Executive Summary

Location
The East Berry THP is a single tree selection harvest plan covering 344 ac. There are silviculture, road upgrade, and fuels management demonstrations associated with this plan. Fuels management in support of a ridgeline fuel break and inholding emergency egress route are included in the plan.

The western end of the THP area is located approximately 7.5 miles southeast of the community of Fort Bragg, California. It is adjacent to Berry Gulch, a tributary to the Little North Fork Big River, and is bounded by Hwy 20, and Roads 560, 561, and 570. There is one inholding adjacent to the plan area on the east side. The primary yarding method will be cable yarding, with approximately 26% of the area designated for tractor yarding.

Demonstration
This project is part of the larger demonstration and implementation of the Jackson DSF Management Plan. The goal of the proposed project is to develop another age class where appropriate, increase growth rates, improve conifer spacing, provide opportunities for research and demonstration, and develop a representative example of the proposed silviculture and economic model. The application of the proposed silviculture will provide continued research and demonstration opportunities, and a setting for the long-term evaluation of these methods.

Silviculture
The harvest history across the plan area has been variable. The most recently harvested area (Unit 2) was cut under a Shelterwood Seed Tree Step in 1991. Past harvests in this Unit and other portions of the plan include a diameter limit cut in the 1960’s, where all trees over 24 in diameter were removed. Further south into the THP area the harvest history includes a selection harvest in the 1970’s. Unit 2 was then precommercially thinned in the early 2000’s. The current stand is comprised of scattered large overstory conifers, and a dual aged midstory of conifer regeneration from the 1960’s and 1990’s harvests. These earlier harvest areas feature a higher Tanoak and Douglas-fir component in the midstory than the 1990’s harvest area. This can likely be tied to the better growing site in Unit 2, and the precommercial thinning work after the 1990’s harvest.

The proposed project utilizes single tree selection. This method involves removing marked trees individually or in small clusters of less than ¼ acre. The application of these cluster openings will typically be in areas where competing hardwood and Douglas-fir regeneration has altered the historic species balance, and is negatively impacting the regeneration of Redwood stump sprouts. A post-harvest manual chainsaw treatment is proposed in these openings to shift the understory species balance to favor the regeneration of Redwood stump sprouts. The intent is to maintain a forest with a continuous cover of multiple different age classes of trees while growing and producing timber through careful thinning and periodic replacement of large trees. The use of single tree selection under this harvest plan will actively develop the environmental setting for evaluating the application of uneven-aged management in stands with different harvest histories.

The northern unit of the THP area closest to Highway 20 is designated for habitat retention for the Northern Spotted Owl. This will include some area designated as nesting/roosting habitat where the harvest will focus on removing understory and midstory Tanoak and Douglas-firs, along with spacing of Redwood stump sprouts. Also included in the Unit is the “Core Zone” nest protection area which will be a no-harvest area. As the THP area extends away from the highway and the typical public use area, limited removal of overstory trees will occur as part of the regenerative process of uneven-aged management.
Roads

The road related demonstration opportunity is the deactivation and stabilization of a legacy road along a Class I watercourse, abandonment of another legacy streamside road, and the recontouring of an insloped ditch drained seasonal road to an outsloped road prism.

The streamside road 560 is not appropriate for full abandonment, due to being the historic access route for the west side of Berry Gulch. The proposal under this THP is to block the road to four-wheel drive access, and to either remove the culvert crossings or install low maintenance rocked ford crossings. Several sites of accelerated road surface and fill slope erosion will also be treated. This road section is not proposed for use as a haul route under this THP, and the proposed work will provide long term benefits to the anadromous salmonid habitat in Berry Gulch. Road 555 is proposed for abandonment.

This plan will require new spur road construction from road 570A along the ridgeline. The purpose of this new road construction is to develop ridgeline road infrastructure that will allow cable yarding of areas that were historically logged with tractors. The transition from mid-20th century tractor infrastructure to cable yarding is a common issue facing forest landowners in California, and is an additional component of the demonstration value of this plan. The total near stream road abandonment and deactivation is projected to be approximately 1 mi, while new road construction along the ridge is expected to be approximately half a mile.

Research

This THP has excellent potential as a replicate in the new Fire Mitigation study that will help determine how managed redwood forests can be modified to both resist damage by wildfire and be resilient to the effects of wildfire. The project is “Mitigating wildfire hazard in the redwoods: effectiveness and tradeoffs of fuels treatments” with the lead project partners: Humboldt State University (J-P Berrill, PI), University of California Berkeley (R. York, Co-PI), UC Cooperative Extension (M. Jones, Co-PI).

There is no existing body of fuels/fire knowledge that is relevant to managed redwood forests. To implement this study JDSF will use a combination of upcoming THPs and ones under operations or recently completed. Staff is excited to have this sixth GHG project take place on JDSF.

Fuels Management

Included in this THP is fuels management to reduce wildfire risks across the forest and locally around the inholding. Road 570 is the only access route for the existing inholding. Small fuels and brush will be removed, and trees pruned and spaced out along this road and main ridgeline, creating a shaded fuel break. Postharvest (post-THP completion) treatments such as prescribed fire may be used to treat the ground level logging slash during seasons of the year when conditions will result in a low intensity ground fire with little potential for damage to the retained stand of trees. Other treatment options include mechanical mastication, pruning, piling, and hand lopping. With the growing public interest in fuels management and prescribed fire, this plan will demonstrate these techniques in the context of timber management, along with the maintenance of aesthetic and recreational values.