

Vegetation Communities*

Herb-Dominated Communities

- Annual Grasses / Forbs (HG)
- Wet Meadow (Grass-Sedge-Rush) (HJ)

Non-Vegetated Areas

- Barren (BA)
- Developed/Urban (UB)

Shrub-Dominated Communities

- Huckleberry Oak (CH)
- Lower Montane Mixed Chaparral (CQ)
- Upper Montane Mixed Chaparral (CX)
- Mountain (Thinleaf) Alder (TA)

Tree-Dominated Communities

- Black Oak (QK)
- Blue Oak (QD)
- Canyon Live Oak (QC)
- Cottonwood - Alder (QJ)
- Douglas-Fir - Pine (DP)
- Gray Pine (PD)
- Interior Live Oak (QW)
- Interior Mixed Hardwoods (NX)
- Mixed Conifer - Fir (MF)
- Mixed Conifer - Pine (MP)
- Mixed Riparian Hardwoods (NR)
- Montane Mixed Hardwoods (TX)
- Pacific Douglas-Fir (DF)
- Ponderosa Pine (PP)
- White Alder (QE)
- White Fir (WF)
- Willow (QO)
- Willow - Alder (QY)

*CalVeg Data (2000) with updates from 2007 PCWA field surveys and aerial photo interpretation

Project Facilities

- Powerhouse
- Dam
- Tunnel
- Penstock

Transportation

- Major Road
- Minor Road

Hydrography

- Watercourse
- Water Body
- Middle Fork American River Watershed*

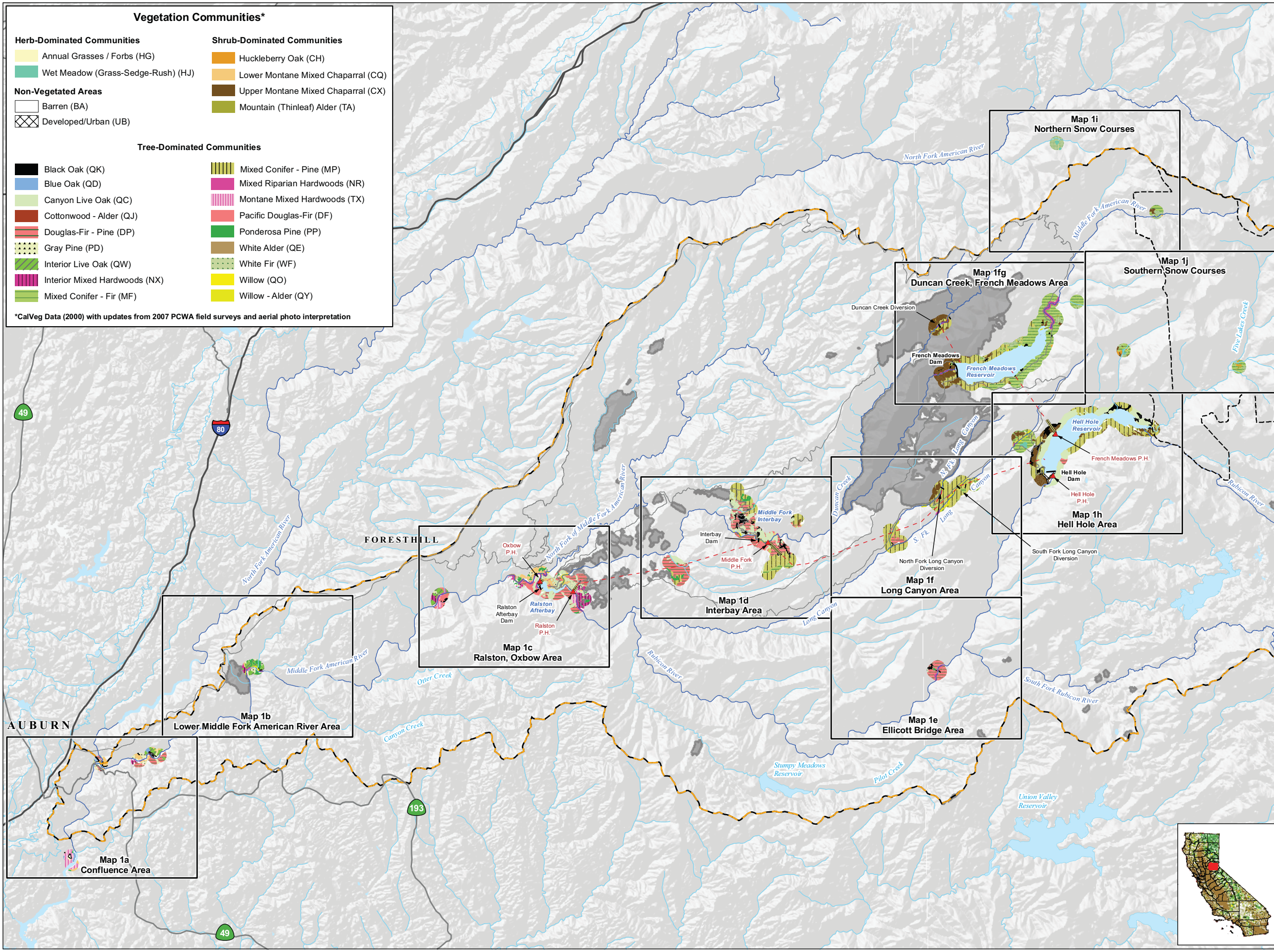
*Modified from Calwater Ver. 2.2 to represent drainage above high-water mark of Folsom Lake

Designated Boundary

- Wilderness Area

Fire History

- Areas Burned Since 2000



Map 1i
Northern Snow Courses

Map 1fg
Duncan Creek, French Meadows Area

Map 1j
Southern Snow Courses

Map 1c
Ralston, Oxbow Area

Map 1d
Interbay Area

Map 1f
Long Canyon Area

Map 1h
Hell Hole Area

Map 1b
Lower Middle Fork American River Area

Map 1a
Confluence Area



Placer County Water Agency
Middle Fork American River Project

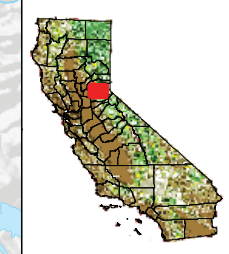
Map 1
Vegetation Communities within
the TERR-1 Study Area
Overview Map



0 0.5 1 2 3 Miles

Projection: CA State Plane, Zone 2
Datum: NAD 83

Date: 1/15/08



Vegetation Communities*

Herb-Dominated Communities

- Annual Grasses / Forbs (HG)
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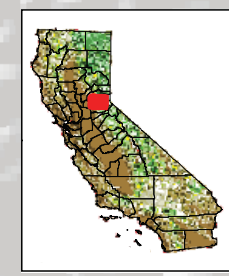
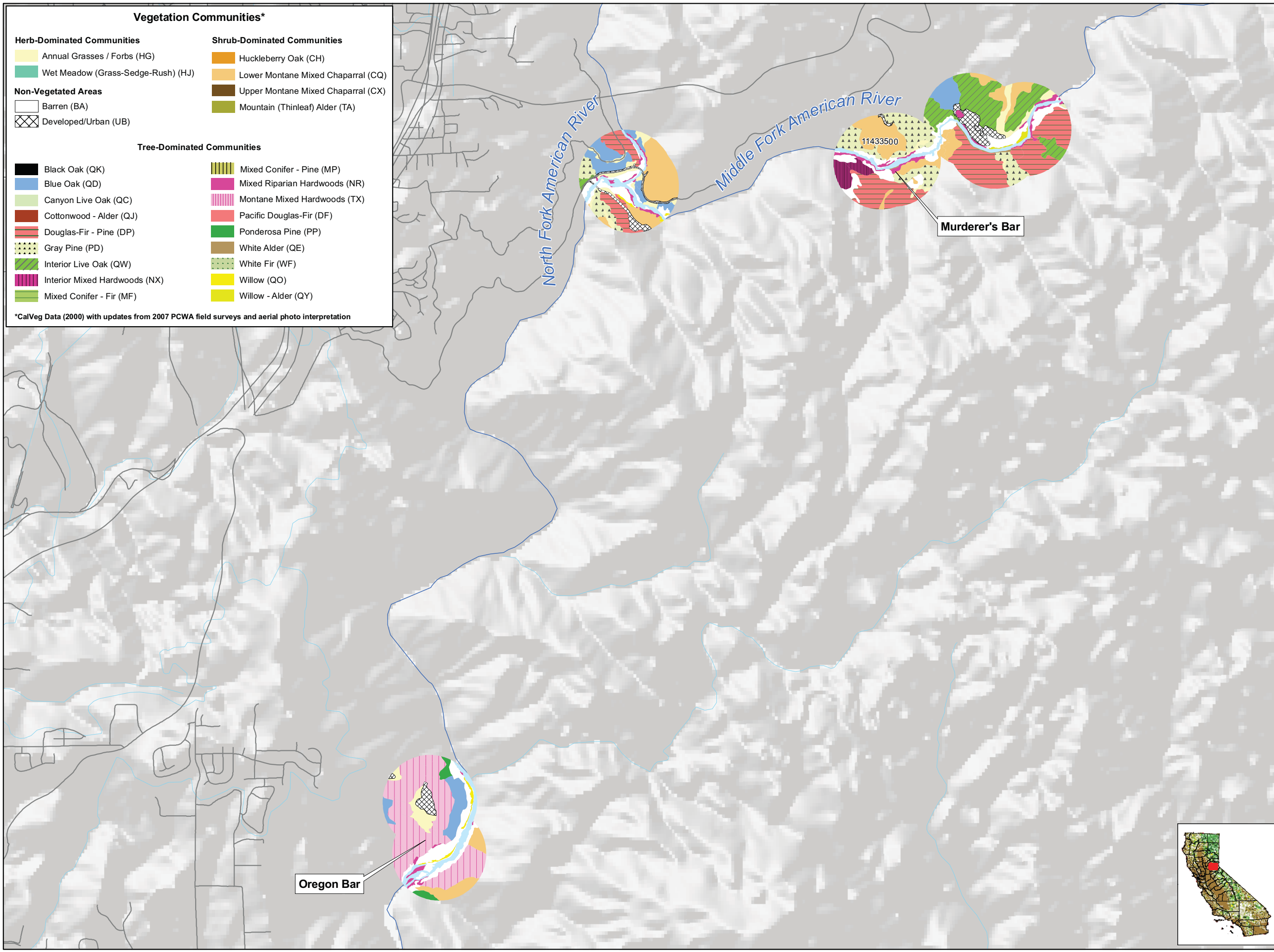
Tree-Dominated Communities

- Black Oak (QK)
- Blue Oak (QD)
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- Gray Pine (PD)
- Interior Live Oak (QW)
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- Mixed Conifer - Fir (MF)
- Mixed Conifer - Pine (MP)
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- Montane Mixed Hardwoods (TX)
- Pacific Douglas-Fir (DF)
- Ponderosa Pine (PP)
- White Alder (QE)
- White Fir (WF)
- Willow (QO)
- Willow - Alder (QY)

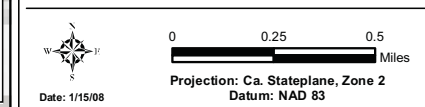
*CalVeg Data (2000) with updates from 2007 PCWA field surveys and aerial photo interpretation

PCWA Facilities and Features

- Dam
 - Ancillary and Other Facilities
 - Powerhouse
 - G Gage
 - Penstock
 - Tunnel
 - Pipeline
 - X Gate
 - A Access Point
 - Public Safety Fence
 - FERC Boundary
- Project Power and Communication Lines:**
- Communication
 - Power
 - Power (underground)
 - Communication/Power
 - Communication/Power (underground)
- Transportation**
- Non-Project General Access Road
 - Project Road
 - Project Trail
 - Recreation Access Road
 - Other Road
- Project Recreation Facilities**
- Picnic Area
 - Boat Ramp
 - Scenic Viewpoint
 - Developed Campground
 - Water Supply Line
- Other Facilities**
- PG & E Transmission Lines:
- 230 kV
 - 60 kV
- Fire History**
- Areas Burned Since 2000





Placer County Water Agency
Middle Fork American River Project
Map 1a
Vegetation Communities within the TERR-1 Study Area
Confluence Area





Vegetation Communities*

Herb-Dominated Communities

-  Annual Grasses / Forbs (HG)
-  Wet Meadow (Grass-Sedge-Rush) (HJ)

Non-Vegetated Areas

-  Barren (BA)
-  Developed/Urban (UB)

Shrub-Dominated Communities






























-  Huckleberry Oak (CH)
-  Lower Montane Mixed Chaparral (CQ)
-  Upper Montane Mixed Chaparral (CX)
-  Mountain (Thinleaf) Alder (TA)

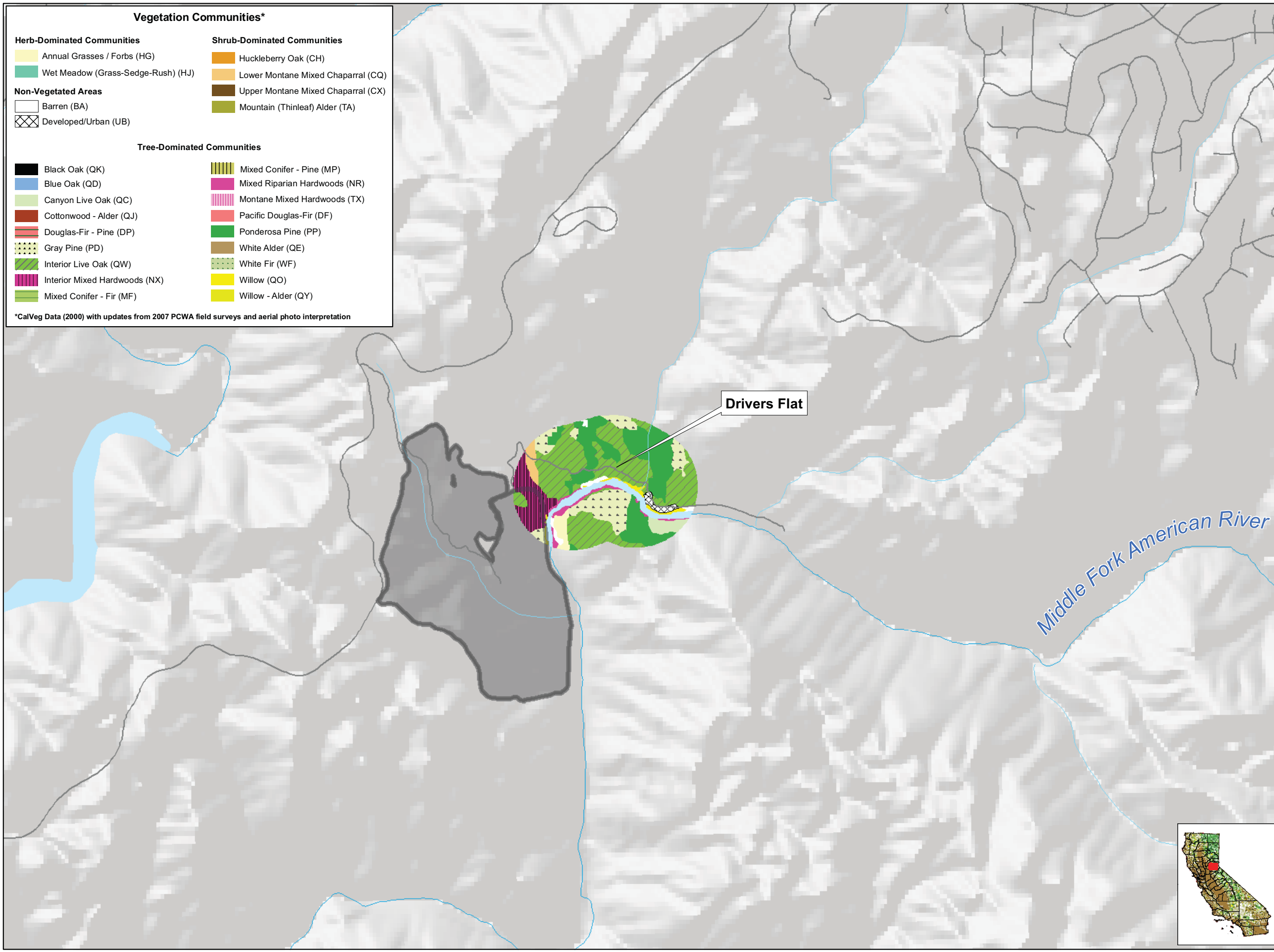
Tree-Dominated Communities

- | | |
|--|---|
|  Black Oak (QK) |  Mixed Conifer - Pine (MP) |
|  Blue Oak (QD) |  Mixed Riparian Hardwoods (NR) |
|  Canyon Live Oak (QC) |  Montane Mixed Hardwoods (TX) |
|  Cottonwood - Alder (QJ) |  Pacific Douglas-Fir (DF) |
|  Douglas-Fir - Pine (DP) |  Ponderosa Pine (PP) |
|  Gray Pine (PD) |  White Alder (QE) |
|  Interior Live Oak (QW) |  White Fir (WF) |
|  Interior Mixed Hardwoods (NX) |  Willow (QO) |
|  Mixed Conifer - Fir (MF) |  Willow - Alder (QY) |

*CalVeg Data (2000) with updates from 2007 PCWA field surveys and aerial photo interpretation

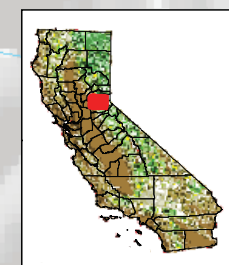
PCWA Facilities and Features

-  Dam
 -  Ancillary and Other Facilities
 -  Powerhouse
 -  Gage
 -  Penstock
 -  Tunnel
 -  Pipeline
 -  Gate
 -  Access Point
 -  Public Safety Fence
 -  FERC Boundary
- Project Power and Communication Lines:**
-  Communication
 -  Power
 -  Power (underground)
 -  Communication/Power
 -  Communication/Power (underground)
- Transportation**
-  Non-Project General Access Road
 -  Project Road
 -  Project Trail
 -  Recreation Access Road
 -  Other Road
- Project Recreation Facilities**
-  Picnic Area
 -  Boat Ramp
 -  Scenic Viewpoint
 -  Developed Campground
 -  Water Supply Line
- Other Facilities**
- PG & E Transmission Lines:
-  230 kV
 -  60 kV
- Fire History**
-  Areas Burned Since 2000

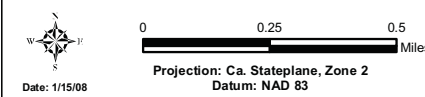


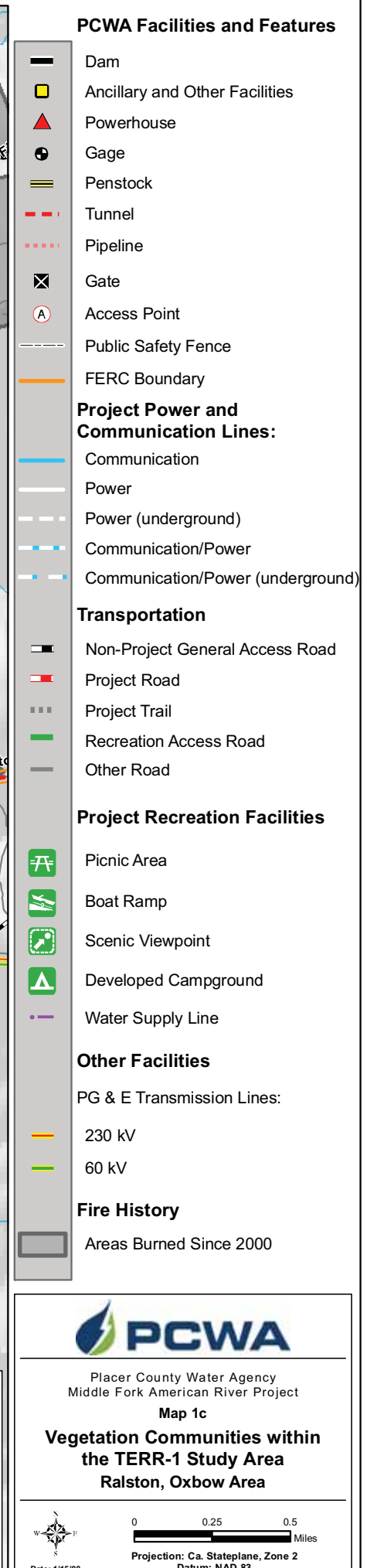
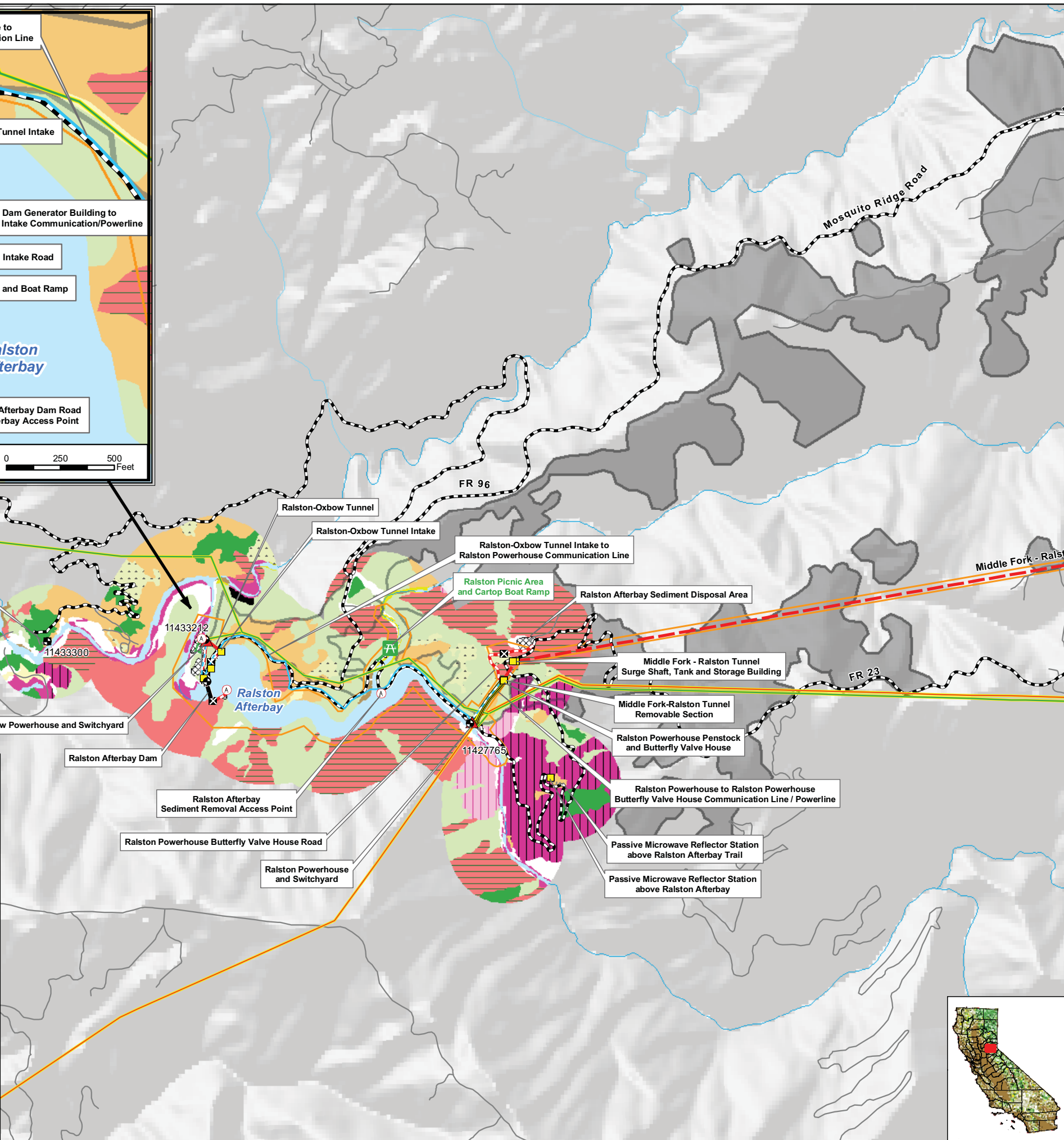
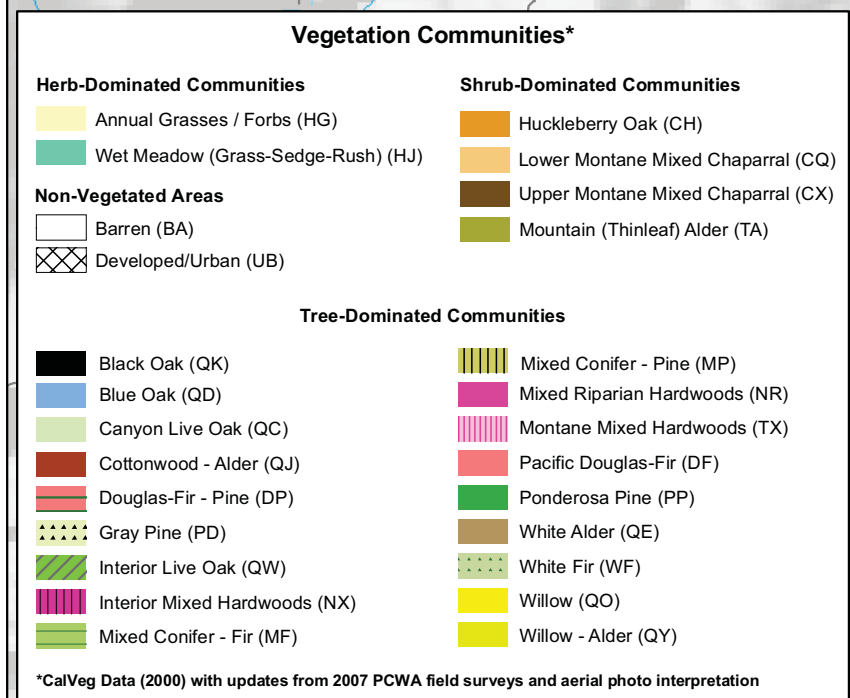
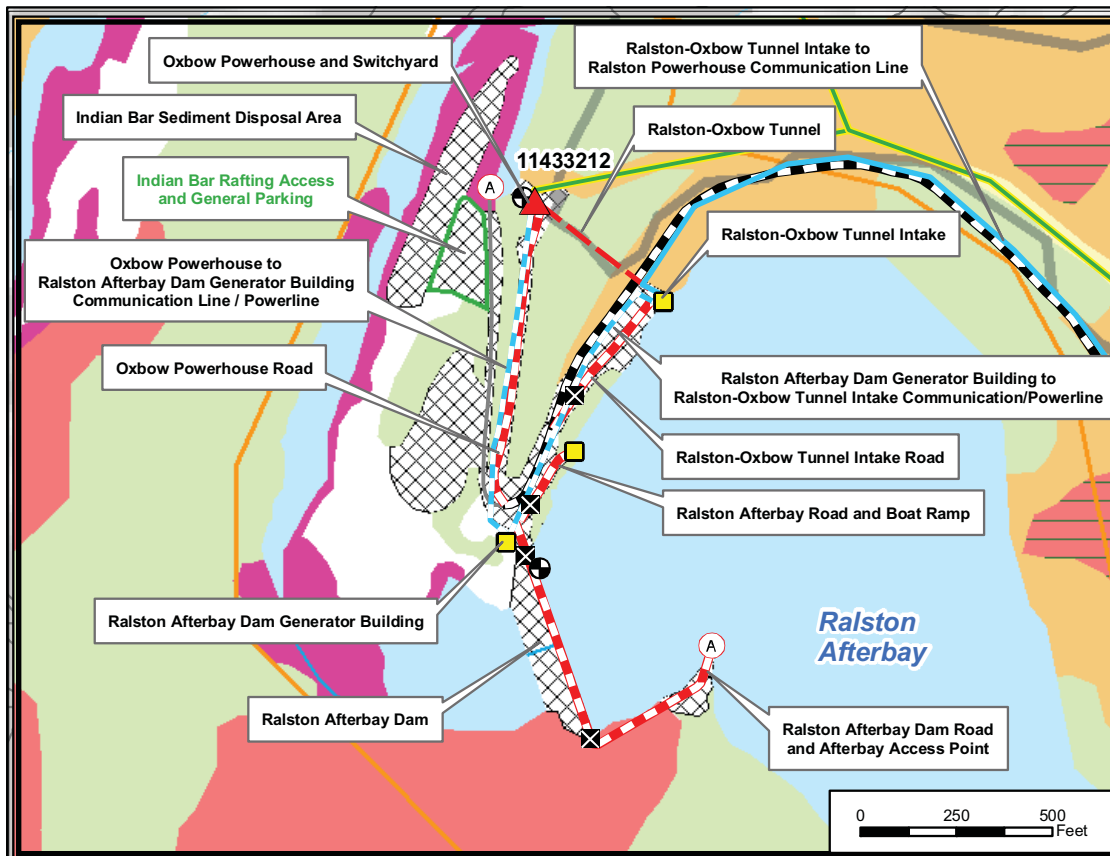
Drivers Flat

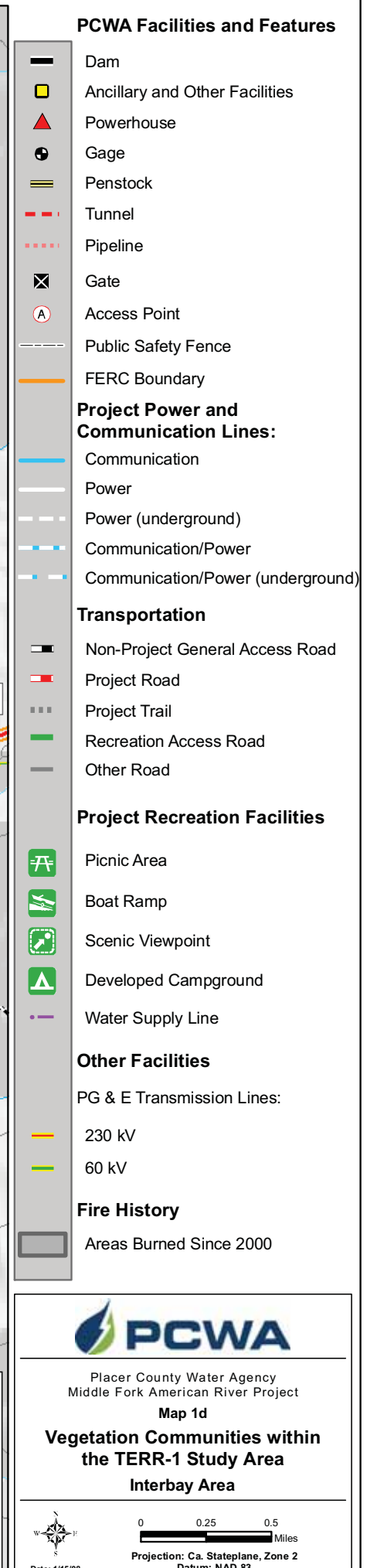
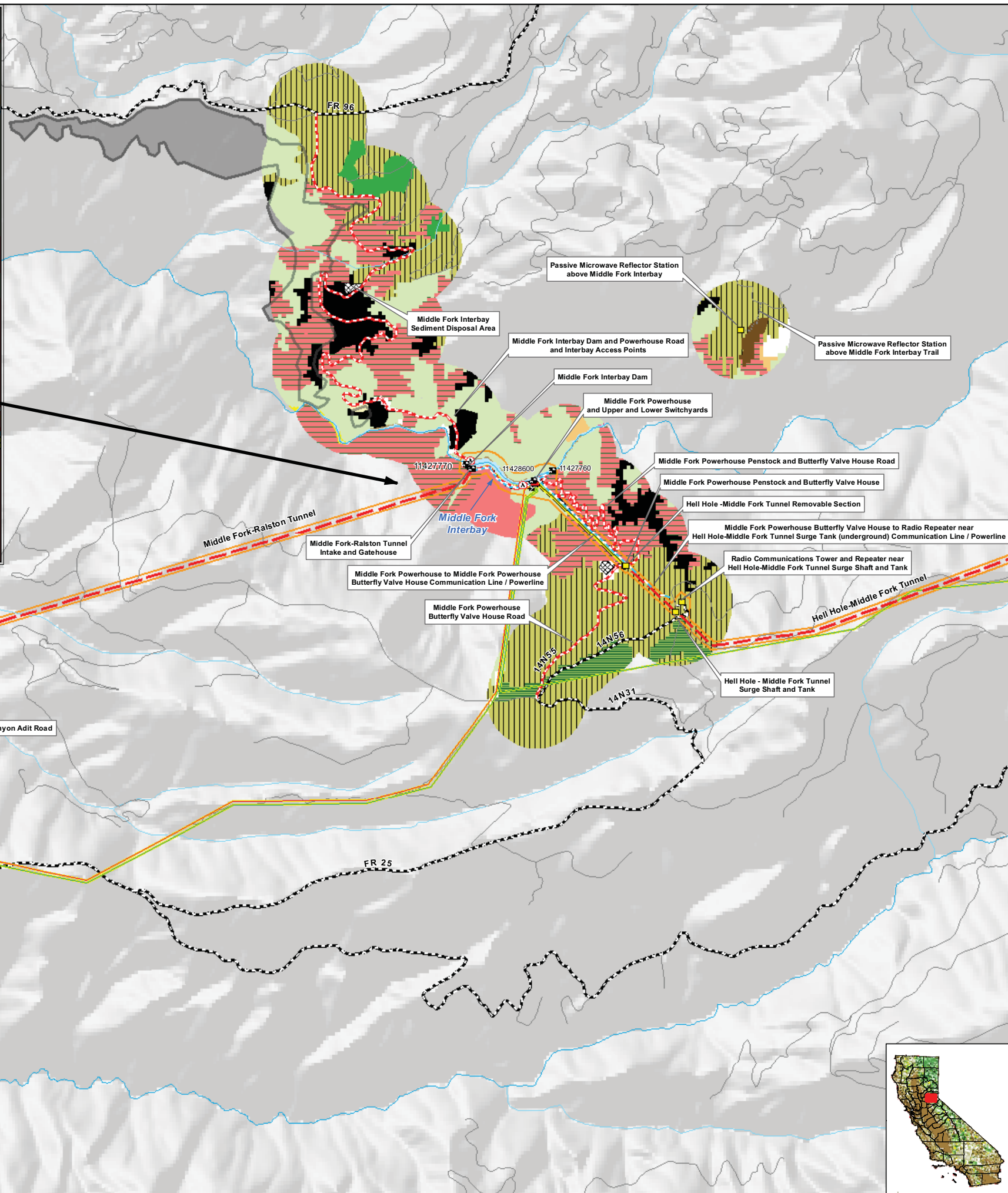
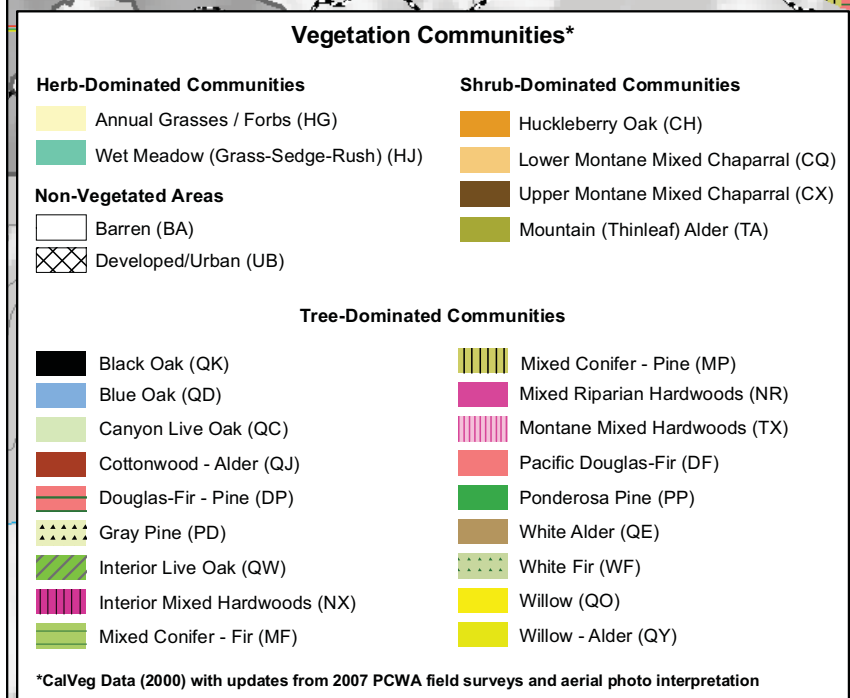
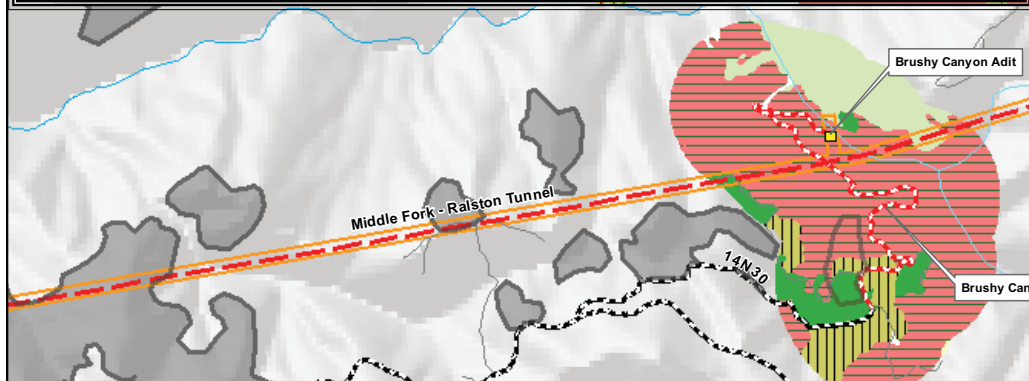
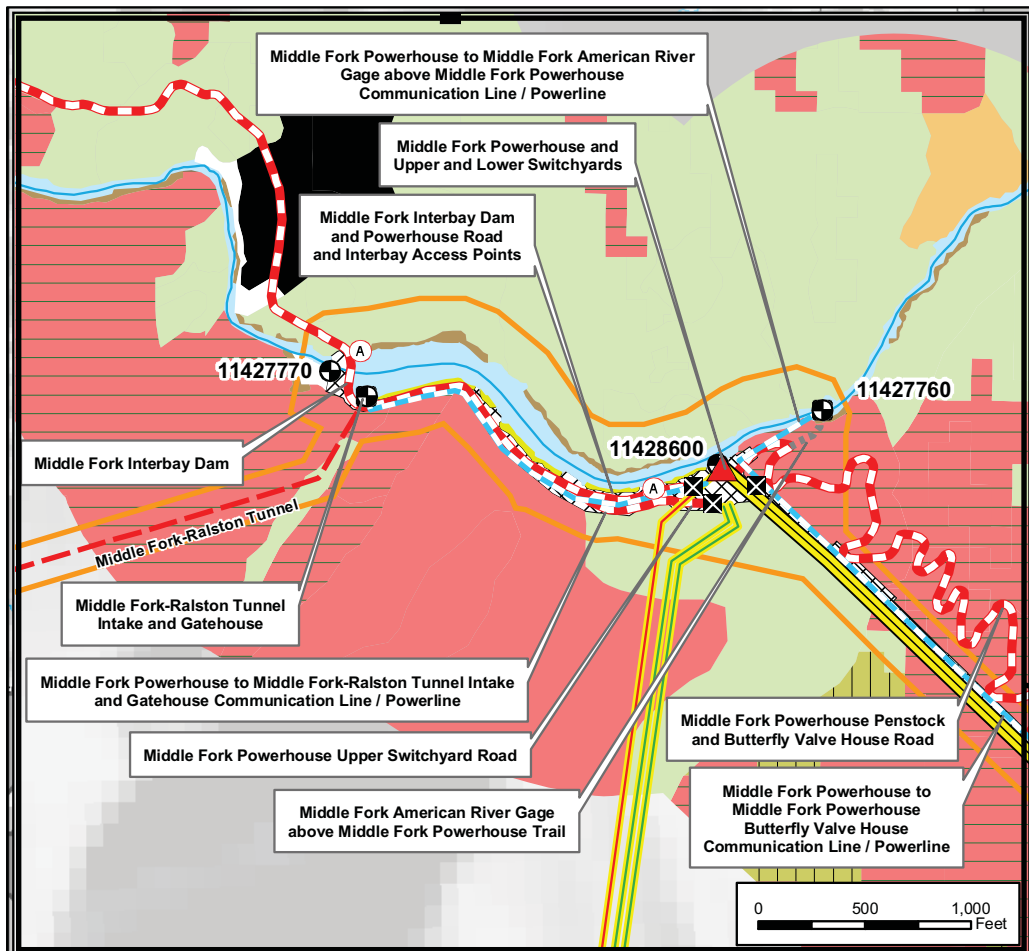
Middle Fork American River



Placer County Water Agency
Middle Fork American River Project
Map 1b
Vegetation Communities within the TERR-1 Study Area
Lower Middle Fork American River Area







Vegetation Communities*

Herb-Dominated Communities

- Annual Grasses / Forbs (HG)
- Wet Meadow (Grass-Sedge-Rush) (HJ)

Non-Vegetated Areas

- Barren (BA)
- Developed/Urban (UB)

Shrub-Dominated Communities

- Huckleberry Oak (CH)
- Lower Montane Mixed Chaparral (CQ)
- Upper Montane Mixed Chaparral (CX)
- Mountain (Thinleaf) Alder (TA)

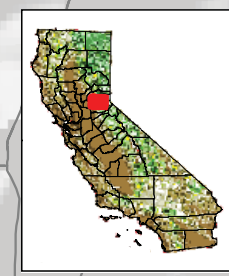
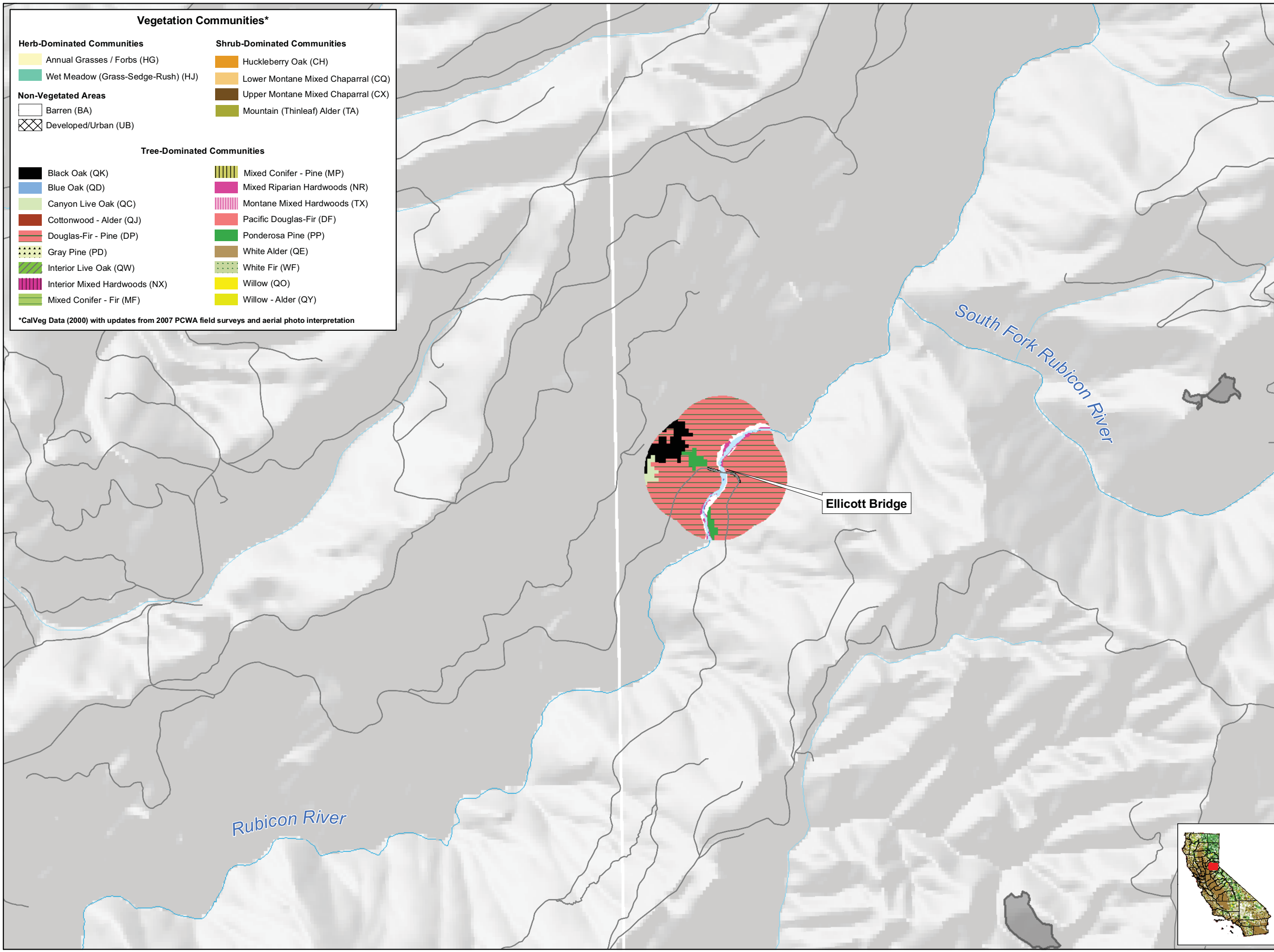
Tree-Dominated Communities

- Black Oak (QK)
- Blue Oak (QD)
- Canyon Live Oak (QC)
- Cottonwood - Alder (QJ)
- Douglas-Fir - Pine (DP)
- Gray Pine (PD)
- Interior Live Oak (QW)
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- Mixed Conifer - Fir (MF)
- Mixed Conifer - Pine (MP)
- Mixed Riparian Hardwoods (NR)
- Montane Mixed Hardwoods (TX)
- Pacific Douglas-Fir (DF)
- Ponderosa Pine (PP)
- White Alder (QE)
- White Fir (WF)
- Willow (QO)
- Willow - Alder (QY)

*CalVeg Data (2000) with updates from 2007 PCWA field surveys and aerial photo interpretation

PCWA Facilities and Features

- Dam
 - Ancillary and Other Facilities
 - Powerhouse
 - Gage
 - Penstock
 - Tunnel
 - Pipeline
 - Gate
 - A Access Point
 - Public Safety Fence
 - FERC Boundary
- Project Power and Communication Lines:**
- Communication
 - Power
 - Power (underground)
 - Communication/Power
 - Communication/Power (underground)
- Transportation**
- Non-Project General Access Road
 - Project Road
 - Project Trail
 - Recreation Access Road
 - Other Road
- Project Recreation Facilities**
- Picnic Area
 - Boat Ramp
 - Scenic Viewpoint
 - Developed Campground
 - Water Supply Line
- Other Facilities**
- PG & E Transmission Lines:
- 230 kV
 - 60 kV
- Fire History**
- Areas Burned Since 2000

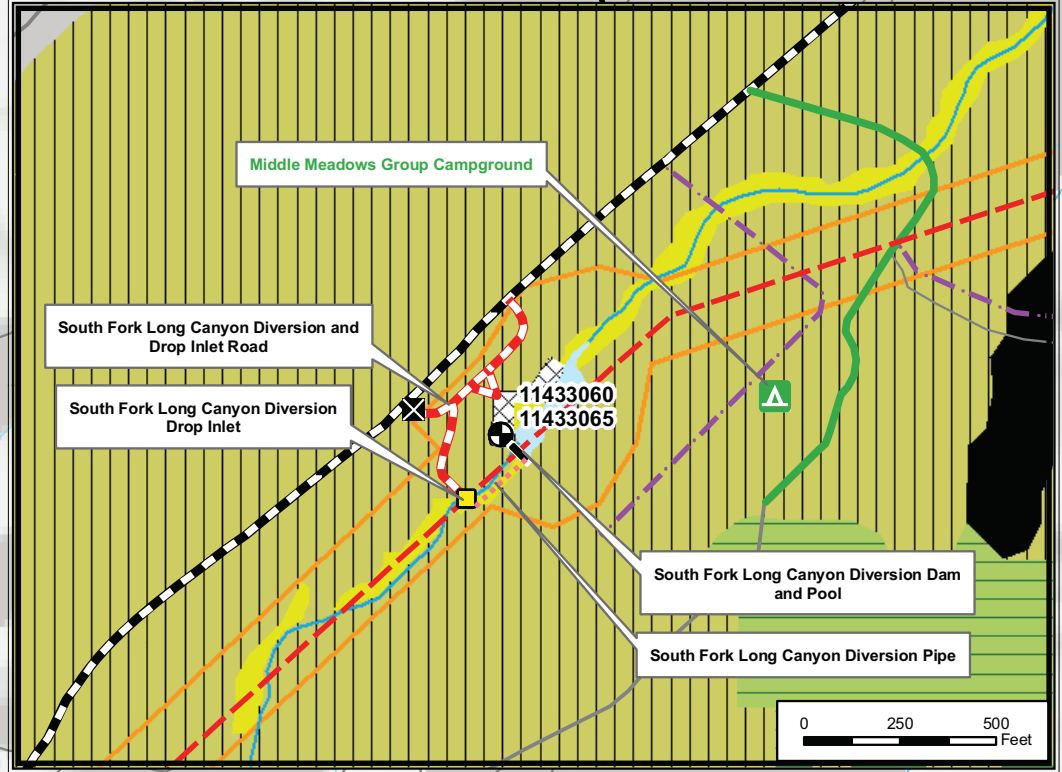
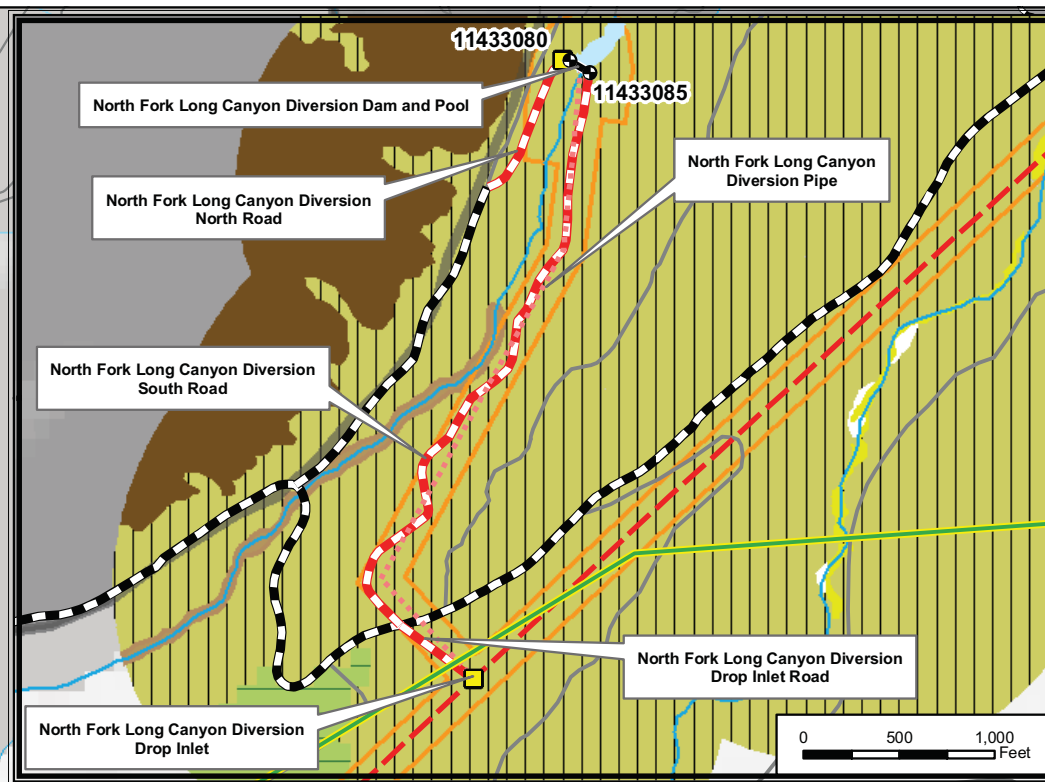
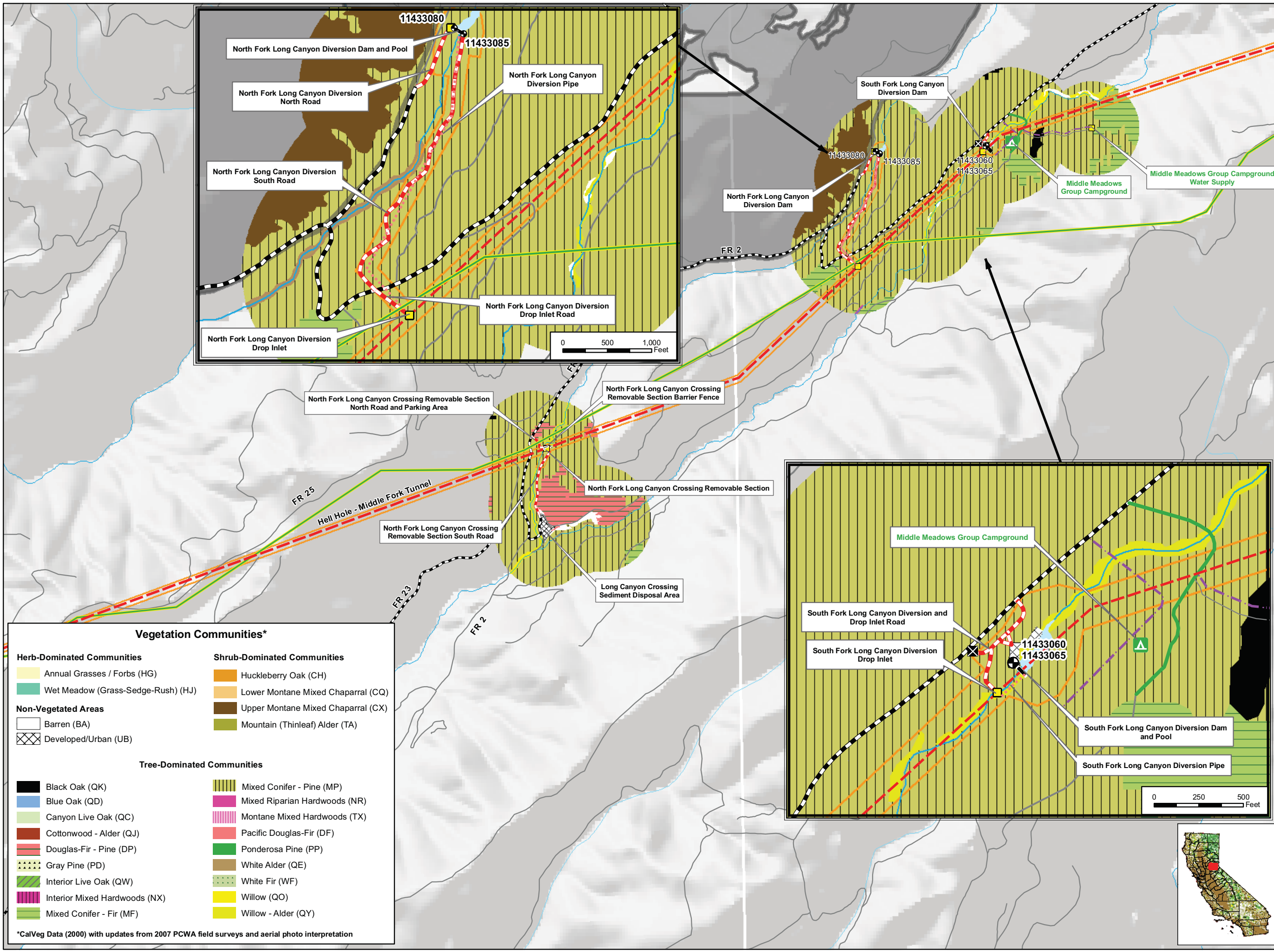


Placer County Water Agency
 Middle Fork American River Project
Map 1e
Vegetation Communities within the TERR-1 Study Area
 Ellicott Bridge Area

0 0.25 0.5 Miles

Projection: Ca. Stateplane, Zone 2
 Datum: NAD 83

Date: 1/15/08



Vegetation Communities*

Herb-Dominated Communities		Shrub-Dominated Communities	
Annual Grasses / Forbs (HG)	Huckleberry Oak (CH)	Lower Montane Mixed Chaparral (CQ)	Upper Montane Mixed Chaparral (CX)
Wet Meadow (Grass-Sedge-Rush) (HJ)	Mountain (Thinleaf) Alder (TA)		
Non-Vegetated Areas			
Barren (BA)			
Developed/Urban (UB)			
Tree-Dominated Communities			
Black Oak (QK)	Mixed Conifer - Pine (MP)	Mixed Riparian Hardwoods (NR)	Montane Mixed Hardwoods (TX)
Blue Oak (QD)	Pacific Douglas-Fir (DF)	Ponderosa Pine (PP)	White Alder (QE)
Canyon Live Oak (QC)	Willow (QO)	White Fir (WF)	Willow - Alder (QY)
Cottonwood - Alder (QJ)	Willow - Alder (QY)		
Douglas-Fir - Pine (DP)			
Gray Pine (PD)			
Interior Live Oak (QW)			
Interior Mixed Hardwoods (NX)			
Mixed Conifer - Fir (MF)			

*CalVeg Data (2000) with updates from 2007 PCWA field surveys and aerial photo interpretation

PCWA Facilities and Features

- Dam
- Ancillary and Other Facilities
- Powerhouse
- Gage
- Penstock
- Tunnel
- Pipeline
- Gate
- Access Point
- Public Safety Fence
- FERC Boundary

Project Power and Communication Lines:

- Communication
- Power
- Power (underground)
- Communication/Power
- Communication/Power (underground)

Transportation

- Non-Project General Access Road
- Project Road
- Project Trail
- Recreation Access Road
- Other Road

Project Recreation Facilities

- Picnic Area
- Boat Ramp
- Scenic Viewpoint
- Developed Campground
- Water Supply Line

Other Facilities

PG & E Transmission Lines:

- 230 kV
- 60 kV

Fire History

- Areas Burned Since 2000

Placer County Water Agency
Middle Fork American River Project
Map 1f
Vegetation Communities within the TERR-1 Study Area Long Canyon Area

0 0.25 0.5 Miles
Projection: Ca. Stateplane, Zone 2
Datum: NAD 83
Date: 1/15/08

Vegetation Communities*

Herb-Dominated Communities

- Annual Grasses / Forbs (HG)
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Non-Vegetated Areas

- Barren (BA)
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Shrub-Dominated Communities

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Tree-Dominated Communities

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- White Fir (WF)
- Willow (QO)
- Willow - Alder (QY)

*CalVeg Data (2000) with updates from 2007 PCWA field surveys and aerial photo interpretation

PCWA Facilities and Features

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- Ancillary and Other Facilities
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- Gage
- Penstock
- Tunnel
- Pipeline
- Gate
- Access Point
- Public Safety Fence
- FERC Boundary
- Project Power and Communication Lines:**
- Communication
- Power
- Power (underground)
- Communication/Power
- Communication/Power (underground)

Transportation

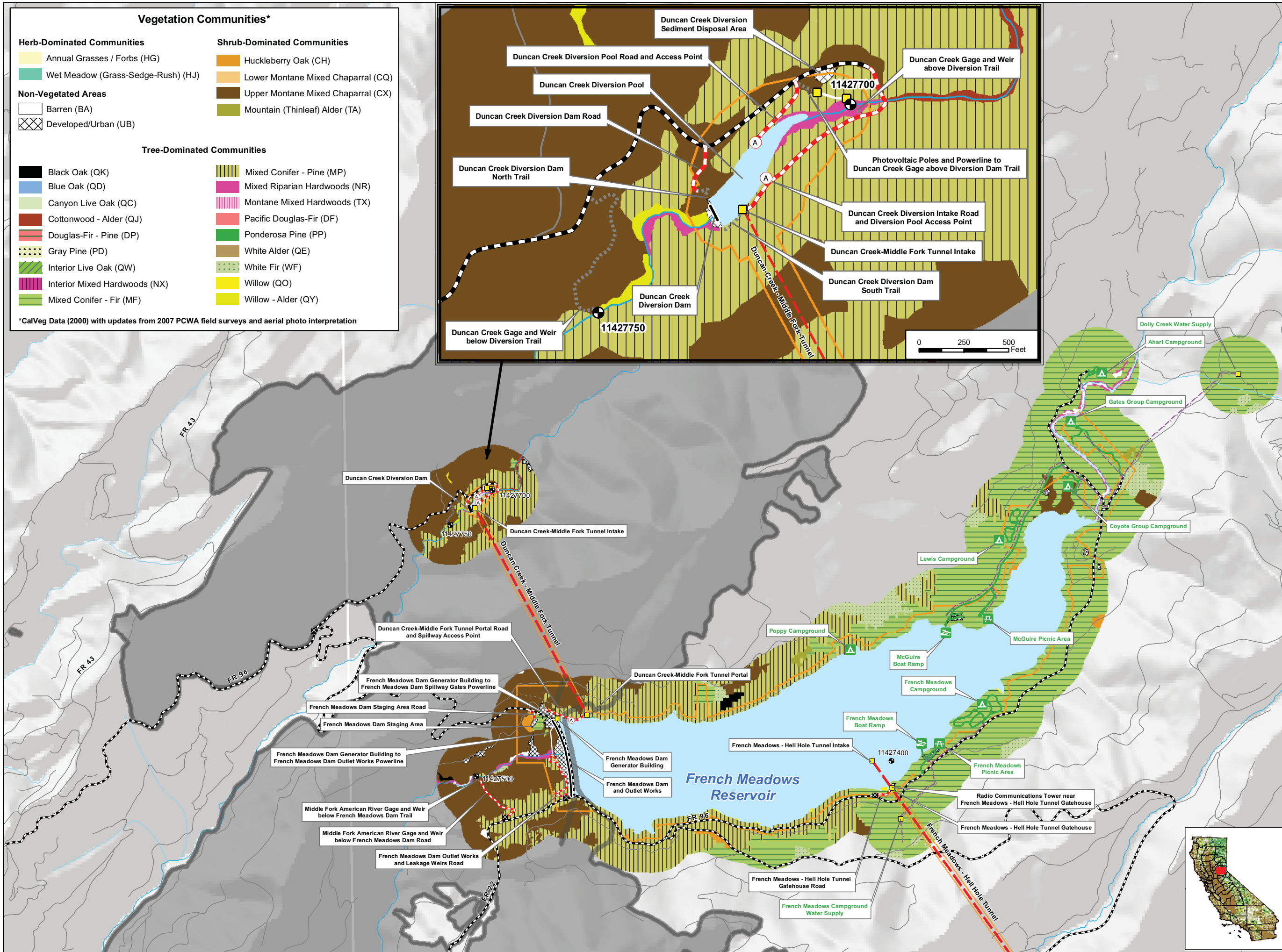
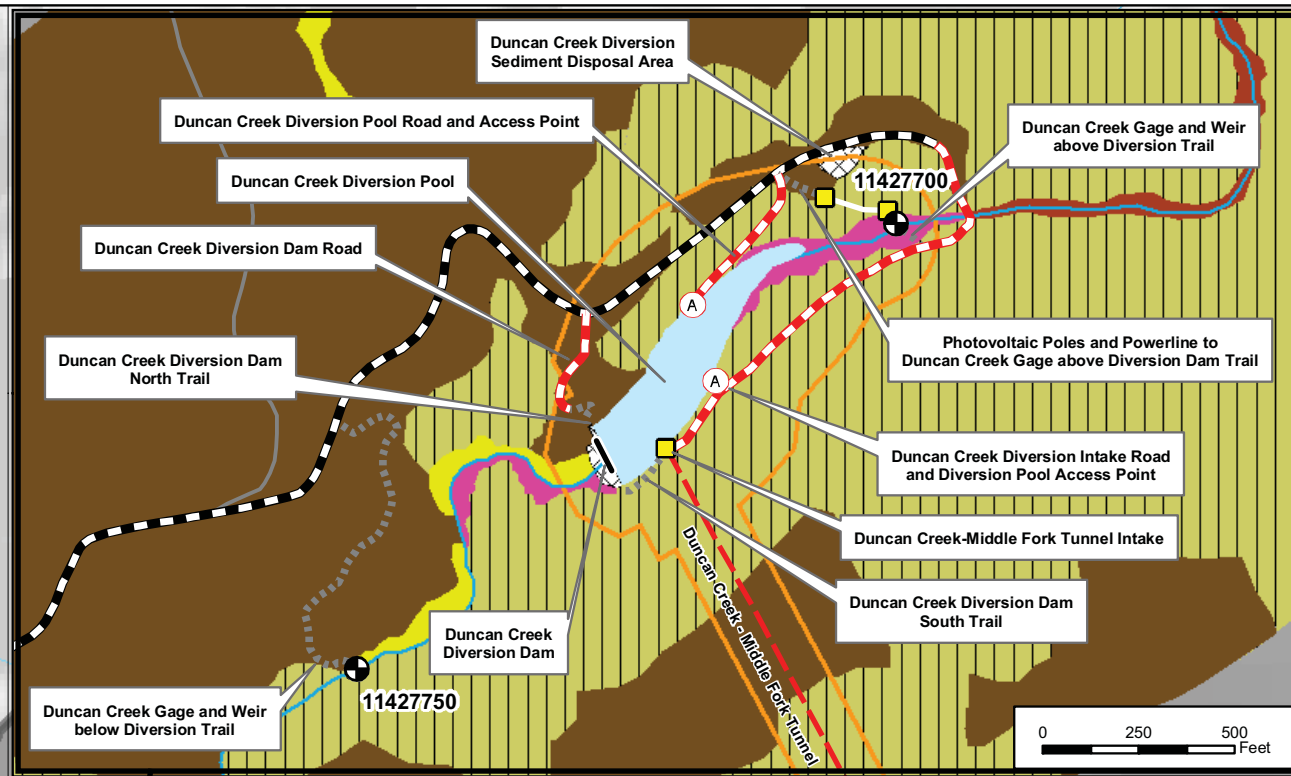
- Non-Project General Access Road
- Project Road
- Project Trail
- Recreation Access Road
- Other Road

Project Recreation Facilities

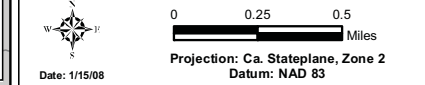
- Picnic Area
- Boat Ramp
- Scenic Viewpoint
- Developed Campground
- Water Supply Line

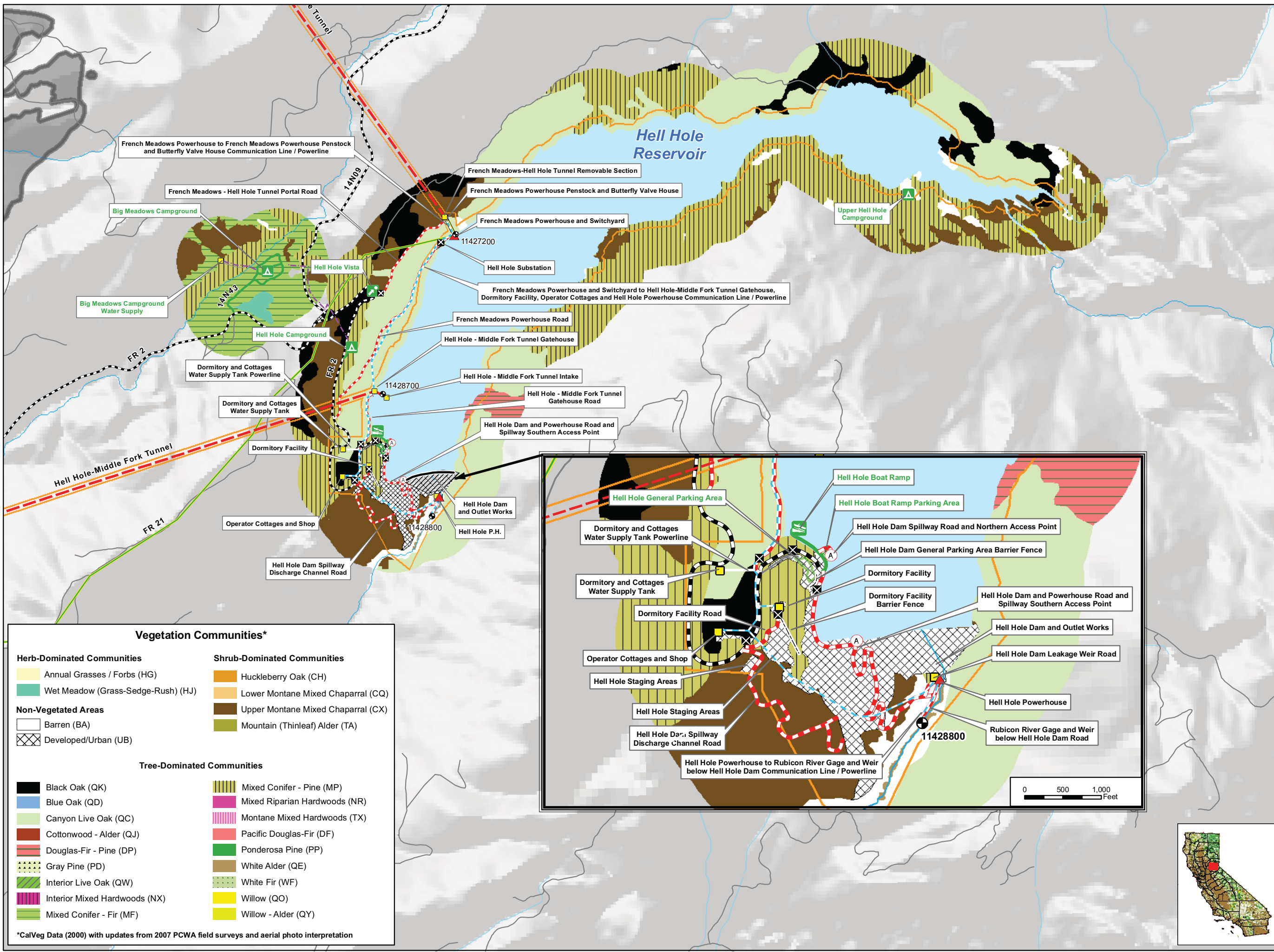
Other Facilities

- PG & E Transmission Lines:**
- 230 kV
- 60 kV
- Fire History**
- Areas Burned Since 2000



Placer County Water Agency
Middle Fork American River Project
Map 1g
Vegetation Communities within the TERR-1 Study Area
Duncan Creek, French Meadows Area





PCWA Facilities and Features

- Dam
- Ancillary and Other Facilities
- Powerhouse
- Gage
- Penstock
- Tunnel
- Pipeline
- Gate
- Access Point
- Public Safety Fence
- FERC Boundary

Project Power and Communication Lines:

- Communication
- Power
- Power (underground)
- Communication/Power
- Communication/Power (underground)

Transportation

- Non-Project General Access Road
- Project Road
- Project Trail
- Recreation Access Road
- Other Road

Project Recreation Facilities

- Picnic Area
- Boat Ramp
- Scenic Viewpoint
- Developed Campground
- Water Supply Line

Other Facilities

PG & E Transmission Lines:

- 230 kV
- 60 kV

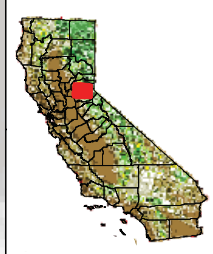
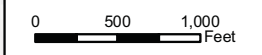
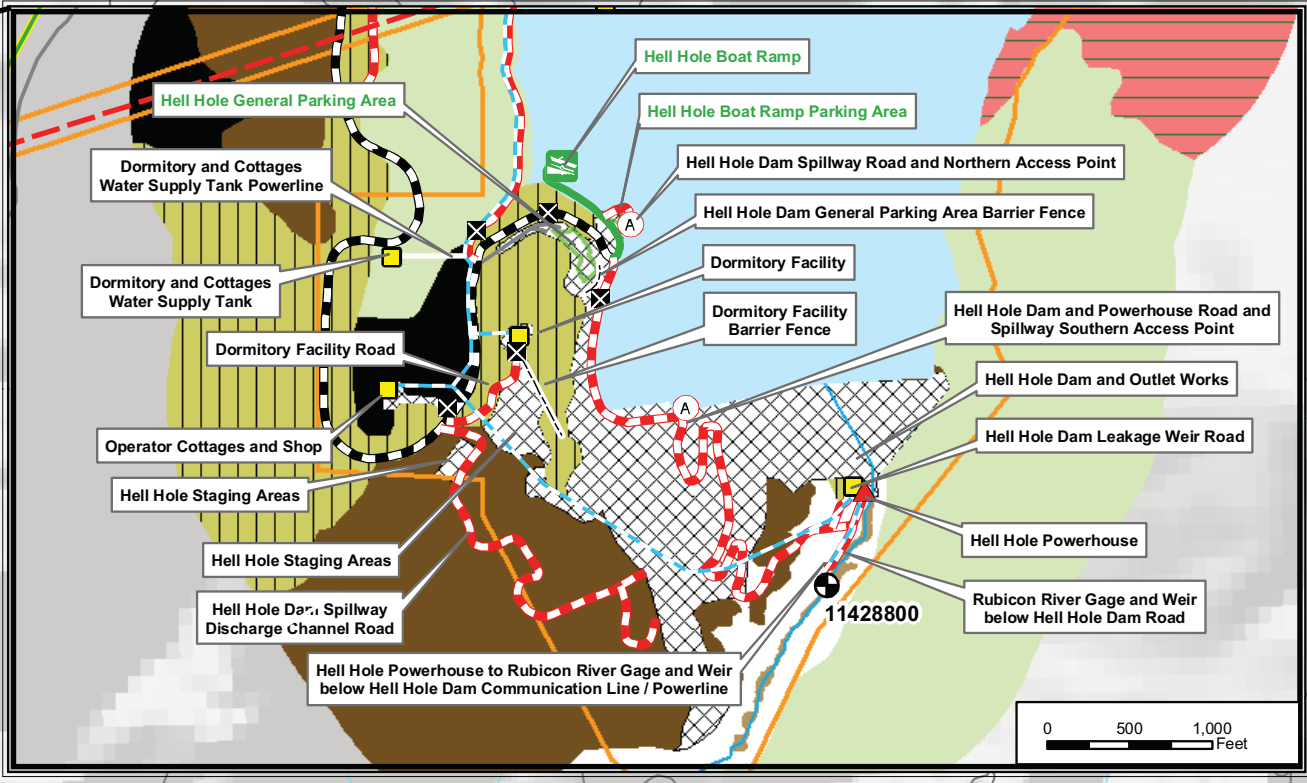
Fire History

- Areas Burned Since 2000

Vegetation Communities*

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Developed/Urban (UB)	
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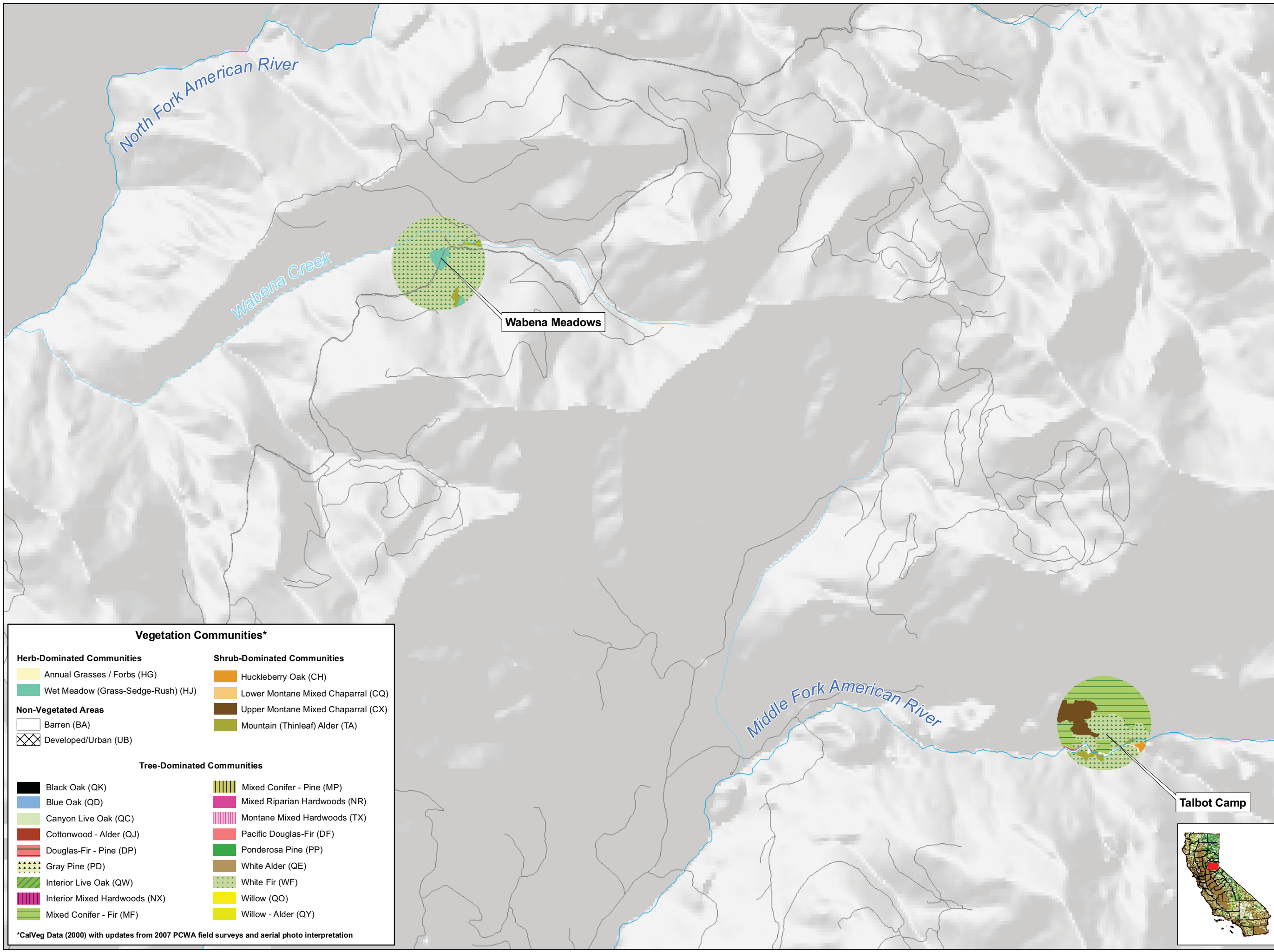
*CalVeg Data (2000) with updates from 2007 PCWA field surveys and aerial photo interpretation



PCWA

Placer County Water Agency
Middle Fork American River Project
Map 1h
Vegetation Communities within the TERR-1 Study Area
Hell Hole Area

0 0.25 0.5 Miles
Projection: Ca. Stateplane, Zone 2
Datum: NAD 83
Date: 1/15/08



- PCWA Facilities and Features**
- Dam
 - Ancillary and Other Facilities
 - Powerhouse
 - Gage
 - Penstock
 - Tunnel
 - Pipeline
 - Gate
 - Access Point
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 - FERC Boundary
- Project Power and Communication Lines:**
- Communication
 - Power
 - Power (underground)
 - Communication/Power
 - Communication/Power (underground)
- Transportation**
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 - Project Trail
 - Recreation Access Road
 - Other Road
- Project Recreation Facilities**
- Picnic Area
 - Boat Ramp
 - Scenic Viewpoint
 - Developed Campground
 - Water Supply Line
- Other Facilities**
- PG & E Transmission Lines:
- 230 kV
 - 60 kV
- Fire History**
- Areas Burned Since 2000

- Vegetation Communities***
- | | | | |
|-----------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Herb-Dominated Communities | | Shrub-Dominated Communities | |
| Annual Grasses / Forbs (HG) | Wet Meadow (Grass-Sedge-Rush) (HJ) | Huckleberry Oak (CH) | Lower Montane Mixed Chaparral (CQ) |
| Non-Vegetated Areas | | Upper Montane Mixed Chaparral (CX) | |
| Barren (BA) | Developed/Urban (UB) | Mountain (Thinleaf) Alder (TA) | |
| Tree-Dominated Communities | | | |
| Black Oak (QK) | Blue Oak (QD) | Mixed Conifer - Pine (MP) | Mixed Riparian Hardwoods (NR) |
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| Interior Live Oak (QW) | Interior Mixed Hardwoods (NX) | White Fir (WF) | Willow (QO) |
| Mixed Conifer - Fir (MF) | Willow - Alder (QY) | | |
- *CalVeg Data (2000) with updates from 2007 PCWA field surveys and aerial photo interpretation

PCWA

Placer County Water Agency
Middle Fork American River Project
Map 1i
Vegetation Communities within the TERR-1 Study Area
Northern Snow Courses

0 0.25 0.5 Miles

Projection: Ca. Stateplane, Zone 2
Datum: NAD 83

Date: 1/15/08

Vegetation Communities*

Herb-Dominated Communities

- Annual Grasses / Forbs (HG)
- Wet Meadow (Grass-Sedge-Rush) (HJ)

Non-Vegetated Areas

- Barren (BA)
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Shrub-Dominated Communities

- Huckleberry Oak (CH)
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- Mountain (Thinleaf) Alder (TA)

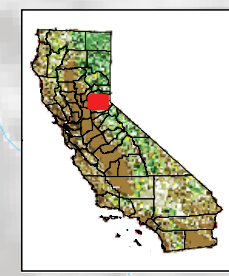
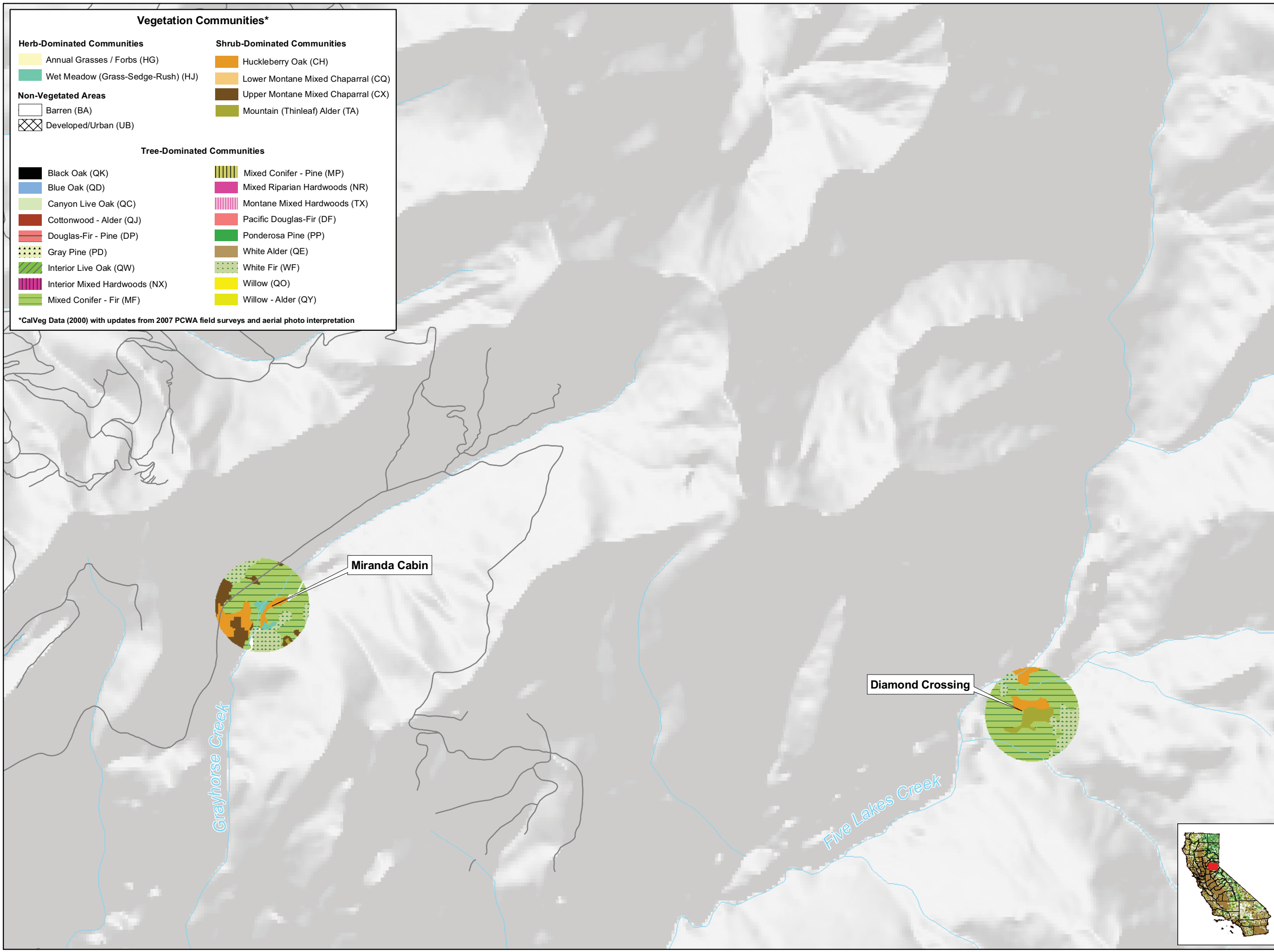
Tree-Dominated Communities

- Black Oak (QK)
- Blue Oak (QD)
- Canyon Live Oak (QC)
- Cottonwood - Alder (QJ)
- Douglas-Fir - Pine (DP)
- Gray Pine (PD)
- Interior Live Oak (QW)
- Interior Mixed Hardwoods (NX)
- Mixed Conifer - Fir (MF)
- Mixed Conifer - Pine (MP)
- Mixed Riparian Hardwoods (NR)
- Montane Mixed Hardwoods (TX)
- Pacific Douglas-Fir (DF)
- Ponderosa Pine (PP)
- White Alder (QE)
- White Fir (WF)
- Willow (QO)
- Willow - Alder (QY)

*CalVeg Data (2000) with updates from 2007 PCWA field surveys and aerial photo interpretation

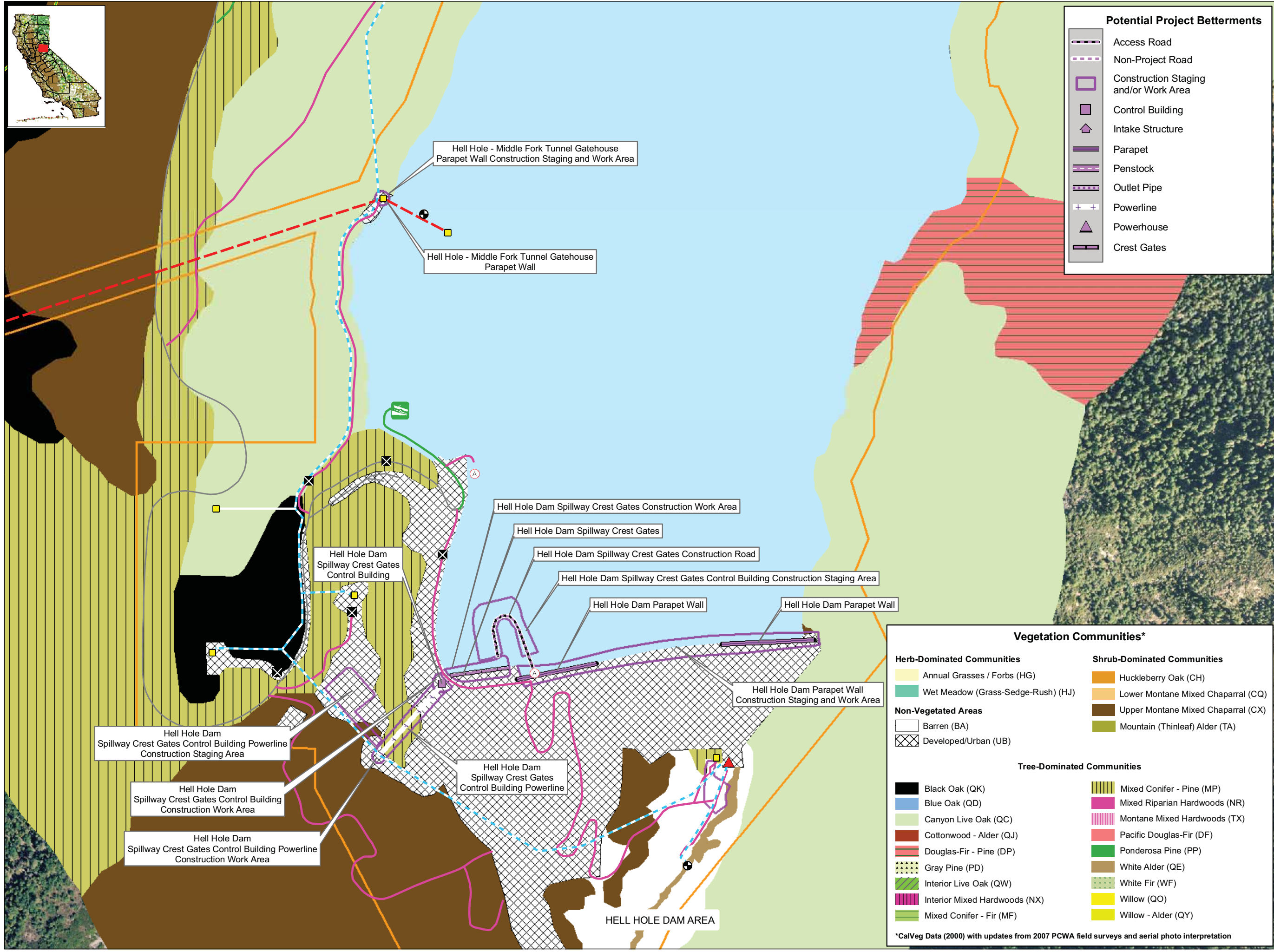
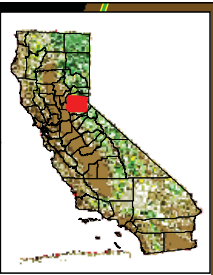
PCWA Facilities and Features

- Dam
 - Ancillary and Other Facilities
 - Powerhouse
 - Gage
 - Penstock
 - Tunnel
 - Pipeline
 - Gate
 - A Access Point
 - Public Safety Fence
 - FERC Boundary
- Project Power and Communication Lines:**
- Communication
 - Power
 - Power (underground)
 - Communication/Power
 - Communication/Power (underground)
- Transportation**
- Non-Project General Access Road
 - Project Road
 - Project Trail
 - Recreation Access Road
 - Other Road
- Project Recreation Facilities**
- Picnic Area
 - Boat Ramp
 - Scenic Viewpoint
 - Developed Campground
 - Water Supply Line
- Other Facilities**
- PG & E Transmission Lines:
- 230 kV
 - 60 kV
- Fire History**
- Areas Burned Since 2000



Placer County Water Agency
Middle Fork American River Project
Map 1j
**Vegetation Communities within
the TERR-1 Study Area**
Southern Snow Courses

0 0.25 0.5 Miles
Projection: Ca. Stateplane, Zone 2
Datum: NAD 83
Date: 1/15/08



Potential Project Betterments

- Access Road
- Non-Project Road
- Construction Staging and/or Work Area
- Control Building
- Intake Structure
- Parapet
- Penstock
- Outlet Pipe
- Powerline
- Powerhouse
- Crest Gates

PCWA Facilities and Features

- Dam
- Ancillary and Other Facilities
- Powerhouse
- Gage
- Penstock
- Tunnel
- Gate
- Access Point
- Public Safety Fence
- FERC Boundary

Project Power and Communication Lines:

- Communication
- Power
- Power (underground)
- Communication/Power
- Communication/Power (underground)

Transportation

- Road
- Project Road
- Project Trail
- Recreation Access Road

Project Recreation Facilities

- Picnic Area
- Boat Ramp
- Scenic Viewpoint
- Developed Campground
- Water Supply Line

Other Facilities

PG & E Transmission Lines:

- 230 kV
- 60 kV

NOTE: Boundary of the potential betterment-related change in reservoir inundation area to be determined

Vegetation Communities*

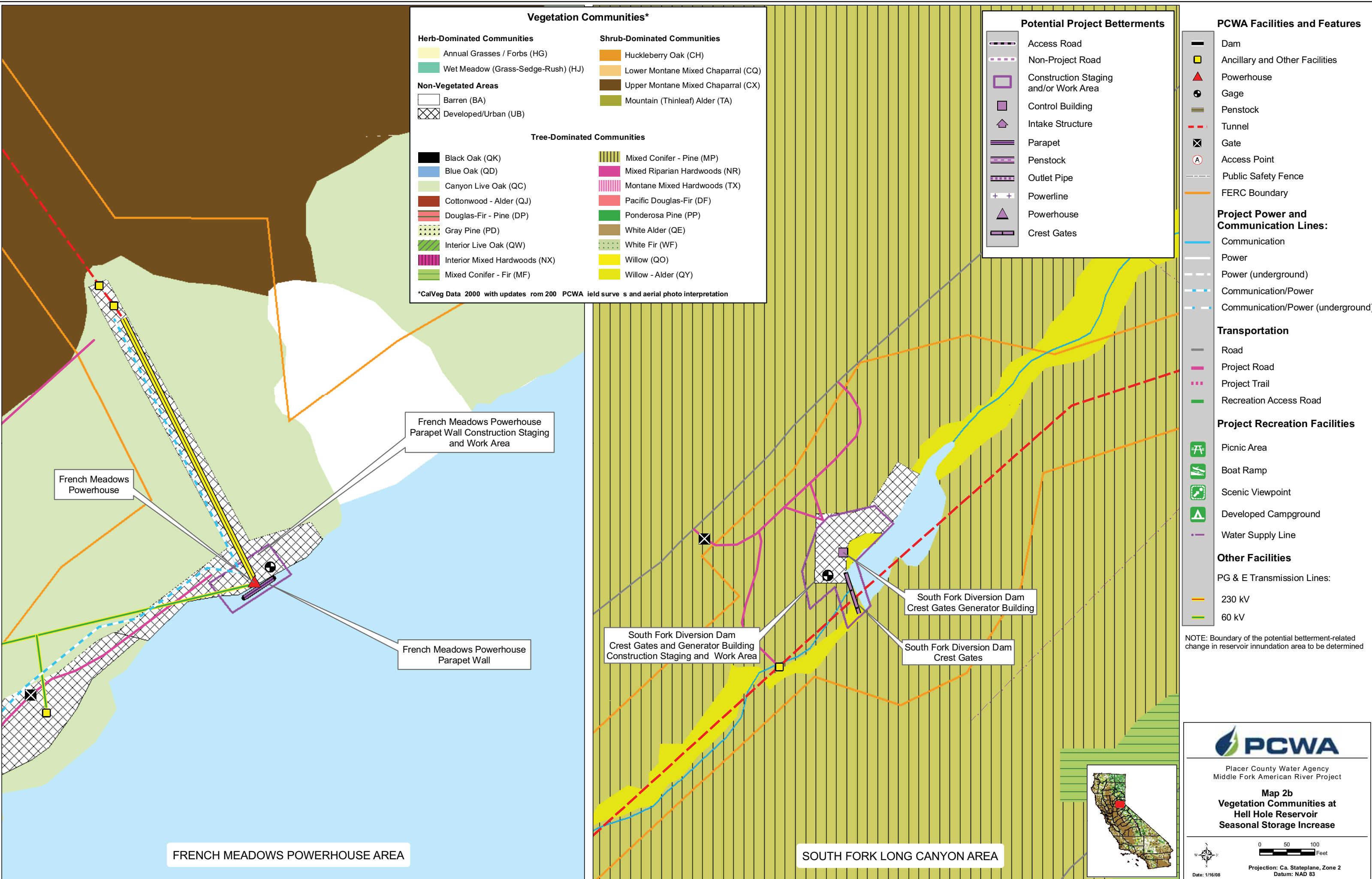
<h4>Herb-Dominated Communities</h4> <ul style="list-style-type: none"> Annual Grasses / Forbs (HG) Wet Meadow (Grass-Sedge-Rush) (HJ) <h4>Non-Vegetated Areas</h4> <ul style="list-style-type: none"> Barren (BA) Developed/Urban (UB) 	<h4>Shrub-Dominated Communities</h4> <ul style="list-style-type: none"> Huckleberry Oak (CH) Lower Montane Mixed Chaparral (CQ) Upper Montane Mixed Chaparral (CX) Mountain (Thinleaf) Alder (TA)
<h4>Tree-Dominated Communities</h4> <ul style="list-style-type: none"> Black Oak (QK) Blue Oak (QD) Canyon Live Oak (QC) Cottonwood - Alder (QJ) Douglas-Fir - Pine (DP) Gray Pine (PD) Interior Live Oak (QW) Interior Mixed Hardwoods (NX) Mixed Conifer - Fir (MF) 	<h4>Tree-Dominated Communities</h4> <ul style="list-style-type: none"> Mixed Conifer - Pine (MP) Mixed Riparian Hardwoods (NR) Montane Mixed Hardwoods (TX) Pacific Douglas-Fir (DF) Ponderosa Pine (PP) White Alder (QE) White Fir (WF) Willow (QO) Willow - Alder (QY)

*CalVeg Data (2000) with updates from 2007 PCWA field surveys and aerial photo interpretation

Placer County Water Agency
Middle Fork American River Project

Map 2a Vegetation Communities at Hell Hole Reservoir Seasonal Storage Increase

Projection: Ca. Stateplane, Zone 2
Datum: NAD 83
Date: 1/16/08



Vegetation Communities*

Herb-Dominated Communities		Shrub-Dominated Communities	
 Annual Grasses / Forbs (HG)	 Wet Meadow (Grass-Sedge-Rush) (HJ)	 Huckleberry Oak (CH)	 Lower Montane Mixed Chaparral (CQ)
 Barren (BA)	 Developed/Urban (UB)	 Upper Montane Mixed Chaparral (CX)	 Mountain (Thinleaf) Alder (TA)
Tree-Dominated Communities			
 Black Oak (QK)	 Blue Oak (QD)	 Mixed Conifer - Pine (MP)	 Mixed Riparian Hardwoods (NR)
 Canyon Live Oak (QC)	 Cottonwood - Alder (QJ)	 Montane Mixed Hardwoods (TX)	 Pacific Douglas-Fir (DF)
 Douglas-Fir - Pine (DP)	 Gray Pine (PD)	 Ponderosa Pine (PP)	 White Alder (QE)
 Interior Live Oak (QW)	 Interior Mixed Hardwoods (NX)	 White Fir (WF)	 Willow (QO)
 Mixed Conifer - Fir (MF)		 Willow - Alder (QY)	

*CalVeg Data 2000 with updates from 200 PCWA field surveys and aerial photo interpretation


Potential Project Betterments

	Access Road
	Non-Project Road
	Construction Staging and/or Work Area
	Control Building
	Intake Structure
	Parapet
	Penstock
	Outlet Pipe
	Powerline
	Powerhouse
	Crest Gates

PCWA Facilities and Features

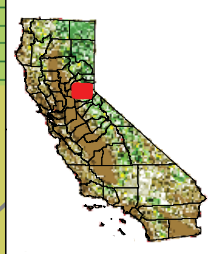
	Dam
	Ancillary and Other Facilities
	Powerhouse
	Gage
	Penstock
	Tunnel
	Gate
	Access Point
	Public Safety Fence
	FERC Boundary
Project Power and Communication Lines:	
	Communication
	Power
	Power (underground)
	Communication/Power
	Communication/Power (underground)
Transportation	
	Road
	Project Road
	Project Trail
	Recreation Access Road
Project Recreation Facilities	
	Picnic Area
	Boat Ramp
	Scenic Viewpoint
	Developed Campground
	Water Supply Line
Other Facilities	
PG & E Transmission Lines:	
	230 kV
	60 kV

NOTE: Boundary of the potential betterment-related change in reservoir inundation area to be determined



Placer County Water Agency
Middle Fork American River Project

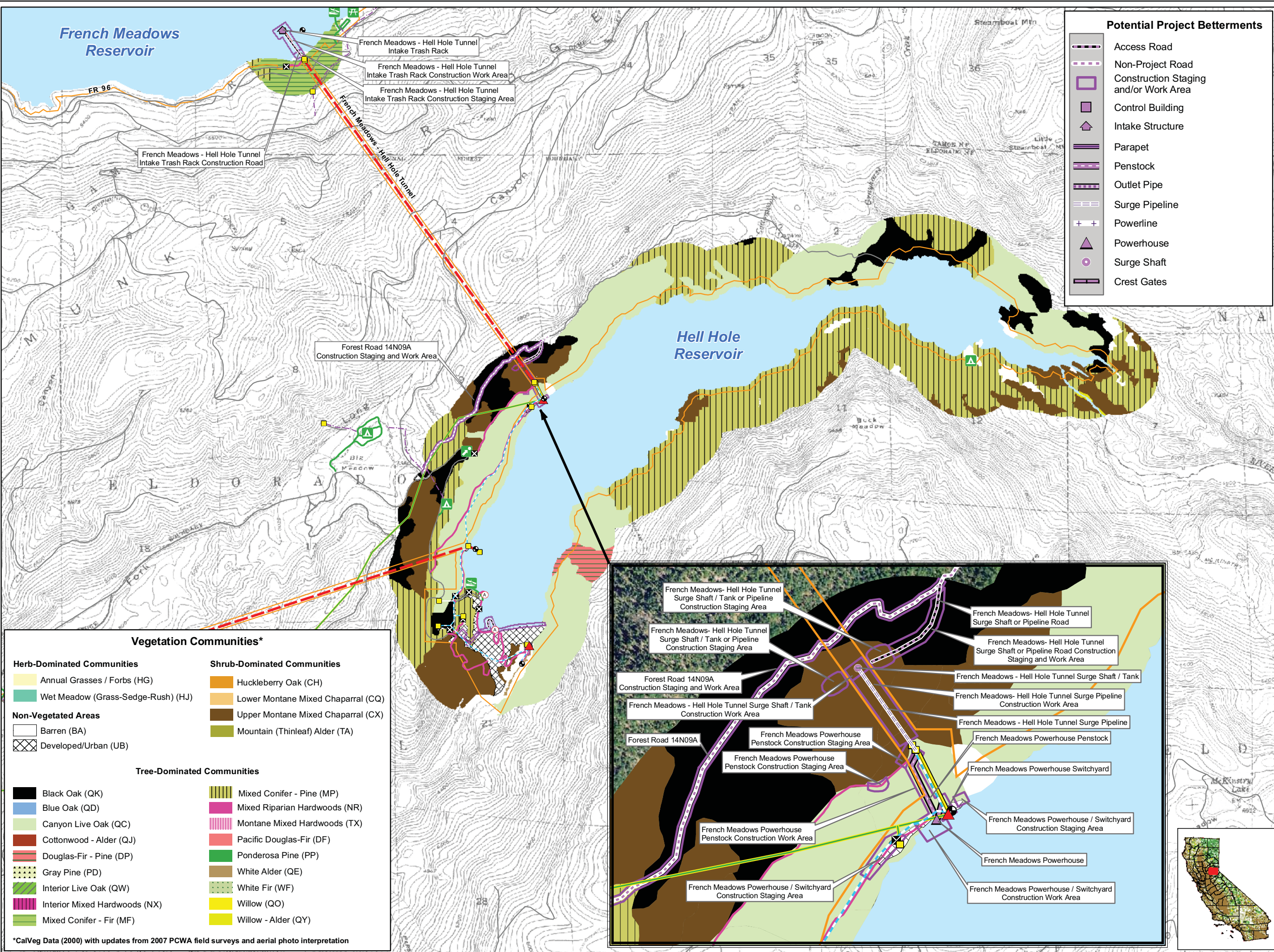
Map 2b
Vegetation Communities at Hell Hole Reservoir
Seasonal Storage Increase



0 50 100 Feet

Projection: Ca. Stateplane, Zone 2
Datum: NAD 83

Date: 1/16/08



Potential Project Betterments

- Access Road
- Non-Project Road
- Construction Staging and/or Work Area
- Control Building
- Intake Structure
- Parapet
- Penstock
- Outlet Pipe
- Surge Pipeline
- Powerline
- Powerhouse
- Surge Shaft
- Crest Gates

PCWA Facilities and Features

- Dam
- Ancillary and Other Facilities
- Powerhouse
- Gage
- Penstock
- Tunnel
- Gate
- Access Point
- Public Safety Fence
- FERC Boundary

Project Power and Communication Lines:

- Communication
- Power
- Power (underground)
- Communication/Power
- Communication/Power (underground)

Transportation

- Road
- Project Road
- Project Trail
- Recreation Access Road

Project Recreation Facilities

- Picnic Area
- Boat Ramp
- Scenic Viewpoint
- Developed Campground
- Water Supply Line

Other Facilities

PG & E Transmission Lines:

- 230 kV
- 60 kV

Vegetation Communities*

Herb-Dominated Communities	Shrub-Dominated Communities
Annual Grasses / Forbs (HG)	Huckleberry Oak (CH)
Wet Meadow (Grass-Sedge-Rush) (HJ)	Lower Montane Mixed Chaparral (CQ)
Non-Vegetated Areas	Upper Montane Mixed Chaparral (CX)
Barren (BA)	Mountain (Thinleaf) Alder (TA)
Developed/Urban (UB)	
Tree-Dominated Communities	
Black Oak (QK)	Mixed Conifer - Pine (MP)
Blue Oak (QD)	Mixed Riparian Hardwoods (NR)
Canyon Live Oak (QC)	Montane Mixed Hardwoods (TX)
Cottonwood - Alder (QJ)	Pacific Douglas-Fir (DF)
Douglas-Fir - Pine (DP)	Ponderosa Pine (PP)
Gray Pine (PD)	White Alder (QE)
Interior Live Oak (QW)	White Fir (WF)
Interior Mixed Hardwoods (NX)	Willow (QO)
Mixed Conifer - Fir (MF)	Willow - Alder (QY)

*CalVeg Data (2000) with updates from 2007 PCWA field surveys and aerial photo interpretation

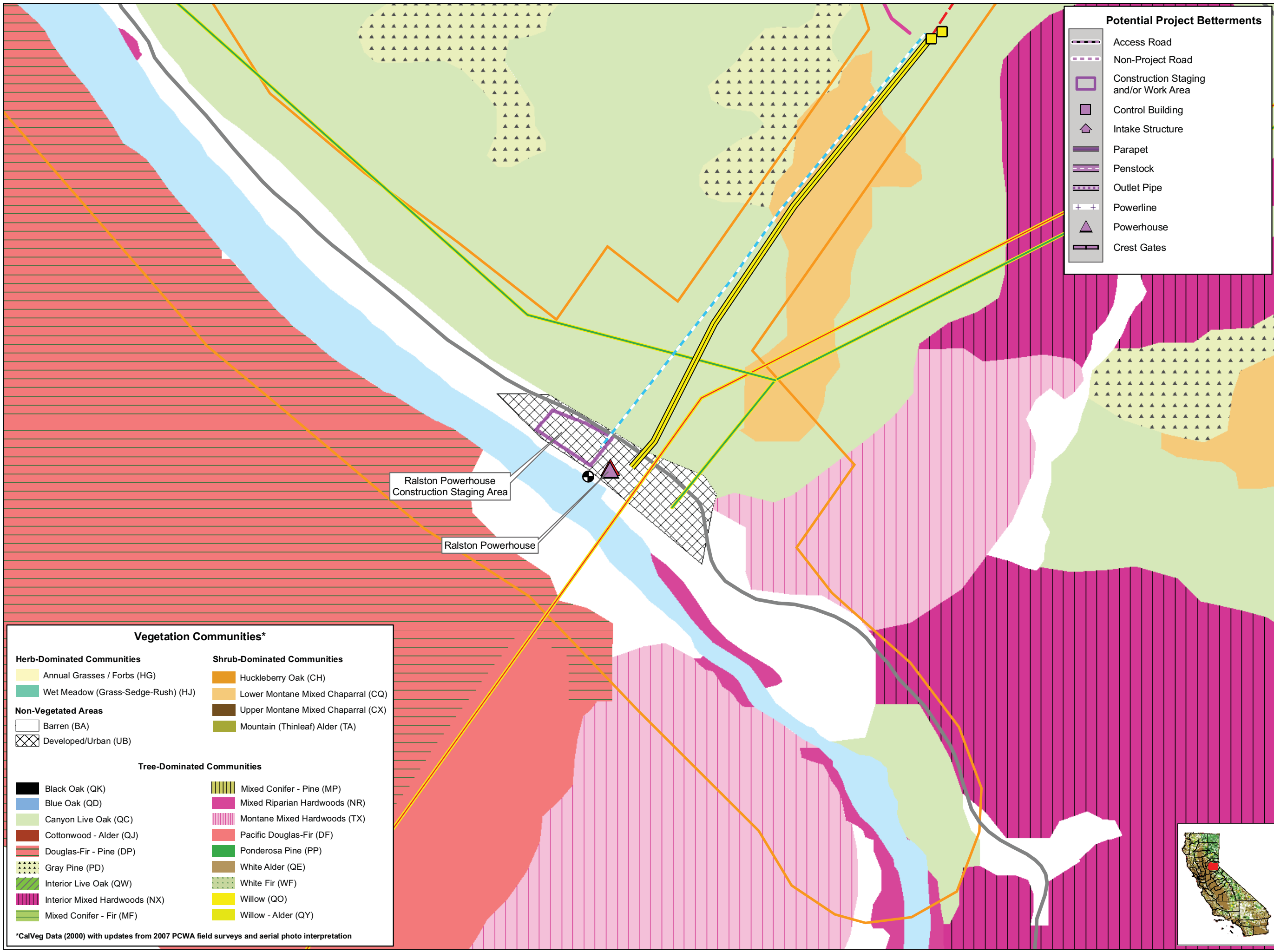
Placer County Water Agency
Middle Fork American River Project

Map 2c Vegetation Communities at French Meadows Powerhouse Capacity Upgrade

0 0.25 0.5 Miles

Projection: Ca. Stateplane, Zone 2
Datum: NAD 83

Date: 1/16/08



Potential Project Betterments

- Access Road
- Non-Project Road
- Construction Staging and/or Work Area
- Control Building
- Intake Structure
- Parapet
- Penstock
- Outlet Pipe
- Powerline
- Powerhouse
- Crest Gates

PCWA Facilities and Features

- Dam
- Ancillary and Other Facilities
- Powerhouse
- Gage
- Penstock
- Tunnel
- Gate
- Access Point
- Public Safety Fence
- FERC Boundary
- Project Power and Communication Lines:
 - Communication
 - Power
 - Power (underground)
 - Communication/Power
 - Communication/Power (underground)
- Transportation
 - Road
 - Project Road
 - Project Trail
 - Recreation Access Road
- Project Recreation Facilities
 - Picnic Area
 - Boat Ramp
 - Scenic Viewpoint
 - Developed Campground
 - Water Supply Line
- Other Facilities
 - PG & E Transmission Lines:
 - 230 kV
 - 60 kV

Vegetation Communities*

Herb-Dominated Communities	Shrub-Dominated Communities
Annual Grasses / Forbs (HG)	Huckleberry Oak (CH)
Wet Meadow (Grass-Sedge-Rush) (HJ)	Lower Montane Mixed Chaparral (CQ)
	Upper Montane Mixed Chaparral (CX)
	Mountain (Thinleaf) Alder (TA)

Non-Vegetated Areas
Barren (BA)
Developed/Urban (UB)

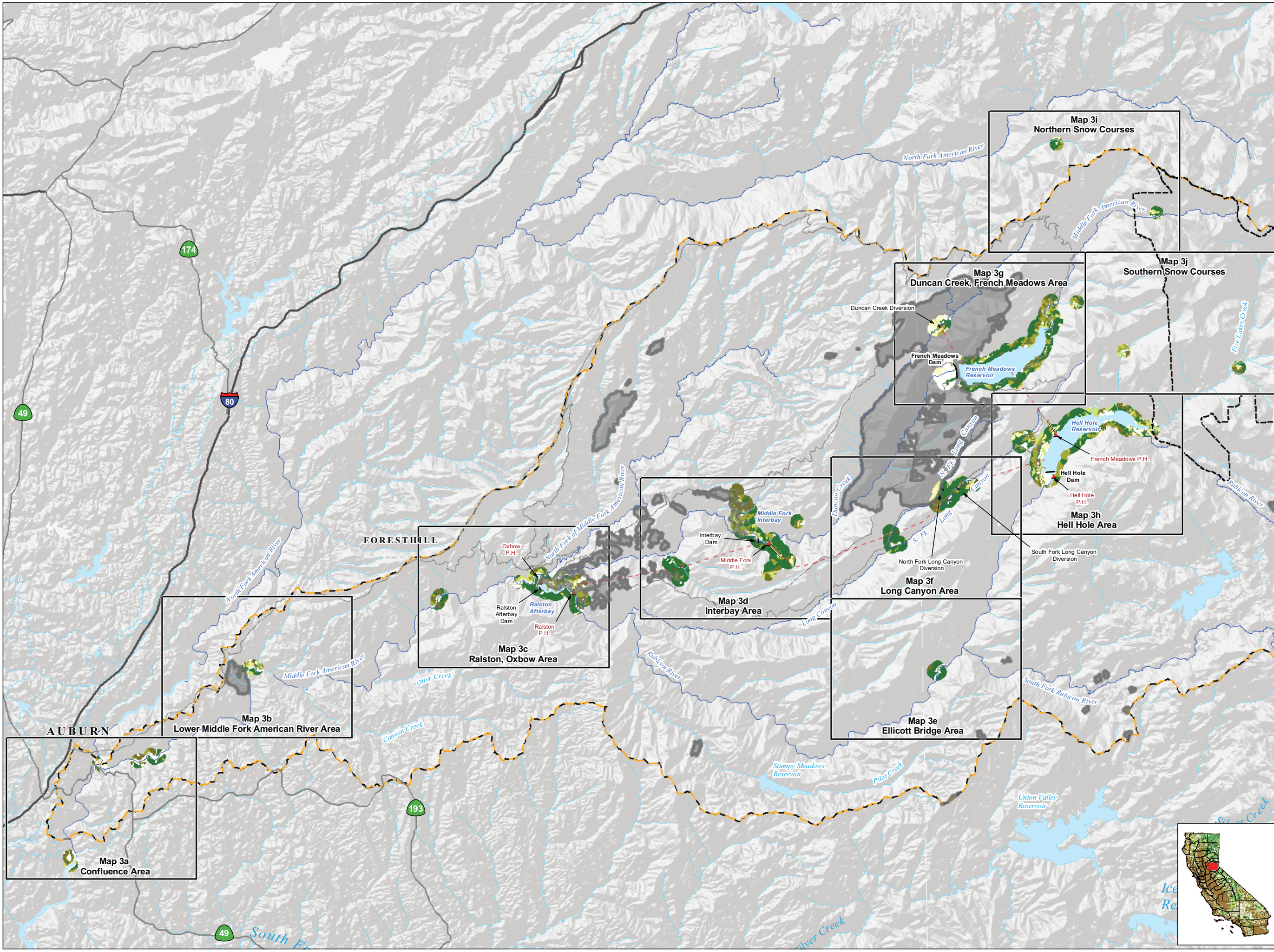
Tree-Dominated Communities
Black Oak (QK)
Blue Oak (QD)
Canyon Live Oak (QC)
Cottonwood - Alder (QJ)
Douglas-Fir - Pine (DP)
Gray Pine (PD)
Interior Live Oak (QW)
Interior Mixed Hardwoods (NX)
Mixed Conifer - Fir (MF)
Mixed Conifer - Pine (MP)
Mixed Riparian Hardwoods (NR)
Montane Mixed Hardwoods (TX)
Pacific Douglas-Fir (DF)
Ponderosa Pine (PP)
White Alder (QE)
White Fir (WF)
Willow (QO)
Willow - Alder (QY)

*CalVeg Data (2000) with updates from 2007 PCWA field surveys and aerial photo interpretation

Placer County Water Agency
Middle Fork American River Project

Map 2d Vegetation Communities at Ralston Powerhouse Capacity Upgrade

Date: 1/16/08
Projection: Ca. Stateplane, Zone 2
Datum: NAD 83



- Project Facilities**
- Powerhouse
 - Dam
 - Tunnel
 - Penstock
- Transportation**
- Major Road
 - Minor Road
- Hydrography**
- Watercourse
 - Water Body
 - Middle Fork American River Watershed*
- *Modified from Calwater Ver. 2.2 to represent drainage above high-water mark of Folsom Lake

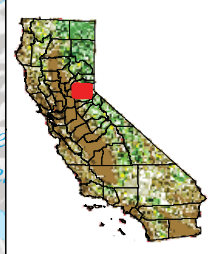
- Designated Boundary**
- Wilderness Area

- Vegetation Density**
- Barren (0 to 10% canopy cover)
 - Sparse (11 to 24% canopy cover)
 - Open (25 to 39% canopy cover)
 - Moderate (50 to 59% canopy cover)
 - Dense (60 to 80% canopy cover)
 - Extremely Dense (>80% canopy cover)


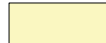




- Fire History**
- Areas Burned Since 2000

PCWA
 Placer County Water Agency
 Middle Fork American River Project
Map 3
Vegetation Densities within the TERR-1 Study Area
 Overview Map












0 0.5 1 2 Miles
 Projection: CA State Plane, Zone 2
 Datum: NAD 83
 Date: 1/16/08








Vegetation Density

-  Barren (0 to 10% canopy cover)
-  Sparse (11 to 24% canopy cover)
-  Open (25 to 39% canopy cover)
-  Moderate (50 to 59% canopy cover)
-  Dense (60 to 80% canopy cover)
-  Extremely Dense (>80% canopy cover)






PCWA Facilities and Features

-  Dam
-  Ancillary and Other Facilities
-  Powerhouse
-  Gage
-  Penstock
-  Tunnel
-  Pipeline
-  Gate
-  Access Point
-  Public Safety Fence
-  FERC Boundary






Project Power and Communication Lines:

-  Communication
-  Power
-  Power (underground)
-  Communication/Power
-  Communication/Power (underground)

Transportation



-  Non-Project General Access Road
-  Project Road
-  Project Trail
-  Recreation Access Road
-  Other Road

Project Recreation Facilities


-  Picnic Area
-  Boat Ramp
-  Scenic Viewpoint
-  Developed Campground
-  Water Supply Line

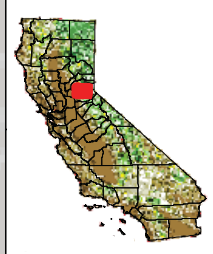
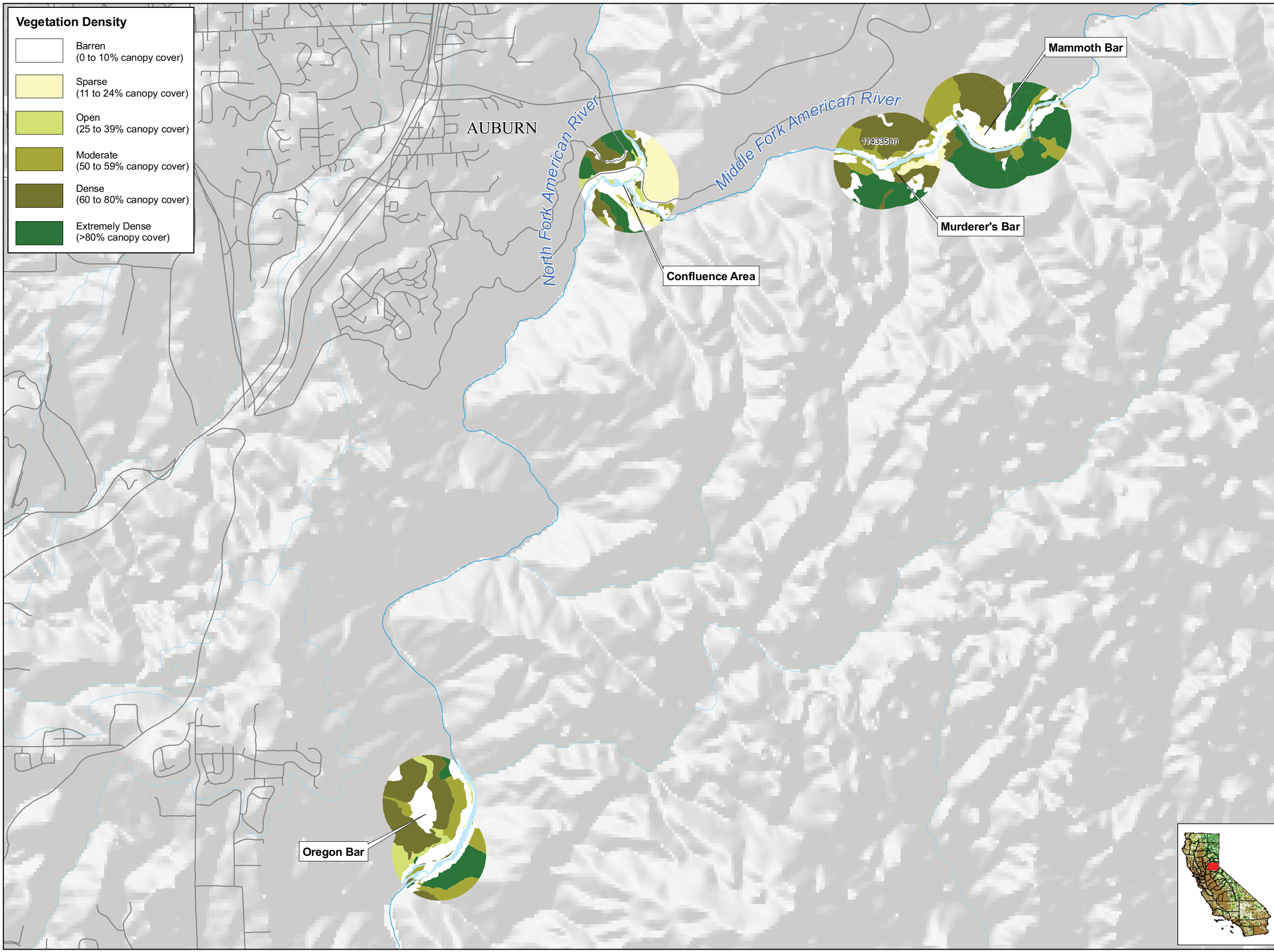
Other Facilities


PG & E Transmission Lines:

-  230 kV
-  60 kV

Fire History


-  Areas Burned Since 2000





Placer County Water Agency
Middle Fork American River Project

Map 3a
Vegetation Densities
within the TERR-1 Study Area
Confluence Area

 0 0.25 0.5 Miles

Projection: Ca. Stateplane, Zone 2
Datum: NAD 83

Date: 1/16/08

Vegetation Density

- Barren (0 to 10% canopy cover)
- Sparse (11 to 24% canopy cover)
- Open (25 to 39% canopy cover)
- Moderate (50 to 59% canopy cover)
- Dense (60 to 80% canopy cover)
- Extremely Dense (>80% canopy cover)

PCWA Facilities and Features

- Dam
- Ancillary and Other Facilities
- Powerhouse
- Gage
- Penstock
- Tunnel
- Pipeline
- Gate
- Access Point
- Public Safety Fence
- FERC Boundary

Project Power and Communication Lines:

- Communication
- Power
- Power (underground)
- Communication/Power
- Communication/Power (underground)

Transportation

- Non-Project General Access Road
- Project Road
- Project Trail
- Recreation Access Road
- Other Road

Project Recreation Facilities

- Picnic Area
- Boat Ramp
- Scenic Viewpoint
- Developed Campground
- Water Supply Line

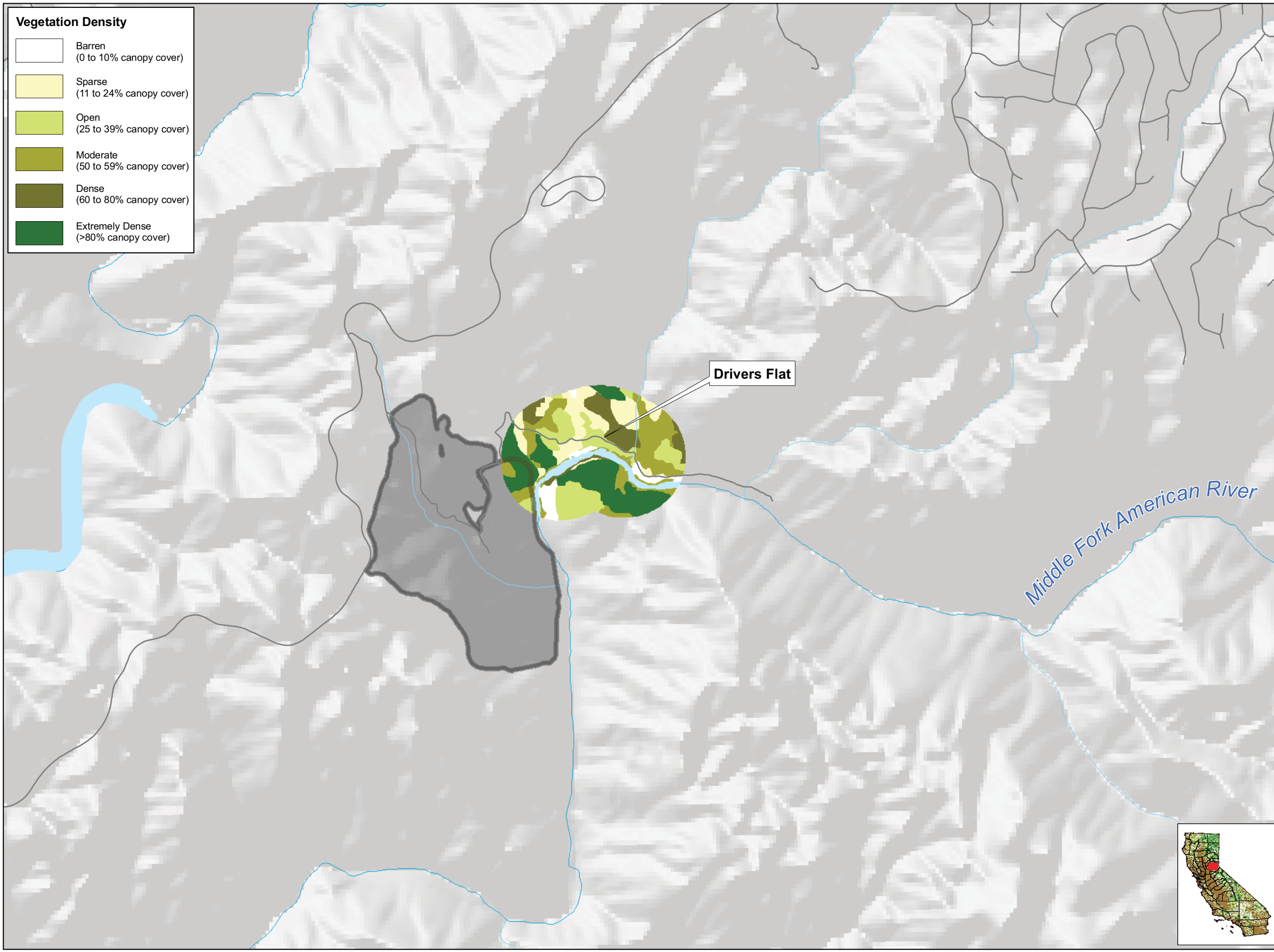
Other Facilities

PG & E Transmission Lines:

- 230 kV
- 60 kV

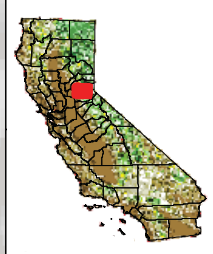
Fire History

- Areas Burned Since 2000



Middle Fork American River

Drivers Flat



PCWA

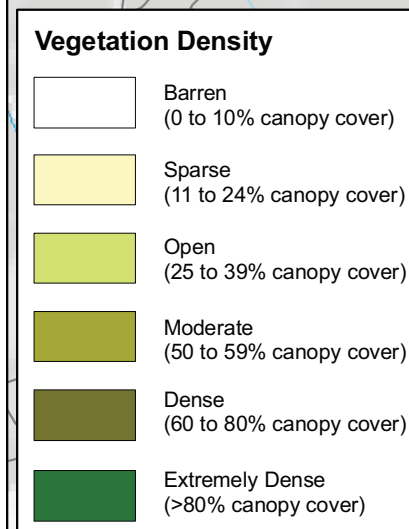
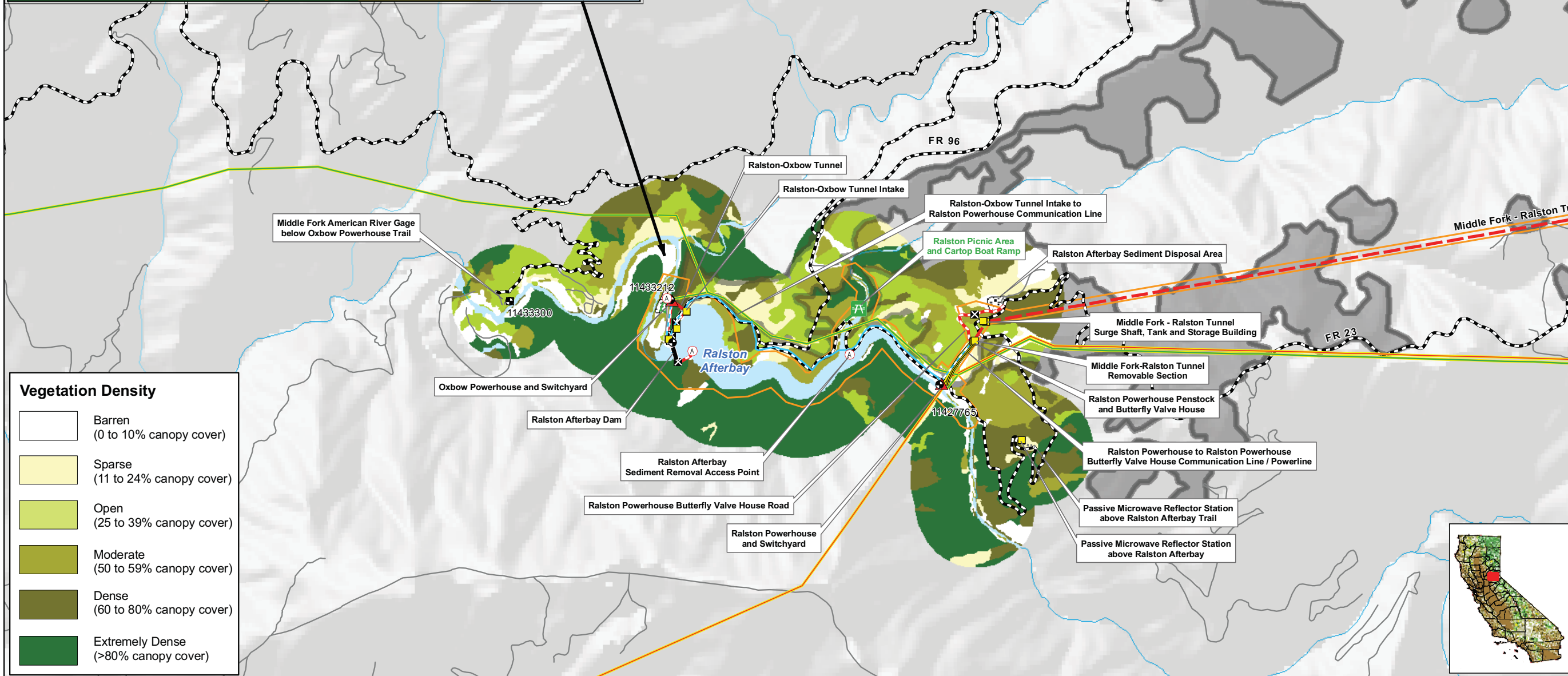
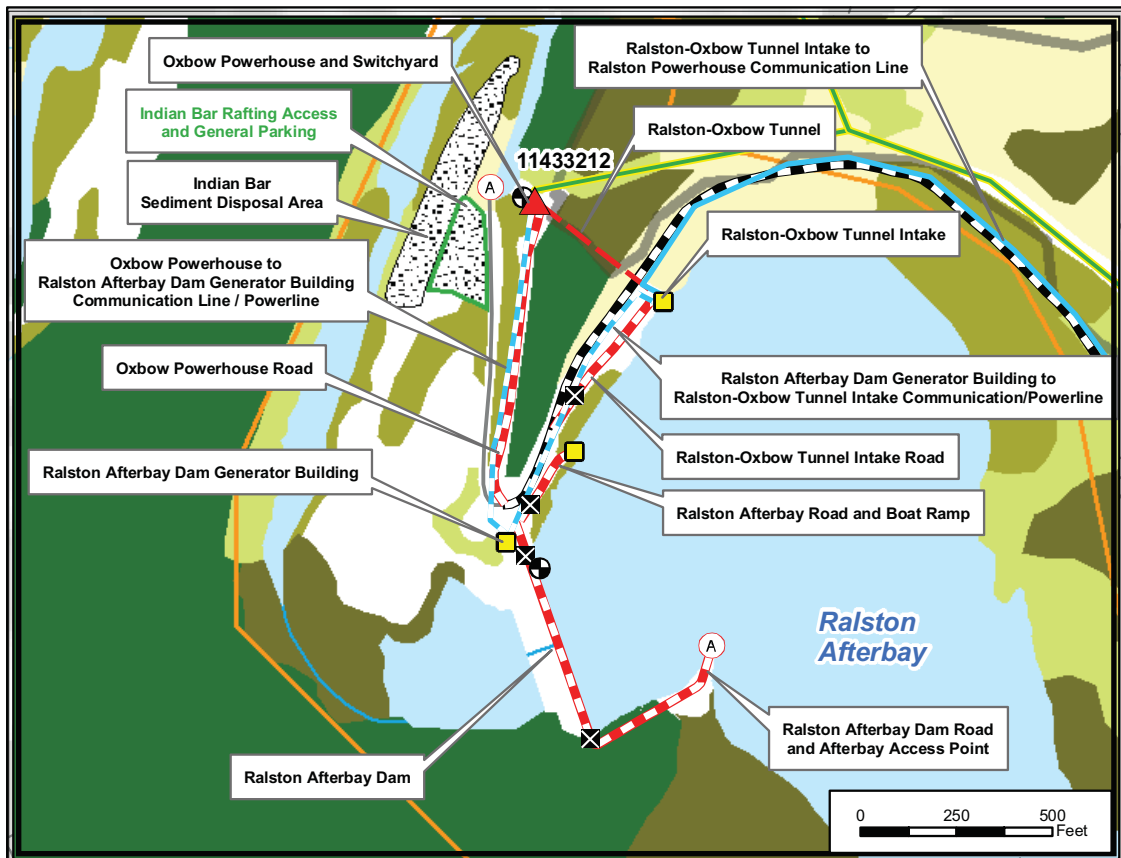
Placer County Water Agency
Middle Fork American River Project

Map 3b
Vegetation Densities
within the TERR-1 Study Area
Lower Middle Fork American River Area

0 0.25 0.5 Miles

Projection: Ca. Stateplane, Zone 2
Datum: NAD 83

Date: 1/16/08



PCWA Facilities and Features

- Dam
- Ancillary and Other Facilities
- Powerhouse
- Gage
- Penstock
- Tunnel
- Pipeline
- Gate
- Access Point
- Public Safety Fence
- FERC Boundary

Project Power and Communication Lines:

- Communication
- Power
- Power (underground)
- Communication/Power
- Communication/Power (underground)

Transportation

- Non-Project General Access Road
- Project Road
- Project Trail
- Recreation Access Road
- Other Road

Project Recreation Facilities

- Picnic Area
- Boat Ramp
- Scenic Viewpoint
- Developed Campground
- Water Supply Line

Other Facilities

PG & E Transmission Lines:

- 230 kV
- 60 kV

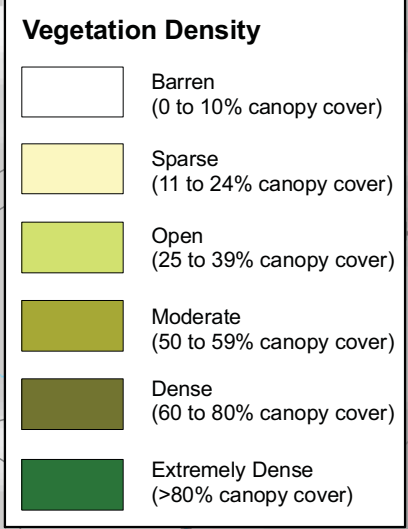
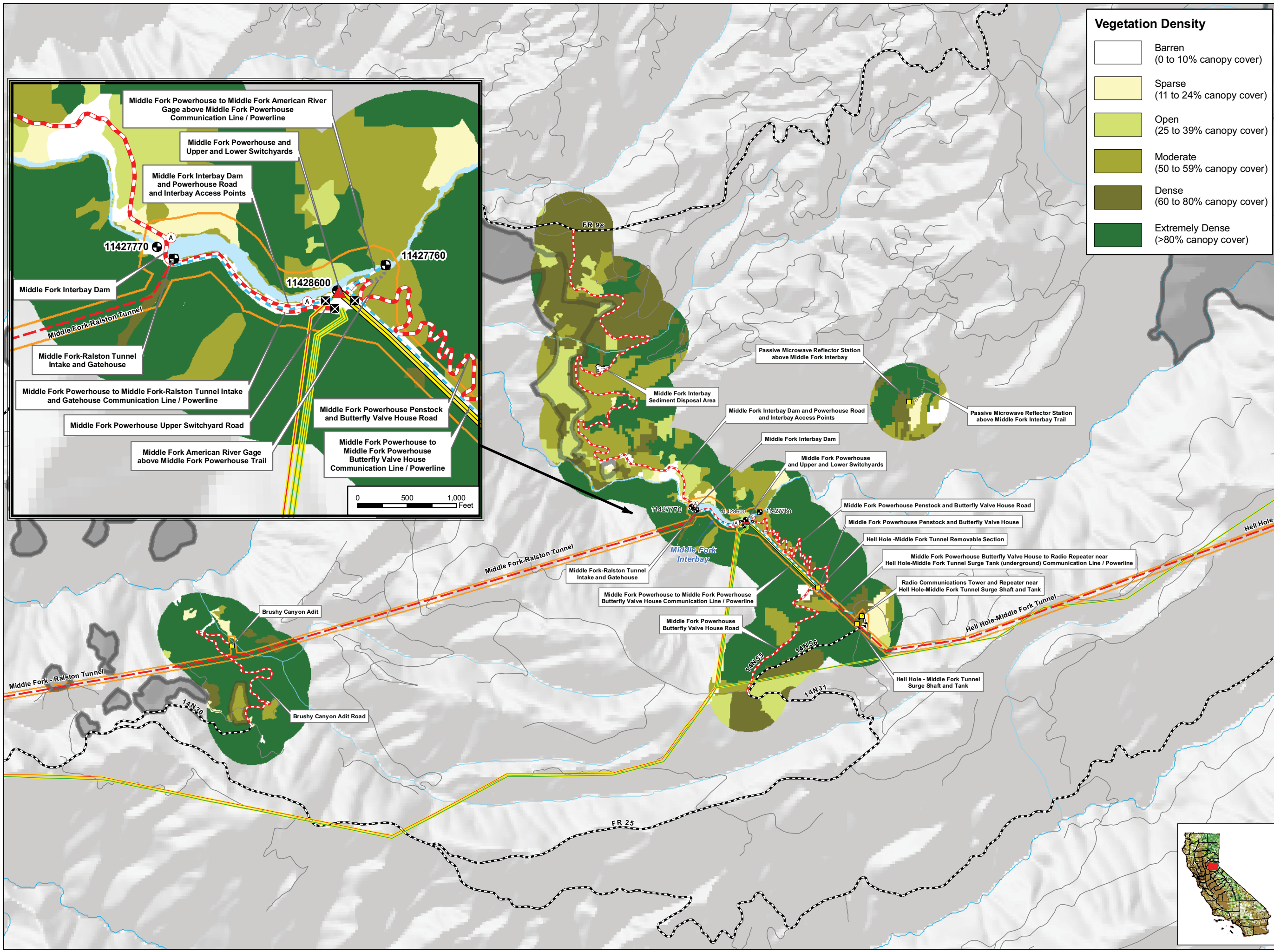
Fire History

- Areas Burned Since 2000

Placer County Water Agency
Middle Fork American River Project
Map 3c
Vegetation Densities within the TERR-1 Study Area Ralston, Oxbow Area

Projection: Ca. Stateplane, Zone 2
Datum: NAD 83

Date: 1/16/08



PCWA Facilities and Features

- Dam
- Ancillary and Other Facilities
- Powerhouse
- Gage
- Penstock
- Tunnel
- Pipeline
- Gate
- Access Point
- Public Safety Fence
- FERC Boundary

Project Power and Communication Lines:

- Communication
- Power
- Power (underground)
- Communication/Power
- Communication/Power (underground)

Transportation

- Non-Project General Access Road
- Project Road
- Project Trail
- Recreation Access Road
- Other Road

Project Recreation Facilities

- Picnic Area
- Boat Ramp
- Scenic Viewpoint
- Developed Campground
- Water Supply Line

Other Facilities

PG & E Transmission Lines:

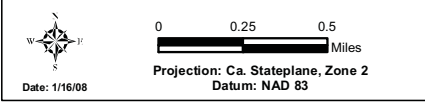
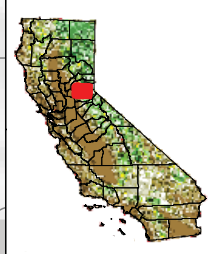
- 230 kV
- 60 kV

Fire History


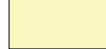




- Areas Burned Since 2000














Placer County Water Agency
Middle Fork American River Project
Map 3d
Vegetation Densities
within the TERR-1 Study Area
Interbay Area








Vegetation Density

-  Barren (0 to 10% canopy cover)
-  Sparse (11 to 24% canopy cover)
-  Open (25 to 39% canopy cover)
-  Moderate (50 to 59% canopy cover)
-  Dense (60 to 80% canopy cover)
-  Extremely Dense (>80% canopy cover)






PCWA Facilities and Features

-  Dam
-  Ancillary and Other Facilities
-  Powerhouse
-  Gage
-  Penstock
-  Tunnel
-  Pipeline
-  Gate
-  Access Point
-  Public Safety Fence
-  FERC Boundary






Project Power and Communication Lines:

-  Communication
-  Power
-  Power (underground)
-  Communication/Power
-  Communication/Power (underground)

Transportation



-  Non-Project General Access Road
-  Project Road
-  Project Trail
-  Recreation Access Road
-  Other Road

Project Recreation Facilities


-  Picnic Area
-  Boat Ramp
-  Scenic Viewpoint
-  Developed Campground
-  Water Supply Line

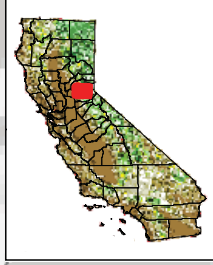
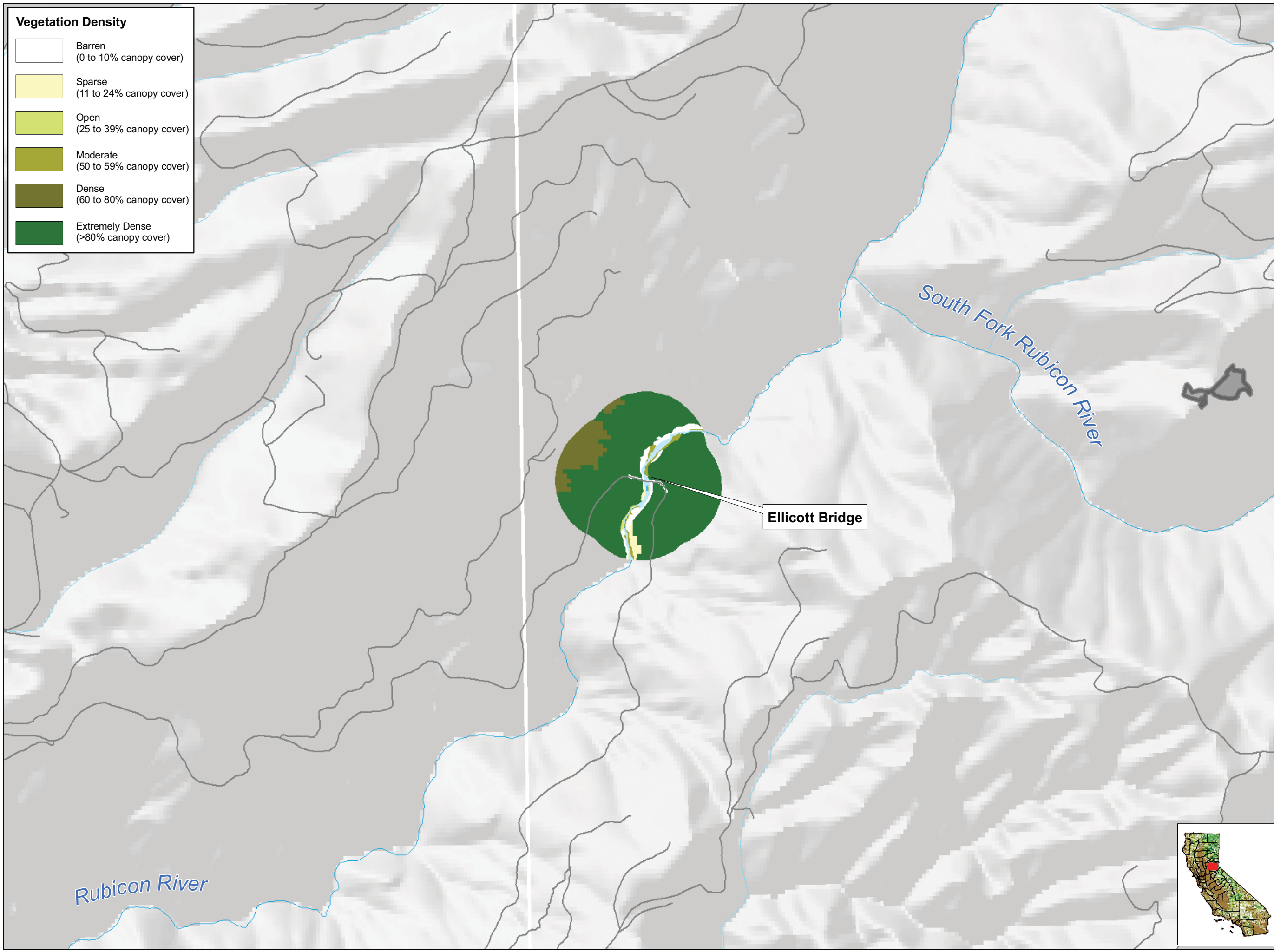
Other Facilities


PG & E Transmission Lines:

-  230 kV
-  60 kV

Fire History

-  Areas Burned Since 2000






Placer County Water Agency
Middle Fork American River Project

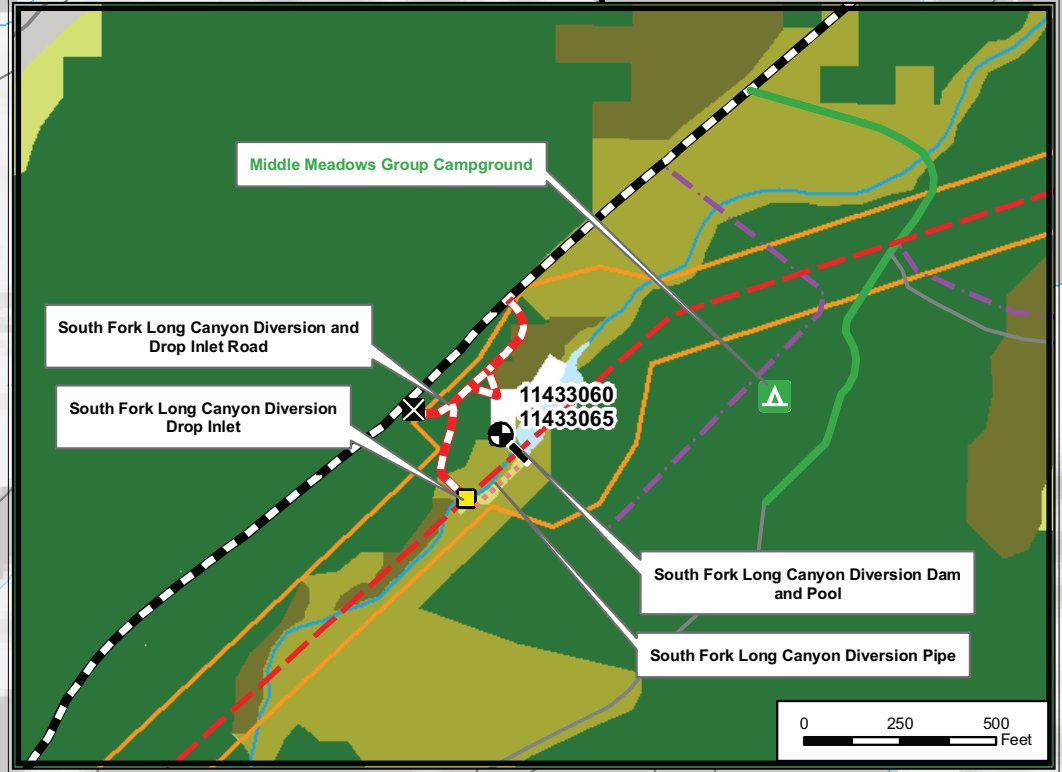
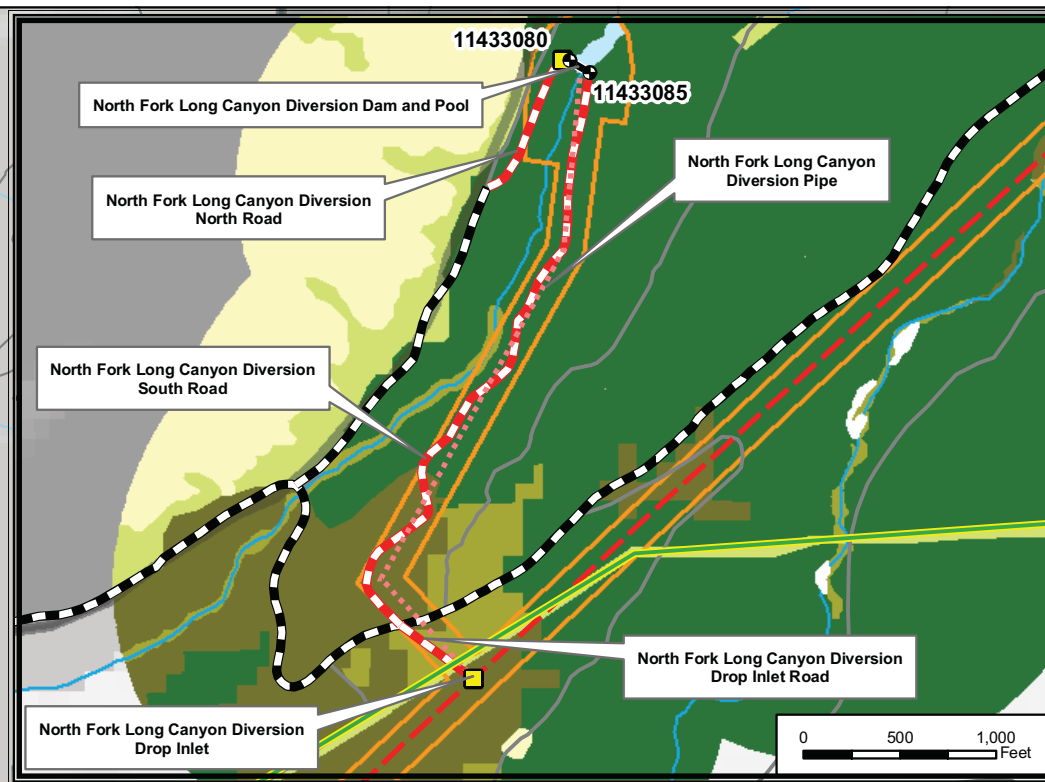
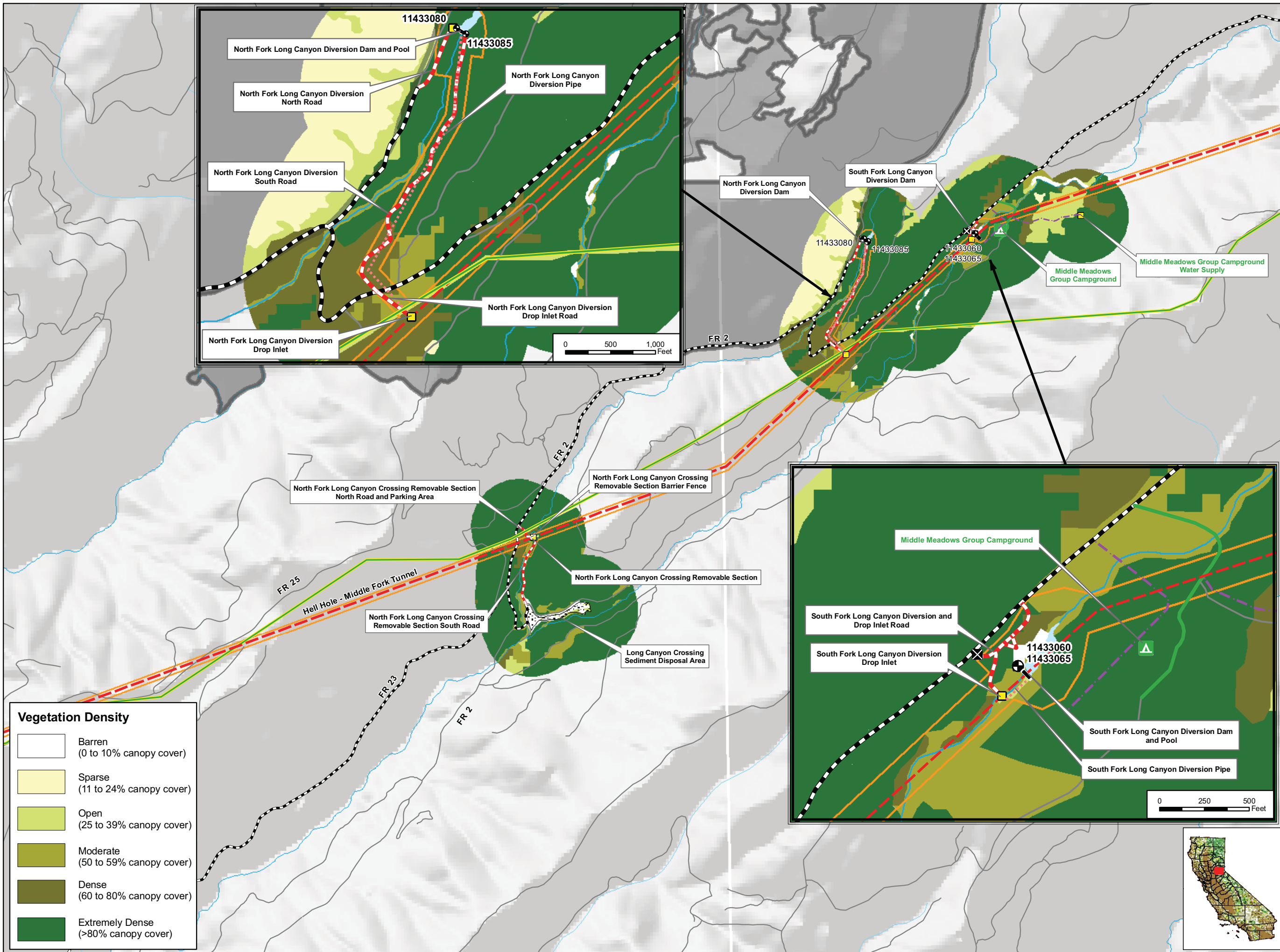
Map 3e

Vegetation Densities within the TERR-1 Study Area
Ellicott Bridge Area

 0 0.25 0.5 Miles

Projection: Ca. Stateplane, Zone 2
Datum: NAD 83

Date: 1/16/08



Vegetation Density

Barren (0 to 10% canopy cover)
Sparse (11 to 24% canopy cover)
Open (25 to 39% canopy cover)
Moderate (50 to 59% canopy cover)
Dense (60 to 80% canopy cover)
Extremely Dense (>80% canopy cover)

PCWA Facilities and Features

- Dam
- Ancillary and Other Facilities
- Powerhouse
- Gage
- Penstock
- Tunnel
- Pipeline
- Gate
- Access Point
- Public Safety Fence
- FERC Boundary

Project Power and Communication Lines:

- Communication
- Power
- Power (underground)
- Communication/Power
- Communication/Power (underground)

Transportation

- Non-Project General Access Road
- Project Road
- Project Trail
- Recreation Access Road
- Other Road

Project Recreation Facilities

- Picnic Area
- Boat Ramp
- Scenic Viewpoint
- Developed Campground
- Water Supply Line

Other Facilities

PG & E Transmission Lines:

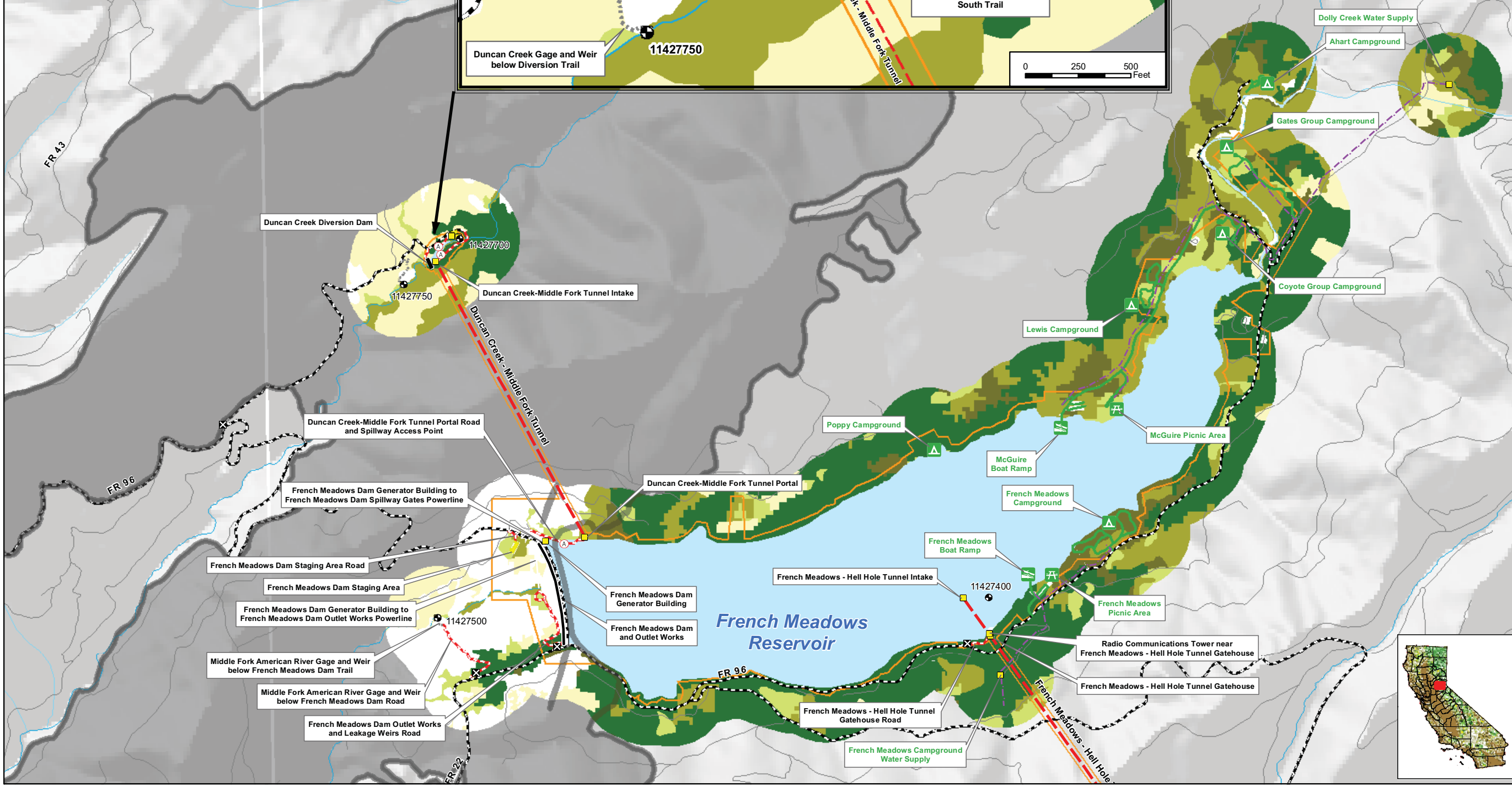
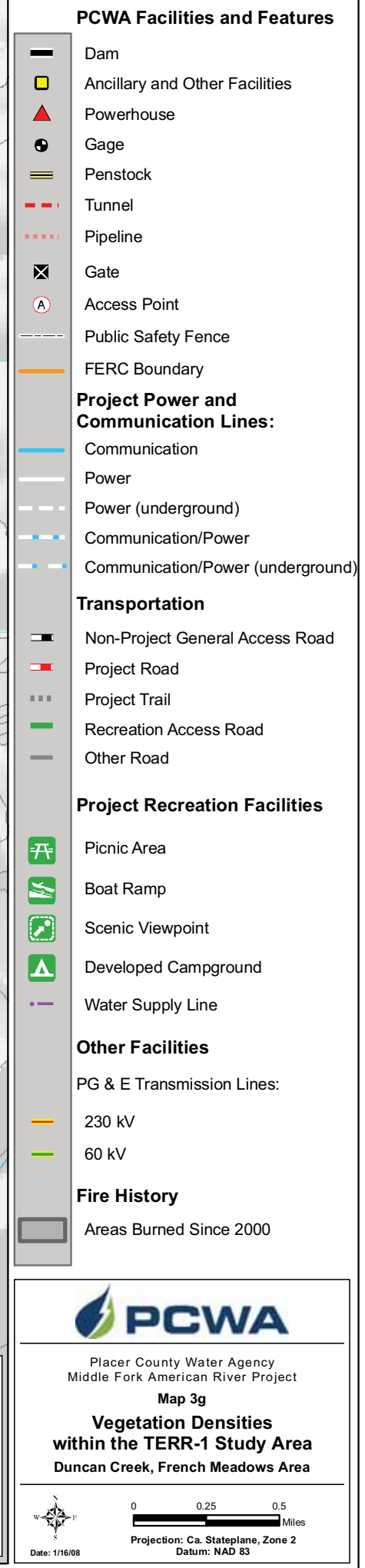
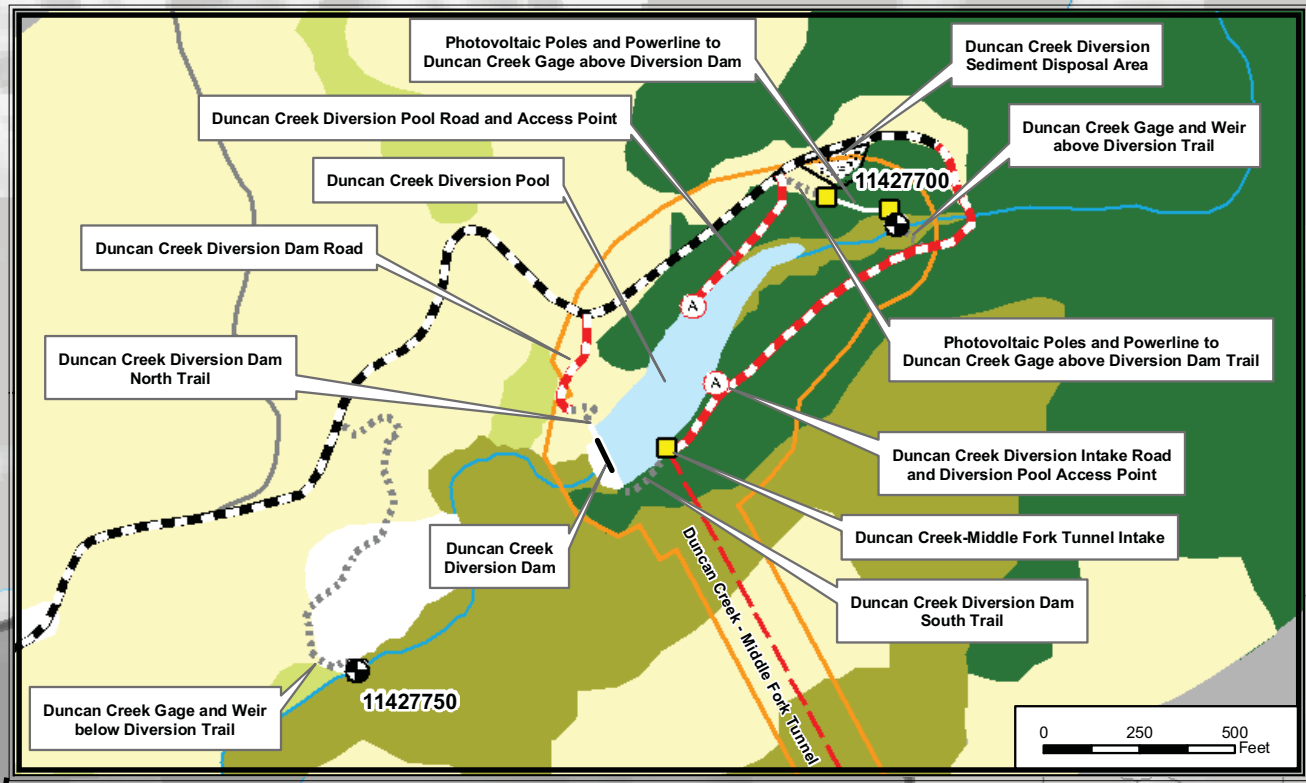
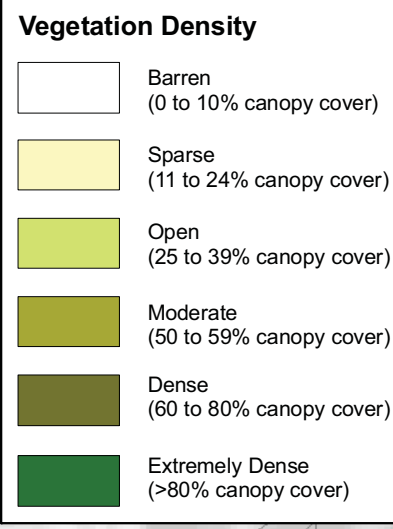
- 230 kV
- 60 kV

Fire History

- Areas Burned Since 2000

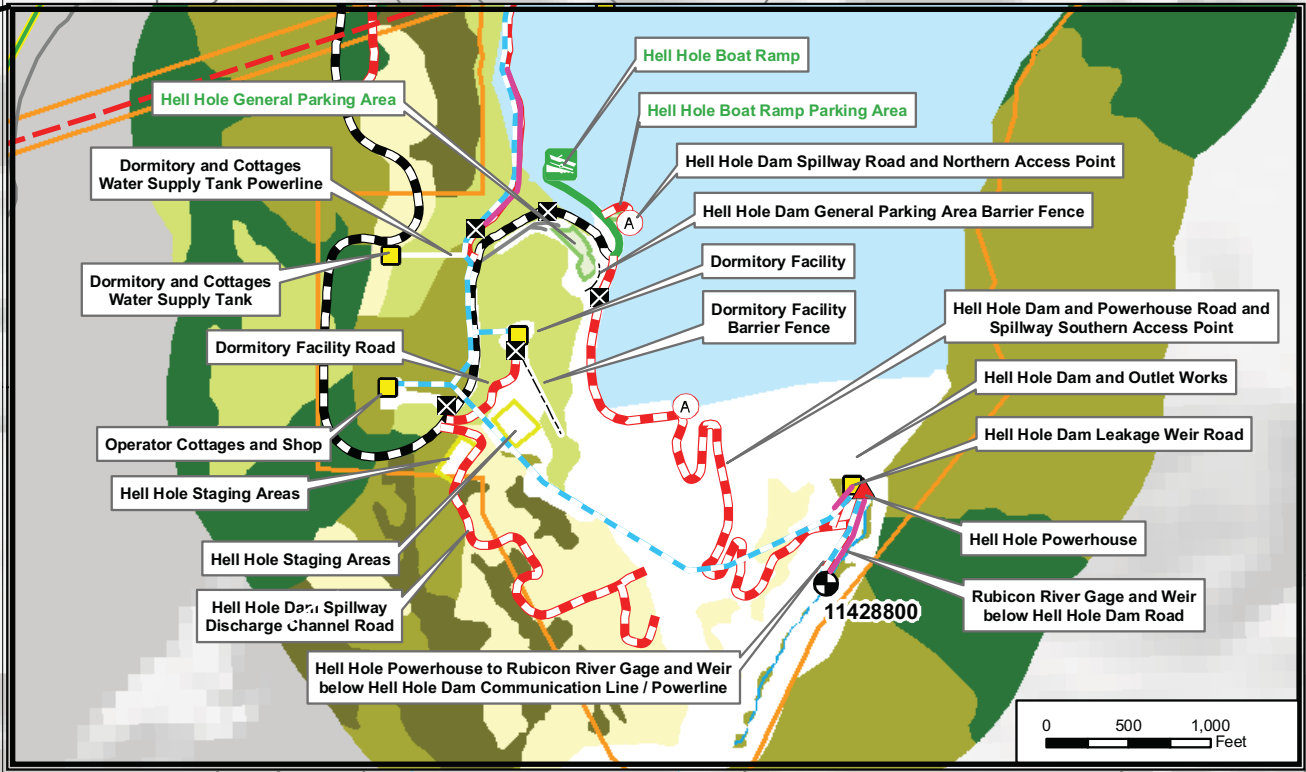
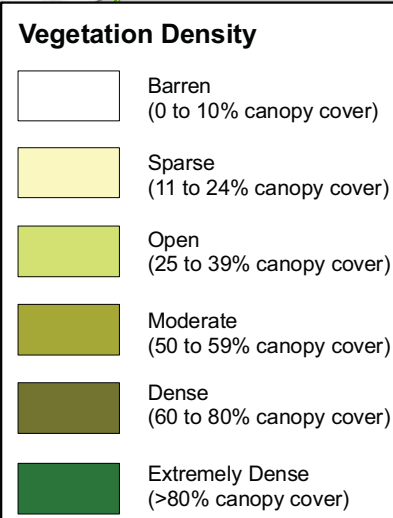
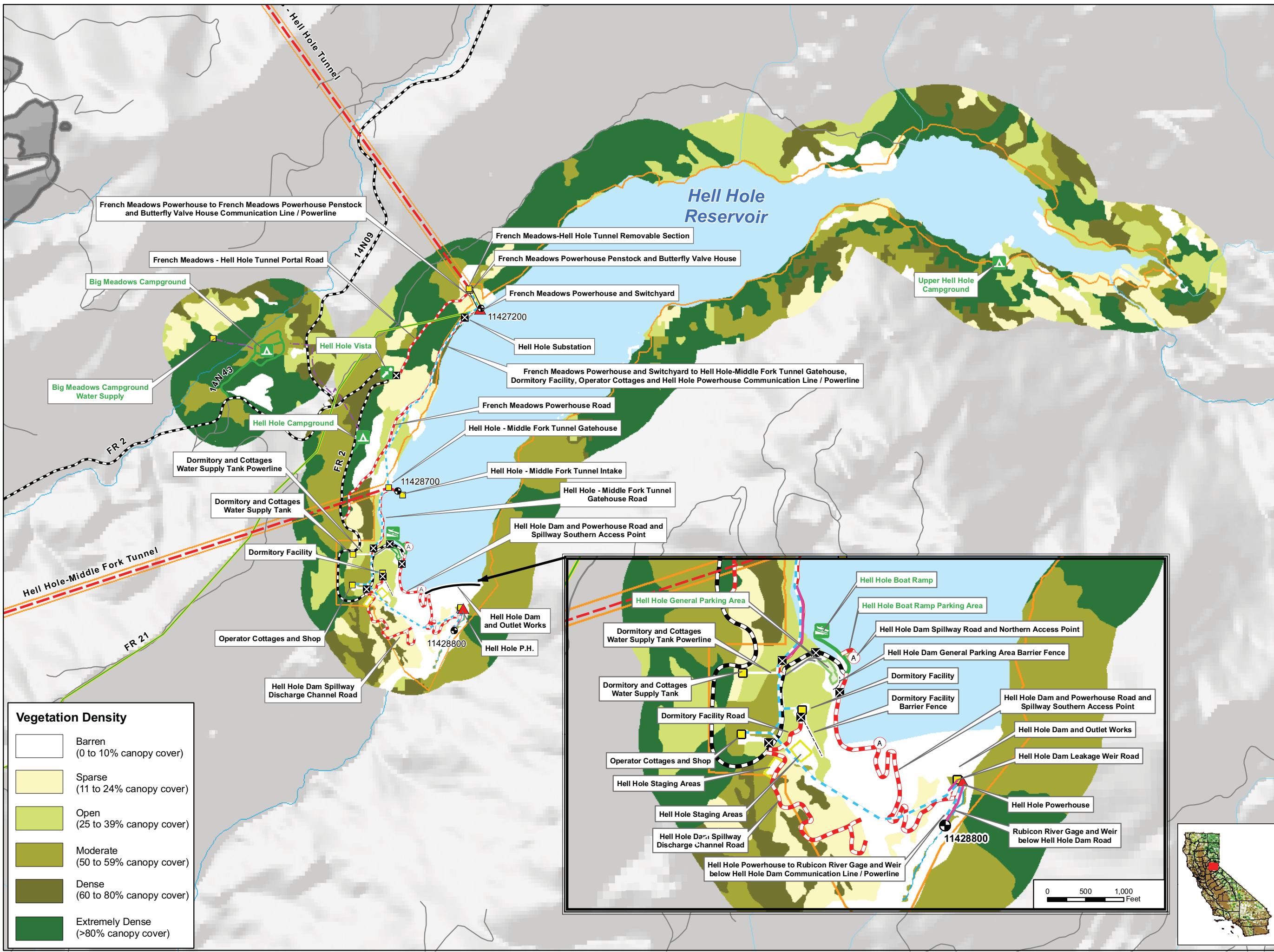
PCWA
Placer County Water Agency
Middle Fork American River Project
Map 3f
Vegetation Densities within the TERR-1 Study Area Long Canyon Area

0 0.25 0.5 Miles
Projection: Ca. Stateplane, Zone 2
Datum: NAD 83
Date: 1/16/08



Placer County Water Agency
Middle Fork American River Project
Map 3g
Vegetation Densities within the TERR-1 Study Area
Duncan Creek, French Meadows Area

0 0.25 0.5 Miles
Projection: Ca. Stateplane, Zone 2
Datum: NAD 83
Date: 1/16/08



PCWA Facilities and Features

- Dam
- Ancillary and Other Facilities
- Powerhouse
- Gage
- Penstock
- Tunnel
- Pipeline
- Gate
- Access Point
- Public Safety Fence
- FERC Boundary

Project Power and Communication Lines:

- Communication
- Power
- Power (underground)
- Communication/Power
- Communication/Power (underground)

Transportation

- Non-Project General Access Road
- Project Road
- Project Trail
- Recreation Access Road
- Other Road

Project Recreation Facilities

- Picnic Area
- Boat Ramp
- Scenic Viewpoint
- Developed Campground
- Water Supply Line

Other Facilities

PG & E Transmission Lines:

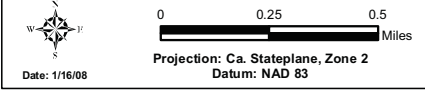
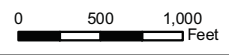
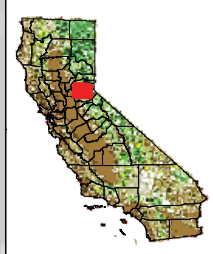
- 230 kV
- 60 kV

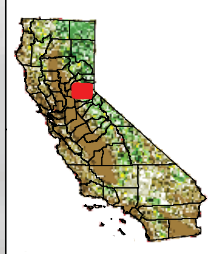
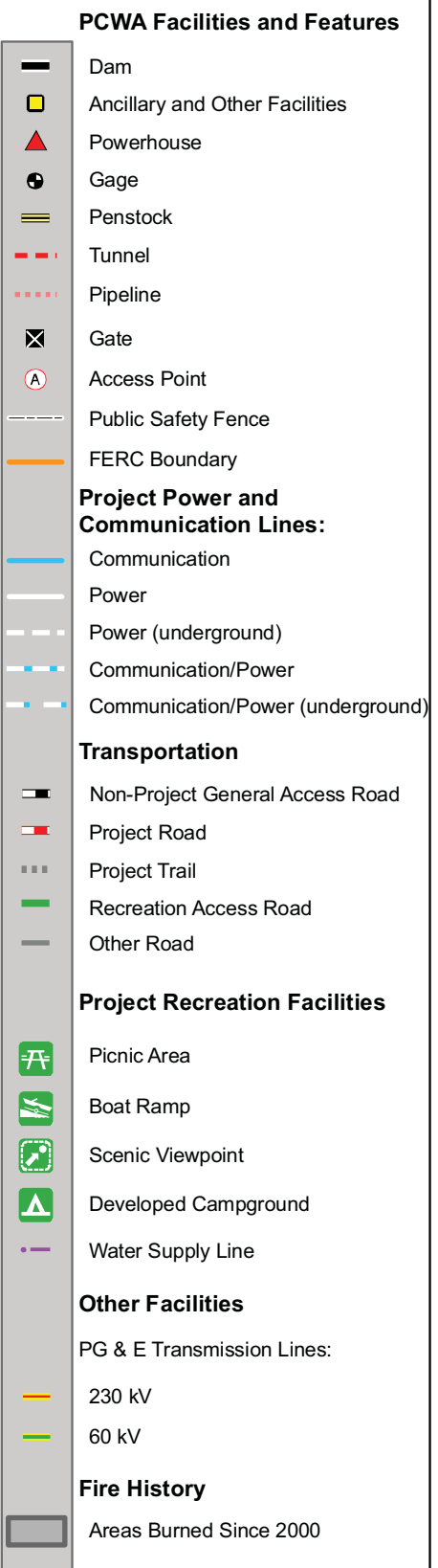
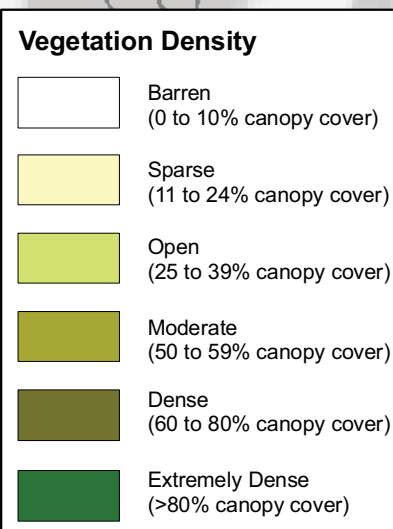
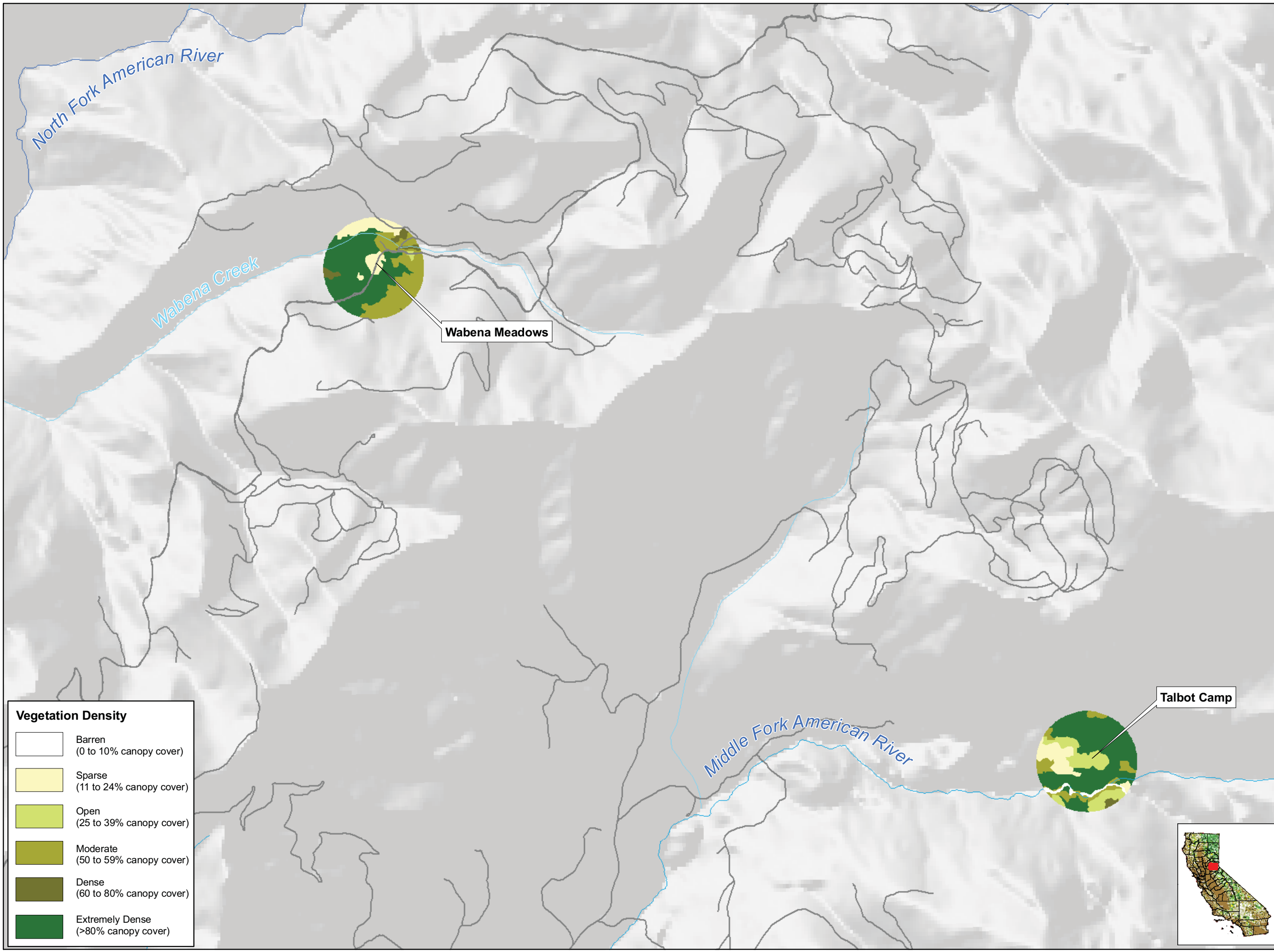

Fire History

- Areas Burned Since 2000

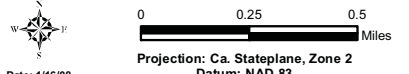


Placer County Water Agency
Middle Fork American River Project
Map 3h
**Vegetation Densities
within the TERR-1 Study Area
Hell Hole Area**



Placer County Water Agency
Middle Fork American River Project
Map 3i
**Vegetation Densities
within the TERR-1 Study Area
Northern Snow Courses**



Date: 1/16/08
Projection: Ca. Stateplane, Zone 2
Datum: NAD 83

Vegetation Density

- Barren (0 to 10% canopy cover)
- Sparse (11 to 24% canopy cover)
- Open (25 to 39% canopy cover)
- Moderate (50 to 59% canopy cover)
- Dense (60 to 80% canopy cover)
- Extremely Dense (>80% canopy cover)

PCWA Facilities and Features

- Dam
- Ancillary and Other Facilities
- Powerhouse
- Gage
- Penstock
- Tunnel
- Pipeline
- Gate
- Access Point
- Public Safety Fence
- FERC Boundary

Project Power and Communication Lines:

- Communication
- Power
- Power (underground)
- Communication/Power
- Communication/Power (underground)

Transportation

- Non-Project General Access Road
- Project Road
- Project Trail
- Recreation Access Road
- Other Road

Project Recreation Facilities

- Picnic Area
- Boat Ramp
- Scenic Viewpoint
- Developed Campground
- Water Supply Line

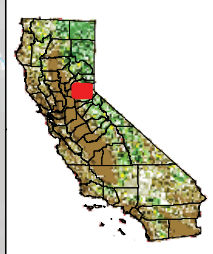
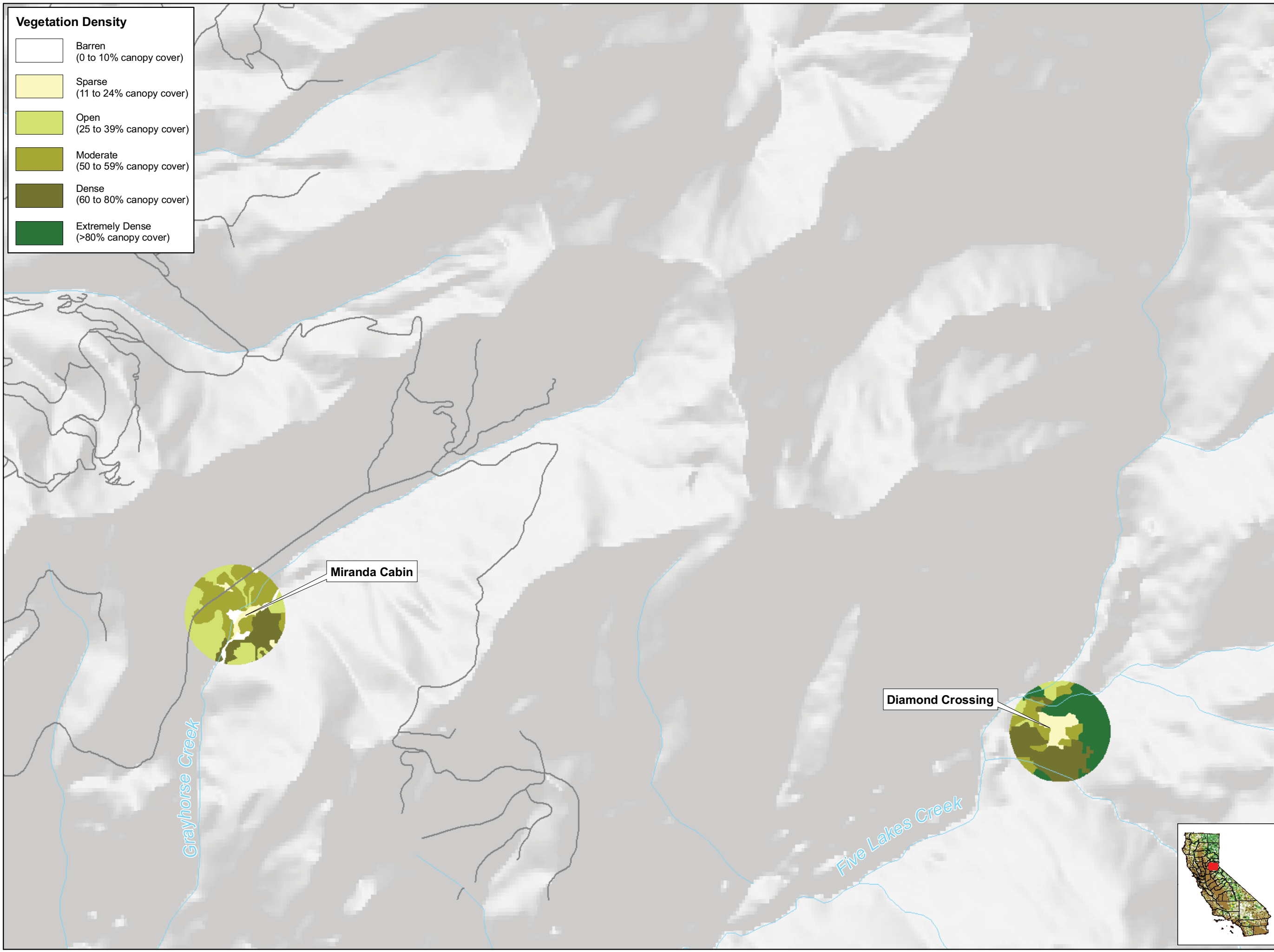
Other Facilities

PG & E Transmission Lines:

- 230 kV
- 60 kV

Fire History

- Areas Burned Since 2000



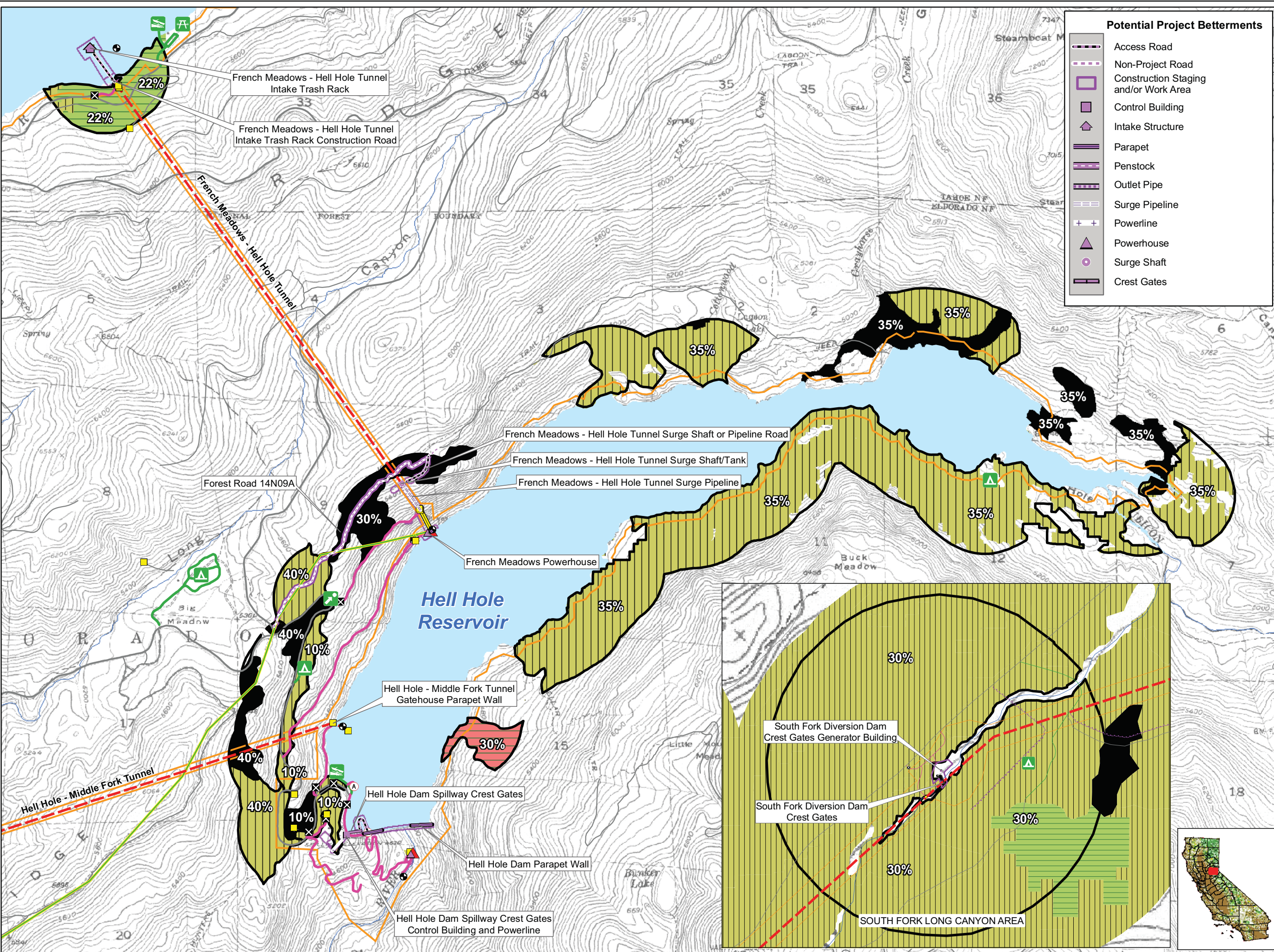
PCWA

Placer County Water Agency
Middle Fork American River Project
Map 3j
Vegetation Densities within the TERR-1 Study Area
Southern Snow Courses

0 0.25 0.5 Miles

Projection: Ca. Stateplane, Zone 2
Datum: NAD 83

Date: 1/16/08



Potential Project Betterments

- Access Road
- Non-Project Road
- Construction Staging and/or Work Area
- Control Building
- Intake Structure
- Parapet
- Penstock
- Outlet Pipe
- Surge Pipeline
- Powerline
- Powerhouse
- Surge Shaft
- Crest Gates

PCWA Facilities and Features

- Dam
- Ancillary and Other Facilities
- Powerhouse
- Gage
- Penstock
- Tunnel
- Gate
- Access Point
- FERC Boundary

Transportation

- Road
- Project Road
- Project Trail
- Recreation Access Road

Project Recreation Facilities

- Picnic Area
- Boat Ramp
- Scenic Viewpoint
- Developed Campground

Other Facilities

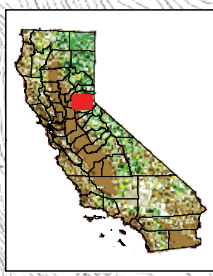
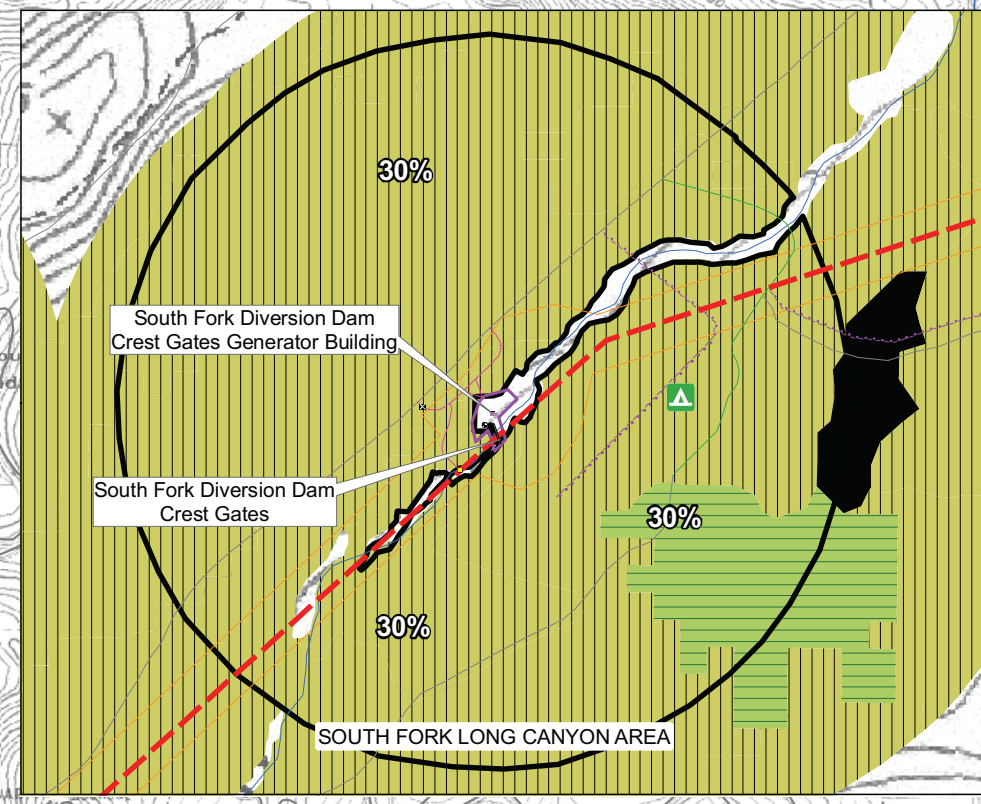

PG & E Transmission Lines:

- 230 kV
- 60 kV

Applicable Tree Communities and Size Class*

- Black Oak (QK)
- Douglas-Fir - Pine (DP)
- Mixed Conifer - Fir (MF)
- Mixed Conifer - Pine (MP)
- 5% Percent of Trees 11" to 24" dbh

*CalVeg Data (2000) with updates from 2007
PCWA field surveys and aerial photo interpretation

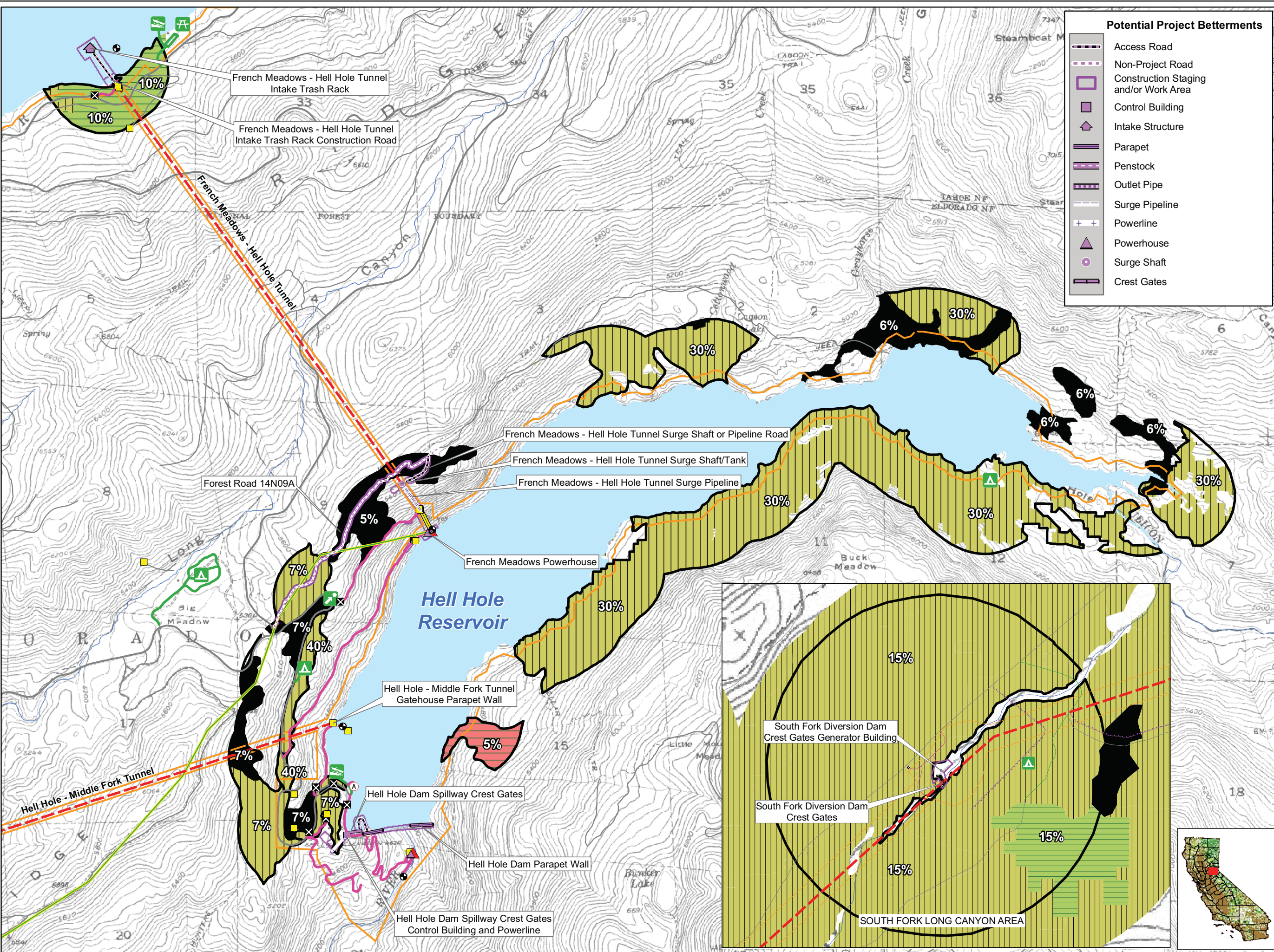
Placer County Water Agency
Middle Fork American River Project

Map 4a
Tree Size Classes at Proposed Project Betterments: Percent of Trees 11 to 24 inches dbh

0 0.25 0.5 Miles

Projection: Ca. Stateplane, Zone 2
Datum: NAD 83

Date: 1/21/08



- ### Potential Project Betterments
- Access Road
 - Non-Project Road
 - Construction Staging and/or Work Area
 - Control Building
 - Intake Structure
 - Parapet
 - Penstock
 - Outlet Pipe
 - Surge Pipeline
 - Powerline
 - Powerhouse
 - Surge Shaft
 - Crest Gates

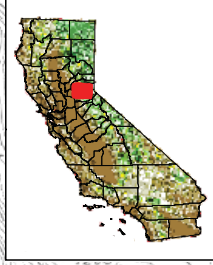
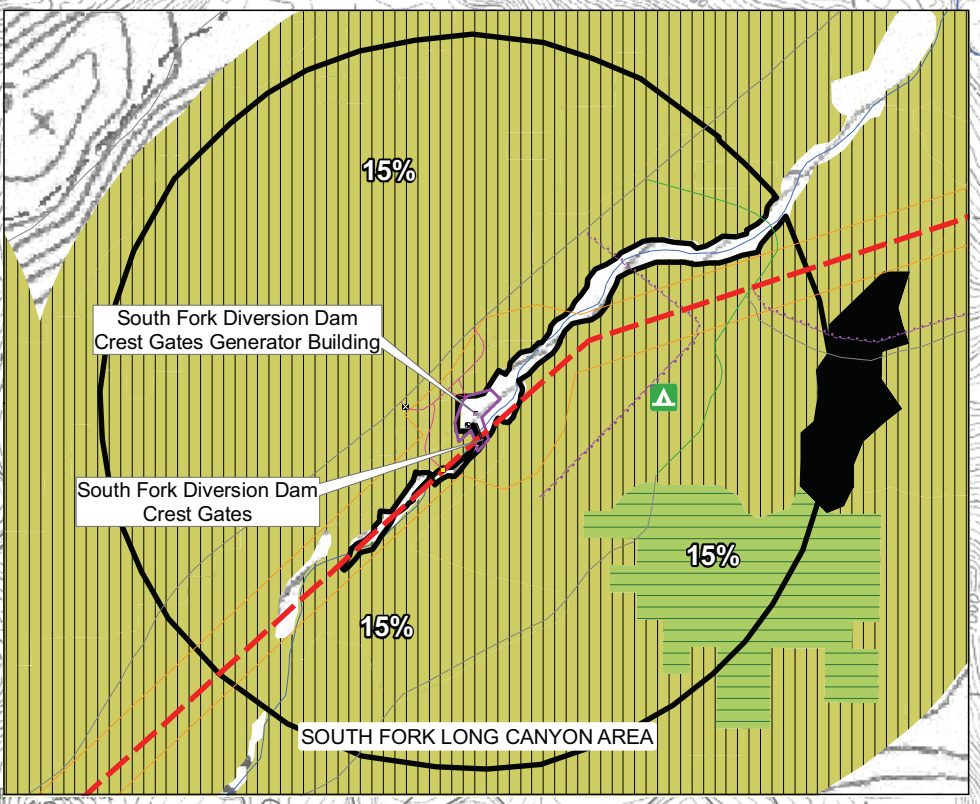
- ### PCWA Facilities and Features
- Dam
 - Ancillary and Other Facilities
 - Powerhouse
 - Gage
 - Penstock
 - Tunnel
 - Gate
 - Access Point
 - FERC Boundary
- ### Transportation
- Road
 - Project Road
 - Project Trail
 - Recreation Access Road

- ### Project Recreation Facilities
- Picnic Area
 - Boat Ramp
 - Scenic Viewpoint
 - Developed Campground

- ### Other Facilities
- PG & E Transmission Lines:
- 230 kV
 - 60 kV

- ### Applicable Tree Communities and Size Class*
- Black Oak (QK)
 - Douglas-Fir - Pine (DP)
 - Mixed Conifer - Fir (MF)
 - Mixed Conifer - Pine (MP)
 - Percent of Trees > 24" dbh

*CalVeg Data (2000) with updates from 2007
PCWA field surveys and aerial photo interpretation



Placer County Water Agency
Middle Fork American River Project
Map 4b

**Tree Size Classes at
Proposed Project Betterments:
Percent of Trees > 24 inches dbh**

0 0.25 0.5 Miles

Projection: Ca. Stateplane, Zone 2
Datum: NAD 83

Date: 1/21/08