrics. Alternative F's relatively lower environmental impacts also correlate with reduced mitigation costs.

The tunnel would be designed based on solutions that have proven effective in similar areas and would be constructed to avoid the slide plane, with monitoring and safety systems in place. For stabilization at each portal, it would utilize tiered retaining walls and may require dewatering /subsurface drainage. Its south portal would be approached through a cut, with cross passages constructed between bores, and the north portal would have a bridge approach. Several examples were provided, including the Tom Lantos Tunnel at Devil's Slide in San Mateo County, California and the tunnel crossing the Bosphorus Strait in Istanbul, Turkey, which is constructed using a "seismic joint" system that can safety withstand geologic instability. At this time, it is anticipated that the tunnel would be constructed using a hard-rock tunnel boring machine (TBM), a high-tech solution which would create no surface disturbance along the alignment.

A. Stakeholder Questions and Comments

The bulk of the meeting provided an opportunity for participants to ask questions and share their comments. The following organizes and summarizes the questions and comments received. It is not intended as a transcription but serves to provide a summary of the response provided by Caltrans and the Project Team.

Overall Process

- *Question:* Is electing to move forward with studying Alternatives F and X a decision which has been made?
  - *Project Team Response:* It is the Project Team's recommendation. However, District leadership has been very clear that stakeholders must weigh in, and Caltrans is welcoming stakeholder feedback on that recommendation.
- Some participants expressed concern that it may be premature to remove more alternatives given that Alternative F is very expensive and it's uncertain whether Alternative X is feasible or would sufficiently stabilize the road to be worth pursuing. Alternative X will be a tough sell to the public; many people do not understand that Alternative X is different from what Caltrans is currently doing and are uncomfortable with the idea of having the road on or near the current alignment.

- Others expressed the opinion that while the concern and frustration is understandable, it's more cost-effective and time-saving to narrow the field, since studying more alternatives would increase project costs and lengthen the timeline for a solution to be found. They are willing to trust the engineers' expertise and feel that Caltrans has done their due diligence in terms of assessing the impacts and researching other sites in similar environments. They also agree that it's necessary to study Alternative X. It was stated that the process of choosing an alternative should be data driven, with a solution purpose-built for the geography, minimizing resource impacts as much as possible.
- It's important to clarify the distinction between alternatives on the west side of the ridge, and those on the east side which would have a much larger footprint. It would also be helpful to understand what is added to the timeline and cost to study a single other "eastside" alternative. The question can be asked: do we really want to add time, cost, and impacts to study options that already do not appear very feasible? There would be considerable lack of support for the east side alternatives due to the extensive environmental and other impacts.
  - *Project Team Response:* Studying one additional alternative would add $10 million and one year. For context: studying Alternatives F and X would include about 150 acres. Once the east side is added, the study would include about 470 acres, due to terrain, amount of cut and fill, bridges, disposal areas needed, etc.
- It was noted that the public's concern about Alternative X is predicated on fear of a catastrophic failure of the entire hillside, which is considered to be unlikely; it would be helpful to clarify this.
  - The Project Team explained that it was clear from the beginning of the project that understanding the geology is a major risk factor. There is a possibility that both Alternatives F and X could potentially prove to be unfeasible, but this is considered a very small probability. If that does happen, Caltrans would reconsider other alternatives or develop new ones.
- *Question:* What are the estimated timelines for completion of Alternatives X or F?
  - *Project Team Response:* The estimated timelines for construction are 3.5 years for X, 7 years for F. Caltrans will work to reduce these timelines as much as possible, so the estimates may be reduced in the future.
- *Question:* if F is not feasible, could the alternatives currently considered for dismissal be ranked?
  - *Project Team Response:* They have been ranked; Alternatives A1 and A2 are the highest ranking of the alternatives removed from study, so they would likely be the next in line for consideration.

Specific Alternatives

Alternative X

- Concern was stated that some stakeholders and members of the public are not supportive of Alternative X, and that it will be difficult to convince them that it should be studied or considered. They are uncertain whether Alternative X is feasible or would sufficiently stabilize the road to be worth pursuing. To some it appeared unclear that Alternative X is different from what Caltrans is currently doing and they were uncomfortable with the idea of having the road on or near the current alignment.

  - The Project Team once again clarified the distinction between Alternative X and the "no-build" option, which is what they are currently doing. The "no-build" option, which Caltrans is legally required to include as an option, but which is unfeasible as a long-term alternative, is continuing to repair the existing alignment, going back to the FHWA each time for just enough money to fix the current issues. Alternative X is an intentionally engineered end-to-end alternative, adding a much wider range of purpose-built engineering elements to what has been deployed for emergency repairs. It's looking at the whole slide holistically and shifting from reactive to proactive mode. While Alternative X could potentially have slightly higher long-term maintenance costs compared to the other alternatives, they would be a small fraction of the costs for continuing to repair the current alignment.
- Other stakeholders expressed that it is appropriate to study Alternative X, and that they trust the engineers' expertise and Caltrans' due diligence.
- *Question:* How would the wells used for dewatering be powered? There have been issues with insufficient power on the grade in the past for uses such as monitoring. And would these wells be an active or passive system?
  - *Project Team Response:* The preference would be for a passive system with intersecting drains and a pump at one end, but more study will be required to learn if this would be effective. Sufficient power would be made available, but again, the requirements won't be clear until more study has been completed.
- *Question:* Is there a ballpark estimate of the amount of water affected by the dewatering?
  - *Project Team Response:* This is not known yet; it would require onsite testing to determine firstly if dewatering is feasible, and secondly, what the volumes would be.
- It was suggested that, in order to provide long-term stability for Alternative X, buttressing would be required at the toe of the slide to protect against erosion at its base caused by ocean waves.

Alternative F

- Concern was stated that Alternative F is very expensive, and many members of the public are not supportive. However, it was noted that the lessened environmental impact justifies the additional expense.
  - The Project Team noted that alternatives A1, A2, G1, and G2 are also in the same price range, with much more environmental impact.
- *Question:* How long would the tunnel be?
  - *Project Team Response:* The current alignment is about 5,000 feet—just under a mile; approximately the same length as the Devil's Slide tunnel.
- *Question:* Is it one tunnel or two?
  - *Project Team Response:* Twin tunnels of the same diameter, with one for in each direction. The directions could be switched as necessary, in the event of an emergency.
- *Question:* If one tunnel failed or wasn't usable, are they wide enough to accommodate two-way traffic and bikes or would it be alternating one way?
  - *Project Team Response:* There would likely be one lane with wide shoulders in each tunnel, wide enough to allow for two directions in one tunnel, if necessary. The

Project Team could consider including bike lanes; doing so would require additional ventilation. Bicycle access would be provided no matter what. If proceeding with Alternative F, a separate bike path may be considered in addition.

  - Stakeholder comment: Tunnels would not be hospitable for either pedestrians or bikers. There is currently a lot of bike use on the 101 corridor, so this needs to be planned for. If Alternative F is selected, Alternative X could be that trail but, as pointed out, it would still require maintenance.

- *Question:* Is it true that there is a geologic failure plane at 300 feet? Where is the tunnel alignment in relation to the deepest failure plane?
  - *Project Team Response:* Studies to date have encountered postulated failure planes, with the deepest at 275 feet. All possible efforts would be made to site the tunnel so that it does not cross these planes; if it is absolutely necessary to do so, there are technological solutions that could be added.
- *Question:* Has the articulated tunnel lining approach been tested in a real-world seismic scenario?
  - *Project Team Response:* Yes, the Bosphorus Strait tunnel in Istanbul shown as an example was completed three years ago. There has been significant seismic activity since with no issues.
- *Question:* Where is the disposal site for Alternative F? With 600,000 cubic yards of disposal, a dedicated site is needed.
  - *Project Team Response:* As described during the presentation, it is likely that the tunnel would be constructed using a hard-rock tunnel boring machine (TBM), a high-tech solution which would create no surface disturbance along the alignment. A small stockpile of the soil disposed near the portal would be trucked out each day, so there would be no need for a separate disposal site next to the construction site. The soil removed would be clean material useful for fill or other applications.
- *Question:* What will become of the existing roadway if Alternative F goes forward?
  - This would be determined in coordination with the State Coastal Commission, California State Parks, and the National Park Service.
- *Question:* Would there be aesthetic design considerations to blend the tunnel portals in with the landscape?
  - *Project Team Response:* This is easily addressed; there are many things that could be done to make a portal blend in.
- *Question:* Does any type of wildlife—for instance, bats—use the type of tunnel at Devil's Slide likely to be used here?
  - *Project Team Response:* There would probably be controls to avoid nesting birds, etc., but because the tunnel would be an inhospitable environment, wildlife would likely be disinclined to settle there and would not be an issue. An additional benefit would be that wildlife would be able to roam freely above the tunnel.

III. Polling on Level of Support

Participant comments and feedback from the workshop indicated there was general support for the recommendation to proceed with further study of Alternatives F and X, and to remove

Alternatives L, A1, A2, G1 and G2 from further study at this time. There was concern voiced related to narrowing the field to only two build alternatives, based on perceptions that Alternatives F and X are not feasible, are too expensive, and/or lack popular support. However, the majority of stakeholders expressed trust in the process and satisfaction with progress made.

At the conclusion of the discussion, participants were asked to identify their level of support for the overall analysis process and conclusions. The polling was not considered a binding vote but was crucial to gauging the stakeholders' comfort in Caltrans' moving ahead with their recommendations based on the analysis. The stakeholders' support as partners in the process is vital to successfully creating a safe and reliable roadway at Last Chance Grade. Thirty-five (35) participants participated in the polling. Participants were asked to identify their level of support for the following topics. Levels of support were identified as supportive, somewhat supportive, neutral, somewhat unsupportive, and not supportive.

Through the polling, Caltrans concluded: Not all participants answered every question. A few had difficulties with technology during the meeting and shared their responses in follow-up emails to Caltrans.

- There was positive support for the process used to analyze the alternatives.
- All but two of 34 stakeholders supported further study of Alternative X. These stakeholders expressed their concerns and Caltrans is aware that local residents may share some of these same concerns.
- There was stakeholder support for further study of Alternative F.
- All but two stakeholders (out of 32), were supportive of Alternatives L, A1, A2, G1 and G2 being removed from further study.

The specific questions asked included:

1. What is your level of support for the overall process used to analyze the alternatives?
2. What is your level of support for Alternative X being studied further in the impact analysis?
3. What is your level of support for Alternative F being studied further in the impact analysis?
4. What is your level of support for Alternatives L, A1, A2, G1 and G2 being removed from further study?

Appendix A. Workshop Materials

Alternatives Analysis Methodology – Workshop #3

Thursday, April 22, 2021
2:00 p.m. – 4:30 p.m.

Workshop Objectives:

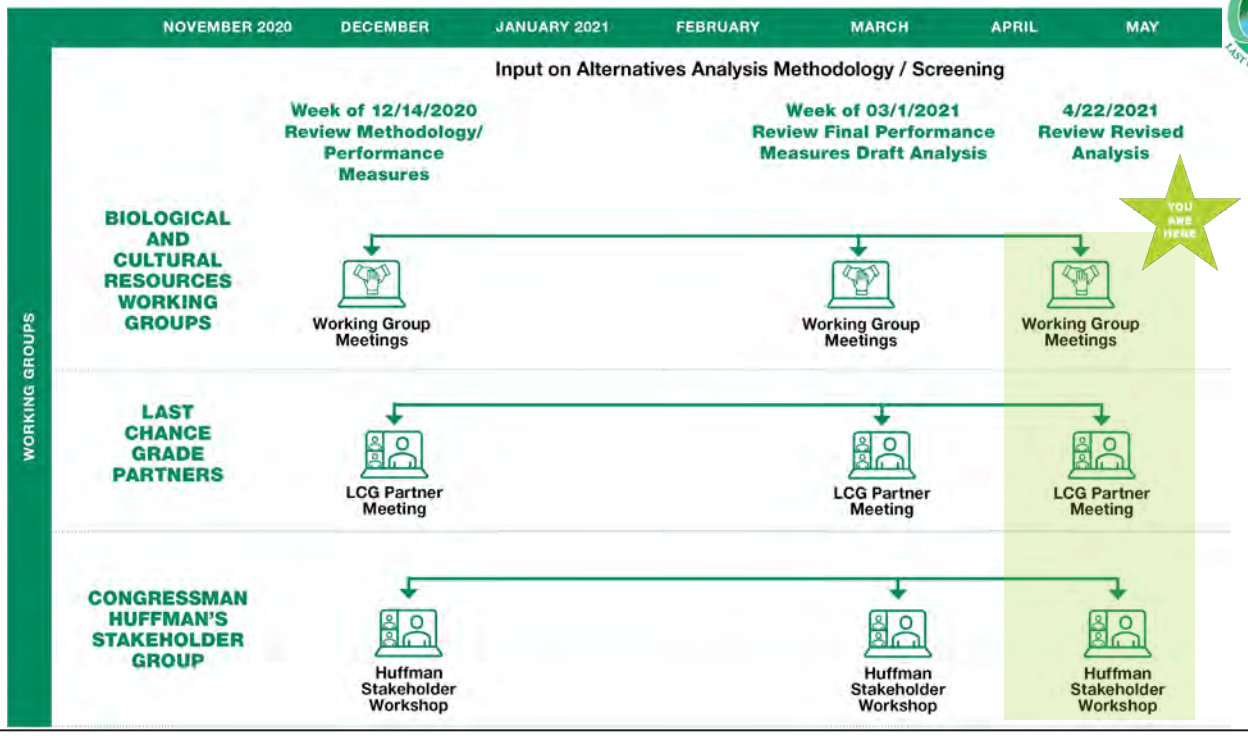
- Review and Endorse the Alternatives Assessment Methodology and Process
- Review and Confirm the alternatives selected by Caltrans (X & F) for further study in the impact analysis

Topic	Speaker	Discussion Tool
Welcome and Agenda Review	Jaime Matteoli, Caltrans Joan Chaplick, MIG	Chat and Raise Hands
Review Alternatives Process & Results	Dina Potter, HNTB John Cook, ICF	Chat and Raise Hands
Review Alternatives X & F and why they were selected for further study	Dina Potter, HNTB John Cook, ICF	Chat and Raise Hands
Review Alternatives L, A1, A2, G1 & G2 and why they were not selected for further study	John Cook, ICF	Chat and Raise Hands
Group Discussion	Joan Chaplick, MIG All participants	Chat
Poll Level of Support	Joan Chaplick, MIG Karen Wang, HNTB	Polling
Discuss Next Steps	Jaime Matteoli	Chat and Raise Hands

Workshop Objectives

- Review and support the Alternatives Assessment Process
- Understand the alternatives (F and X) selected by Caltrans for further detailed study in the environmental document
- Assess the level of support for Caltrans' decision
- Hear from each other and share perspectives

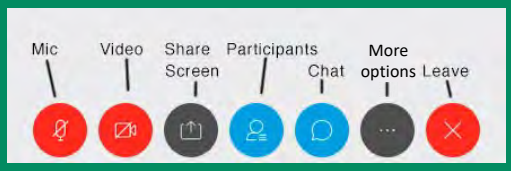
Alternatives Analysis Process



Agenda

- Review alternatives analysis process and results
  - Alternatives F and X and why they *were* selected for further detailed study
  - Alternatives A1, A2, G1, G2 and L and why they *were not* selected for further detailed study
- Stakeholder Questions and Comments
- Polling on Levels of Support
- Next Steps

Virtual participation on Webex



1 Audio & Video

Computer
- Use the toolbar

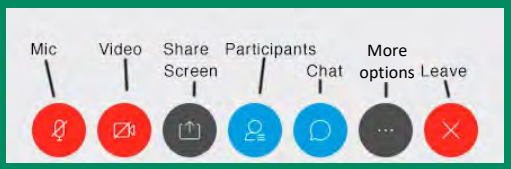
Phone
- Access dial-in number

Video
- Use "+" and "-" controls to zoom in or out

2 Chat

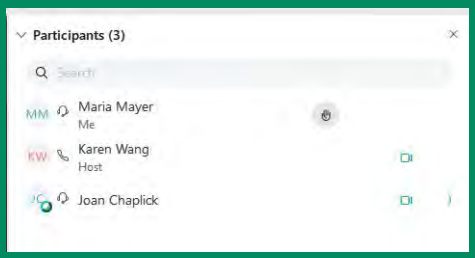
- Click on the chat and type your comments and questions
- We'll take comments throughout the workshop

Virtual participation on Webex

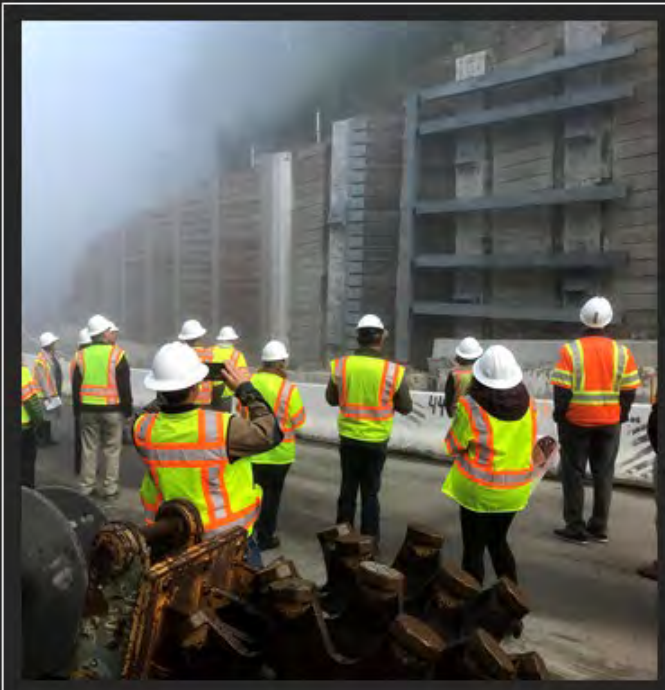


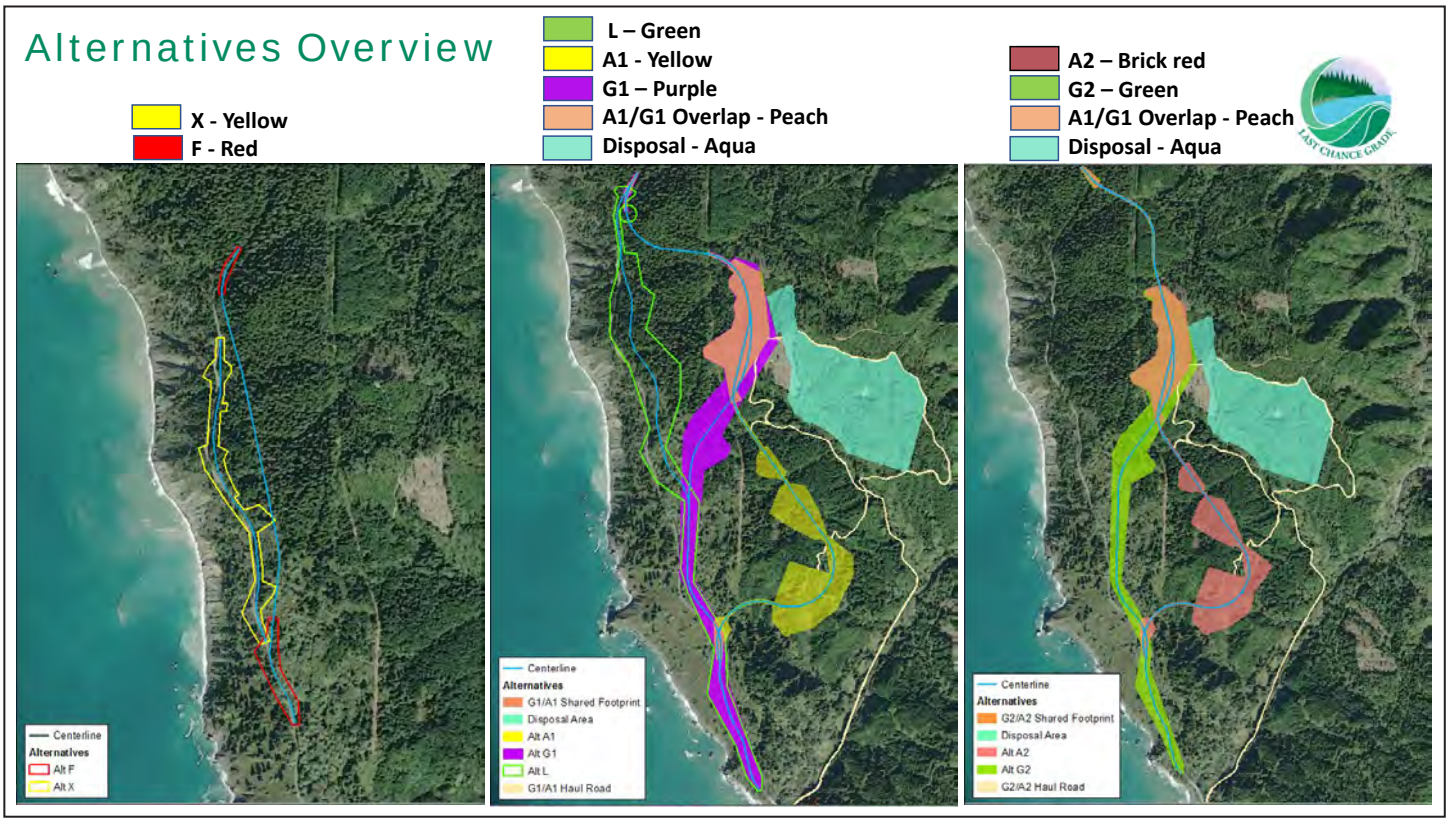
Participants

- Select icon on the toolbar to open the participants' window
- Select 'Raise Hand' button



Note: The following 3 slides depict a field trip to Last Chance Grade provided on April 21, 2021, with Caltrans' Chief Deputy Director, James Davis, in attendance, showing substantial progress made on recent repairs to damaged caused by landslides




Alternatives Overview
X - Yellow
F - Red
L – Green
A1 - Yellow
G1 – Purple
A1/G1 Overlap - Peach
Disposal - Aqua
A2 – Brick red
G2 – Green
A1/G1 Overlap - Peach
Disposal - Aqua
LAST CHANCE GRADE
Centerline
Alternatives
Alt F
Alt X
Centerline
Alternatives
G1/A1 Shared Footprint
Disposal Area
Alt A1
Alt G1
Alt L
G1/A1 Haul Road
Centerline
Alternatives
G2/A2 Shared Footprint
Disposal Area
Alt A2
Alt G2
G2/A2 Haul Road

Value of Alternatives Assessment to Identify Alternatives for Further Detailed Studies

- Assesses the range of possible alternatives
- Identifies the technically and economically feasible alternatives for further detailed study in the environmental document
- Saves time and resources by conducting detailed studies on a smaller footprint area
- Reduces the area and extent of ground-disturbing studies for selection of final alternative
- Provides higher level of certainty, lowered risk of schedule delay

Final Alternatives Assessment Results

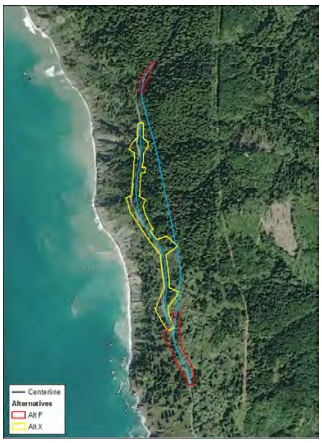
- F and X are top two in overall performance
  - F ranks high in all factors (landslide avoidance)
  - X strong except in Operations (landslide mitigation)
- All other alternatives perform lower than F or X

	X	L	F	A1	A2	G1	G2
Core Factors (Trees, Construction and Mitigation Costs)	1	3	2	3	3	7	3
Operational Factors	6	6	1	1	1	4	4
Construction Factors (Time to Construct, Cut and Fill, etc)	2	3	1	5	3	5	5
Natural Resource Factors (Animals, Vegetation, Waters)	2	3	1	4	4	6	6
All Factors Together	2	5	1	4	4	7	6

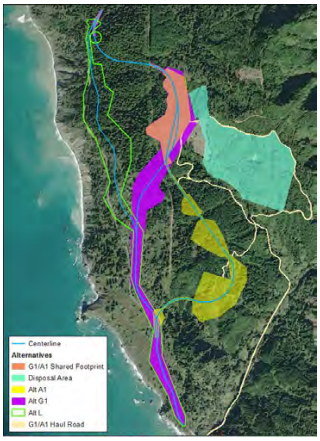
Why Not Further Study A1/A2, G1/G2, L?

- All have substantially higher environmental impacts
- Gs and L have "medium" geotechnical risk
- As and Gs have longer construction duration

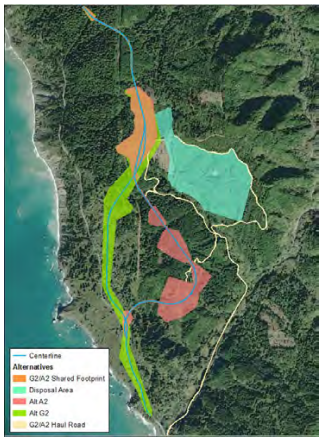
F and X



A1, G1, L



A2, G2



Why Further Study F and X?

- Best performers using agreed criteria
- Saves $10M this year
- Reduces environmental schedule by one year
  - 2026 becomes 2025
- Reduces risk of delays and cost increases

Why is X Being Studied Further?

- Environmental document must include a reasonable number of alternatives that are technically and economically feasible with fewer environmental impacts – **currently F and X are the most feasible**
- X is currently technically feasible with lower environmental impacts and costs relative to A1/A2, G1/G2 and L. Caltrans has a fiduciary responsibility to study this alternative in more detail
- ***Further study of X does not mean it will be built!***

Landslide Stabilization and Avoidance

Emergency Repairs

Localized

1. Avoidance - None

2. Stabilization
   - Retaining structures
     - Soldier pile-lagging/ ground anchors
     - Steel-reinforced concrete walls

Alternative X

End-to-End

1. Avoidance – Mitigation

2. Stabilization
   - Retaining structures
     - Tiered walls
     - Soldier pile-lagging/ ground anchors
     - Steel-reinforced concrete walls
   - Dewatering/ Subsurface Drainage
   - Soil/Rock Removal
     - Regrade at a flatter angle
     - Benching

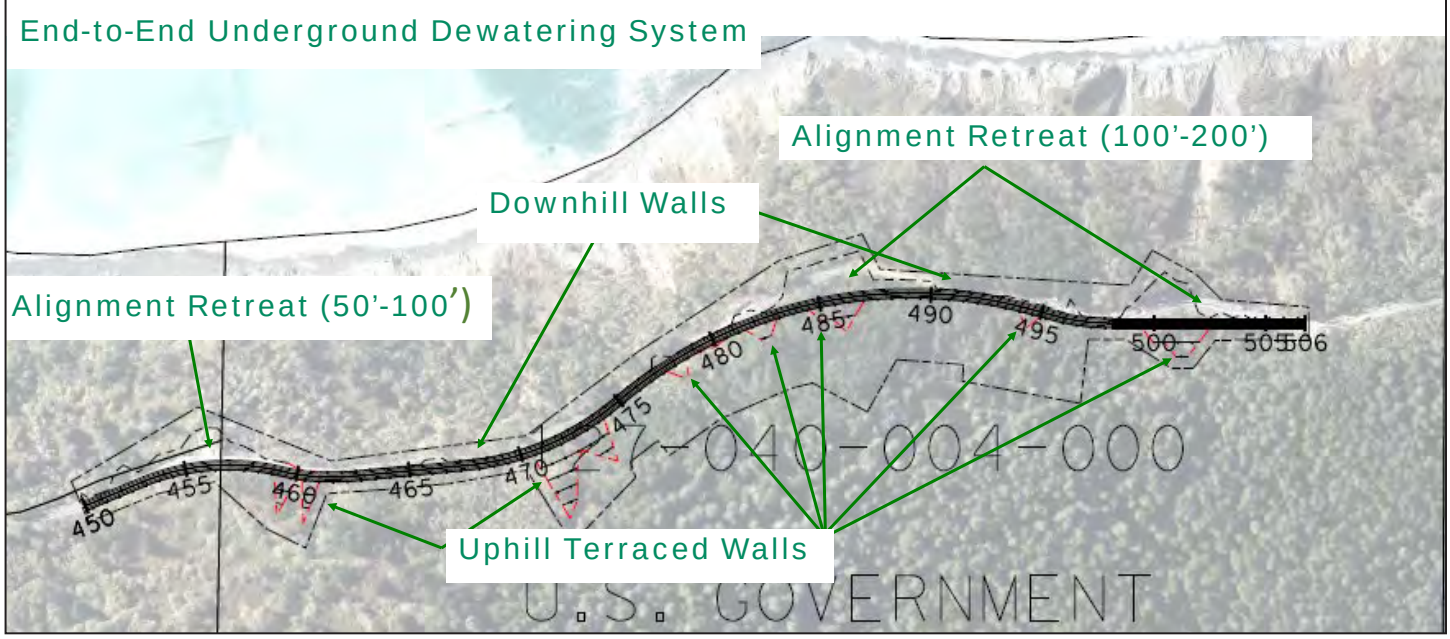
Alternative F

End-to-End

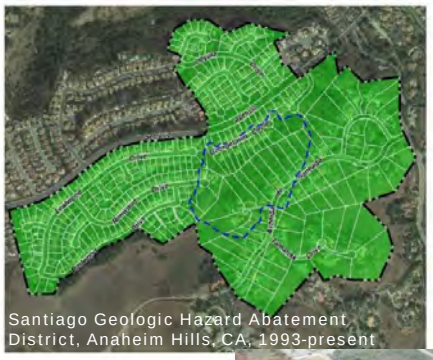
1. Avoidance – Realignment w/ Tunnel

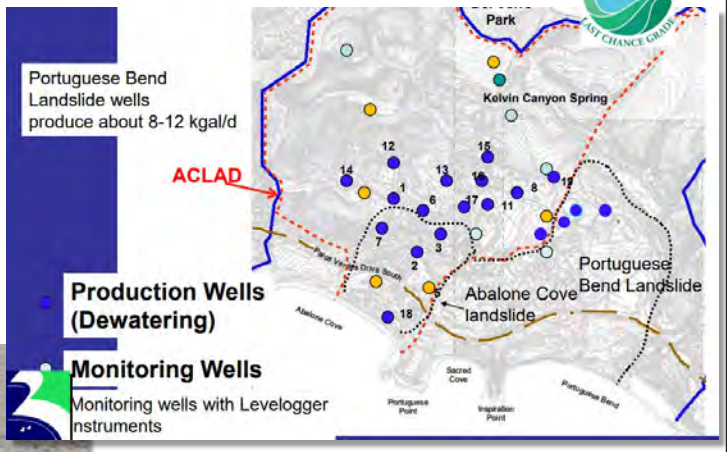
2. Stabilization at Portals
   - Retaining structures
     - Tiered walls
   - Dewatering/ Subsurface Drainage

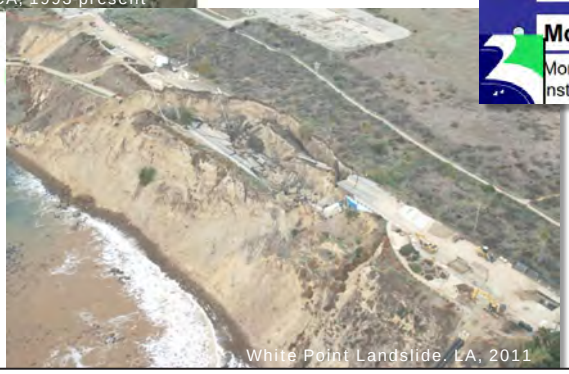
Alternative X – Holistic Mitigation



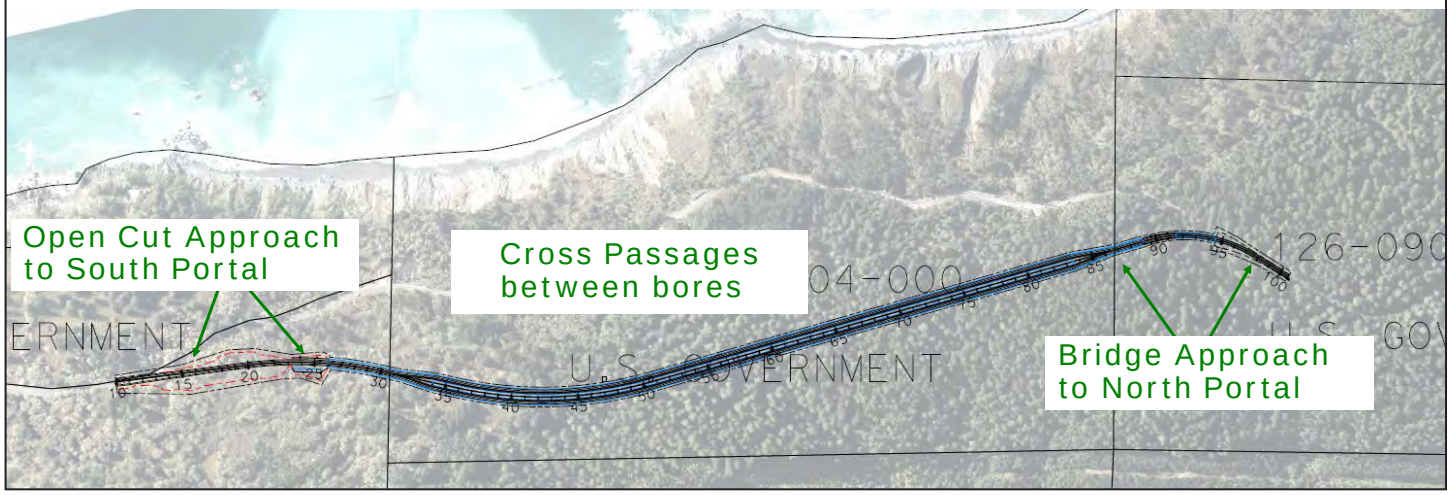
Dewatering System Examples (SoCal)


Santiago Geologic Hazard Abatement District, Anaheim Hills, CA, 1993-present



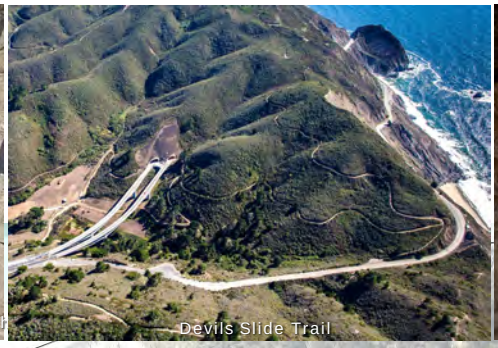

White Point Landslide, LA, 2011

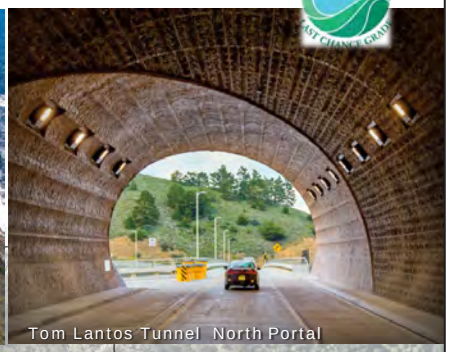
Alternative F Tunnel -Avoidance

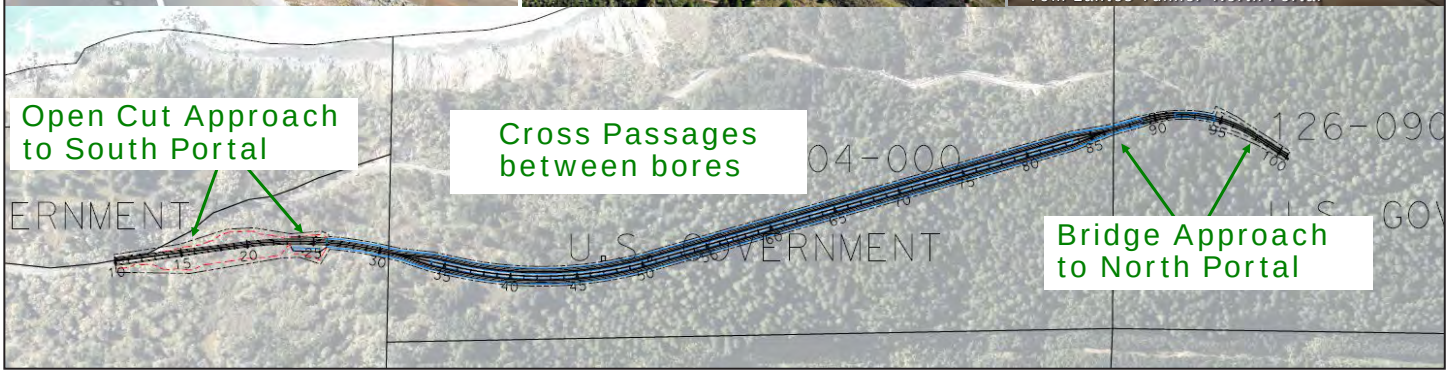


Tunnel Portal Examples

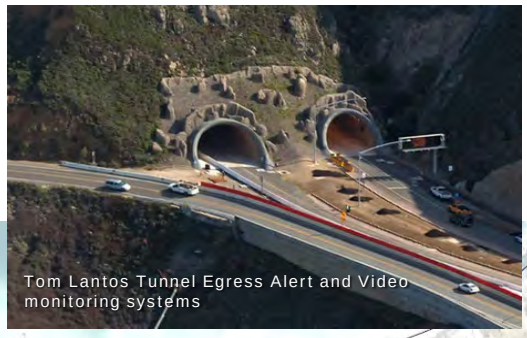

Tom Lantos Tunnel South


Devils Slide Trail

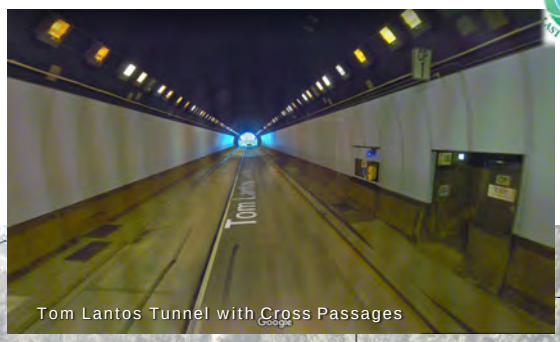

Tom Lantos Tunnel North Portal



Tunnel Safety Examples



Tom Lantos Tunnel Egress Alert and Video monitoring systems



Tom Lantos Tunnel with Cross Passages

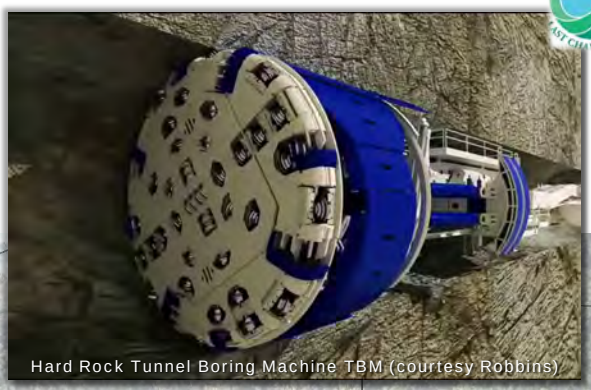
Open Cut Approach to South Portal

Cross Passages between bores

Bridge Approach to North Portal

Tunnel Construction Examples

Seismic Joint - Istanbul



Hard Rock Tunnel Boring Machine TBM (courtesy Robbins)

Open Cut Approach to South Portal

Cross Passages between bores

Bridge Approach to North Portal

What's still on your mind?

Participants, please take a moment to:

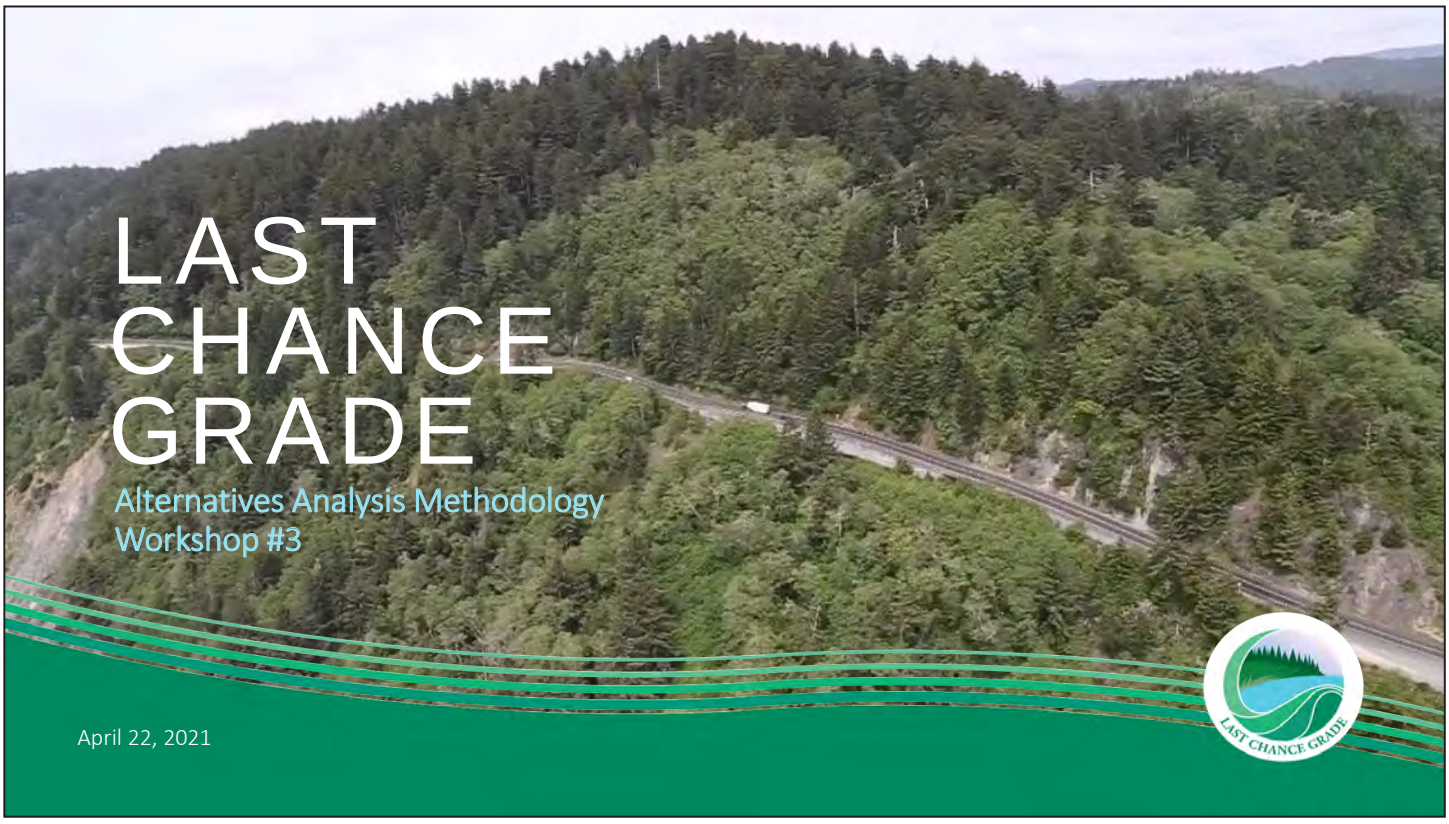
- Enter any thoughts and questions in the chat.
- We'd like a response from everyone
- If you don't have a question, please enter "ok" in the chat.

Polling Slides – 4 Questions

1. Level of support for the overall process used to analyze the alternatives
2. Level of support for X being studied further in the impact analysis
3. Level of support for F being studied further in the impact analysis
4. Level of support for L, A1, A2, G1 and G2 being removed from further study

Next Steps

- Environmental field studies
- Value Analysis/ Constructability review
- CEQA/ NEPA scoping meeting
- Engineering and environmental technical studies
- Draft Environmental Document
- Public Hearing
- Final Environmental Document



Appendix B. Workshop Results

Appendix B: Workshop Results

Last Chance Grade Permanent Restoration Project
Alternatives Analysis Methodology – Workshop #3
Thursday, April 22, 2:00-4:30 p.m.
Record of Stakeholder Invitations and Attendance

Attended—Stakeholders

California Coastal Commission
- Tamara Gedik, Coastal Program Analyst
- Amber Leavitt, Transportation Program Analyst
- Bob Merrill, North Coast Director

California Department of Fish and Wildlife
- Jennifer Olson, Senior Environmental Scientist, Coastal Conservation Planning

California State Parks
- Amber Barton, Associate State Archaeologist
- Victor Bjelajac, District Superintendent II
- Rosalind Litzky
- Amber Transou, Environmental Scientist - North Coast Redwoods District
- Carol Wilson, Environmental Scientist

City of Crescent City
- Ray Altman, Council Member
- Jason Greenough, Mayor

Community Representative
- Kurt Stremberg

Crescent City-Del Norte Chamber of Commerce
- Cindy Vosburg, Executive Director

Del Norte County Board of Supervisors
- Valerie Starkey, Supervisor, District 2

Del Norte Local Transportation Commission
- Gerry Hemmingsen, Commissioner; Del Norte County Board of Supervisors, Distict 4
- Tamera Leighton, Director

Elk Valley Rancheria
- Kevin Mealue, Cultural Resource Specialist
- Crista Stewart, Tribal Historic Preservation Officer (THPO)
- Richard Warner, Transportation, Vice Chairman

EPIC
- Tom Wheeler, Executive Director

Friends of Del Norte
- Don Gillespie

Green Diamond Resource Co
- Craig Compton, North Coast Director

Humboldt County Association of Governments
- Gordon Johnson, Council Member, City of Rio Dell

Humboldt County Board of Supervisors
- Steve Madrone, Supervisor, 5th District

National Oceanic and Atmospheric Administration
- Mike Kelly, Fisheries Biologist

National Park Service
- Keith Bensen, Fish and Wildlife Biologist, Redwood National Park
- Kevin McCardle, Historical Landscape Architect
- Steve Mietz, Superintendent, Redwood National and State Parks
- Saylor Moss, Historical Landscape Architect

Office of Representative Jared Huffman
- Ciara Emery, Field Representative
- John Driscoll, District Representative

Office of Senator Mike McGuire
- May Johnson
- Kerrie Lindecker, District Director / Communications Coordinator

Redwood National Parks
- David Roemer, Deputy Superintendent

Save the Redwoods League
- Richard Campbell, Director of Restoration

State Water Resources Control Board
- Susan Stewart, North Coast Regional Water Control Board

Tolowa Nation
- Charlene Storr, North Coast Director

US Army Corps of Engineers
- Daniel B. Breen, Senior Regulatory Project Manager

US Environmental Protection Agency
- Carolyn Mulvihill, NEPA Reviewer - Transportation

US Fish and Wildlife Service
- Gregory Schmidt, Fish and Wildlife Biologist

Yurok Tribe
- Rosie Clayburn, Tribal Historic Preservation Officer (THPO)

Last Chance Grade Alternatives Analysis Methodology, Workshop #3 – Attendance Record *Page 1*

Attended—Project Staff

Caltrans District 1 Staff

- Steven Croteau, Senior Environmental Planner, North Region Environmental
- Kellie Eldridge, Environmental Planner
- Alexis Kelso, Project Planning Liaison
- Jaime Matteoli, Last Chance Grade Project Manager
- Charlie Narwold, Chief of Geotechnical Services

Project Team (Consultants)

HNTB

- Mala Ciancia, Principal Tunnel Geologist
- John Litzinger, Group Director / Senior Project Manager
- Dina Potter, Project Manager
- Karen Wang, Associate Vice President

ICF

- John Cook, Environmental Planning Principal

Area West Environmental

- Aimee Dour-Smith

MIG, Inc.

- Joan Chaplick, Public Engagement Manager
- Maria Mayer, Senior Project Associate

National Center for Conflict Resolution

- Joy Keller-Weidman, Senior Program Manager

Invited, Did Not Attend—Stakeholders

C. Renner Petroleum
- Sabina Renner, CEO / Secretary

California Coastal Commission
- Tami Grove, Transportation Program Manager

California Highway Patrol
- Lieutenant Larry Depee, Commander

California State Parks
- Greg Collins, Supervisor, Cultural Resources Program, North Coast Redwoods District
- Shannon Dempsey, North Coast Redwoods District
- Lathrop Leonard, Forester I
- Brett Silver, District Superintendent I
- Keith Slauson, Ecologist

County of Del Norte
- Heidi Kunstal, Community Development Director (contacted re replacement for prior representative Taylor Carsley, Planner, who no longer works for County)

Del Norte County Board of Supervisors
- Bob Berkowitz, Vice-Chair, Supervisor, District 5 (Board represented by alternate Valerie Starkey)

National Oceanic and Atmospheric Administration
- Dan Free, Fisheries Biologist
- Jeffrey Jahn, Branch Chief, West Coast Regional Office (briefed by Mike Kelly, who did attend)

National Park Service
- David Best, GIS Coordinator, Redwood National Park
- Leonel Arguello, Chief, Resource Management and Science

Redwood National Parks
- Karin Grantham, Chief, Resource Management and Science

Resighini Rancheria
- Kathy Dowd, THPO, Councilperson
- Moonchay Dowd, Vice-Chairperson, General Assistance Program (GAP) Manager
- Shaunna McCovey, Director of Natural Resources & Governmental Affairs
- Bradford Norman, Wetlands Coordinator
- Megan Van Pelt, Executive Director

Rumiano Cheese
- Gary Smits

Tolowa Dee-ni' Nation
- Leann Babcock, Chair
- Zack Chapman, TERO Director
- Tim Hoone, Transportation Planning Director
- Karin Levy, Cultural Resource Specialist
- Amanda O'Connell, Tribal Historic Preservation Officer (THPO)
- Erika Partee, Natural Resources Director
- Marvin Richards, Senior Tribal Council

Tolowa Nation
- Max Keyes, Chairman
- Raja Storr

US Army Corps of Engineers
- Sarah M. Firestone
- L.K. Sirkin, Lead Biologist

US Environmental Protection Agency
- Jennifer Siu, Wetlands Section

Yurok Tribe
- Don Barnes, Director, Office of Self-Governance
- Suzanne Fluharty, Division Manager, Community and Ecosystem
- Matthew Hanington, Water Division Manager
- Dave Hillemeier, Director, Fisheries Department
- Joseph James, Chairman
- Grant Klopmeyer, Transportation Planner
- Louisa McCovey, Environmental Director
- Richard Nelson, Director, Watershed Restoration
- Samantha Reid, Cultural Resource Specialist
- Chris West, Senior Wildlife Biologist

Invited, Did Not Attend—Caltrans District 1 Staff
- Tim Keefe, Senior Environmental Planner
- Clayton Malmberg
- Matt Smith, Desiign
- Alexandra Thiel, Environmental Planning, Biologist
- Stacey Zolnoski, Associate Environmental Planner / Archaeologist

Last Chance Grade Working Group Alternatives Analysis Methodology Workshop 3 - Polling Results

Question	Highly supportive		Somewhat supportive		Neutral		Somewhat unsupportive		Do not support		Total #
	%	#	%	#	%	#	%	#	%	#	
1. What is your level of support for the overall process used to analyze the alternatives?	57%	20	34%	12	9%	3	0%	0	0%	0	**35**
2. What is your level of support for X being studied further in the impact analysis?	65%	22	18%	6	12%	4	0%	0	6%	2	**34**
3. What is your level of support for F being studied further in the impact analysis?	73%	22	17%	5	10%	3	0%	0	0%	0	**30**
4. What is your level of support for L, A1, A2, G1 and G2 being removed from further study?	38%	12	34%	11	22%	7	6%	2	0%	0	**32**

ATTACHMENT C

MEMORANDUM: ENVIRONMENTAL CONDITIONS – CONSTRAINTS MAP (APRIL 2021)

SAMPLE GIS MAP ANALYSIS

Last Chance Grade Permanent Restoration Project

Environmental Conditions – Constraints Map Final

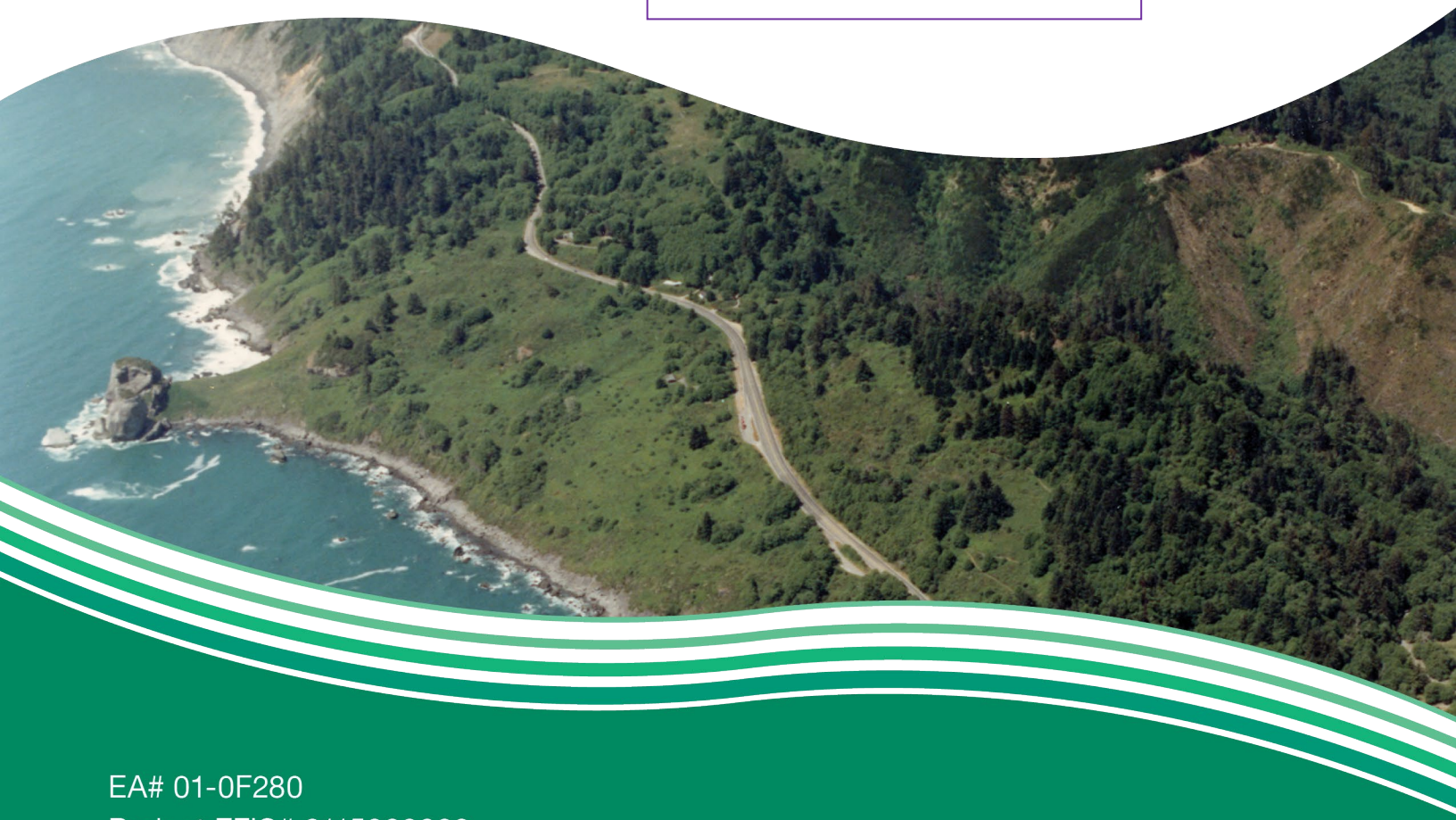
Submittal #020

March 4, 2021

Visual Check 03/26/21

Dina Potter

Include names/dates of file referenced thar are ported on AGOL.



EA# 01-0F280
Project EFIS# 0115000099
Del Norte County, U.S. 101,
PM 12.0/15.5

Caltrans

LAST CHANCE GRADE

DRAFT MEMORANDUM

To:	**California Department of Transportation (Caltrans), District 1**: Jaime Matteoli, Steve Croteau, Kellie Eldridge, Ali Thiel **HNTB**: Dina Potter, John Litzinger, Karen Wang
From:	**Project Environmental Consultant Team:** **ICF:** John Cook, Eric Link, Manna Warburton
Date:	April 1, 2021
Re:	**Environmental Conditions – Constraints Map (165.05.15)**

ICF has compiled a map of preliminary environmental constraints (constraints map). The purpose of the constraints map is to help inform the alternatives analysis and initial design, leading to preparation of the draft environmental document.

ICF has compiled the constraints map in electronic format, specifically ArcGIS Online (sometimes known by the acronym "AGOL"). The electronic format facilitates sharing of this vital information among the entire project development team, any periodic updating of project information, and incorporating new information that may be obtained. ICF's initial preparation of the constraints map reflected Environmental Survey Limits (ESL) for each project alternative current as of February 2021 (referred to internally as "Revision 4"). The ESL includes all areas where ground disturbance is anticipated, including cut and fill areas, temporary construction easements, disposal areas, and haul roads. The GIS tool allows for users to see (and calculate) how specific alternatives overlay various environmental resource areas (described below) and thus to test how modifications to such alternatives change potential impacts on resources constraining the design.

As further detailed in Table 1 below, the content of the constraints map includes "base" information about existing features, including the existing roadway (US 101), haul roads and culverts within the Green Diamond Resource Company (GDRC) portion of the project area, and boundaries of the National and State Parks (including designated trails).

The majority of constraints concern biological resources. Habitats of botanical and wildlife species of concerns are drawn from the California Natural Diversity Database (CNDDB), the United States Fish and Wildlife Service, and other sources including those provided by Caltrans District 1. The constraints map also includes relevant information such as the extent of the Coastal Zone and planned timber harvest areas within GDRC land.

Table 1: Initial Data Sources for Last Chance Grade Constraints Mapping

ArcGIS Online Data Layer Name	Source	Date
Project Engineering Information		
LCG V4 Alternatives ROW Footprints Compiled 20210128	HNTB - ArcGIS Online Shared Layer	2/15/2021
LCG V4 Alternatives Disposal Sites Compiled 20210128	HNTB - ArcGIS Online Shared Layer	2/5/2021
Ortho Aerial 2016 Footprint Tile Index - Pure Vector	HNTB - ArcGIS Online Shared Layer	11/12/2020
Access Roads Compiled V4	HNTB - ArcGIS Online Shared Layer	2/8/2021
Existing Exploration Access Paths - Road	HNTB - ArcGIS Online Shared Layer	2/4/2021
Existing Exploration Access Paths - name	HNTB - ArcGIS Online Shared Layer	2/4/2021
Natural Resource Information		
LCG Vegetation	Caltrans	2/8/2021
MAMU Critical Habitat	United States Fish and Wildlife Service	9/17/2020
MAMU Habitat on Green Diamond Resource Company Property	Caltrans/Green Diamond Resource Company[1]	9/30/2020
Caltrans_LCG_Geo_P2_Veg_Types	Caltrans	10/15/2019
Caltrans_LCG_Geo_P2_Rare_Plants	Caltrans	9/30/2019
Rare Plants GDRC	Caltrans/Green Diamond Resource Company	2/10/2021
DNCRSP - Plants	Caltrans/Redwood National & State Parks[2]	5/13/2020
Wolf's evening-primrose (Oenothera wolfii)	Caltrans/Redwood National & State Parks	5/13/2020
Salmonid Species Distribution	Green Diamond Resource Company	5/13/2020
Coastal Marten	Coastal Marten Connectivity Analysis (https://www.fws.gov/arcata/shc/marten/)	10/1/2020
Natural Landscape Blocks - California Essential Habitat Connectivity (CEHC) [ds621]	ESRI Arc GIS On Line/California Department of Fish and Wildlife	3/19/2020
Potential Riparian Connections - CEHC [ds622]		2/12/2020
Natural Areas Small - California Essential Habitat Connectivity (CEHC) [ds1073]		2/12/2020
LCG CNDDB - Plants	California Department of Fish and Wildlife	1/1/2021

[1] All data regarding Green Diamond Resource Company was provided to the ICF team via Caltrans.

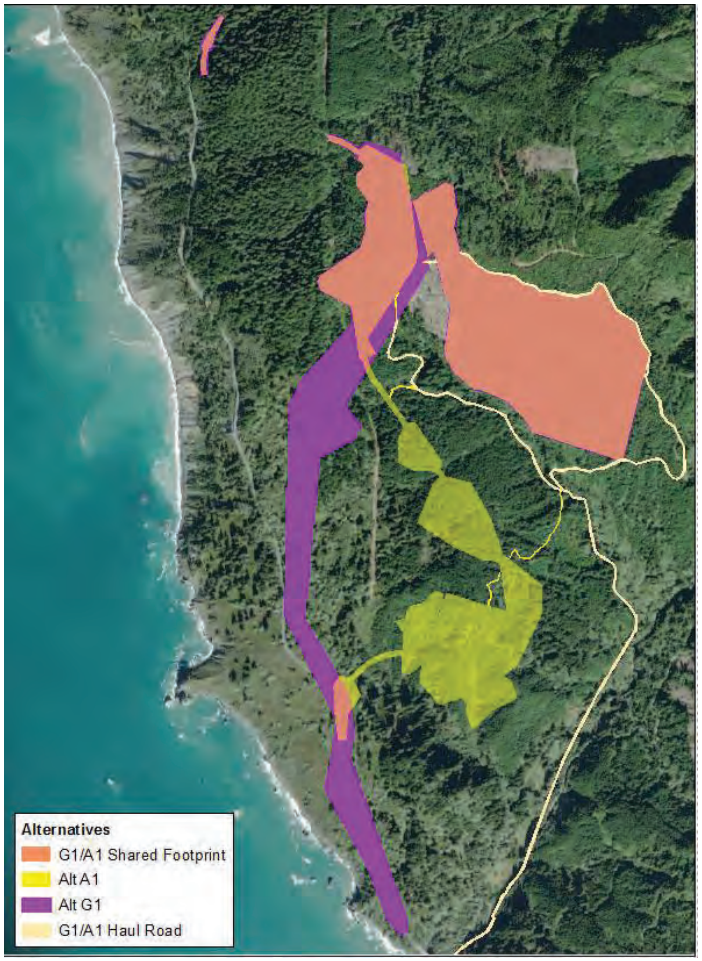
[2] All data regarding Redwood National and State Parks was provided to the ICF team via Caltrans.

ArcGIS Online Data Layer Name	Source	Date
LCG CNDDB - Animals	California Department of Fish and Wildlife	1/1/2021
NSO Activity Center	California Department of Fish and Wildlife	11/17/2020
Other Information		
State and National Parks	California Protected Areas Database (CPAD) www.Calands.org	6/30/2019
Park Trails	HNTB - ArcGIS Online Shared Layer	1/6/2021
Inland Coastal Zone	HNTB - ArcGIS Online Shared Layer	6/30/2020
Green Diamond Road Network	HNTB - ArcGIS Online Shared Layer	1/6/2021
GDRCO Harvest Planning 10yr	Caltrans/Green Diamond Resource Company	6/4/2020
Hydrography	Caltrans/Green Diamond Resource Company	5/13/2020
Culvert Locations (GDRC)	Caltrans/Green Diamond Resource Company	6/19/2020

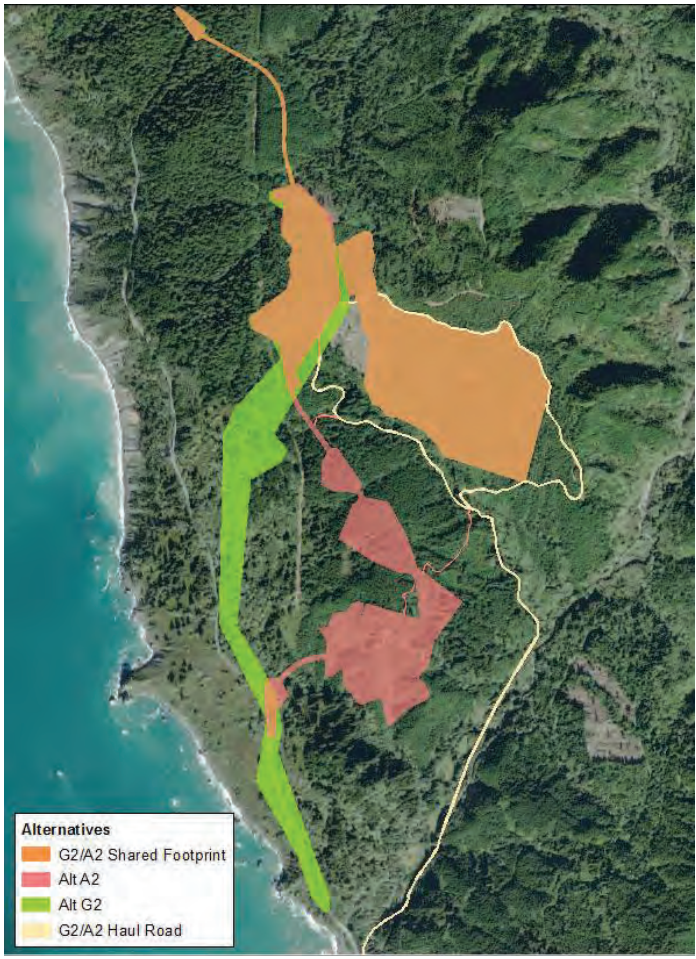
Alternatives Overview

“West Side”
X (Yellow), F (Red), and L (Peach)

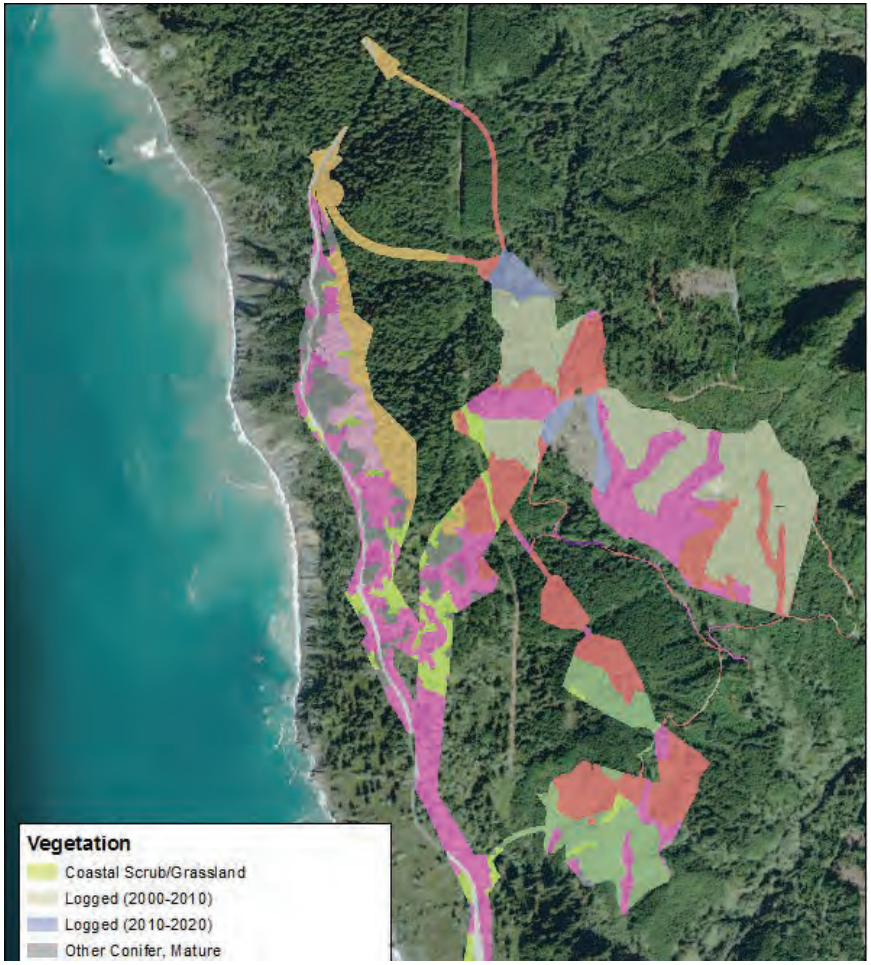
A1 and G1



A2 and G2



Vegetation Overview

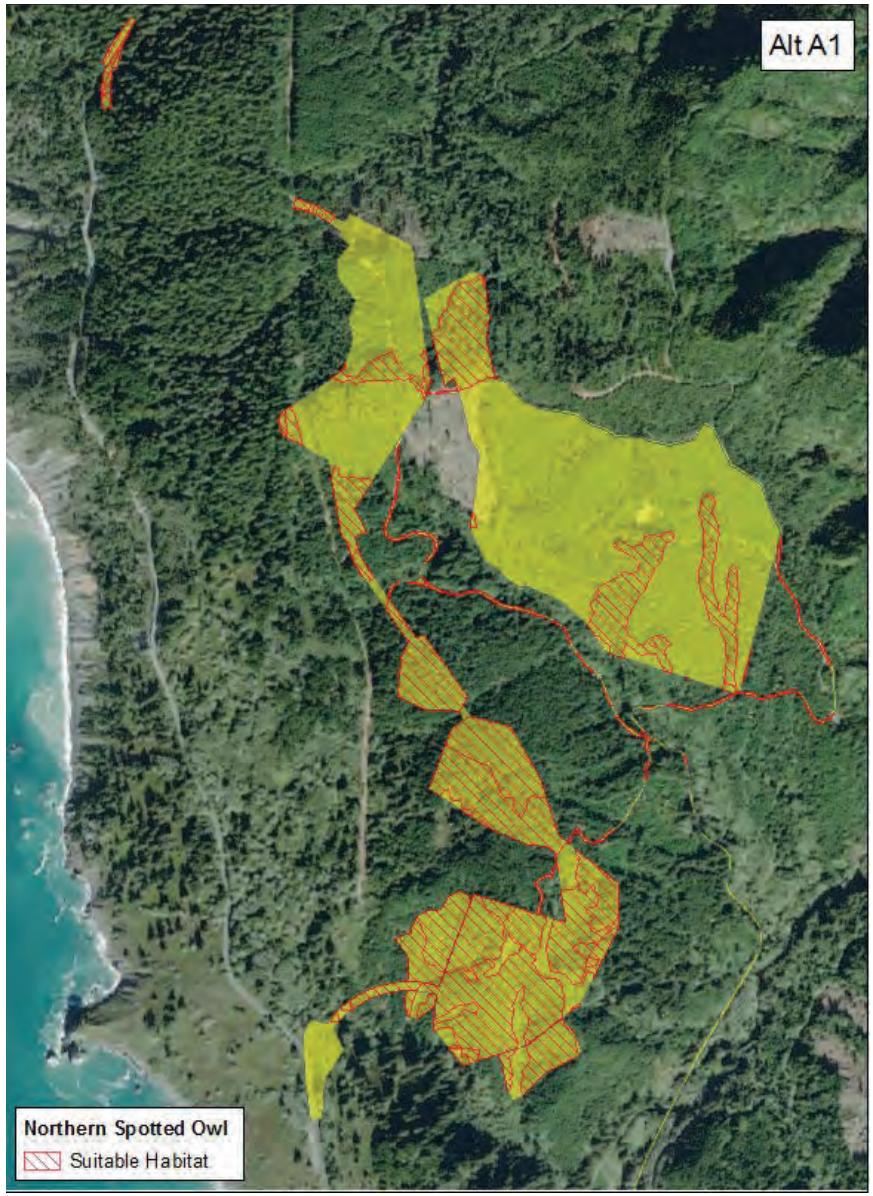

Vegetation
Coastal Scrub/Grassland
Logged (2000-2010)
Logged (2010-2020)
Other Conifer, Mature

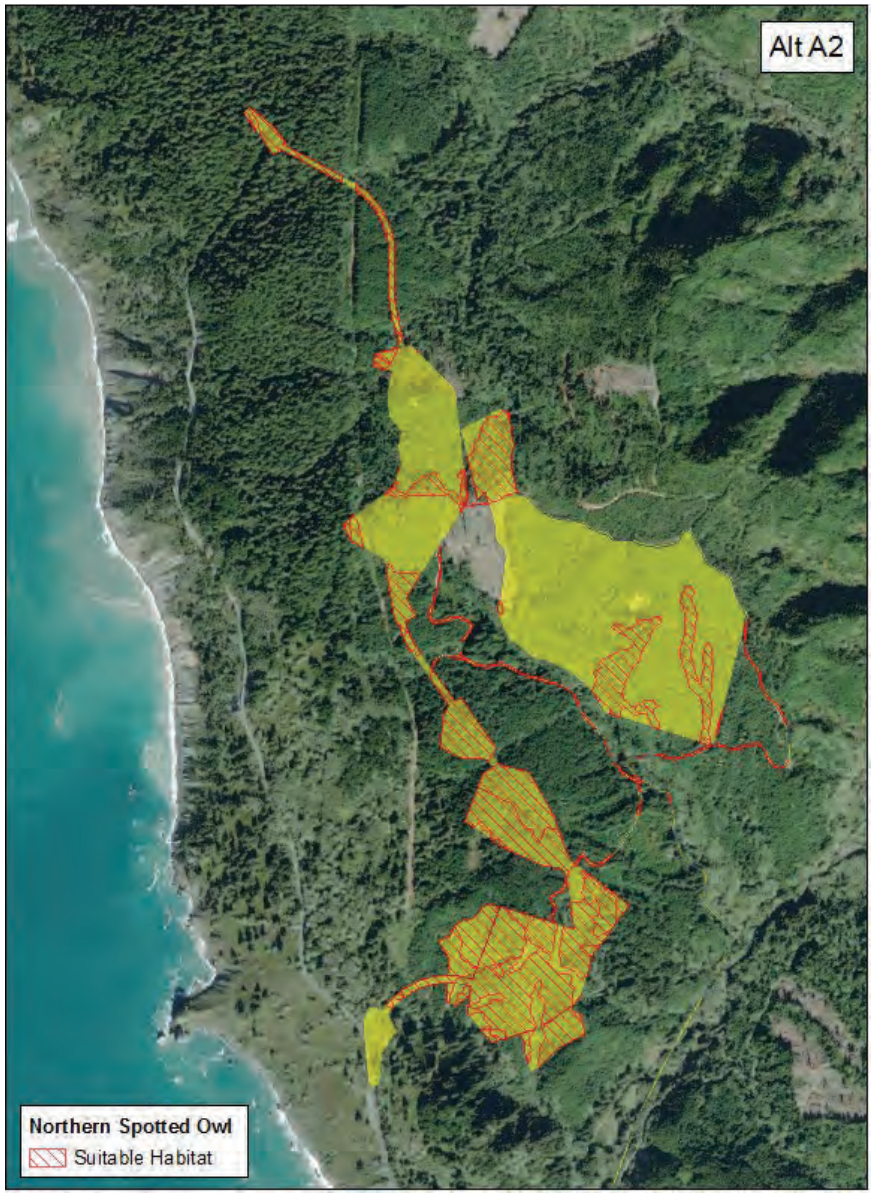
Northern Spotted Owl Habitat Overview

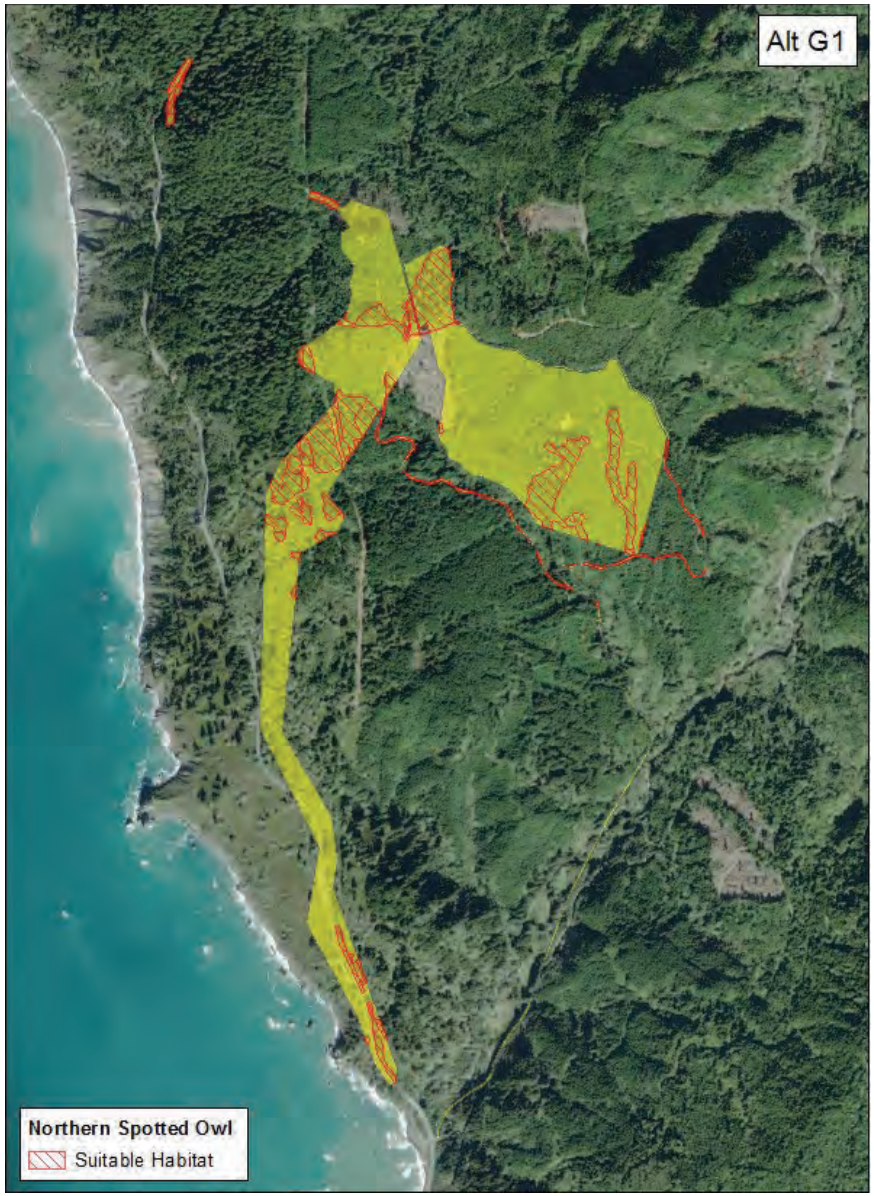

Alt X
Northern Spotted Owl
Suitable Habitat

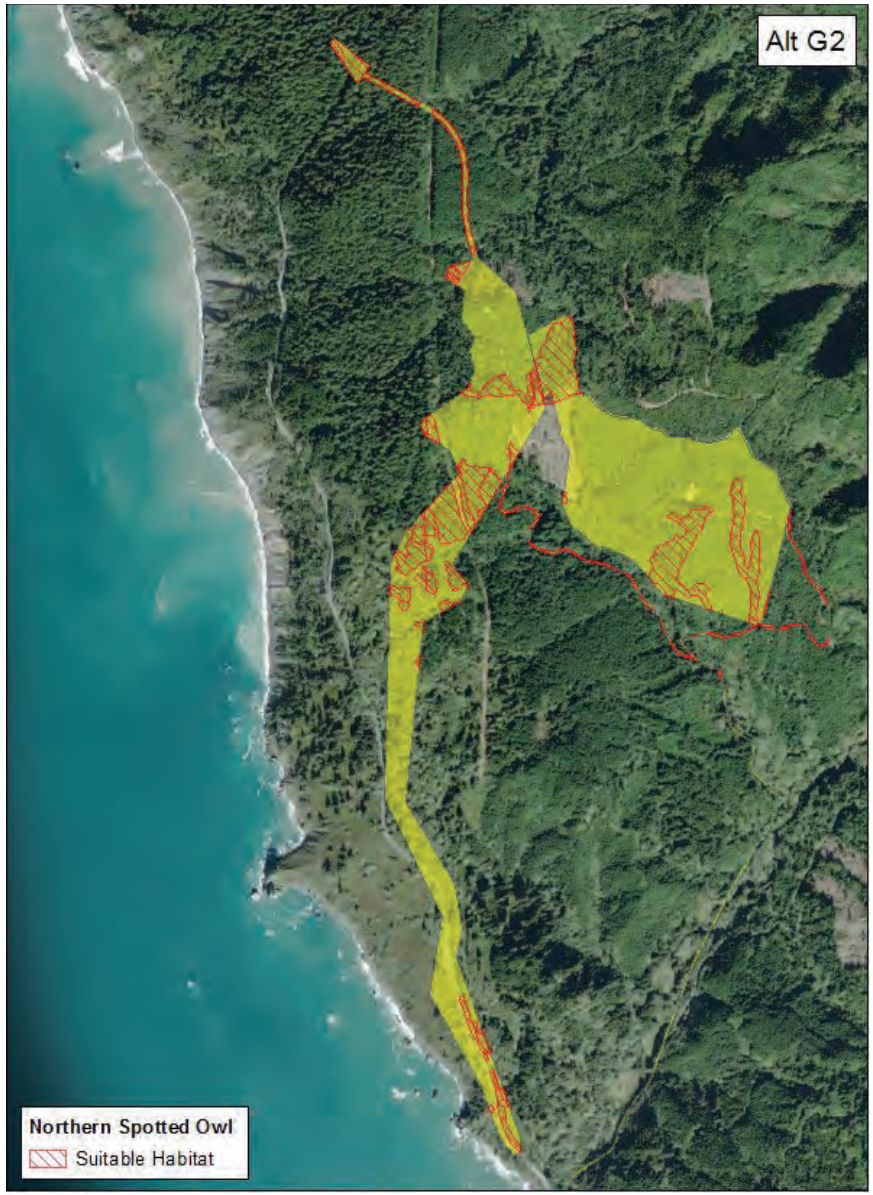

Alt L
Northern Spotted Owl
Suitable Habitat


Alt F
Northern Spotted Owl
Suitable Habitat


Alt A1
Northern Spotted Owl
Suitable Habitat

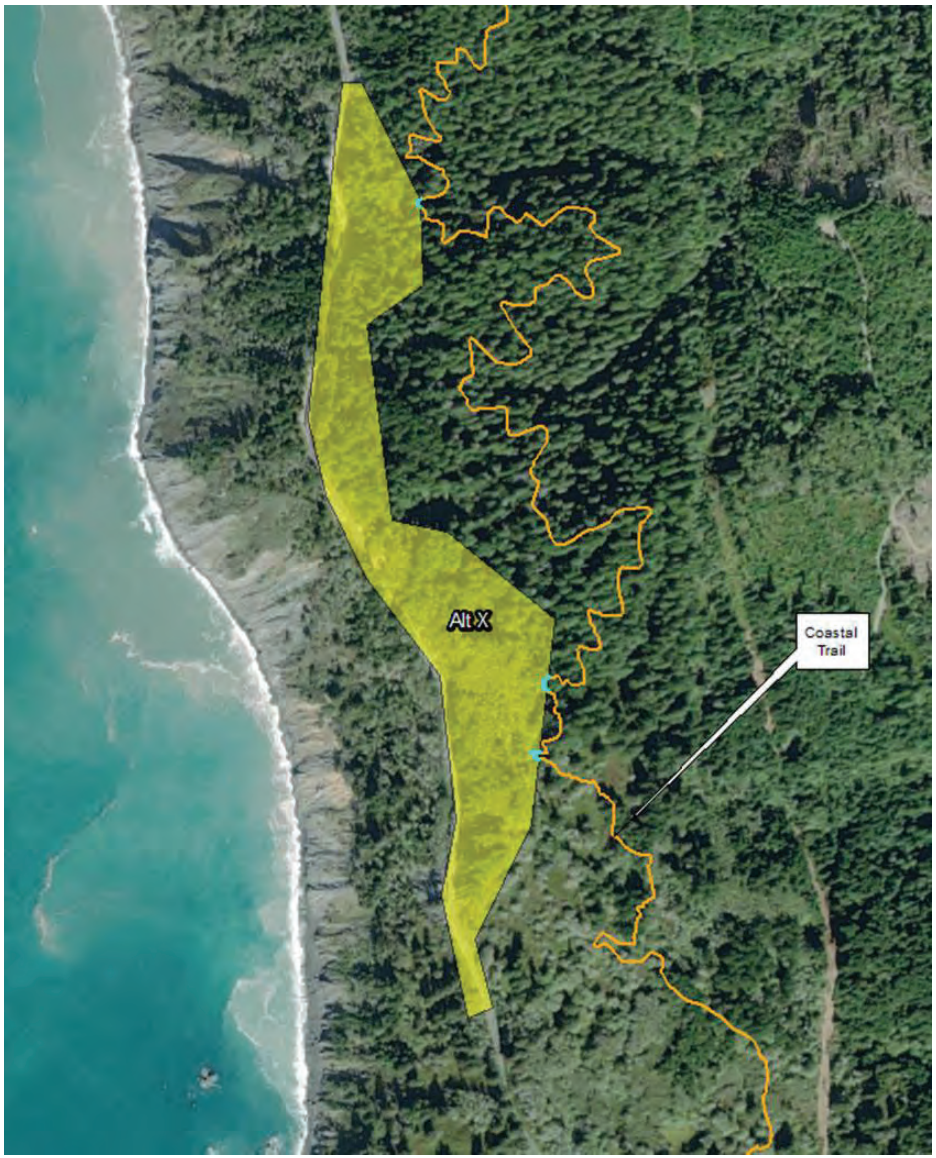

Alt A2
Northern Spotted Owl
Suitable Habitat

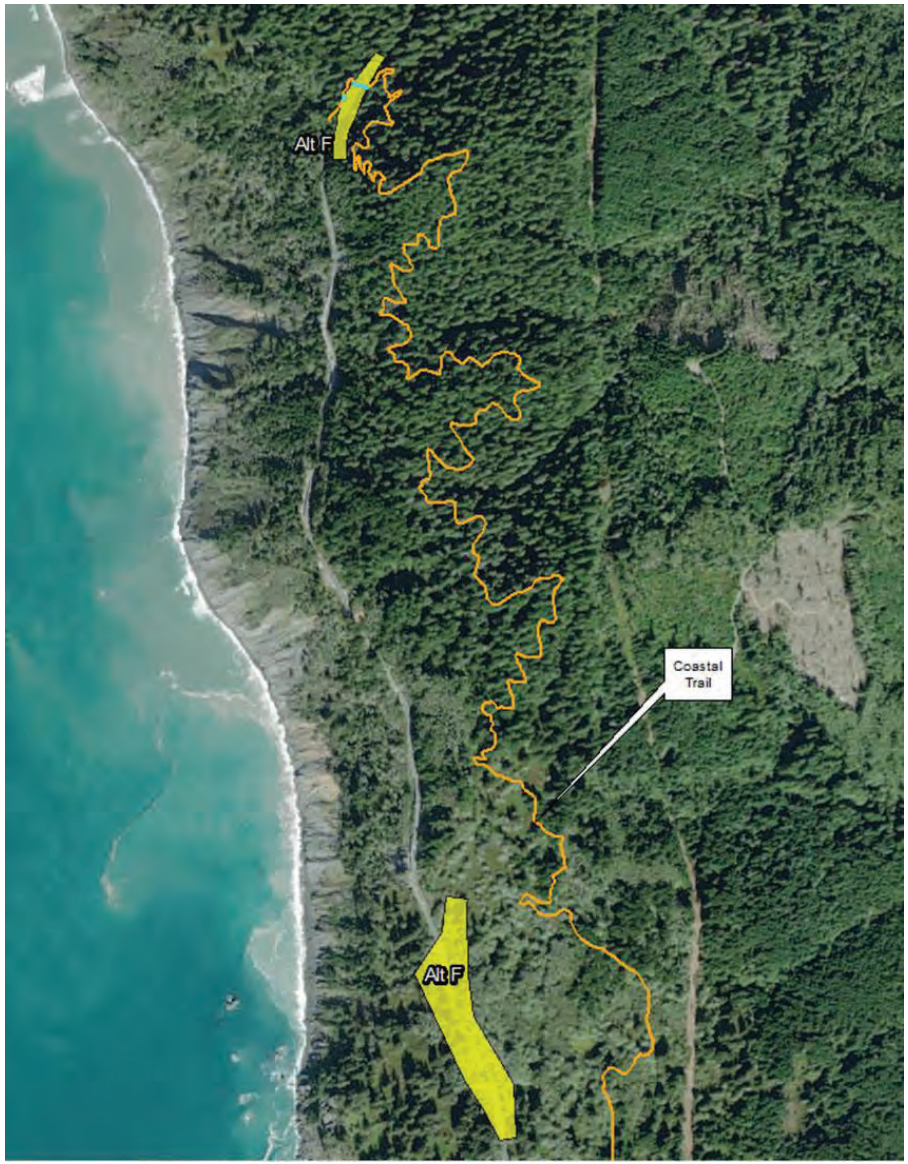

Alt G1
Northern Spotted Owl
Suitable Habitat


Alt G2
Northern Spotted Owl
Suitable Habitat

Trails

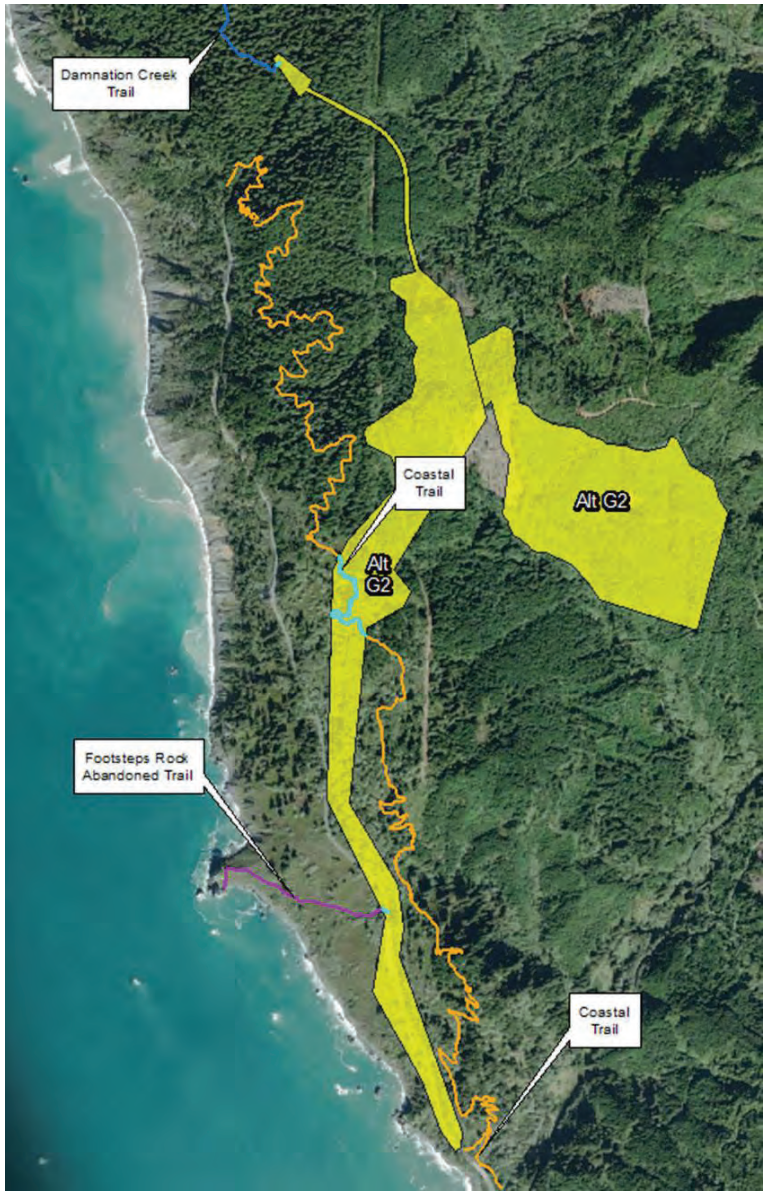

Damnation Creek Trail
Coastal Trail
Footsteps Rock Abandoned Trail
Coastal Trail


Alt X
Coastal Trail


Alt F
Coastal Trail
Alt F


Alt L
Coastal Trail
Footsteps Rock Abandoned Trail
Coastal Trail


Alt G1
Alt G1
Alt G1
Coastal Trail
Footsteps Rock Abandoned Trail
Coastal Trail


Damnation Creek Trail
Coastal Trail
Alt G2
Alt G2
Footsteps Rock Abandoned Trail
Coastal Trail

ATTACHMENT D

ALTERNATIVES ANALYSIS RESULTS WORKSHEET – FEBRUARY 2021

LCG Project Alterantives Analysis Results Worksheet

Performance Measures	X	L	F	A1	A2	G1	G2	Factor Weight
CORE FACTORS								
Trees (Sum of all Redwoods [incl GDRC MAMU Preserve] + Other Mature Conifers - acres)	13.9	72.5	1.6	2.3	4.7	4.9	7.2	**5**
Normalized Score	3	5	1	1	3	3	3	
Trees Weighted Score (Normalized Score x Factor Weight)	15	25	5	5	15	15	15	
Cost to construct, millions	$220	$360	$930	$1,078	$690	$880	$520	**5**
Normalized Score	1	1	5	5	3	5	3	
Cost to Construct Weighted Score	5	5	25	25	15	25	15	
Cost of Mitigation	Medium	Very High	Medium	Very High	Very High	Very High	Very High	**5**
Normalized Score	3	5	3	5	5	5	5	
Cost of Mitigation Weighted Score	15	25	15	25	25	25	25	
Total Score, Core Factors	**35**	**55**	**45**	**55**	**55**	**65**	**55**	
Best Possible Core Factors Score								
15								
Worst Possible Core Factors Score								
75	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**	
Alternative Ranking 1-7, Core Factors only	1	3	2	3	3	7	3	
OPERATIONAL FACTORS	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**	**Factor Weight**
Road Closure Potential	H	H	L	L	L	M	M	**4**
Normalized Score	5	5	1	1	1	3	3	
Road Closure Weighted Score	20	20	4	4	4	12	12	

LCG Project Alterantives Analysis Results Worksheet

Performance Measures	X	L	F	A1	A2	G1	G2	Factor Weight
Cost to Maintain (relative to existing)	H	H	L	L	L	M	M	**1**
Normalized Score	5	5	1	1	1	3	3	
Cost to Maintain Weighted Score	5	5	1	1	1	3	3	
Traffic Mobility	H	H	L	L	L	M	M	**3**
Normalized Score	5	5	1	1	1	3	3	
Traffic Mobility Weighted Score	15	15	3	3	3	9	9	
Total Score, Operational Factors	**40**	**40**	**8**	**8**	**8**	**24**	**24**	
Best Possible Operational Score								
8								
Worst Possible Operational Score								
40								
Alternatives Ranking (1-7), Operational Factors only	6	6	1	1	1	4	4	
CONSTRUCTION FACTORS	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**	Factor Weigh
Footprint Size (acres)	35.7	167.5	15.4	359.9	371.6	348.7	359.5	**4**
Normalized Score	1	3	1	5	5	5	5	
Footprint Size Weighted Score	4	12	4	20	20	20	20	
Time to Construct (years)	3.5	3.5	7	5	3	5	3	**3**
Normalized Score	3	3	3	3	3	3	3	
Time to Construct Weighted Score	9	9	9	9	9	9	9	
CY of cut/fill deposited **within project area**	0	0	0	6.8M	7.1M	5.6M	5.9M	**4**
Normalized Score	1	1	1	5	5	5	5	
CY cut/fill deposited onsite weighted score	4	4	4	20	20	20	20	

LCG Project Alterantives Analysis Results Worksheet

Performance Measures	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**	**Factor Weight**
CY of cut/fill to be **deposited offsite**	400K	2.4M	650K	0	0	0	0	**4**
Normalized Score	3	5	3	1	1	1	1	
CY cut/fill deposited off site weighted score	12	20	12	4	4	4	4	
Trail Relocation Potential (number of trail intersections)	3	7	2	4	2	3	3	**2**
Normalized Score	3	5	1	3	1	3	3	
Trail Relocation Weighted Score	6	10	2	6	2	6	6	
Total Score, Construction Factors	**35**	**55**	**31**	**59**	**55**	**59**	**59**	
Best Possible Construction Score								
17								
Worst Possible Construction Score								
85								
Alternatives Ranking (1-7), Construction Factors only	2	3	1	5	3	5	5	
NATURAL FACTORS	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**	**Factor Weight**
Other Vegetation-Related Natural Factors (Excludes Redwoods and Mature Conifers - see Core Issues)								
Red Alder (Parks + GDRC) (acres)	12.3	61.1	8.0	69.4	69.4	102.9	103.2	**3**
Normalized Score	1	3	1	3	3	5	5	
Red Alder Weighted Score	3	9	3	9	9	15	15	
Coastal Scrub/Grassland (Parks + GDRC) (acres)	2.5	19.7	0.5	6.0	6.0	23.2	23.4	**3**
Normalized Score	1	5	1	1	1	5	5	
Coast Scrub/Grassland Weighted Score	3	15	3	3	3	15	15	
New Edges - Natl + State Parks (miles)	1.4	2.7	1.7	0.8	0.5	2.2	1.9	**3**
Normalized Score	1	5	3	1	1	3	3	
New Edges - Natl + State Parks Weighted Score	3	15	9	3	3	9	9	

LCG Project Alterantives Analysis Results Worksheet

Performance Measures	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**	**Factor Weight**
New Edges - GDRC (miles)	0.0	0.0	0.0	2.2	2.5	1.0	1.3	**1**
Normalized Score	1	1	1	5	5	3	3	
New Edges - GDRC Weighted Score	1	1	1	5	5	3	3	
Other Green Diamond Land (e.g., logged 2000-2010, logged 2010-2020, other conifer young, and young redwood) (acres)	0	0	0	273.3	282.9	192	200.2	**2**
Normalized Score	1	1	1	5	5	5	5	
Other Green Diamond Land Weighted Score	2	2	2	10	10	10	10	
Total Score, Other Vegetation-Related Natural Factors	**12**	**42**	**18**	**30**	**30**	**52**	**52**	
Best Possible Other Vegetation Score								
12								
Worst Possible Other Vegetation Score								
60								
Alterantives Ranking (1-7), Vegetation Factors only	1	5	2	3	3	6	6	
Wildlife-Related Natural Factors	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**	**Factor Weight**
MAMU Occupied Habitat (acres)	0.0	0.0	0.0	0.4	0.4	0.4	0.4	**4**
Normalized Score	1	1	1	1	1	1	1	
MAMU Occupied Habitat Weighted Score	4	4	4	4	4	4	4	
MAMU Designated Critical Habitat (acres)	57.2	137.7	13.7	7.60	10.0	54.8	57.1	**2**
Normalized Score	3	5	1	1	1	3	3	
MAMU Critical Habitat Weighted Score	6	10	2	2	2	6	6	

LCG Project Alterantives Analysis Results Worksheet

Performance Measures	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**	**Factor Weight**
Marten Core habitat (acres)	17.2	36.6	2.4	44.70	56.9	46.1	56.2	**3**
Normalized Score	3	3	1	3	3	3	3	
Marten Core Habitat Weighted Score	9	9	3	9	9	9	9	
Potential to Disrupt Wildlife Connectivity (Rating)	Low (1.5)	Low (2)	Low (1.0)	High (4.5)	High (5)	High (3.5)	High (4)	**3**
Normalized Score	1	1	1	5	5	5	5	
Wildlife Connectivity Weighted Score	3	3	3	15	15	15	15	
NSO Suitable Habitat (acres)	14.0	72.5	3.9	146.6	152.5	72.6	79.2	**4**
Normalized Score	1	3	1	5	5	3	3	
NSO Suitable Habitat Weighted Score	4	12	4	20	20	12	12	
Total Score, Wildlife-Related Natural Factors	**26**	**38**	**16**	**50**	**50**	**46**	**46**	
Best Possible Wildlife Score								
16								
Worst Possible Wildlife Score								
80								
Alternatives Ranking (1-7): Wildlife Factors only	2	3	1	6	6	4	4	
Waters-Related Factors	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**	**Factor Weight**
New Tributary Crossings (number of crossings)	0	1	0	7	8	5	7	**3**
Normalized Score	1	1	1	3	3	3	3	
New Tributary Crossings Weighted Score	3	3	3	9	9	9	9	
Wilson Creek Watershed Disturbance (acres)	1	66.2	4.5	159	177.6	83.6	91.2	**1**
Normalized Score	1	3	1	5	5	3	3	
Wilson Creek Watershed Disturbance Weighted Score	1	3	1	5	5	3	3	

LCG Project Alterantives Analysis Results Worksheet

Performance Measures	X	L	F	A1	A2	G1	G2	Factor Weight
Total Score, Waters-Related Natural Factors	**4**	**6**	**4**	**14**	**14**	**12**	**12**	
Best Possible Waters Score								
4								
Worst Possible Waters Score								
20								
Alternatives Ranking (1-7): Waters Factors only	1	3	1	6	6	4	4	
	X	**L**	**F**	**A1**	**A2**	**G1**	**G2**	**Factor Weight**
Total Score, All Natural Factors (Vegetation + Wildlife + Waters)	42	86	38	94	94	110	110	
Best Possible Natural Factors Score								
32								
Worst Possible Natural Factors Score								
160	**X**	**L**	**F**	**A1**	**A2**	**G1**	**G2**	
Alternatives Ranking (1-7): All Natural Factors	2	3	1	4	4	6	6	
ALL FACTORS SUMMARY RESULTS								
	X	**L**	**F**	**A1**	**A2**	**G1**	**G2**	
ALL FACTORS COMBINED - WEIGHTED	152	236	122	216	212	258	248	
Best Possible Score								
72								
Worst Possible Score								
360								
Alterantives Ranking (1-7): All Factors Combined	2	5	1	4	3	7	6	

LCG Project Alterantives Analysis Results Worksheet

Performance Measures	X	L	F	A1	A2	G1	G2	Factor Weight
SENSITIVITY CALCULATIONS								
	X	**L**	**F**	**A1**	**A2**	**G1**	**G2**	
ALL FACTORS COMBINED - ALL FACTORS WEIGHTED EQUALLY (3)	147	225	105	207	201	243	237	
Best Possible Score								
72								
Worst Possible Score								
360								
Alternatives Ranking (1-7): All Factors Equal Weight	2	5	1	4	3	7	6	
	X	**L**	**F**	**A1**	**A2**	**G1**	**G2**	
Core Factors + Natural Factors	77	141	83	149	149	175	165	
Best Possible Score								
47.0								
Worst Possible Score								
235								
Alterantives Ranking (1-7): Core Factors + Natural Factors	1	3	2	4	4	7	6	

Past Due | Due in 3 Months | Complete

CT Milestone Report - Del Norte County 3.14.2022

District	AMS ID	Project Number	Program	PM	County	Route	Post Mile	Nick Name	Legal Description	Work Description	Capital Construction Estimate	Capital Right-of-Way Estimate	Support Cost Estimate	Total Project Cost	Phase	Program Project	Project Approval & Environmental Document (PA&ED)	Right-of-Way Certification (R/W Cert)	Ready to List (RTL)	Begin Construction	End Construction
01	0100000193	01-43640	SHOPP	MELENDREZ, DAVID L	DN	101	35.8/36.5	Dr. Fine Bridge Replacement	IN DEL NORTE COUNTY NEAR CRESCENT CITY FROM 0.3 MILE SOUTH OF SMITH RIVER BRIDGE TO 0.4 MILE NORTH OF SMITH RIVER BRIDGE	REPLACE BRIDGE	$64,677,000	$6,499,000	$34,530,448	$105,706,448	PostRTL/Const	05/22/2006	03/19/2020	04/15/2021	05/03/2021	06/28/2022	10/03/2026
01	0100020444	01-0B090	SHOPP	MELENDREZ, DAVID L	DN	101	8.2/8.7	Hunter/Panther Creek Bridge Replacement	IN DEL NORTE COUNTY NEAR KLAMATH AT PANTHER CREEK BRIDGE #01-0025 AND AT HUNTER CREEK BRIDGE #01-0003	REPLACE BRIDGE	$21,171,000	$2,230,000	$27,049,101	$50,450,101	PostRTL/Const	07/01/2014	07/05/2018	04/16/2019	10/14/2019	05/08/2020	12/30/2023
01	0113000023	01-0C660	SHOPP	MELENDREZ, DAVID L	DN	101	25.5/27.4	CRESCENT CITY ADA	IN DEL NORTE COUNTY IN AND NEAR CRESCENT CITY FROM 0.4 MILE SOUTH OF ELK VALLEY ROAD TO 0.2 MILE NORTH OF WILSON AVENUE & BURTSCHELL ST	CRESCENT CITY ADA	$7,461,000	$425,000	$10,259,718	$18,145,718	PostRTL/Const	07/01/2016	06/27/2018	06/08/2020	06/23/2020	12/29/2020	12/01/2023
01	0115000094	01-0F240	SHOPP	MELENDREZ, DAVID L	DN	101	5.1/5.6	Ehlers Left Turn Pocket	IN DEL NORTE COUNTY NEAR KLAMATH FROM 0.2 MI SOUTH TO 0.2 MI NORTH OF THE ROUTE 101 & EHLERS WAY INTERSECTION	EXTEND LEFT TURN POCKET	$1,406,000	$1,000	$1,576,469	$2,983,469	PostRTL/Const	06/19/2018	04/28/2020	09/29/2020	03/22/2021	09/14/2021	12/01/2022
01	0115000099	01-0F280	SHOPP	MATTEOLI, JAIME C	DN	101	12/15.5	LAST CHANCE GRADE Permanent Restoration	IN DEL NORTE COUNTY FROM WILSON CREEK BRIDGE TO 3.8 MILES NORTH OF WILSON CREEK BRIDGE	REPAIR SLIDES; CONSTRUCT BYPASS	$300,000,000	$39,233,000	$139,610,541	$478,843,541	PAED	06/01/2018	11/17/2025	07/01/2030	09/02/2030	06/16/2031	10/14/2039
01	0115000108	01-0F310	SHOPP	SZABO, JONATHAN S	DN	101	39.8/39.8	Dominie Creek Fish Passage	IN DEL NORTE COUNTY NEAR SMITH RIVER AT DOMINIE CREEK	FISH PASSAGE MITIGATION	$5,269,000	$24,000	$8,974,744	$14,267,744	PostRTL/Const	10/19/2015	01/15/2019	12/11/2019	02/03/2020	06/18/2020	01/02/2023
01	0116000005	01-0F430	SHOPP	MELENDREZ, DAVID L	DN	199	33.5/33.9	Collier Tunnel Electrical Upgrade	IN DEL NORTE COUNTY ABOUT 20 MILES NORTH OF GASQUET FROM RANDOLPH COLLIER TUNNEL TO 2.5 MILES SOUTH OF THE OREGON STATE LINE	UPGRADE TUNNEL LIGHTING	$5,903,000	$0	$2,376,836	$8,279,836	PostRTL/Const	08/16/2018	06/03/2019	10/01/2020	11/12/2021	03/16/2022	10/01/2023
01	0116000060	01-0F760	SHOPP	MELENDREZ, DAVID L	DN	199	28.1/28.1	REHAB IDLEWILD MAINT STATION	IN DEL NORTE COUNTY NEAR GASQUET AT THE IDLEWILD MAINTENANCE STATION	REHAB MAINTENANCE STATION	$5,955,000	$8,000	$4,442,847	$10,405,847	PSE	08/16/2018	05/12/2020	08/11/2021	04/26/2022	09/09/2022	12/30/2024
01	0116000137	01-0G210	SHOPP	SZABO, JONATHAN S	DN	101	21.23/21.23	Permanent Restoration at Cushing Creek	IN DEL NORTE COUNTY NEAR CRESCENT CITY AT 0.2 MILE NORTH OF CUSHING CREEK VIADUCT #01-0076	PERMANENT RESTORATION @ CUSHING CREEK	$8,939,000	$23,000	$8,800,325	$17,762,325	PostRTL/Const	05/15/2017	10/29/2019	09/08/2020	02/01/2021	08/05/2021	10/03/2024
01	0118000190	01-0J210	SHOPP	SZABO, JONATHAN S	DN	101	R3.9/23.6	KLAMATH CAPM	IN DEL NORTE COUNTY IN & NEAR KLAMATH FROM 0.1 MILE NORTH OF KLAMATH RIVER OVFL TO 0.9 MILE NORTH OF HAMILTON RD	CAPM	$30,811,000	$53,000	$4,886,579	$35,750,579	PAED	06/24/2020	10/07/2022	07/01/2024	07/15/2024	04/05/2025	12/01/2026
01	0119000016	01-48801	SHOPP	MELENDREZ, DAVID L	DN	199	6.55/36.3	DN-199 Culverts	IN DEL NORTE COUNTY NEAR HIOUCHI FROM 0.3 MILE NORTH OF MYRTLE CREEK BRIDGE TO 0.1 MILE SOUTH OF OREGON STATE LINE	REHAB CULVERTS	$1,564,000	$26,000	$2,217,540	$3,807,540	PostRTL/Const		02/01/2019	03/03/2020	05/04/2020	08/20/2020	12/01/2022
01	0119000028	01-48802	SHOPP	MELENDREZ, DAVID L	DN	199	1.1/2.6	INSIDE PARK CULVERTS	IN DEL NORTE COUNTY NEAR CRESCENT CITY FROM 0.3 MILE NORTH OF ELK VALLEY CROSS ROAD TO 0.2 MILE SOUTH OF WALKER ROAD	CULVERT REHAB AND FISH PASSAGE	$2,693,000	$24,000	$1,730,849	$4,447,849	PostRTL/Const	03/16/2016	01/14/2020	01/19/2021	04/28/2021	08/26/2021	12/02/2024
01	0119000121	01-0J910	SHOPP	MELENDREZ, DAVID L	59V01	VAR	0/0	DN to HUM-101 Rehab	IN HUMBOLDT & DEL NORTE COUNTIES FROM 0.4 MI SOUTH OF SOUTH PRAIRIE CREEK UC TO 2.7 MILES NORTH OF BOYES CREEK VIADUCT AND FROM NORTH PRAIRIE CREEK PARK UC TO KLAMATH OVERFLOW	CLASS 1 PAVEMENT	$0	$0	$2,487,746	$2,487,746	PID	05/22/2023	07/23/2024	07/27/2026	09/04/2026	02/10/2027	10/20/2028
01	0120000028	01-0B091	SHOPP	MELENDREZ, DAVID L	DN	101	8.2/8.7	Hunter-Panther Mitigation	IN DEL NORTE COUNTY NEAR KLAMATH AT PANTHER CREEK BRIDGE #01-0025 AND AT HUNTER CREEK BRIDGE #01-0003	LONG TERM MITIGATION	$0	$0	$255,255	$255,255	PSE	07/01/2014	07/05/2018	04/16/2019	06/30/2022	10/01/2022	06/01/2030
01	0120000033	01-0K140	SHOPP	SZABO, JONATHAN S	DN	101	12.6/13.2	Wilson Creek Restoration & SPGA Wall	IN DEL NORTE COUNTY NEAR KLAMATH FROM WILSON CREEK BRIDGE TO 0.5 MILE NORTH OF WILSON CREEK BRIDGE	REALIGNMENT & SPGA WALL	$17,577,000	$762,000	$8,100,859	$26,439,859	PAED	10/21/2020	08/19/2024	07/19/2026	08/19/2026	02/02/2027	12/01/2028

Major

01	0120000129	01-0K640	SHOPP	SZABO, JONATHAN S	DN	199	24.11/24.267	Middle Fork Smith River Curve Improvement	IN DEL NORTE COUNTY FROM MIDDLE FORK SMITH RIVER BRIDGE TO 0.2 MILE NORTH OF MIDDLE FORK SMITH RIVER BRIDGE	CONSTRUCT CURVE IMPROVEMENT & UPGRADE ROADSIDE PAVEMENT	$1,390,000	$3,000	$3,035,033	$4,428,033	PAED	**06/23/2021**	**01/23/2023**	**07/24/2023**	**10/02/2023**	**03/19/2024**	**12/01/2025**
01	0120000135	01-0K690	SHOPP	SZABO, JONATHAN S	DN	101	0/46.5	Culvert Rehabilitation & Fish Passage	IN DEL NORTE COUNTY ON ROUTE 101 FROM THE HUM-DN COUNTY LINE TO THE OREGON STATE LINE	DRAINAGE CORRECTIONS & FISH PASSAGE	$14,802,000	$2,992,000	$10,107,181	$27,901,181	PAED	**07/01/2022**	**05/02/2025**	**05/03/2027**	**08/03/2027**	**02/01/2028**	**12/01/2029**
01	0121000034	01-0K950	SHOPP	SZABO, JONATHAN S	DN	101	15.6/16.2	Damnation Creek Safety	IN DEL NORTE COUNTY ABOUT 10 MILES SOUTH OF CRESCENT CITY FROM 3 MILES NORTH TO 3.6 MILES NORTH OF WILSON CREEK BRIDGE	SUPER EL IMPROVEMENTS AND MGS	$7,969,000	$37,000	$5,384,830	$13,390,830	PAED	**01/26/2022**	**02/29/2024**	**02/28/2025**	**03/17/2025**	**09/02/2025**	**12/01/2028**
01	0121000070	01-43641	SHOPP	MELENDREZ, DAVID L	DN	101	36.056/36.056	Smith River Bridge On Site Mitigation	IN DEL NORTE COUNTY NEAR CRESCENT CITY FROM 0.3 MILE SOUTH TO 0.4 MILE NORTH OF SMITH RIVER BRIDGE #01-0020	ON SITE MITIGATION & MONITORING	$500,000	$0	$1,243,559	$1,743,559	PSE	**04/07/2021**	**03/10/2020**		**07/01/2025**	**12/01/2025**	**10/01/2027**
01	0121000071	01-43642	SHOPP	MELENDREZ, DAVID L	DN	101	25.84/25.84	Smith River BR/HAMBRO Off Site Mitigation	IN DEL NORTE COUNTY NEAR CRESCENT CITY AT ELK VALLEY ROAD	OFFSITE MITIGATION	$300,000	$0	$435,690	$735,690	PostRTL/Const	**04/07/2021**		**07/15/2025**	**05/03/2021**	**12/01/2025**	**12/01/2027**
01	0122000010	01-0L430	SHOPP	MELENDREZ, DAVID L	DN	101	39.2/39.6	Timbers Blvd Safety	IN DEL NORTE COUNTY NEAR SMITH RIVER FROM 0.5 MILE SOUTH OF ROWDY CREEK BRIDGE TO ROWDY CREEK BRIDGE	LEFT TURN CHANNELIZATION	$2,170,000	$0	$2,847,311	$5,017,311	PID	**10/13/2022**	**12/02/2024**	**12/10/2025**	**01/05/2026**	**06/30/2026**	**12/03/2027**
01	0122000073	01-0L990	SHOPP	MELENDREZ, DAVID L	DN	199	.8/.8	DN 199 Roundabout	IN DEL NORTE COUNTY NEAR CRESCENT CITY AT ELK VALLEY CROSS ROAD	CONSTRUCT ROUNDABOUT	$2,500,000	$0	$2,651,435	$5,151,435	PID	**12/08/2022**	**07/10/2023**	**06/01/2025**	**01/10/2025**	**07/01/2025**	**12/03/2027**

Major

Past Due | Due in 3 Months | Complete

CT Milestone Report - Del Norte County 3.14.2022

District	AMS ID	Project Number	Program	PM	County	Route	Post Mile	Nick Name	Legal Description	Work Description	Capital Construction Estimate	Capital Right-of-Way Estimate	Support Cost Estimate	Total Project Cost	Phase	Program Project	Project Approval & Environmental Document (PA&ED)	Right-of-Way Certification (R/W Cert)	Ready to List (RTL)	Begin Construction	End Construction
01	0118000103	01-0H770	MINOR B	GHIDINELLI, CHRISTOPHER M	DN	199	28.06/28.06	IDLEWILD MS PAVING	IN DEL NORTE COUNTY NEAR IDLEWILD AT THE IDLEWILD MAINTENANCE STATION	REPLACE ASPHALT	$264,000	$0	$54,683	$318,683	PSE		07/01/2018	07/01/2022	09/01/2022	12/01/2022	12/29/2023
01	0119000014	01-0J350	MINOR A	FLOYD, KIMBERLY R	DN	199	33.41/33.41	COLLIER SRRA WATER UPGRADE	IN DEL NORTE COUNTY NEAR THE OREGON STATE LINE AT COLLIER SAFETY ROADSIDE REST AREA	UPGRADE WATER SYSTEM	$1,080,000	$0	$1,988,035	$3,068,035	PAED	10/01/2025	12/01/2026	12/01/2026	07/01/2028	11/01/2028	12/01/2029
01	0120000070	01-0K380	MINOR A	FLOYD, KIMBERLY R	DN	101	R27.5/R27.9	CRESCENT CITY PED & BIKE PATH	IN DEL NORTE COUNTY NEAR CRESCENT CITY FROM 0.1 MILE SOUTH OF PARKWAY DRIVE TO WASHINGTON BOULEVARD OVERCROSSING	CONSTRUCT ADA PATH	$1,250,000	$40,000	$1,617,205	$2,907,205	PSE	04/01/2020	11/22/2021	02/11/2022	03/04/2022	05/15/2022	12/30/2022
01	0121000047	01-0L050	MINOR B	GHIDINELLI, CHRISTOPHER M	DN	199	11/11.5	Hardscrabble Creek HFST	IN DEL NORTE COUNTY FROM HARDSCRABBLE CREEK BRIDGE #01-40 TO 0.5 MILE NORTH OF HARDSCRABBLE CREEK BRIDGE	HFST	$330,000	$0	$46,272	$376,272	PostRTL/Const		10/14/2021	10/19/2021	12/15/2021	05/01/2022	11/01/2022

Minor

Past Due | Due in 3 Months | Complete

CT Milestone Report - Del Norte County 3.14.2022

District	AMS ID	Project Number	Program	PM	County	Route	Post Mile	Nick Name	Legal Description	Work Description	Capital Construction Estimate	Capital Right-of-Way Estimate	Support Cost Estimate	Total Project Cost	Phase	Program Project	Project Approval & Environmental Document (PA&ED)	Right-of-Way Certification (R/W Cert)	Ready to List (RTL)	Begin Construction	End Construction
01	0119000116	01-0J860	MAINTENANCE	GHIDINELLI, CHRISTOPHER M	DN	VAR	0/0	NORTH AREA BRIDGE REPAIR	IN DEL NORTE COUNTY AT VARIOUS LOCATIONS	REHAB BRIDGE DECKS	$1,500,000	$0	$1,973,577	$3,473,577	PostRTL/Const		10/01/2020	10/15/2020	03/26/2021	06/18/2021	11/01/2023
01	0120000101	01-0K470	MAINTENANCE	GHIDINELLI, CHRISTOPHER M	DN	101	39.82/46.49	DEL NORTE MICRO-SURFACING	IN DEL NORTE COUNTY NEAR SMITH RIVER FROM 0.2 MILE NORTH OF ROWDY CREEK BRIDGE TO THE OREGON STATE LINE	MICRO-SURFACING	$606,000	$0	$554,143	$1,160,143	PostRTL/Const		07/17/2020	10/28/2020	04/08/2021	06/22/2021	10/01/2022
01	0121000044	01-0L040	MAJOR DAMAGE	GOFF, TREVOR	DN	101	12/16.5	LCG Landslide Repair	IN DEL NORTE COUNTY ABOUT 8 MILES SOUTH OF CRESCENT CITY FROM 0.2 MI SOUTH OF LAGOON CR CO PK TO BEG PASSING LN LT	LANDSLIDE REPAIR	$19,100,000	$2,000	$17,984,011	$37,086,011	PostRTL/Const	02/15/2021	02/15/2021	02/15/2021	02/16/2021	02/17/2021	11/01/2022
01	0121000057	01-0L070	MAJOR DAMAGE	GOFF, TREVOR	DN	101	42.01/42.01	DN Culvert Repair	IN DEL NORTE COUNTY NEAR CRESCENT CITY AT 0.5 MI SOUTH OF LOPEZ AVE-RD 8023	EMERGENCY CULVERT REPAIR	$425,000	$0	$410,195	$835,195	PostRTL/Const	03/12/2021	03/12/2021	03/12/2021	03/12/2021	04/28/2021	11/01/2021
01	0121000086	01-0L230	MAJOR DAMAGE	GOFF, TREVOR	DN	101	15.1/15.5	LCG Landslide Repair	IN DEL NORTE COUNTY ABOUT 10 MILES SOUTH OF CRESCENT CITY FROM 1.3 MI TO 1.9 MI NORTH OF RUDISILL RD	LANDSLIDE REPAIR	$6,500,000	$0	$7,596,450	$14,096,450	PostRTL/Const	05/12/2021	05/12/2021	05/12/2021	05/12/2021	06/21/2021	11/01/2022
01	0122000013	01-0L460	MAINTENANCE	GHIDINELLI, CHRISTOPHER M	59V01	VAR	0/0	HM4 - TMS Enhancement	IN DEL NORTE, HUMBOLDT, LAKE, AND MENDOCINO COUNTIES AT VARIOUS LOCATIONS	TMS ENHANCEMENTS	$540,000	$0	$348,829	$888,829	PAED		07/15/2022	08/01/2022	08/15/2022	11/01/2022	11/01/2023
01	0122000037	01-0L700	MAJOR DAMAGE	GOFF, TREVOR	59V01	VAR	0/0	Emergency Hazard Tree Removal	IN HUMBOLDT AND DEL NORTE COUNTIES ON VARIOUS ROUTES AT VARIOUS LOCATIONS	HAZARDOUS TREE REMOVAL	$0	$0	$491,628	$491,628	PostRTL/Const	11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/08/2021	11/01/2022
01	0122000075	01-0M010	MAINTENANCE	GHIDINELLI, CHRISTOPHER M	DN	197	0/7.1	Smith River Micro-Surfacing	IN DEL NORTE COUNTY NEAR HIOUCHI FROM ROUTE 199 TO ROUTE 101	MICRO-SURFACING	$1,345,000	$0	$385,771	$1,730,771	PAED		08/15/2022	09/01/2022	12/30/2022	05/01/2023	11/01/2023

Project Updates

North DEAL

March 2022

Del Norte County

DN-101-PM 8.2/8.7 – Hunter/Panther Creek Bridge – This $22 million project will replace two bridges to meet current seismic/design standards. . Project construction will employ the use of a temporary detour bridge as well as signal system to control traffic. Construction is expected to be completed by the end of this year.

DN-101-PM 12.6/13.2 – Wilson Creek Permanent Restoration – This $23 million project proposes to construct a wall to restore the roadway to pre-storm damage conditions and reduce the risk of future damage. Construction is targeted to begin in 2027.

DN-101-PM 15.1/15.3 – Last Chance Grade & Storm Damage – In April 2017, the Federal Highway Administration (FHWA) approved funding of $27.6 million (construction) to repair storm damage that has occurred at Last Chance Grade since March 2016. The scope of work includes repairs to four retaining walls and new construction or extensions of four retaining walls. Construction crews will also improve vertical undulations. This work is ongoing at several of the damaged locations.

The Last Chance Grade Engineered Feasibility Study was completed June 2015 and a Project Study Report was completed in June 2016. These documents and others are posted on LastChanceGrade.com.

Caltrans completed an Expert Risk Assessment in June 2018 that provided additional information to assist with funding and alignment decisions. Results of the risk assessment were shared at a July 2018 public meeting.

A near-real-time-monitoring system, to remotely measure ground motion, has been installed that will be able to send immediate notifications to identified personnel in the event of a pre-specified ground motion, such as a significant drop of the roadway elevation. The system was installed in December 2015 and measures roadway and slope movement at specific locations. One camera has been installed at the southern end of the landslide area.

The $50 million environmental phase of the long-lead project was fully funded in March 2019. A project specific contract was awarded to HNTB with a notice to proceed in March 2020.

Construction capital cost estimates for the project alternatives range from $500 million to $1.4 billion.

The project team worked collaboratively with the four stakeholder working groups to narrow down the list of alternatives to two: Alternative X, which strengthens the

current alignment in place, and Alternative F, which is a tunnel bypass of the landslide.

Current roadway work consists of replacing, repairing, and building new walls to respond to storm damage from previous years.

DN-101-PM 15.7/16.2 – Damnation Creek Safety – This safety project proposes adding guardrail with wider shoulder, extending a passing lane, and improving super elevation on a curve north of Last Chance Grade. Construction is scheduled to begin in summer 2025 and is estimated to cost $9.3 million.

DN-101-PM 21.23 – Permanent Restoration at Cushing Creek – This project proposed to construct a wall to restore the roadway to full width. An $8.9M construction contract was awarded to McCullough Construction in July 2021.

DN-101-PM 25.60/27.40 – Crescent City ADA Project – The proposed work includes upgrading pedestrian ramps, driveways, crosswalks, and infill new sidewalks to meet ADA standards. The project will also add a pedestrian crossing as well as other complete streets components. This project is in construction with S.T. Rhoades Construction, Inc. Total capital construction cost is approximately $7.7 million. The project is80% complete and will complete construction by the end of this summer.

DN-101-PM 27.5/27.9 – Crescent City Ped/Bike Path – This project runs along the west side of Route 101 from the north end of Crescent City, adjacent to the Washington Blvd onramp and up to near Walmart. This Minor A project is in the Expected to award to a contractor by the end of the fiscal year (June 30). Tree removal would occur in advance.**DN-101-PM 36 – Dr. Fine/Smith River Bridge Project –** This project proposes to replace the existing Dr. Fine Bridge on Route 101 crossing the Smith River. Total cost, including right of way, is approximately $80 million. Construction is expected to begin in late 2022 and take approximately 4 years to complete. During construction, traffic will be diverted onto a temporary bridge east of the existing bridge structure.

DN-197-PM 4.0 – Ruby 2 STAA Widening – This Minor "A" project is in the design phase. Construction was expected to begin in 2015, but the project is under the terms of a preliminary injunction based on a NEPA challenge. Caltrans, CEQA, and now NEPA documents for the entire corridor have been challenged by groups such as EPIC and Friends of Del Norte. This update applies to all STAA 199/197 projects – as of 8-23-17 plaintiffs have been noticed that ESA consultation is complete per court order. A new lawsuit has been filed. Work has been halted on this project until litigation is resolved. The construction capital estimate is $1.3 million.

DN-197-PM 4.5 – Ruby 1 STAA Widening – This Minor "A" project is in the design phase. Construction was expected to begin in 2015, but the project is under the terms of a preliminary injunction based on a NEPA challenge. Caltrans' CEQA, and now NEPA documents for the entire corridor have been challenged by groups such as EPIC and Friends of Del Norte. This update applies to all STAA 199/197 projects – as of 8-23-17 plaintiffs have been noticed that ESA consultation is complete per court order. A new lawsuit has been filed. Work has been halted on this project until litigation is resolved. The construction capital estimate is $650 thousand.

DN-199-PM 6.55/36.3 – Del Norte 199 Culverts – This project will replace or rehab 11 culverts and improve fish passage at Griffin Creek, PM 31.3. This project was advertised and awarded to GR Sundberg INC. in August 2020. The project is currently in winter suspension. Construction is expected to be completed during the 2022 construction season. Traffic Control will be in place during construction. Expected maximum delay during construction is 10 minutes. However, the project may include intermittent closures of up to 20 minutes at some locations.

DN-199-PM 20.5/25.7 – Patrick Creek Widening – This STIP STAA project includes earthwork, retaining walls, and possibly replacing the Middle Fork Smith River Bridge. This project was awarded to Flatiron West, Inc. on December 10, 2013 and terminated in 2015. This update applies to all STAA 199/197 projects – as of 8-23-17 plaintiffs have been noticed that ESA consultation is complete per court order. A new lawsuit has been filed. Work has been halted on the projects until litigation is resolved. The construction capital estimate is $19.1 million.

DN-199-PM 22.7/26.5 at Patrick Creek – The Narrows and Washington Curve Widening – The Narrows and the Washington Curve projects have been combined into a single Major SHOPP project. However, due to the preliminary injunction, progress has been halted. Caltrans' CEQA, and now NEPA documents for the entire corridor have been challenged by groups such as EPIC and Friends of Del Norte. This update applies to all STAA 199/197 projects – as of 8-23-17 plaintiffs have been noticed that ESA consultation is complete per court order. A new lawsuit has been filed. Work has been halted on this project until litigation is resolved. The construction capital estimate is $8.6 million.

DN-199-PM 24.1/24.3 – Middle Fork Smith River Curve Improvement – This $1.6M safety project proposes a curve improvement east of the nearby Middle Fork Smith River Bridge to address collisions. The project is currently in the environmental phase and construction is targeted to begin in 2024.

DN-199-PM 33.5/33.9 – Collier Tunnel Electrical Upgrade – This Safety Lighting project proposes to provide the travelling public with safe and reliable system by replacing the existing failing High-Pressure Sodium (HPS) lights with highly efficient light-emitting diode (LED) lights. The estimated maximum delay for traffic control is 10 minutes or less with 25 minutes during intermittent closures, using a temporary signal system installation. The project is estimated to have 120 Working Days. Construction is targeted for summer 2022. A speed reduction zone will be set up during construction to improve safety for the travelling public

Humboldt County

HUM-36-PM 0.1/1.6 – Alton Shoulder Widening – This safety project proposes to construct two 12' wide lanes, 5' wide shoulders, install centerline and shoulder rumble strips, and place an open graded friction course throughout. Environmental clearance was completed in September of 2020. Construction is scheduled to begin in summer 2022 and is estimated to cost $8.2 million.

HUM-36-PM 3.9/6.0 – HUM36 Shoulder Widening – This safety improvement project proposes a soft median, six-foot minimum shoulders, rumble strips, a passing lane extension, eastbound turnout, and fish passage improvements at Ward Creek. The safety improvements will occur between Streamview Drive near Hydesville and Wilson Lane in Carlotta. Environmental studies and preliminary design are scheduled to be completed in April 2023, and construction is scheduled for summer 2024.

HUM-36-PM 10.5/10.8 – Carlotta Curve Improvement – This safety project proposes shoulder widening and improvements to horizontal and vertical curves. Environmental clearance was completed in August 2020. The project is currently under construction and is expected to be complete in fall 2022.. It is estimated to cost $2.6 million.

HUM-36-PM 11.4/34.5 – Three Bridges – This project proposes to replace Hely Creek Bridge, widen Little Larabee Creek Bridge, and replace Butte Creek Bridge. Environmental clearance was completed in June 2021. Construction is scheduled to begin in spring of 2023 and is estimated to cost $16 million.

HUM-36-PM 13.5/36.1 – HUM 36 CAPM – This SB1 funded project will repave SR 36 in Humboldt County near Maple Grove from 0.1 mile east of Van Duzen River Bridge to 0.8 miles east of South Fork Van Duzen River Bridge. Project approval and environmental documents completed February 2022. Construction is scheduled for summer 2023 and is estimated to cost $33 million.

HUM-36-PM 25.4/26.0 – Little Larabee Wall – This $12.3 million Permanent Restoration project proposes to construct a wall to restore the roadway to pre-storm damage conditions and reduce the risk of future damage. The project cleared environmental document March 2021. Construction is planned for 2026 season.

HUM-36-PM 36.1/40.1 – Buck Mountain Widening – This project proposes to reconstruct and realign approximately 4.4 miles of highway. Caltrans is partnering with the Federal Highway Administration (FHWA) in the Central Federal Lands Program to perform this work. Project has been completed.

HUM-96-PM 0.24/37.25 – Three Hum Bridges Seismic Retrofit – This $2 million project will seismically retrofit 2 bridges located on Hwy 96, the Willow Creek Bridge and the Camp Creek Bridge, and one located on Hwy 101 at the G-Street Overcrossing in Arcata. This project was awarded in June to Steelhead Contractors JV. Construction started August 11th, 2020. The project is nearly complete. All bridge retrofit work has been completed. Hydroseed and a final punch list of items are all that remain for project completion.

HUM-101-PM 0.0/54.0 – HUM101 Drainage Improvements – SOUTH – This project proposes to rehabilitate or replace various drainage systems along Highway 101 in Humboldt County from the Mendocino County border to the Eel River Bridge #04-16R. Environmental studies and preliminary design are scheduled to be completed in June of 2023, and construction is scheduled for summer 2024.

HUM-101-PM 1.61/1.73 – Goods Movement Improvements at Richardson Grove – Project was reprogrammed for environmental studies. Addendum to EIR was circulated for comments last fall. Expect to have project approval this spring and resubmit to the CEQA court. Federal injunction has been removed per appeal.

HUM-101-PM R17.9/87.8 – Strengthen Two Bridges – This $9.8 million SB1 project will strengthen the South Fork Eel River Bridge and Separation at PM R17.89 near Sylvandale at the south entrance to the Avenue of the Giants and the Arcata Overhead at PM 87.84 crossing West End Road in Arcata. Construction was awarded to Freyssinet Inc for $9 million, began in spring 2020, and is expected to wrap up during the summer of 2021.

HUM-101-PM 27.7/27.7 – South Fork Eel River Bridge (Myers Flat) – Seismic Retrofit – This $8 million SB1 project will provide for a seismic retrofit and eliminate scour issues at the piers. Construction contract was awarded to Mercer Fraser September 21, 2021 and approved on November 12, 2021. Major construction is anticipated to start in 2022.

HUM-101-PM 56.6/137.10 – HUM 101 Drainage Improvements – NORTH – This project proposes to rehabilitate or replace various drainage systems along Highway 101 in Humboldt County from 0.3 miles south of the Van Duzen Bridge #4-17 to Del Norte County. The environmental study and preliminary design phase of this project began in July 2020 and is targeted for completion in May 2023. Construction is targeted to begin in the spring of 2025.

HUM-101-PM 57.10/67.80 – HUM 101 Fortuna Median Roadside Safety Project – This project proposes to replace vegetated strips within the median area of Highway 101 in and near Fortuna with low maintenance pervious surfacing to eliminate the safety hazards associated with mowing and animals grazing in the median. The project is currently in the final design phase, which is targeted for completion in February 2022. Construction is targeted to begin in the fall of 2022. The current construction capital estimate is $7.3 million.

HUM-101-PM 69.9/75.2 – King Salmon Rehab – This project will rehabilitate the roadway on U.S. 101 from 0.7 miles south of Fields Landing Overhead to 0.4 miles north of Herrick Avenue Overcrossing. Environmental clearance was completed in February 2019. The construction contract has been awarded to Mercer-Fraser for $17.9 million and construction started this spring, with work expected to continue through the summer.

HUM-101-PM 74.8/76.0 – Broadway Complete Streets – This is a new standalone project to improve the safety and operations of bike, pedestrian, and transit facilities between Herrick Avenue and Truesdale Street. The current construction capital estimate is $13M and construction is expected in 2025. Currently the project is in the environmental phase.

HUM-101-PM 75.30/77.60 – Broadway ADA Project – Project limits span between the intersection of the former Kmart property to 15th Street. Proposed work includes upgrading pedestrian ramps and driveways to meet ADA standards and infill new sidewalks where not present. The project has commenced construction and is expected to be complete in spring 2022. The capital construction cost of the project is $4.4 million.

HUM-101-PM 77.30/78.10 – Eureka Sidewalk & Curbs – Project limits span between 15th Street along Broadway and continuing to Commercial Street along 4th Street. Proposed work consists of upgrading pedestrian ramps, sidewalks and driveways and upgrading traffic signals to include audible pedestrian signals. The project is currently in the design phase with construction targeted to begin in winter 2022. The estimated capital construction cost is approximately $4.5 million.

HUM-101-PM 77.90/79.50 – 5th Street Safety Project – Project limits span between Broadway/5th Street and V Street. Proposed work consists of constructing pedestrian bulbouts, pavement overlay, 4-foot bike lane adjacent to right turn lane onto Myrtle Avenue/R Street, flashing pedestrian beacon at P Street and upgrading traffic signals to include audible pedestrian signals. The project is currently in the design phase with construction targeted to begin in winter 2022. The estimated capital construction cost is approximately $5.6 million.

HUM-101-PM 78.00/79.80 – 4th Street Safety Project/4th Street CAPM – Project limits span between Y Street and Commercial Street. Proposed work will convert existing 2-lane facility to 3-lane facility between V Street and Q Street, realign s-curve between Q Street and O Street, construct pedestrian bulbouts with ADA compliant ramps between O Street and B Street, new traffic signal at L Street and a pavement overlay. Construction commenced in May 2020 and the project has now completed construction .

HUM-101-PM 79.50/80.20 – Eureka Slough Bridge Project – Project includes two alternatives: (1) seismic retrofit of both the northbound and southbound structures (2) replacement of both the northbound and southbound structures. A Value Analysis was completed in March 2016, which recommended replacement of the structures. The project is currently in the project approval & environmental document phase, which is planned for completion in the summer of 2025. Tentative schedule shows construction beginning in spring 2029. Capital construction cost TBD.

HUM-101-PM R79.8/R87.0 – Eureka/Arcata Corridor – Caltrans' preferred alternative calls for an undercrossing at Indianola Cutoff with a half signal at Airport Road. The project has completed advertisement and the bid opening took place on July 22nd, 2021. Bids came in above the engineer's estimate. Caltrans decided to repackage/readvertise the project. Readvertise of the project is targeted for July 2022, with construction beginning at the end of the 2022 construction season. In addition to Indianola and Airport Road (capital construction $49.6 million), the Corridor Projects include an acceleration/deceleration lane improvement project (capital construction $8.8 million), cable median barrier project (capital construction $5.5 million), tide gate replacement project (capital construction $600 thousand) and a bridge rail/bridge replacement at Jacoby Creek and Gannon Slough Bridges (capital construction $8.8 million). Three of these four additional projects have completed construction. Construction of The Jacoby Creek and Gannon Slough Bridges Project

has gone into winter suspension. Construction will commence again in June 2022, where the final stage of construction to move the completed Jacoby Creek bridge from the detour location will take place. The offsite wetland mitigation project near HUM 255 in Samoa has commenced construction.

HUM-101-PM 87.50/89.60 – Guardrail near Arcata – This project proposes to replace existing single and double thrie beam barrier that no longer meets current design standards with Midwest Guardrail System (MGS) and High Tension Cable Barrier (HTCB), respectively. In addition, Metal Beam Guardrail and terminal systems will be removed and replaced with MGS, standard terminal systems, WB-31 transition rails and transition blocks throughout the project limits. The project has been awarded, but is awaiting contract approval. Construction is targeted to begin in summer 2022. The project construction capital cost is $5.7 million.

HUM-101-PM 88.32/88.3 – 299 Off Ramp – This project proposed to construct a new off-ramp from northbound 101 to eastbound 299. Environmental clearance was achieved in June 2018. The project was awarded to Mercer Fraser and major construction began during the 2021 season.

HUM-101-PM 90.1/109.6 – Trinidad CAPM – This SB1 funded project will repave SR 101 in Humboldt County near Trinidad from 1.3 miles south of School Road Overcrossing to 0.4 miles north of Big Lagoon Bridge. Environmental clearance was completed in July 2019. Design phase was completed June 2021. ~~Bidding processes are currently in progress.~~ Contract awarded to Mercer Fraser on Jan 27 ,2022. Construction is scheduled for spring 2022 and is estimated to cost $30 million.

HUM-101-PM 125.2/125.6 – Prairie Creek Curve Improvement – This project proposes to reduce the frequency and severity of collisions at this location by improving an existing, non-standard compound curve, with a simple curve. The project is currently in the project approval and environmental document phase. Initial environmental review indicates an Environmental Impact Report will be required due to sensitive resources.which began in March 2021 and is targeted for completion in February 2023. Construction is targeted to begin in the fall of 2026. The current construction capital estimate is $5.7 million.

HUM-254-PM 0.0/43.0 – Culvert Rehabilitation - $24.4 Approximately

This project proposes to rehabilitate or replace various drainage systems on Route 101 and 254 in southern Humboldt County. Environmental studies and preliminary design are scheduled to be completed in March 2024. Construction is scheduled for July of 2026.

HUM-254-PM 0.8/21.0 – Culvert Rehabilitation – $3.2 Mil., approximately

This project proposes to rehabilitate or replace various drainage systems along Avenue of the Giants in Humboldt County from 0.1 mile south of Chimney Tree Gift Shop to 0.8 mile south of Bull Creek Road. Environmental studies and preliminary design are scheduled to be completed in May of 2022, and construction is scheduled for spring of 2024.

HUM-254-PM 4.2 – Fish Creek Bridge – This $10.6M project will remove a fish barrier by replacing a box culvert with a bridge. The project completed its project approval stage in May 2021 and construction is anticipated to begin in the fall of 2022.

HUM-255-PM 3.65/4.19 – Manila Multi-Use Trail – This trail project proposes to construct a Class I separated multi-use trail parallel to Highway 255 in the community of Manila. The project is being administered by the County of Humboldt with oversight provided by Caltrans. Construction is scheduled to begin in spring 2022.

HUM-299-PM 0.0/R5.7 – Arcata to Blue Lake CAPM

– This SB1 funded project will repave SR 299 in Humboldt County beginning at SR 101 to the Blue Lake Under Crossing. Environmental clearance was completed in October 2021. Construction is scheduled for summer 2023 and is estimated to cost $15.4 million.

HUM-299-PM 1.5/2.0 – 299/200 Separation – This $3.8 million SB1 project will raise the clearance of the existing 200 overpass structure to allow passage of oversized vehicles on Hwy 299. Contract approval was on 10/2/2020. Construction completion is expected July 2022.

HUM-299-PM 1.9/37.8 – Hum 299 Culverts – This is an $8 million project that proposes to rehabilitate or replace 22 drainage systems along Hwy 299 in Humboldt County from 0.1 mile east of SR 200 to 0.5 mile east of Boise Creek. Environmental clearance was met on 6/2/20. Construction is scheduled to begin at the end of summer 2022.

HUM-299-PM R8.8/R8.9 – Blue Lake Landslide Repair – This Permanent Restoration Project proposes to construct a retaining wall to stabilize the upper portion of this historic landslide and reconstruct SR 299 upslope of its existing location. The project is currently in the environmental phase. Construction is planned to begin in the 2025 season and is estimated to cost $52.2 million.

HUM-299-PM R8.7/R9.2 & R11.1/R11.4 – Korbel Walls – This permanent restoration project proposes to utilize a retaining wall to stabilize a failing slope. The project is currently in the design phase, which is targeted for completion in the spring of 2023. Construction is targeted to be begin in the fall of 2023.

HUM-299-PM R7.6~~11.0~~/R29.2~~22.5~~ – Hum 299 CAPM – This SB1 funded project will repave SR 299 in Humboldt County from the North Fork Mad River Bridge to end of the Redwood Creek Bridge. Environmental clearance was completed in October 2021. Construction is scheduled for summer 2023 and is estimated to cost $18.3 million.

HUM-299-PM 30.7/33.5 – Hum 299 Curve Improvement – This $28.1 million safety project will construct five retaining walls to improve horizontal curves and widen shoulders on Route 299. The project is currently in the design phase and RTL is scheduled for June 2022. Construction is planned to begin in the 2023 season.

HUM-299-PM 30.7/37.7 – Willow Creek Widen & Rumble – This safety project will widen shoulders and install rumble strips on Route 299. The project was awarded to Mercer-Fraser Company for $10 million, and construction has started for the 2021 season.

HUM-299-PM 38.9/39.5 – Willow Creek Shoulder Widening – This safety project will widen shoulders on Route 299, east of Willow Creek. The project was awarded in November 2020 to R Brown Construction Company, Inc. for $2.9 million. Construction started in June 2021.

HUM/LAK-VAR-PM VAR – Bridge Deck Preservation – This $1.8 million project proposes to rehabilitate three bridge decks in Humboldt County on Route 36 and one in Lake County. Polyester Concrete overlays will be placed on the two Van Duzen River Bridges on SR 36 (HUM PM 17.9 & R23.9). The Salt River Bridge on SR 211 (HUM-36-17.9 & R75.2) will receive an Epoxy deck seal, while the Hill Road East Overpass on SR 29 (LAK-29-R43.75) will receive a methacrylate deck seal. This project was awarded to American Civil Constructors West Coast and is currently in construction. Work is on schedule to be completed this year.

HUM/MEN-VAR-PM VAR – Hum-101/Men-271 Culverts – This is an $2.8 million project that proposes to rehabilitate or replace 14 drainage systems along Hwy 271 in Humboldt County from 0.1 mile east of SR 200 to 0.5 mile east of Boise Creek. Environmental clearance was met on 6/2/20. Construction is scheduled to begin at the end of summer 2022.