

# PILOT PROJECT WORKING GROUP PUBLIC MEETING

## Timber Regulation and Forest Restoration Program

May 23, 2017

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### California Natural Resources Agency

Departments of Conservation, Fish and Wildlife, Forestry  
and Fire Protection

### California Environmental Protection Agency

State and Regional Water Boards



# Meeting Agenda

1. Welcome, logistics, and agenda review [Chasin]
2. Brief Self-Introduction of PPWG Members [PPWG]
3. Progress made since last PPWG meeting
  1. Online collaborative GIS and document sharing update [Lang, Chasin]
  2. Refined Critical Questions [Chasin]
  3. Our approach to the MacDonald framework [Henly]
  4. Resources of Concern [Coe, Bey, Chasin, Fuller]
    1. List of Resources of Concern
    2. Conceptual diagrams
    3. CGS geomorphic processes
4. The Sub-Watershed [Chasin]
  1. THPs in the subwatershed (map and tabular)
  2. Roads, streams, erosion control plan points, unstable areas
5. The three-track approach
  1. THPs [DiPerna and Brown]
  2. Air photo rapid assessment [Fuller, Cafferata, Chasin]
  3. Modeling [Coe]
6. Other
7. Next steps
8. Public comments
9. Noon: depart for field tour of Campbell Creek watershed

# Introductions and Logistics

# Progress since last PPWG Meeting

# Progress since last PPWG Meeting:

## Mapping, Technology, and Sharing

- Online collaborative GIS
  - Explored multiple options but still have more testing to do
- Document sharing/library
  - We're work on it...
- LiDAR
  - Contract with USGS
  - Data acquisition flights occurred in late-winter during "leaf-off" period
  - Processed data expected late-2017

# Progress since last PPWG Meeting:

## Critical Questions

### • Reordered

Question #	Step	Critical Question
4	1	Is there adequate information available in past THPs and other available data sources to thoroughly and accurately characterize current biophysical and ecological conditions on the planning watershed?
3	2	What are the qualitative and quantitative methods presented in THPs to analyze the potential for THPs to create or add to adverse cumulative effects on watershed and biological resources?
5	3A	Are there major gaps in the types or quality of available information, on a planning watershed scale, that would be useful for THP preparation and review, and assessment of cumulative impacts?
6	3B	If there are gaps, what additional information is needed and what data are available?
1	4	What criteria and methods can be employed, at the planning watershed scale, to identify restoration needs and priorities for watershed and biological resources based on available information in THPs and other readily available sources?
2	5	Do past THPs, collated on a planning watershed basis, contain the information needed to guide restoration at the planning watershed scale?
7	6	What restoration needs or cumulative impacts can be identified from the planning watershed scale versus needing a different spatial context?

### • Refined

#### Theme

#### Process and Staff Assigned

Collate (Find Stuff and Pull it together in One Place)
Review and Catalogue (Look through the Information and Systematically Organize it for Assessment and Analysis)
Assess (Qualitatively Evaluate the Catalogued Information)
Analyze (Quantitatively Evaluate the Catalogued Information)
Provide Conclusions or Recommendations

Progress since last PPWG Meeting:

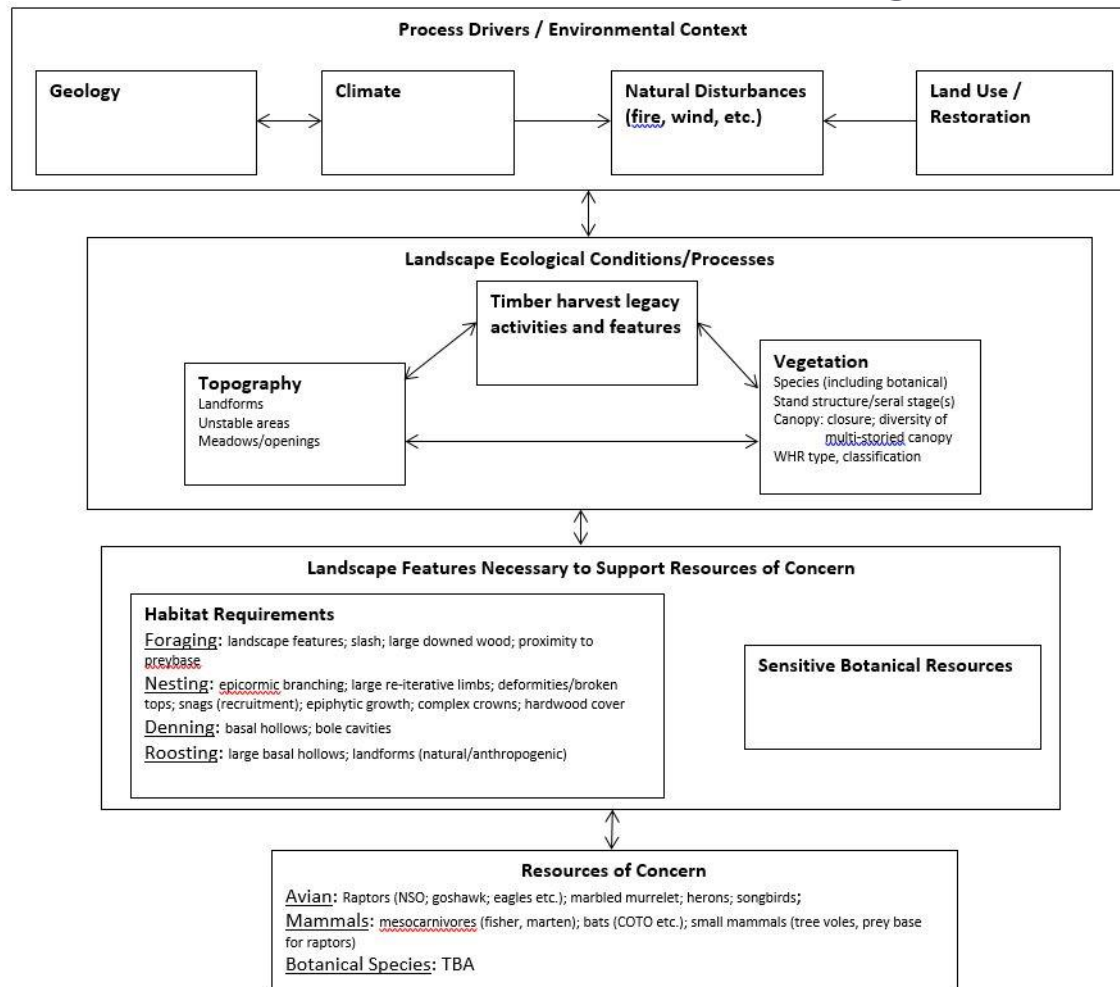
## Resources of Concern

- Subject for which restoration efforts would be occurring
  - Classic watershed example is sensitive salmonids

# Progress since last PPWG Meeting:

## Resources of Concern

- CDFW and WQ Conceptual Diagram:





# Progress since last PPWG Meeting:

## Resources of Concern

- CDFW and WQ:

- 1) Terrestrial Wildlife Habitat
  - a) Late-seral forest characteristics
    - i) Multi-storied canopy
    - ii) Pre-dominant trees
    - iii) Large trees, that may include:
      - (1) Epicormic branching
      - (2) Large re-iterative limbs
      - (3) Deformities/broken tops/forked tops
      - (4) Epiphytic growth
      - (5) Complex crowns
      - (6) Decadence
      - (7) Deeply furrowed bark
      - (8) Nests or nesting platforms, nest trees, and screen trees
    - iv) Down woody debris in various states of decay
  - b) Mid-seral
  - c) Early-seral
  - d) Understory Vegetation
  - e) Deciduous trees (willows, alders)
  - f) Meadows and wetlands
  - g) Oak woodlands/Hardwoods
    - i) Individual trees
    - ii) Stands of trees
  - h) Riparian habitat (Also considered as a function of aquatic habitat)
    - i) Deciduous trees (willows, alder)
    - ii) Large trees available for large woody debris recruitment
    - iii) Shade/canopy cover
    - iv) Seral stage

Progress since last PPWG Meeting:

## Resources of Concern

- Subject for which restoration efforts would be occurring
  - Classic watershed example is sensitive salmonids
- Geomorphic processes

# Progress since last PPWVG Meeting:

## Framework Approach

- Started with MacDonald (2000)
  - Framework for watershed analysis
- Altered to better suit our project

Catalogue	<p>3. <b>Identify the spatial scale of available assessments for individual and cumulative impacts to resources of concern</b> – We are using the planning watershed scale for the Pilot Project, though there have been suggestions to start at a smaller scale for beta testing our approach. Finer-scale information will be provided by existing THPs, NTMPs, etc.. We also are asking whether the planning watershed scale may be too small for some resources or related process of concern. Ideally, the spatial scale of the assessments should be defined by the processes that control the resources of concern.</p> <p>4. <b>What past, present, and expected future activities in the area of concern are identified in the THPs, NTMPs, and other sources</b>– THPs and NTMPs should provide us insight into this. This includes land use and restoration activities.</p>
Evaluate	<p>5. <b>Identify key cause-and-effect mechanisms</b> – Focus on the most important key cause-and-effect processes rather than concentrating on the infinitely large universe of indirect effects and interactions. Use consideration of the level of risk to resources of concern to help provide focus. This is where the technical specialists will use their experience and professional judgement to strategically mine THPs, NTMPs, and existing datasets.</p> <p>6. <b>Identify the range of variability and relative condition for the resource(s) of concern</b> – Depending upon the controlling processes and environmental context, range of variability can be large (see process drivers in the attached schematic). THPs and NTMPs can be searched for data associated with “watershed conditions and/or processes”. This is where we can start identifying data for the following attributes:</p> <ol style="list-style-type: none"> <li>Is it technically sound (consistent with science and/or first principles)?</li> <li>Is it quantitative or qualitative (e.g., narrative; photos)?           <ol style="list-style-type: none"> <li>Accuracy</li> <li>Precision</li> </ol> </li> <li>Is the data spatially explicit or lumped?           <ol style="list-style-type: none"> <li>Is spatial coverage sufficient?</li> </ol> </li> <li>Is there temporal resolution to the data?           <ol style="list-style-type: none"> <li>Visible trends based on repeat sampling</li> </ol> </li> </ol>

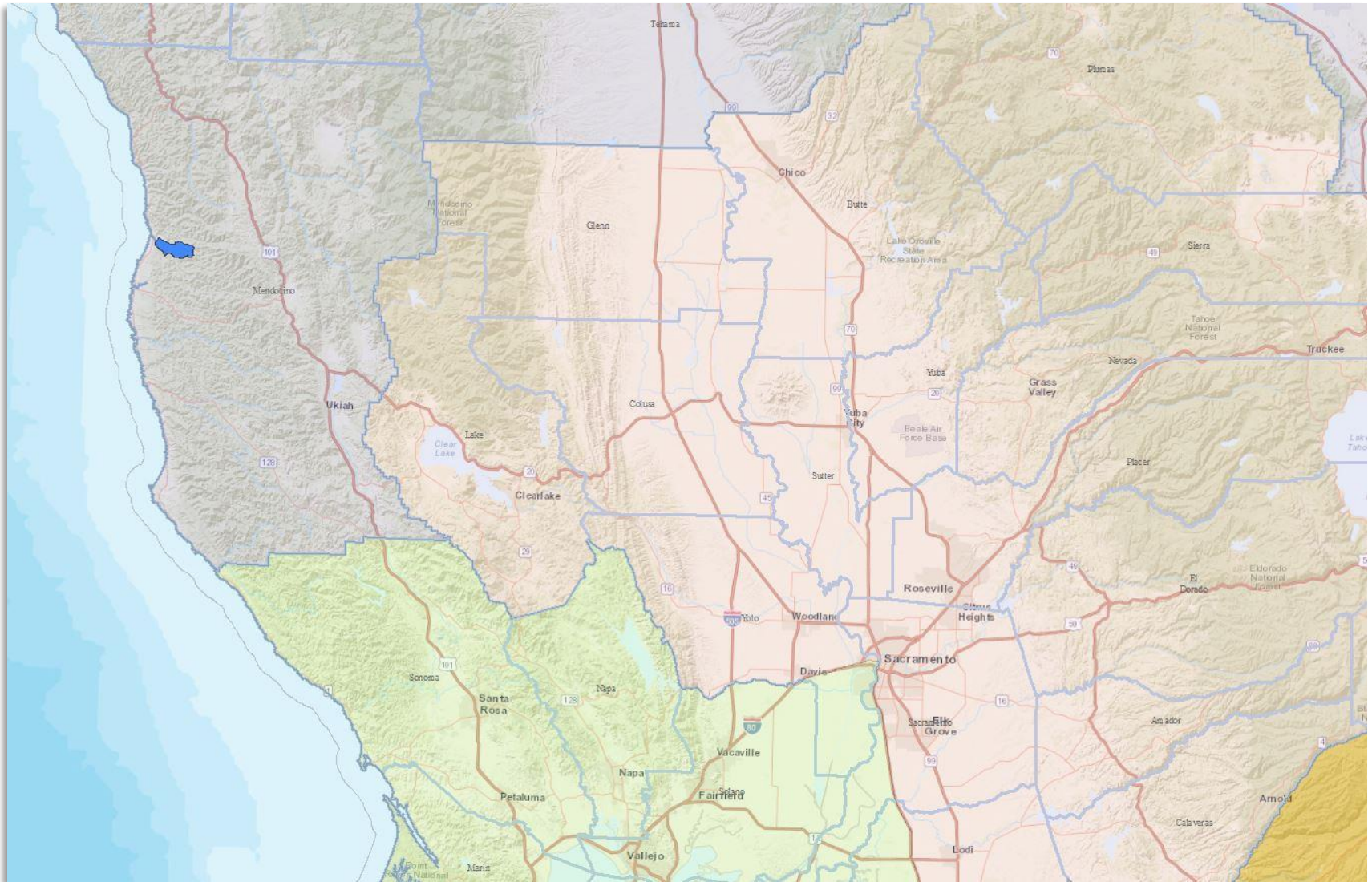
# The Subwatershed

- Lots of information available in the Campbell Creek Planning Watershed!
- Temporarily limit scale of project by limiting scale of watershed

# The Subwatershed: Geography

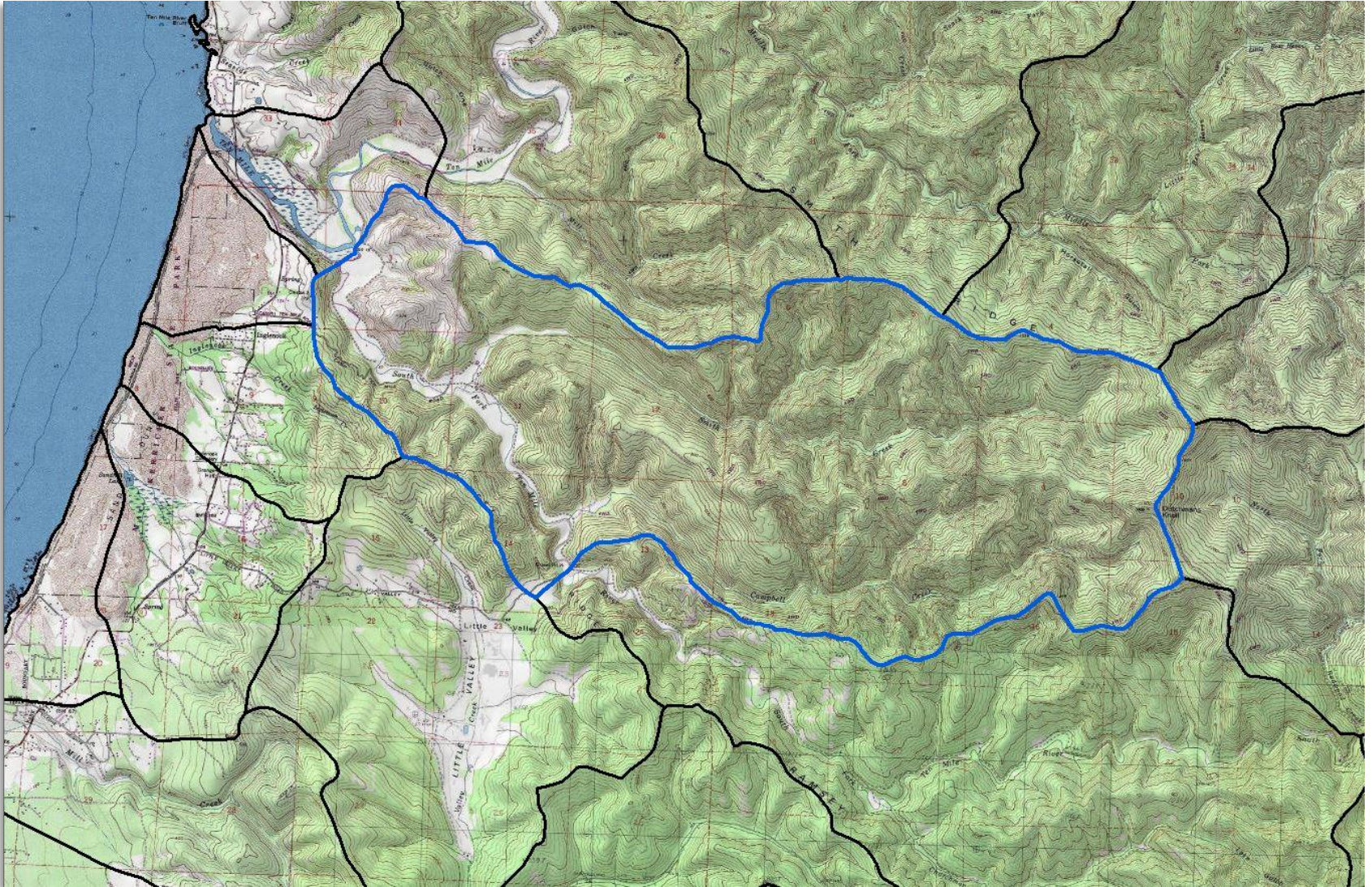
- Reminder of where we are:

# The Subwatershed: Geography





# The Subwatershed: Geography

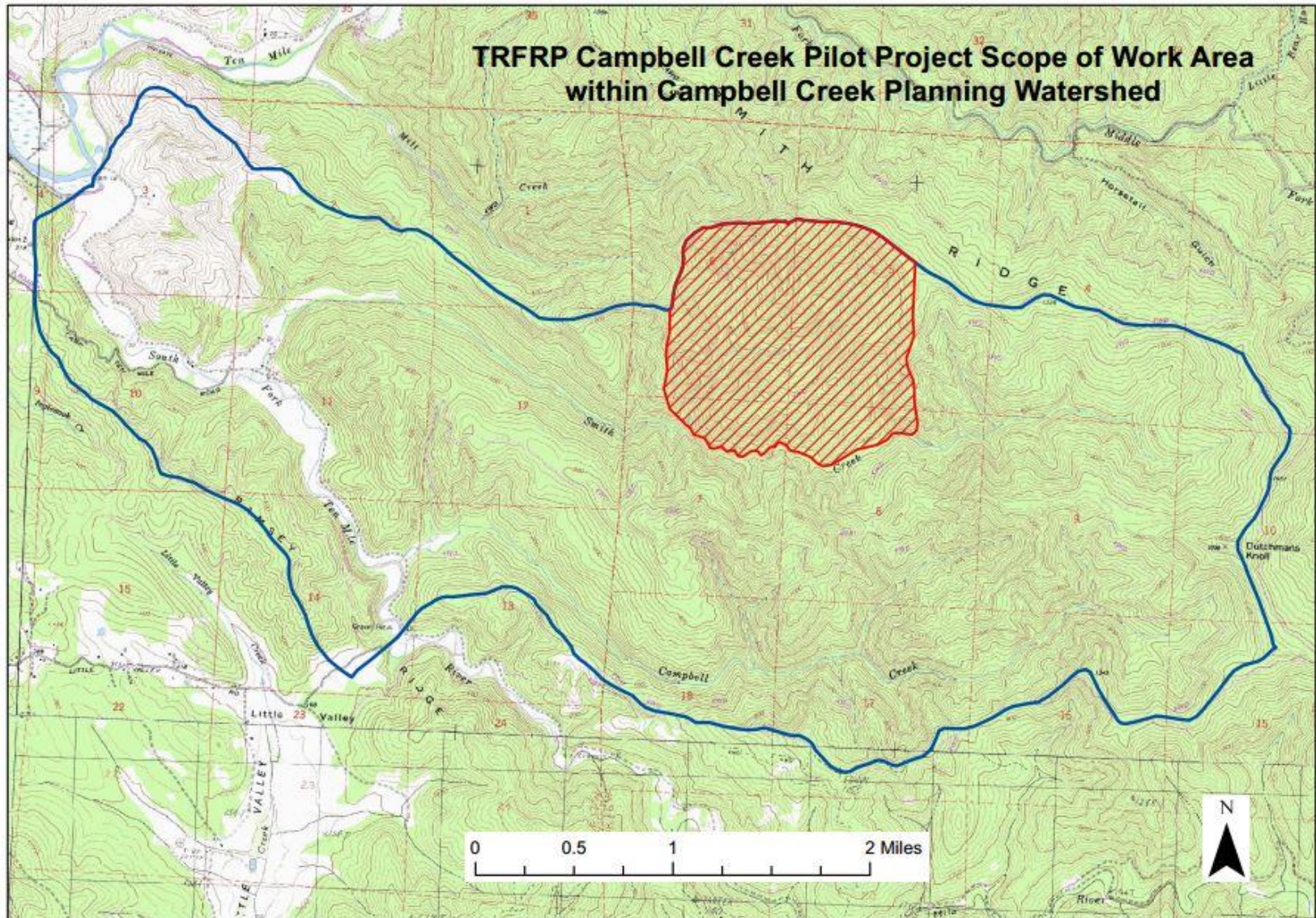




This figure is an aerial map of the Little Back River watershed, which is part of the Cape Fear River basin in North Carolina. The watershed boundary is highlighted with a blue line. The map shows the river network, including the Little Back River, and surrounding land cover. A red square indicates the location of the Cape Fear River basin.

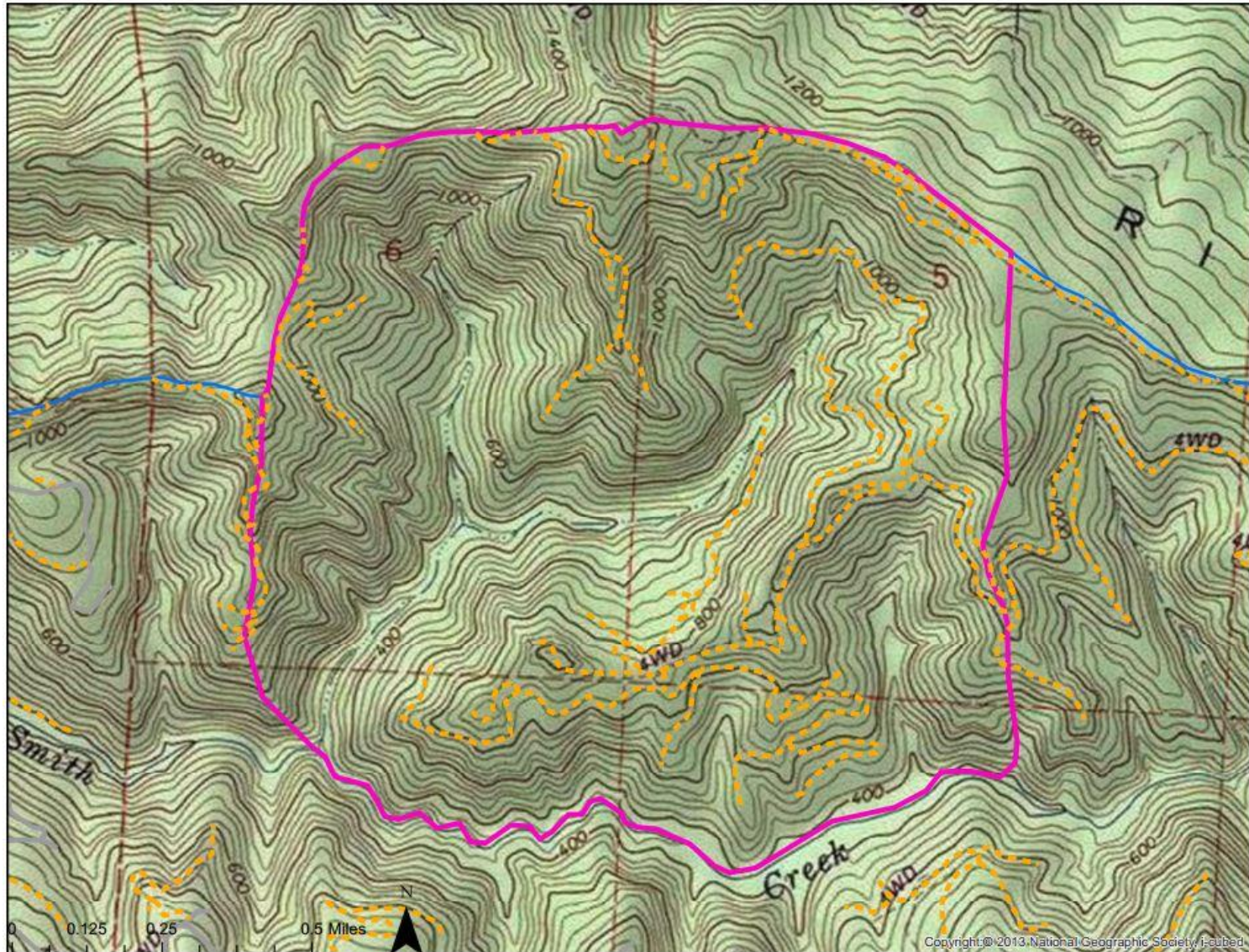


# The Subwatershed: Geography



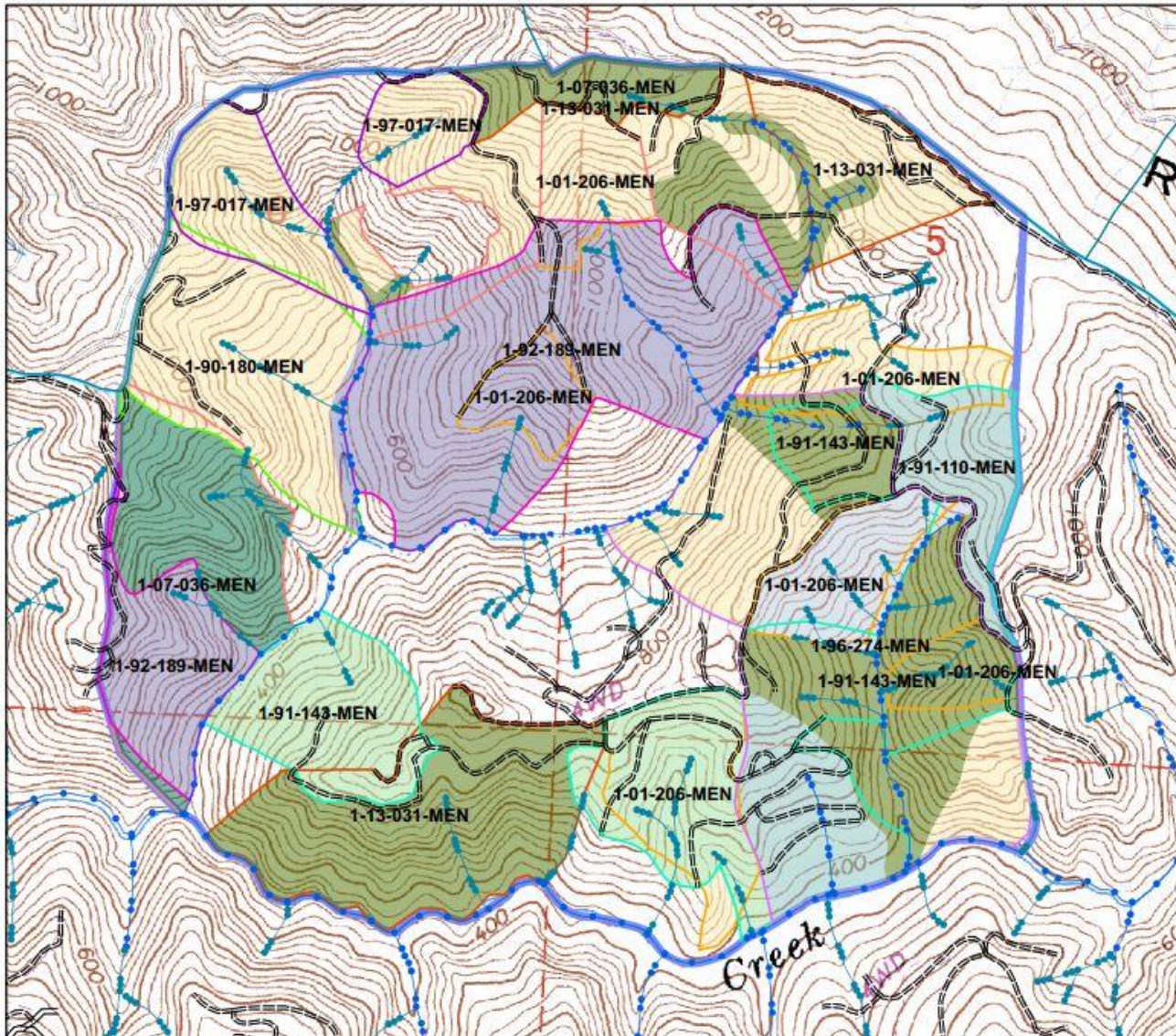


# The Subwatershed: Geography





# The Subwatershed: Geography



# The Three-Track Approach

# The Three-Track Approach: Why?

- Focusing just on THPs and other existing documents might not be the best option
  - Potentially leave out information derived from other methods
  - Same/similar information might be found more efficiently using other methods
- Solution: “prototype” multiple approaches

# The Three-Track Approach: How?

- In about 5 weeks, we went through each approach as if it were the sole method for discovering information
- Focused not just on results, but process
- What worked, didn't work, level of effort
- Recommendations from the PPWG and then iterate

# The Three-Track Approach: What?

1. THPs
2. Air photo rapid assessment
3. Modeling

# The Three-Track Approach: What?

## 1. THPs



# The Three-Track Approach: What?

1. THPs
2. Air photo rapid assessment

# The Three-Track Approach: **What?**

1. THPs
2. Air photo rapid assessment
3. **Modeling**

Other

# Next Steps

# Public Comment

# Campbell Creek Watershed Site Visit