2020060238

Print Form

Notice of Exemption

Appendix E

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk
County of: _____

From: (Public Agency): Western Shasta Resource Conservation District
6270 Parallel Road, Anderson, CA 96007
(Address)

Project Title: Battle Creek Watershed Road Sediment Reduction Program

Project Applicant: Western Shasta Resource Conservation District (WSRCD)

Project Location - Specific:

See Attachment A - Location Description, and Attachment B - Map of the Project Area

Project Location - City: Manton Project Location - County: Shasta County

Description of Nature, Purpose and Beneficiaries of Project:

See Attachment C - Scope/Nature, Purpose, and Beneficiaries of Project

Name of Public Agency Approving Project: Western Shasta Resource Conservation District

Name of Person or Agency Carrying Out Project: Western Shasta Resource Conservation District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: §15301(c): Existing highways and streets
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:

See Attachment D - Reasons why project is exempt.

Lead Agency Contact Person: Andrea Claassen Area Code/Telephone/Extension: (530) 776-9433

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? ☐ Yes ☐ No

Signature: _____ Date: 5/19/2020 Title: Project Coordinator

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: _____

Governor's Office of Planning & Research

Jun 11 2020

STATE CLEARINGHOUSE

Revised 2011

Attachment A – Location Description

General Description of the Project Area

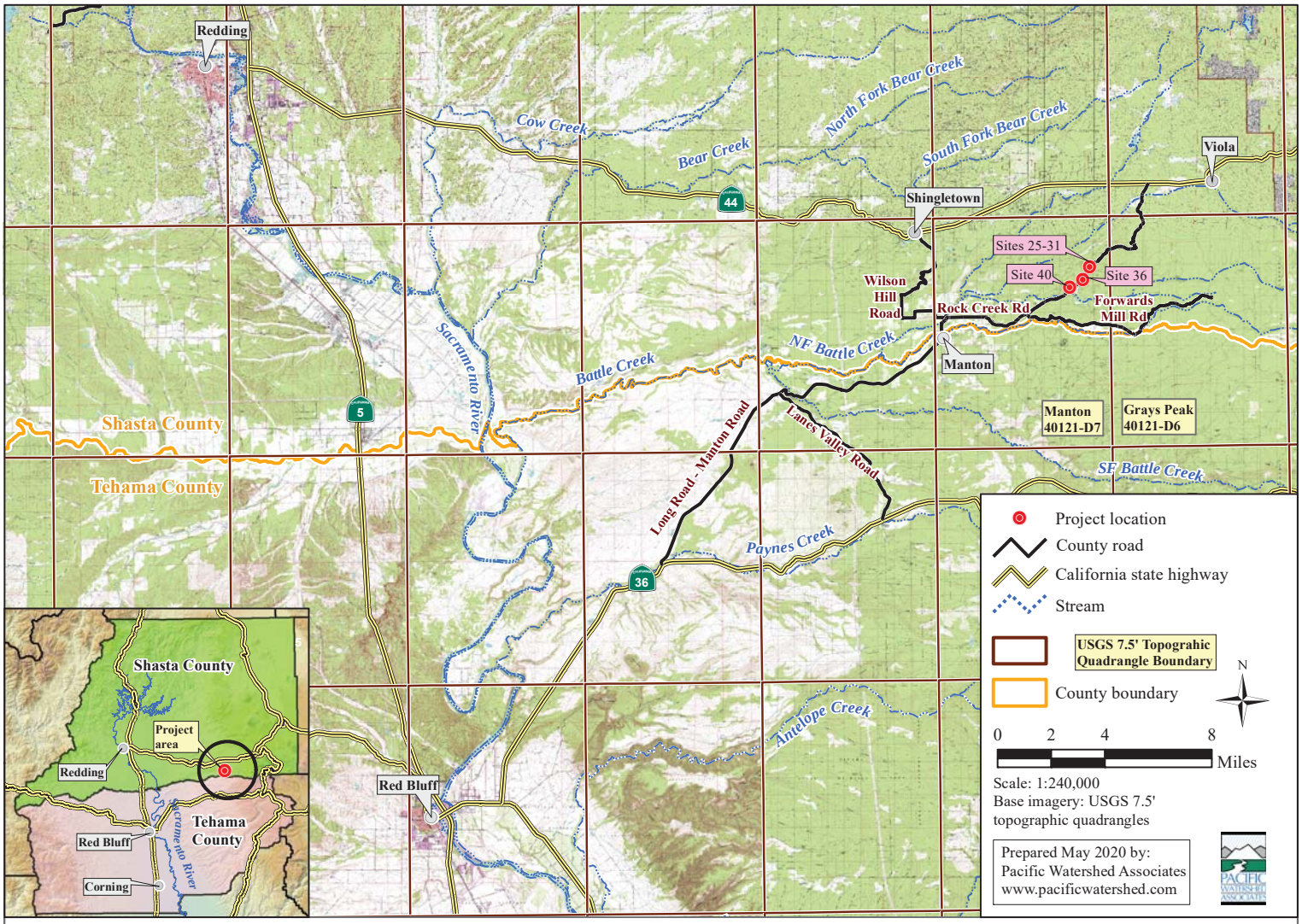
The ***Battle Creek Watershed Road Sediment Reduction Program*** includes project work to be completed at up to 10 sites distributed along and adjacent to selected sections of County-maintained public roads and intersecting private road segments located within the North Fork Battle Creek sub-watershed in southeastern Shasta County (See Attachment B – Map of the Project Area). Historically, general habitat types within the project area included grassland, chaparral, oak woodland, and low elevation mixed coniferous forests. However, most of the project area was burned in the 2012 Ponderosa Fire and was subsequently salvage logged and replanted between 2013 and 2015 with coniferous tree species.

Project Location Description
The project western boundary is approximately 2.0 miles east of Manton, California.
The project eastern boundary is approximately 2.0 miles west of Viola, California.
The project northern boundary is California State Highway 44.
The project southern boundary is the Shasta County – Tehama County line.

USGS 7.5 Minute Quadrangles
Manton

Shasta County General Plan Designations:
Timber
Rural Residential

Attachment B - Map of the Project Area



Map 1. Location of the Rock Creek Road Demonstration Implementation Project for the North Fork Battle Creek Watershed Road Sediment Reduction Program, Shasta County, California.

P:\GIS\10291 North Fork Battle Creek Road Assessment 2018\10291 Construction Location Map 1 May 2020.mxd

Attachment C – Nature, Purpose, and Beneficiaries of the Project

Purpose of Proposed Work

The overall goal of this project is to reduce road related erosion and sediment delivery to streams within the project area, thus improving water quality and protecting habitat for anadromous fish populations. This goal will be achieved by upraging road segments within the project area.

Project Beneficiaries

Storm proofing of roads within the project area is anticipated to provide immediate benefits to the streams and aquatic habitats found within the watersheds of southeastern Shasta County which currently receive catastrophic and chronic road related sediment generated within and along the road prism. It is anticipated that road treatments will measurably diminish the impact of erosion and movement of fine sediment on the biological productivity of those streams that pass through the project area. These streams will also be protected from catastrophic road failure and sediment inputs during flood events. The proposed road treatments will allow future storm runoff to cleanse streams of accumulated coarse and fine sediment under improved habitat conditions rather than allowing continued sediment delivery from managed areas to impair watercourses.

Current conditions of roads within the project area have modified natural runoff regimes and stream networks, as well as accelerated road related erosion rates and hillslope processes within a large portion of southeastern Shasta County. The 2012 Ponderosa Fire, past construction practices, salvage logging, fuel break construction, ineffective or poor road drainage, and deferred or locally ineffective maintenance activities have led to altered hillslope drainage patterns, increased runoff, debris flows and accelerated hillslope and road erosion. These factors have also resulted in correlative off-site impacts including downstream channel instability, bank erosion, water quality impacts, and degraded aquatic habitat within important anadromous fish streams within southeastern Shasta County.

During this program of work, up to 10 sites along Rock Creek Road and intersecting private roads will be treated that are currently eroding and delivering fine sediment and road runoff to tributaries of the North Fork Battle Creek and other significant anadromous fish streams in southeastern Shasta County. The prescribed treatments will prevent sediment delivery from individual erosion features along with fine sediment delivery from chronic erosion of road surfaces, cut banks and ditches within the project area. Those sites judged as having a high priority for implementation efforts include stream crossings, embankments, and road surfaces that contribute to large amounts of episodic and/or chronic sediment being delivered to streams within the project area.

The expected benefit of employing the described road treatments include a significant reduction of both chronic and episodic sediment erosion and sediment delivery to streams, as well as managing the current sediment regime (e.g. accelerated post fire runoff, soil loss, erosion, and debris flows). When implemented and employed in combination with protective land

management and post-fire land improvements, the treatment prescriptions outlined in this document are expected to significantly reduce long term road maintenance costs, and provide for long-term protection and improvement of water quality and anadromous fish habitat in southeastern Shasta County, including in the North Fork and mainstem Battle Creek.

Detailed Scope of Work

Proposed treatment for roads within the project area (including spur roads) can be organized into two categories: site-specific treatments (e.g., culverts at stream crossings) and road surface treatments. These treatment types are described in detail, below.

Site-Specific Treatments

Stream crossing upgrade treatments will be implemented to reduce the risk of catastrophic failure and sediment delivery resulting from gullying, headcut migration, stream diversion and stream crossing failure (washout). Stream crossings will be designed to minimize impacts to water quality and to handle peak runoff and flood waters. New stream crossing upgrades will be designed in a manner that adheres to current standards of State and federal regulatory entities and will make future failures less likely to occur. Treatments will also reduce the vulnerability of stream crossings to failure (overtopping and washout) and eliminate the risk of stream diversion.

Recommended treatments for road upgrading include replacing (upsizing) undersized culvert stream crossings and installing culverts at un-culverted (filled) stream crossings. In such locations, proposed treatment recommendations will have appropriate design geometry for installing new culverts or replacing current culverts with replacement culverts. All new stream crossing culvert installations will be properly sized for the 100-year recurrence interval design streamflow discharge. Stream crossings that are designed to meet minimum standards and basic design criteria will significantly reduce the risk of catastrophic failure and sediment delivery.

Stream crossings that display a diversion potential occur wherever a road climbs through the crossing site and where the road approach slopes away from the stream crossing. If the culvert plugs, backed up flood waters will be diverted out of the channel, down the road alignment and eventually onto adjacent, unprotected hillslopes. A major dip in the roadbed is critical, in the case of a plugged culvert, to direct flow over the low point (dip) in the fill and back into the natural channel.

All stream crossings in this program will be on Class II and Class III watercourses; none will be on Class I watercourses. All road treatment recommendations will follow guidelines described in the *Handbook for Forest, Ranch and Rural Roads*, Part *X* of the CDFG Salmonid Stream Habitat Restoration Manual, and California Forest Practice Rules (CAL FIRE, 2017).

Compaction of the fillslope face and slope gradient is one of the key factors that influence the stability of fillslopes. On fillslope angles steeper than 50% (2:1), riprap will be used as a stabilization measure as well as a non-erodible erosion control “mulch” on fillslopes that lack vegetation. Used as mulch, riprap prevents raindrop erosion, rilling and gullying caused by direct

rainfall or concentrated road surface runoff. Fillslope riprap armor that is sized according to expected stream velocities and slope gradients, would consist of a well graded mixture of hard, large to smaller rock sizes to minimize void space and create a dense layer of interlocking angular rock fragments.

Road Surface Treatments

Among the objectives of this project is to achieve normalized hillslope drainage and as feasible, to hydrologically disconnect roads from the major anadromous streams and their tributaries that flow through the project area. For the purposes of this project, a “hydrologically connected” road or road segment is defined as any road segment that has a continuous surface flow path to a natural stream channel during a runoff event. Wherever a hydrologic connection exists, road surface runoff and fine sediment is delivered to streams during precipitation events sufficient to produce surface runoff and cause erosion of bare soil areas. Concentrated runoff on compacted road surfaces and ditches results in erosion and road-related sediment transport to nearby streams. The most common road-related bare surface areas include unpaved road surfaces as well as bare (unvegetated) fillslopes, cutbanks, ditches, gullies, turnouts and landslide surfaces. The road surface drainage treatments proposed for upgraded roads are designed to control, direct and disperse road surface runoff and ditch flow onto adjacent hillslopes by reshaping the roadbed and constructing relatively frequent road surface drainage structures (e.g., rolling dips).

Road surface upgrading treatments are designed to redirect and disperse surface runoff off the road bed as frequently as feasible. Road upgrading recommendations include outsloping, insloping, berm removal, and installing rolling dips and ditch relief culverts to more frequently discharge runoff along road segments within the project area. For each recommended road surface drainage treatment where ground disturbance will occur, road rock will be used to stabilize the road surface. Such rocking will curtail road surface erosion by fortifying the road surface and reducing the rate of vehicle abrasion, down wearing, surface erosion, and resultant fine sediment production and delivery. In addition, road drainage will be dispersed by constructing frequent cross road drains to convey upslope runoff quickly across the road and to more frequently discharge runoff along road segments within the project area.

The basic principles of road surface drainage design entail dispersing runoff as frequently as possible, thus protecting the integrity of the road and minimizing erosion and sediment pollution. The primary recommended road surface drainage treatments for upgrading roads within the project area include:

1) Outsloping of roads by removing the inboard ditch.

2) Crowning roads by directing surface runoff to the outer edges of the road.

3) Installing rolling dips.

4) Removing outside road berms.

Outsloped roads with rolling dips and no ditch or berms along the outside edge of the road are considered the best, most preferred road shape and drainage configuration for the majority of road upgrading circumstances along project area roads. In addition, it is anticipated that each segment of outsloped road will have the outside berm removed and will be resurfaced with road rock. An outsloped road cross section is more likely to capture and disperse road surface runoff. Outsloping high priority road segments within the project area will minimize flow volumes and the magnitude of runoff in the inside ditch, as well as reduce the potential for erosion, hydrologic connectivity and sediment delivery from the upgraded road surface. An outsloped road ensures that turbid road runoff and fine sediment eroded from the roadbed will be quickly drained to the outside edge of the road where it can be discharged onto vegetation and into undisturbed slopes rather than migrating into stream channels. Outsloping however is not always sufficient enough to move surface runoff out of wheel ruts and off the road surface rapidly.

In addition to outsloping and berm removal, rolling dips are often necessary to disperse surface runoff from outsloped roads. Rolling dips are smooth, angled depressions constructed in the road bed that drain surface runoff to the outside of the road dispersing it onto native hillslopes and are critical to maintaining a well-drained, outsloped road. These features will be constructed into the road subgrade with an outsloped dip axis and long, shallow approach on their up-road side with a more abrupt rise, or reverse grade, on their down-road side. Spacing design will be dependent upon the road grade, length of uncontrolled runoff, the erodibility of the road surface (e.g., rocked or native) and the proximity of the nearest stream channel. Primary road surface treatments developed in order to upgrade selected portions of roads within the project area will include as appropriate:

- Installation of ditch relief culverts and ditch relief culvert downspouts.
- Insloping of roads.
- Cutting and cleaning existing inboard ditches.
- Applying road rock on existing rocked roads.
- Repaving existing paved roads.

Attachment D – Reasons for Exemption

This project consists of the repair, maintenance and minor alteration of existing public and private roads, road drainage structures, and topographical features (e.g. roadway cutbanks), and will involve negligible or no expansion of existing or former use. There are no exceptions that would make this project ineligible for an exemption such as being located in a sensitive environment, leading to cumulative negative effects, damaging scenic resources within an official state scenic highway, being located on a hazardous waste site, or causing substantial adverse changes in the significance of a historical resource. Moreover, this project is not expected to have any significant adverse impacts on endangered, threatened, or rare species, and in fact is expected to benefit threatened anadromous fish populations and their habitats.