APPENDIX 13

OBSERVATIONS TO ACCOMPANY 1986-1987 EXCEL SPREADSHEET

One approach to data mining is to begin with the "simpler" THPs – all THPs prior to about 1992 fall into this category. Looking at these older THPs may provide a way to capture when roads were first built and create a picture of the management practices of the landowner (Rex Timber, followed by Georgia Pacific) at that time – which may differ from the current landowner's management practices. Issues that predate the 1980s could be revealed. The entire official record for a THP from the 1980s is generally less than 100 pages – a size that allows examination of a complete harvest record in a few hours. Because the Forest Practice Rules in the 1980s didn't require much in the way of narratives, an issue wasn't usually documented unless the THP preparer or one of the review team agencies found it to be significant. Access to electronic copies of THPs in the Campbell Creek Planning Watershed begins with 1986, the starting point for this exercise.

The format for the spreadsheet (Appendix 14) utilizes the questions found on the THP form used for THP 1-86-026 MEN. Paper copies of five THP official records from 1986-1987 were printed for review and data extraction. This was practical because the approved THPs were each less than 25 pages and the complete official record files (which include the approved THP, amendments, agency reports, inspections, completion and stocking report, …) were less than 100 pages:

- THP 1-86-026 MEN - approved THP 17 pages, the entire THP record 59 pages.
- THP 1-86-072 MEN - approved THP 17 pages, the entire THP record 80 pages.
- THP 1-86-475 MEN - approved THP 20 pages, the entire record 96 pages (information from this THP record took approximately 2½ uninterrupted hours to enter in the spreadsheet).
- THP 1-87-108 MEN - approved THP 15 pages, the entire THP record 49 pages.
- THP 1-87-350 MEN - approved THP 18 pages, the entire THP record 84 pages (including an amendment that added 35 clearcut acres to the THP and required full review, with a preharvest inspection (PHI) and PHI report).

Comparison to current THPs in the Campbell Creek Planning Watershed is striking. Current approved THPs are over 450 pages and THP 1-13-031 MEN (just the approved THP) is 977 pages. Complete records for current THPs in the Campbell Creek Planning Watershed are between 2,000 and 3,000 pages. (Controversial THP official record files in some planning watersheds can be 5,000 pages or more.)

Information from the five 1980s THPs listed above were entered in the spreadsheet. The spreadsheet was presented at a Scope of Work meeting on June 18, 2018. At that meeting continuation of "data mining" of THPs this old was determined not to be useful. Many of the items on the spreadsheet are items that have been routinely captured in the CAL FIRE fps database for more recent THPs (beginning around 1990). Data captured on the database includes:

- Acreage
- Silviculture
- Yarding, not necessarily useful in THPs as old as the 1980s due to time elapsed since harvest.
- Roads. Older THPs can put an initial construction date on some of the roads that are already mapped and/or add roads that don't show up in more recent THPs.

- Special Treatment Areas (associated with Wild and Scenic Rivers; national, state, regional, county and municipal park buffers; scenic highways, Coastal Commission)
- Archaeology sites (presence or absence, not site locations)

(Note: October 1, 2018 the CAL FIRE FPS database contents migrated to a new platform, the CalTREES database, which will continue to capture similar information.)

A significant problem with data collected from 1980s THPs was that the passage of 25-30 years is not reflected in these archived documents. Natural recovery of the landscape has and will continue to occur with the passage of time:

- Where there may have been vegetation alterations in Watercourse and Lake Protection Zones (WLPZs) any bare ground has long since revegetated, small trees have matured and filled in canopy gaps, etc.
- Where broadcast burning was proposed for use after clearcutting, there should be no lasting effects after 25-30 years.
- Temporary roads, temporary crossings (unless reopened and reused or subject of a violation that could not be corrected to prevent sediment delivery to a watercourse) and layouts, if used, have had 25-30 years to stabilize and recover.
- Yarding – effects of cable and tractor yarding are unlikely to persist for over 25 years.
- Erosion Hazard Ratings (EHRs) are calculated for THP harvest units projecting conditions that are expected after harvest has taken place. One of the variables for the calculation is protective vegetative cover. Vegetative cover increases with the passage of time following a disturbance such as logging.

Likewise, the Forest Practice Rules have evolved over time, changing the definition and/or characteristics of commonly used terms. One example is the required widths of Watercourse and Lake Protection Zones (WLPZs). WLPZs are substantially wider today (in 2018) than they were in the 1980s, and canopy cover retention values have also increased. Today there are also many subdivisions of watercourse types where listed anadromous salmonids are present in the watershed. For example:

- Class I watercourses have different protection requirements (including different minimum widths) depending on whether anadromous salmonids are present.
- Class I WLPZ may be divided into Channel Zone, Core Zone, Inner Zone and Outer zone; each zone having different retention, silviculture and operational requirements. The Channel Zone width is not fixed but variable.
- In some situations the Inner Zone may be further subdivided into Inner Zone A and Inner Zone B, which vary in required overstory canopy cover retention. The width of these zones can be variable in certain situations.
- Class II watercourses may be designated Class II-S and Class II-L, with differing WLPZ Core Zone and Inner Zone widths, as well as different total WLPZ widths.

Therefore, a declarative statement in a 1980 THP like “There will be no heavy equipment operations within Class I or II WLPZs.” may not mean that there weren’t heavy equipment operations within the outer portions of the WLPZs that are required in current THPs.

Another, less complicated, example is fire protection zones (for the Campbell Creek Planning Watershed there are few such zones). These zones were defined as within 20 feet of public roads and 50 feet of

permanently located structures in the late 1980s. In the current Forest Practice Rules the fire protection zones are 100 feet for public roads, 50 feet for private permanent roads open for public use and 200 feet for permanently located structures maintained for human habitation. Countless other examples can be found when comparing older version of the Forest Practice Rules with the current version.

There are items in the official records of the 1980s THPs examined that could provide historical context. For example: there are descriptions of stands and watercourses in some of the PHI reports associated with these older THPs. These narratives could be of historical value if a restoration project has a desired future condition based on historic conditions. Alternatively, older THPs could be informative in understanding how current conditions evolved. For example, information in several older THPs describe a railroad grade running up Smith Creek when harvesting occurred in the 1930s and again around 1975. These descriptions can be compared with current conditions, giving a better understanding of the current landscape.

Not a noteworthy item for this planning watershed perhaps, but zoning (TPZ, rural residential, …) might be a factor for consideration when looking for restoration opportunities. Zoning isn't something that is required to be discussed in THPs, however, in two of the above 1980s THP official record files it did get a passing reference – in the PHI reports. There are County maps (from the Assessor's Office) where such information can be found quicker than "mining" THPs. For this planning watershed, the bulk, if not all, of the Lyme Redwood Timberlands LLC property has been zoned Timber Production Zone (TPZ) for about 40 years which is consistent with the holdings of most large commercial timberland owners. In planning watersheds with a more diverse ownership pattern this may not be the case.

Sometimes there are map features not mentioned in the THP – like an unstable area, spring, seep, wet area, etc. outside of the THP boundary. Because they are not within the THP boundaries the locations tend to be approximate. This uncertainty argues against trying to map these features as part of any "data mining" effort.

Conclusion: Historic context can be refined using information in older THPs (i.e., what road systems were in place prior to harvest in the mid-1980s and what road systems were created during that period). Information directly applicable to identification of restoration opportunities is scarce and of limited value due to the passage of time (25 years or more).