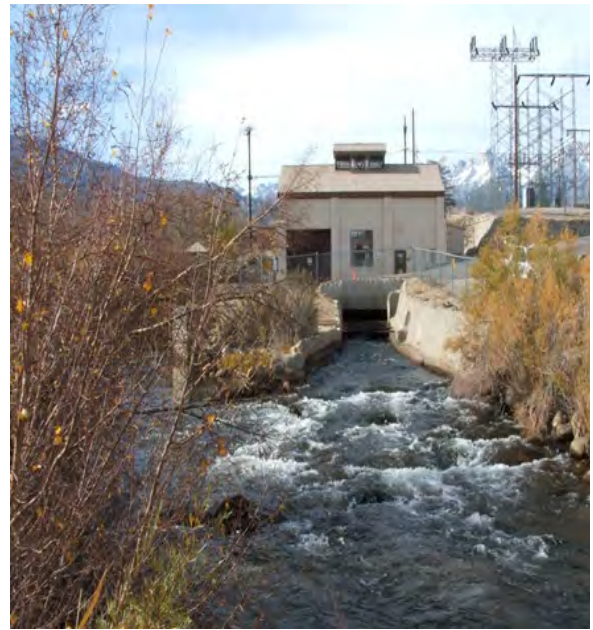


# **SOUTHERN CALIFORNIA EDISON**

## **Bishop Creek Hydroelectric Project**

### **(FERC Project No. 1394)**



## **Final LICENSE APPLICATION**

### **VOLUME II**



June 2022

**LIST OF EXHIBITS**

Exhibit E Appendices G through J

# **SOUTHERN CALIFORNIA EDISON**

## **Bishop Creek Hydroelectric Project (FERC Project No. 1394)**

### **FINAL LICENSE APPLICATION**

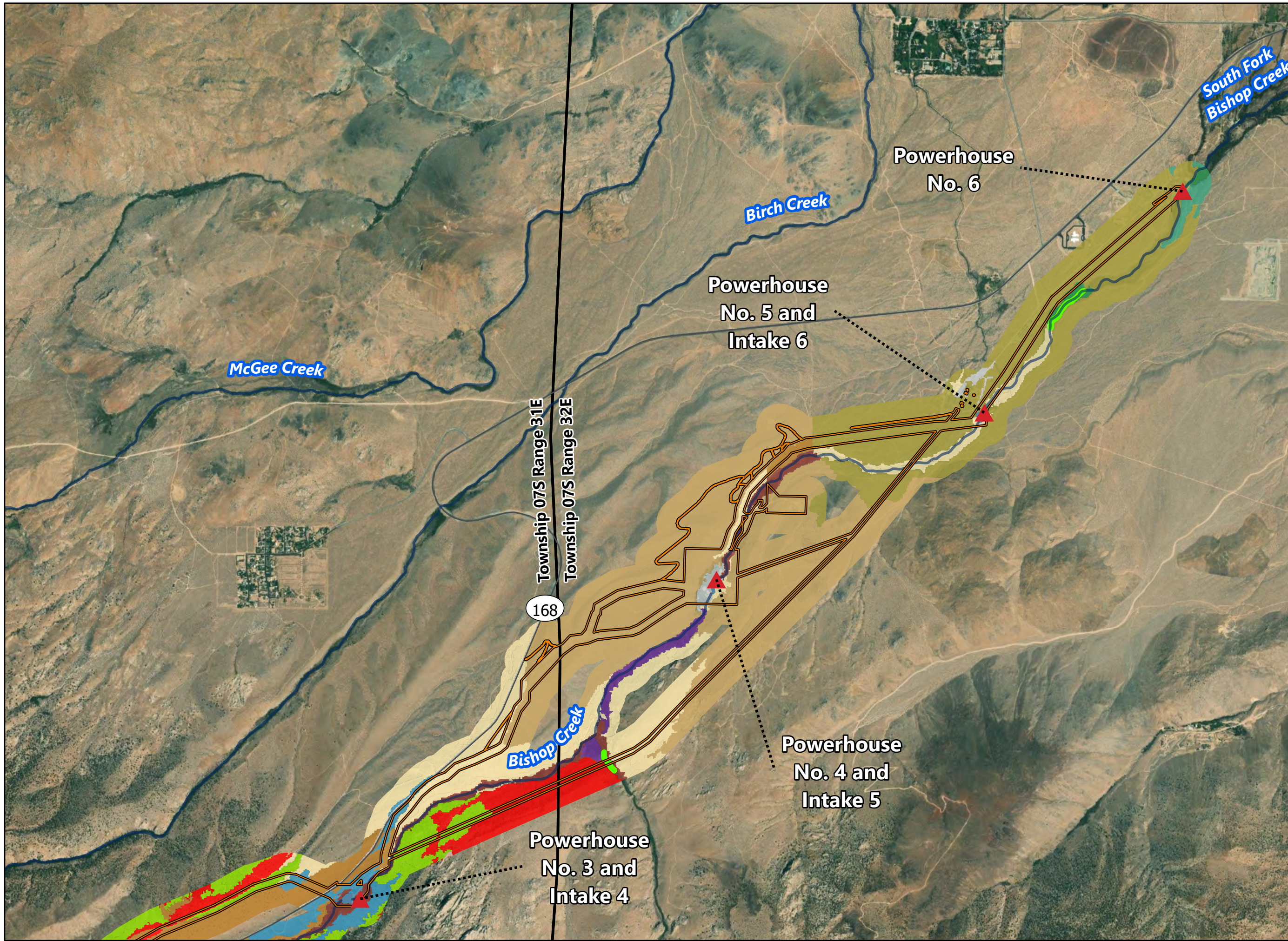
#### **APPENDIX G**

##### **FLOODPLAIN, WETLAND, AND RIPARIAN PLANT COMMUNITIES WITHIN A 200-FOOT BUFFER OF PROJECT FACILITIES**

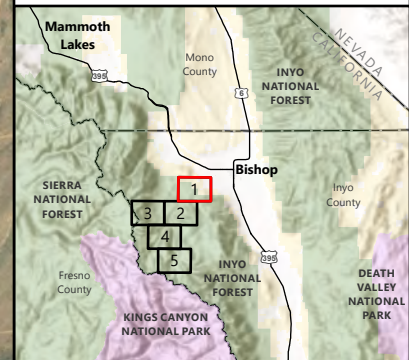
June 2022

*Support from:*

***Kleinschmidt***



- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- CALVEG Type (in current extent)**
- BA - Barren
  - BB - Bitterbrush
  - BC - Saltbush
  - BQ - Great Basin Mixed Scrub
  - BS - Basin Sagebrush
  - BZ - Great Basin - Desert Mixed Scrub
  - DA - Blackbush
  - EP - Eastside Pine
  - IB - Urban-related Bare Soil
  - NQ - High Desert Mixed Scrub
  - NR - Riparian Mixed Hardwood
  - PJ - Singleleaf Pinyon Pine
  - QO - Willow
  - W2 - Perennial Lake or Pond



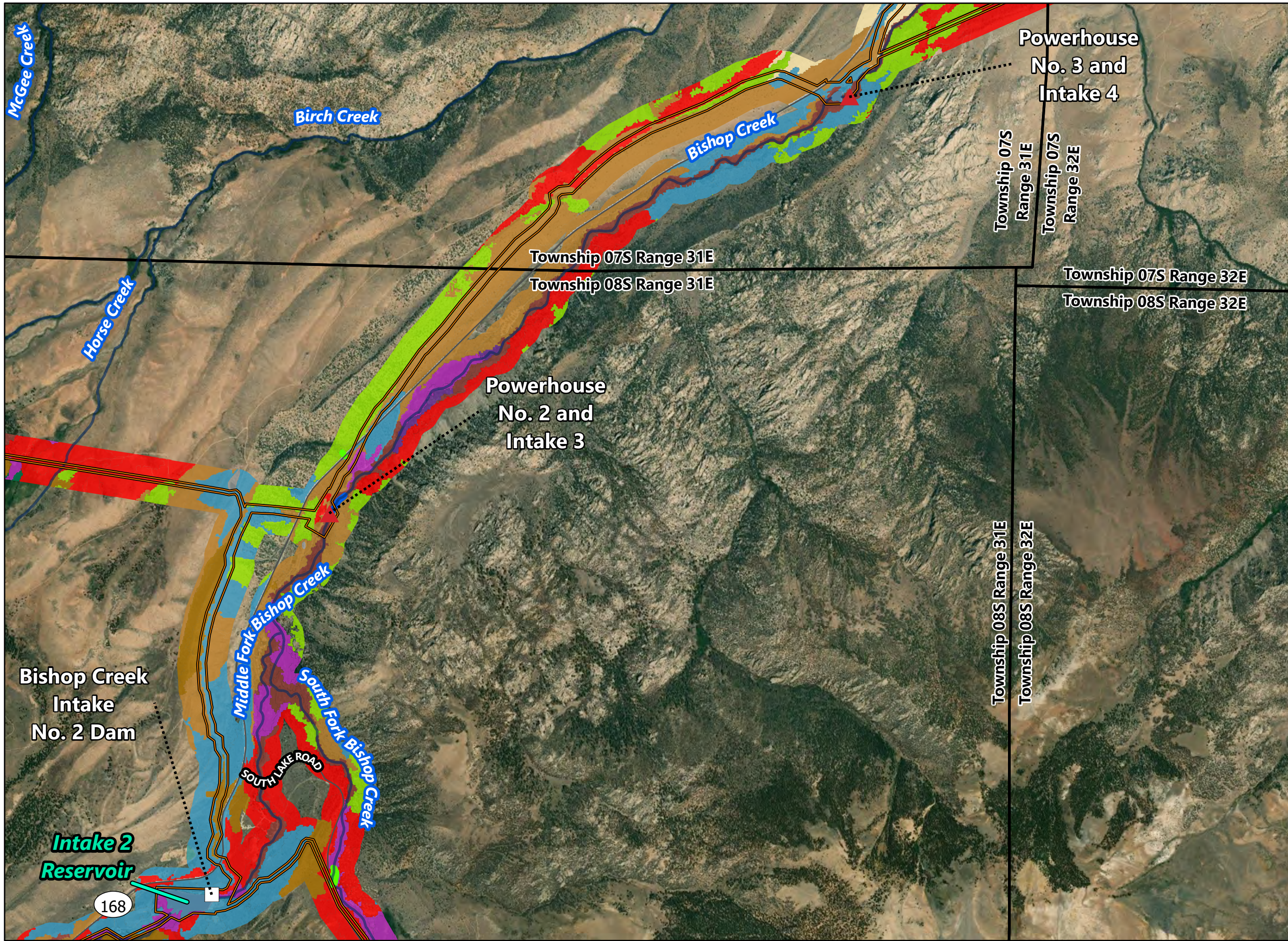
**Detailed Vegetation Map  
of the  
Bishop Creek Project Area  
Sheet 1 of 5**

**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**

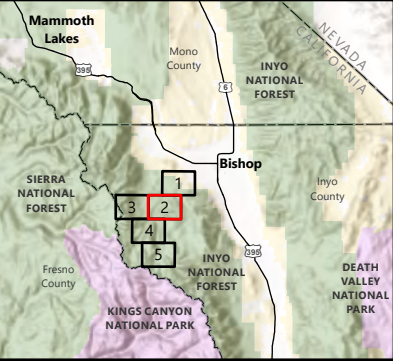
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Coordinate System: NAD 1983 UTM Zone 11N  
Projection: Transverse Mercator  
Datum: North American 1983

0 500 1,000 2,000  
Feet



- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
  - Riverine
- CALVEG Type (in current extent)**
- BA - Barren
  - BB - Bitterbrush
  - BM - Curleaf Mountain Mahogany
  - BQ - Great Basin Mixed Scrub
  - BS - Basin Sagebrush
  - BZ - Great Basin - Desert Mixed Scrub
  - DA - Blackbush
  - EP - Eastside Pine
  - HG - Annual Grasses and Forbs
  - HJ - Wet Meadows
  - HM - Perennial Grasses and Forbs
  - IB - Urban-related Bare Soil
  - IW - Urban or Industrial Impoundment
  - NR - Riparian Mixed Hardwood
  - PJ - Singleleaf Pinyon Pine
  - QQ - Quaking Aspen
  - W2 - Perennial Lake or Pond



**Detailed Vegetation Map of the Bishop Creek Project Area Sheet 2 of 5**

**BISHOP CREEK HYDROELECTRIC PROJECT FERC PROJECT NO. 1394**

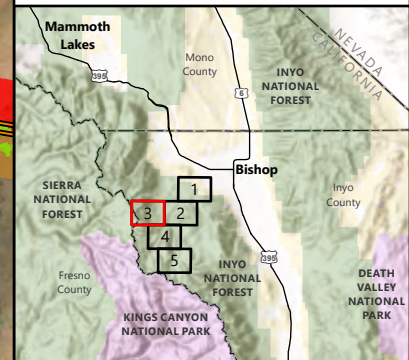
N

Coordinate System: NAD 1983 UTM Zone 11N  
 Projection: Transverse Mercator  
 Datum: North American 1983

0 500 1,000 2,000  
 Feet



- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- CALVEG Type (in current extent)**
- AX - Alpine Mixed Scrub
  - BA - Barren
  - BB - Bitterbrush
  - BM - Curlleaf Mountain Mahogany
  - BQ - Great Basin Mixed Scrub
  - BS - Basin Sagebrush
  - EP - Eastside Pine
  - HJ - Wet Meadows
  - IB - Urban-related Bare Soil
  - LP - Lodgepole Pine
  - PJ - Singleleaf Pinyon Pine
  - QQ - Quaking Aspen
  - SA - Subalpine Conifers
  - W2 - Perennial Lake or Pond
  - WB - Whitebark Pine
  - WL - Willow (Shrub)



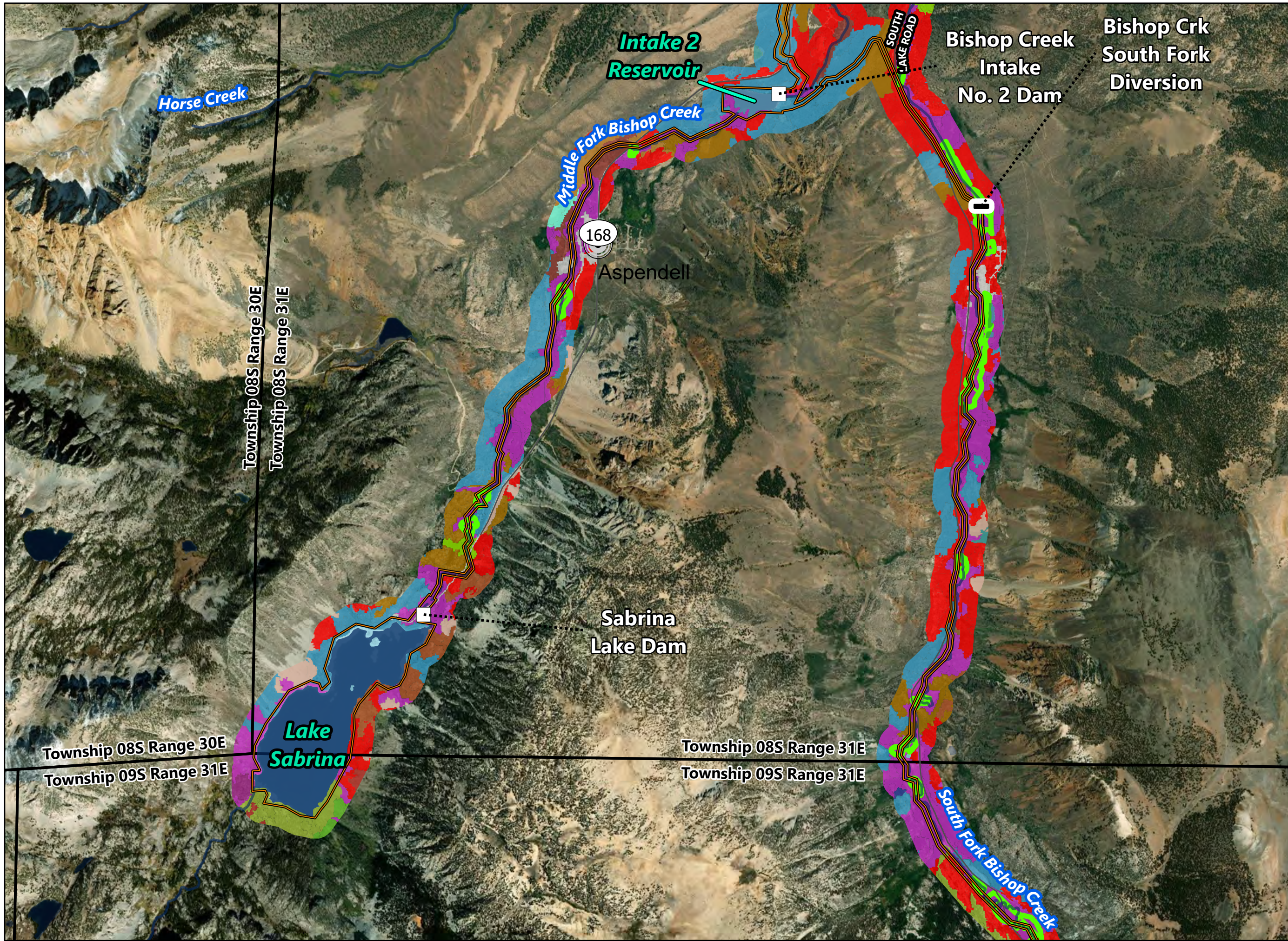
**Detailed Vegetation Map  
of the  
Bishop Creek Project Area  
Sheet 3 of 5**

**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**

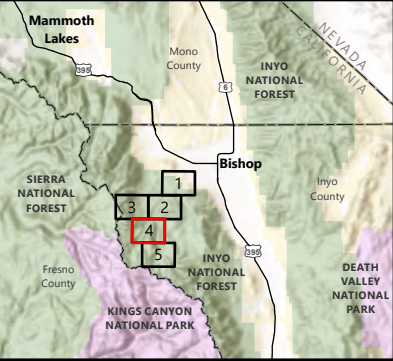
N

Coordinate System: NAD 1983 UTM Zone 11N  
 Projection: Transverse Mercator  
 Datum: North American 1983

0 500 1,000 2,000  
 Feet



- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- CALVEG Type (in current extent)**
- AC - Alpine Grasses and Forbs
  - AX - Alpine Mixed Scrub
  - BA - Barren
  - BB - Bitterbrush
  - BM - Curlleaf Mountain Mahogany
  - BQ - Great Basin Mixed Scrub
  - BS - Basin Sagebrush
  - EP - Eastside Pine
  - HG - Annual Grasses and Forbs
  - HM - Perennial Grasses and Forbs
  - IB - Urban-related Bare Soil
  - LP - Lodgepole Pine
  - PJ - Singleleaf Pinyon Pine
  - PL - Limber Pine
  - QC - Canyon Live Oak
  - QQ - Quaking Aspen
  - SA - Subalpine Conifers
  - W2 - Perennial Lake or Pond
  - WB - Whitebark Pine



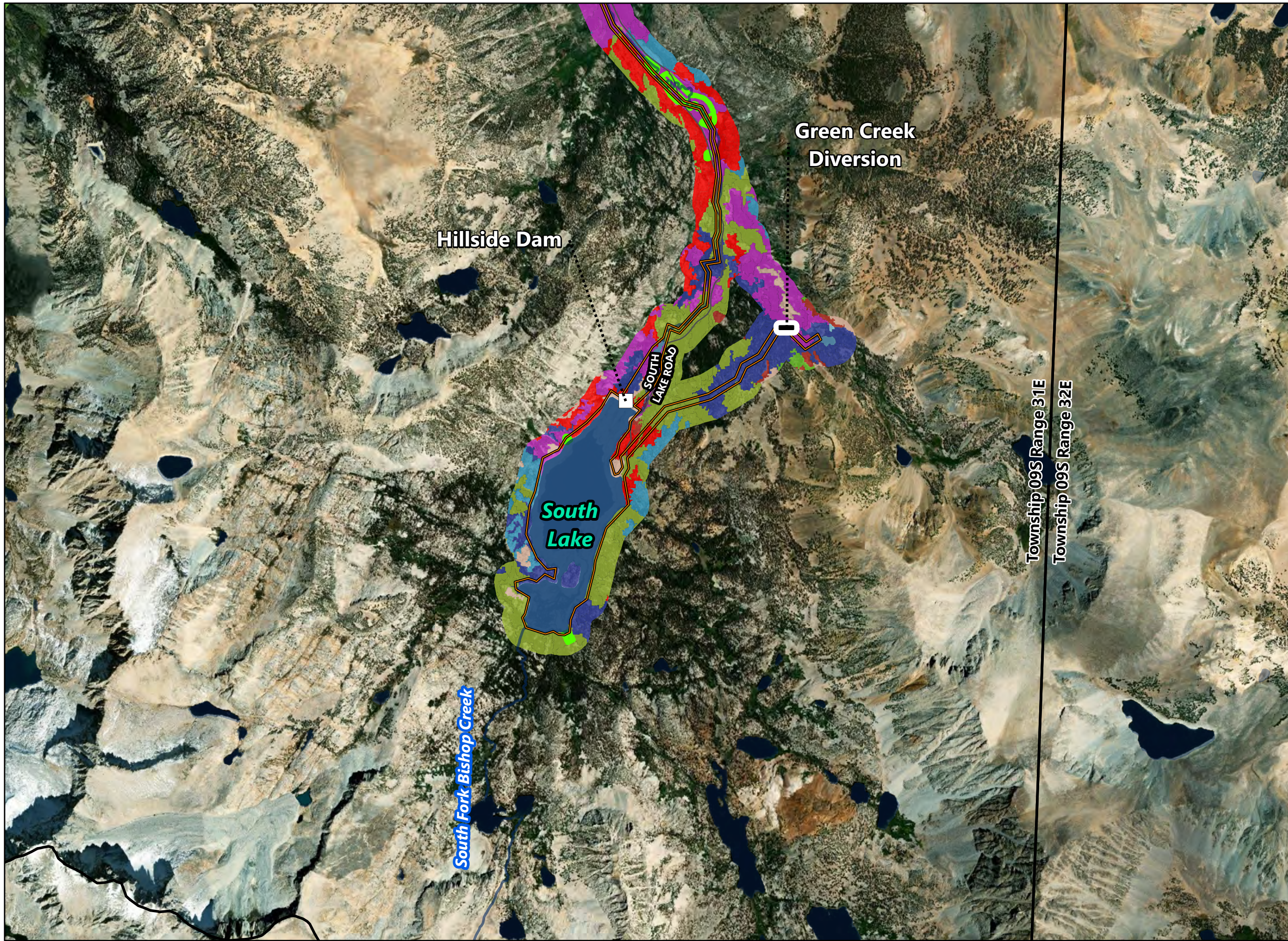
**Detailed Vegetation Map  
of the  
Bishop Creek Project Area  
Sheet 4 of 5**











**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**

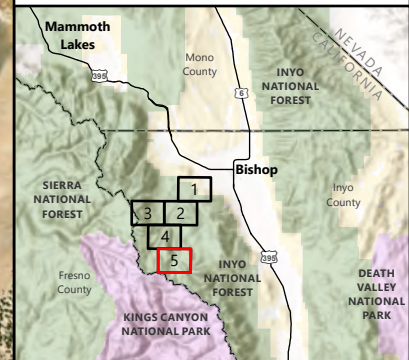
N  
↑

Coordinate System: NAD 1983 UTM Zone 11N  
Projection: Transverse Mercator  
Datum: North American 1983

0 500 1,000 2,000  
Feet



- NWI Wetland Type**
-  Freshwater Forested/Shrub Wetland
- CALVEG Type (in current extent)**
-  AC - Alpine Grasses and Forbs
  -  BA - Barren
  -  BQ - Great Basin Mixed Scrub
  -  BS - Basin Sagebrush
  -  LP - Lodgepole Pine
  -  QQ - Quaking Aspen
  -  SA - Subalpine Conifers
  -  W2 - Perennial Lake or Pond
  -  WB - Whitebark Pine



**Detailed Vegetation Map  
of the  
Bishop Creek Project Area  
Sheet 5 of 5**

**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**

N  
↑

Coordinate System: NAD 1983 UTM Zone 11N  
Projection: Transverse Mercator  
Datum: North American 1983

0 500 1,000 2,000  
Feet



# **SOUTHERN CALIFORNIA EDISON**

**Bishop Creek Hydroelectric Project  
(FERC Project No. 1394)**

**FINAL LICENSE APPLICATION**

## **APPENDIX H**

### **SUPPLEMENTAL INFORMATION AND SUPPORTING GRAPHS: RESULTS OF BLACK COTTONWOOD ANALYSIS**

June 2022

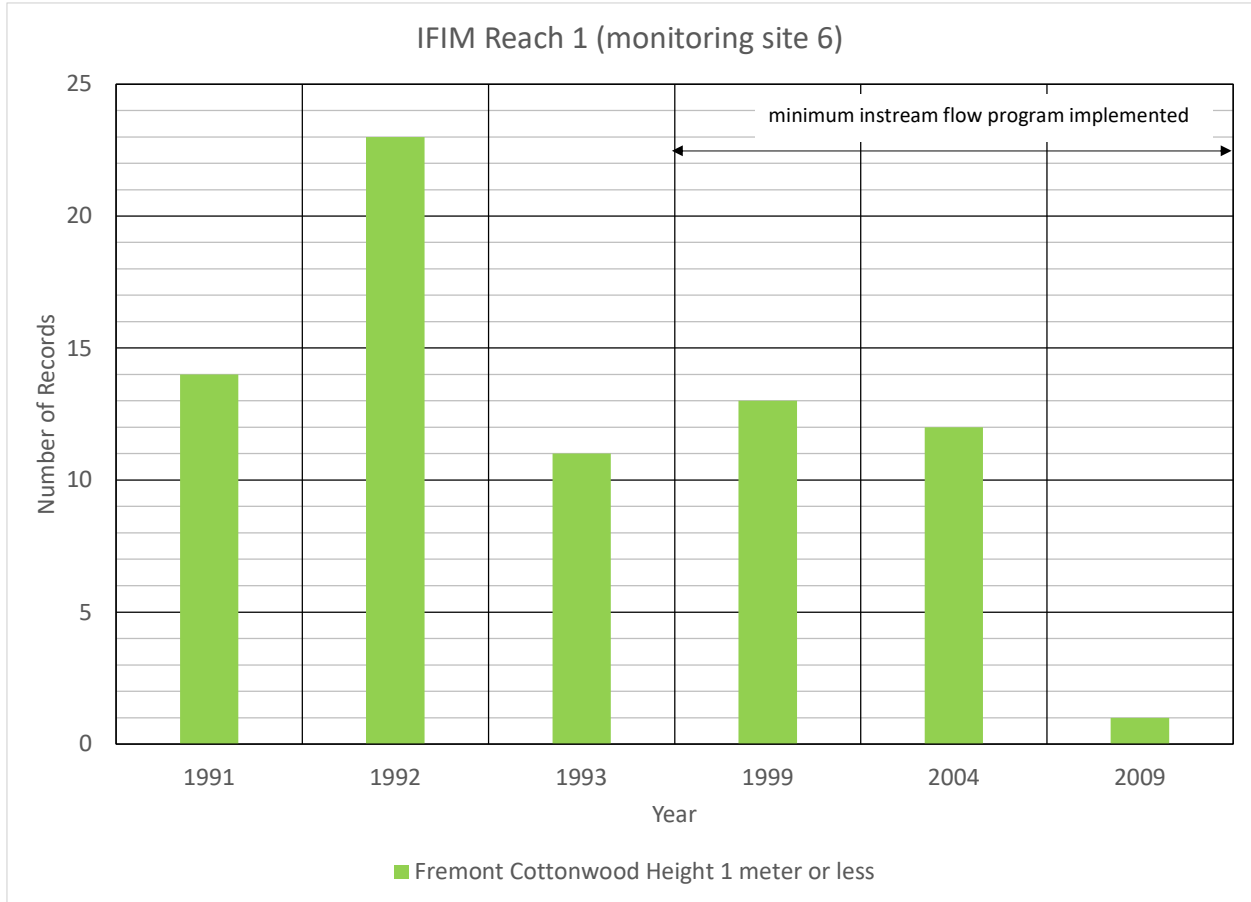
*Support from:*

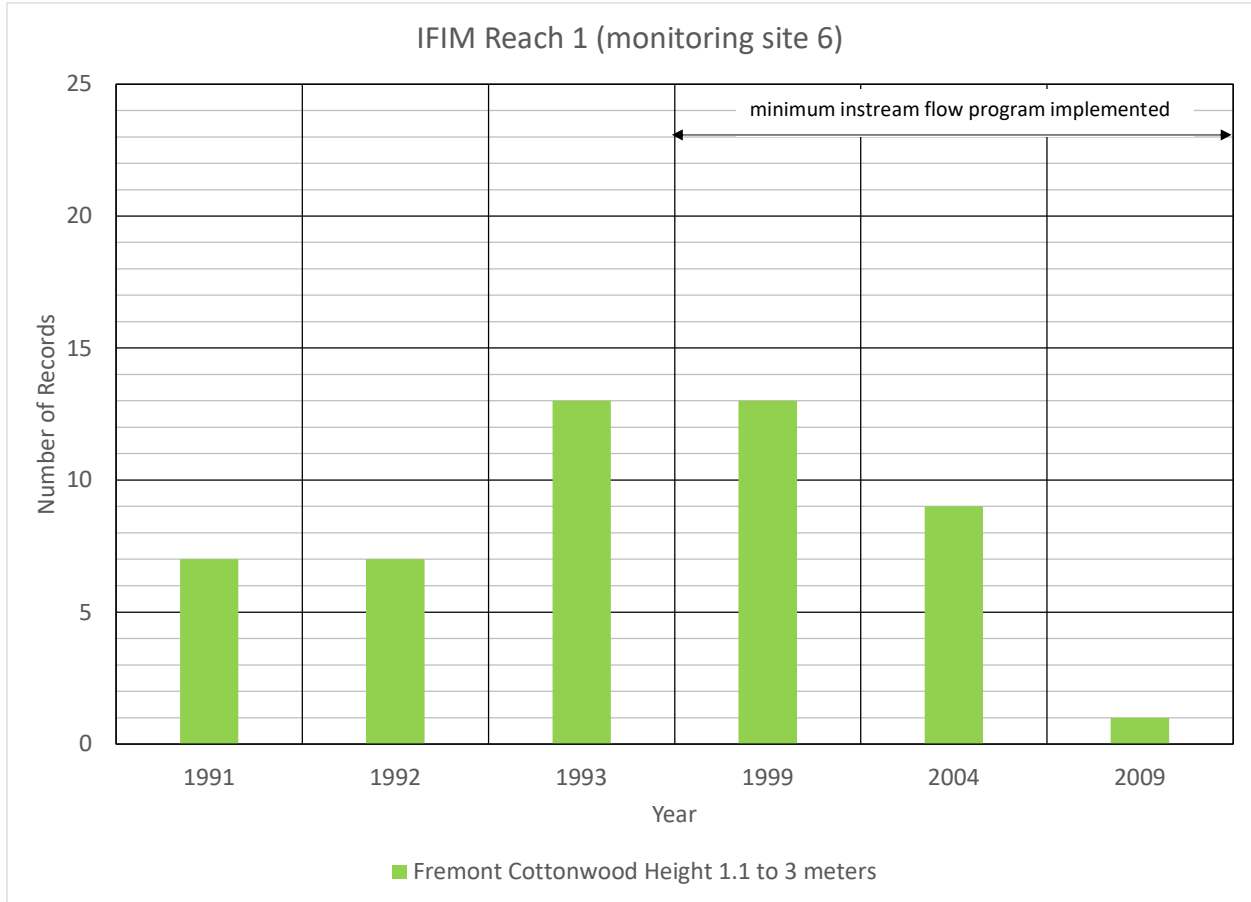
***Kleinschmidt***

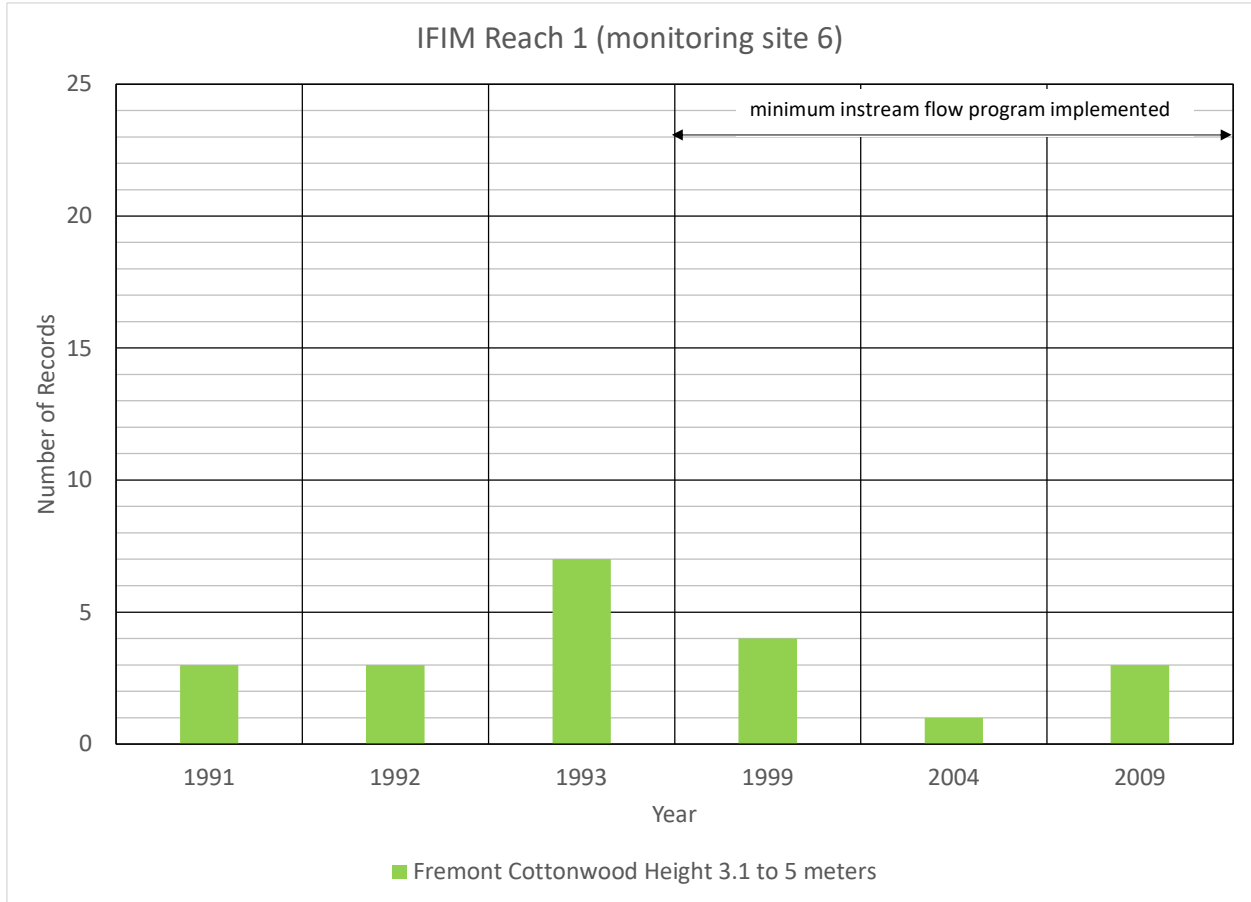
This document provides data in response to a request from USFS at the May 25, 2022, Bishop Creek FERC Relicensing Protection, Mitigation, and Enhancement (PM&E) meeting. That request was to revise the graphs of *Populus* height data from the riparian monitoring sites in a way that would make it easier to evaluate trends over time for each height class. These graphs are provided on the following pages for the *Populus* species measured in the riparian monitoring transects: aspen (*P. tremuloides*), black cottonwood (*Populus trichocarpa*), and Fremont cottonwood (*Populus fremontii*). The presence of each species varies with reach.

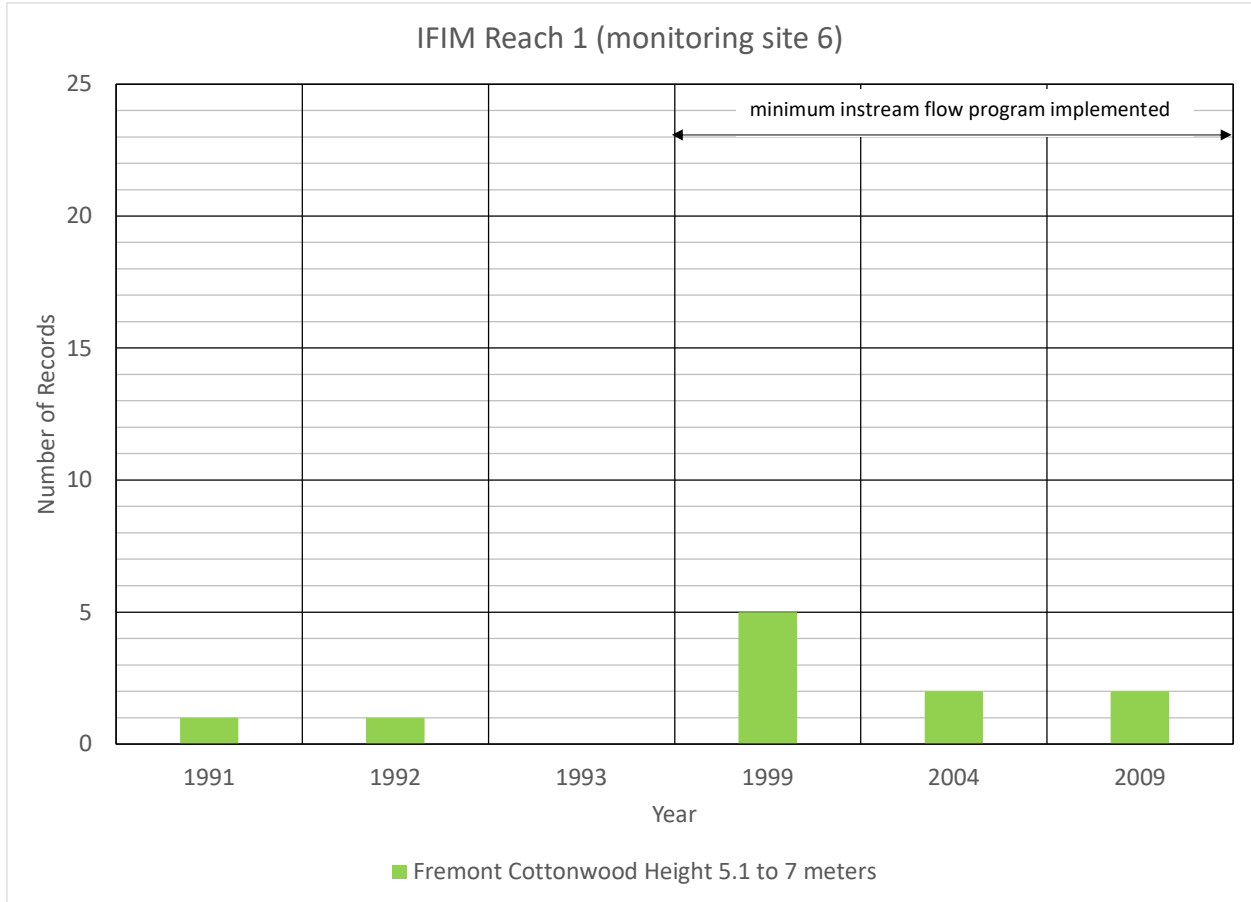
To re-summarize important background information presented with the previous set of graphs of canopy cover and height of woody riparian species:

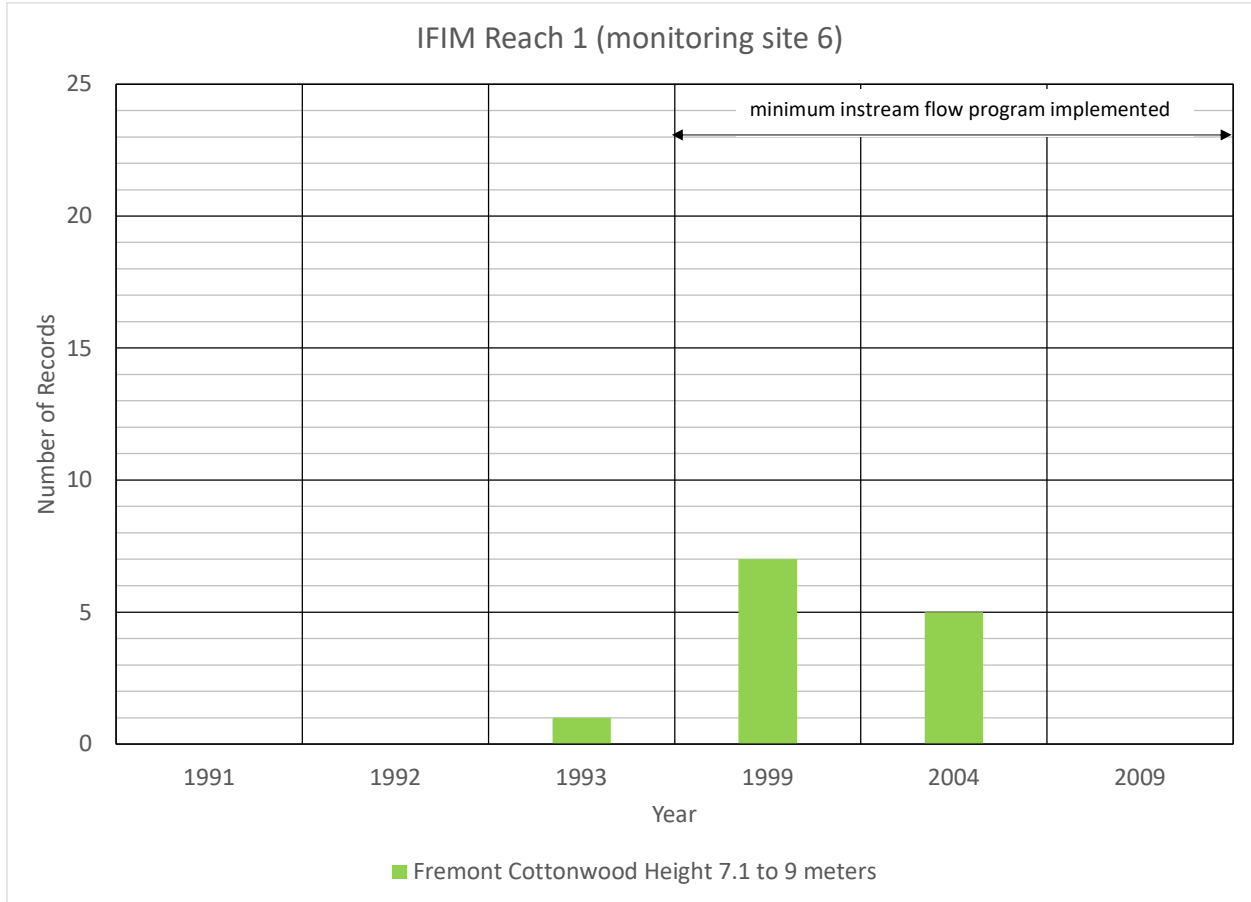
- No riparian monitoring sites were established in IFIM reaches 3, 8, or 10 due to potential influence from unregulated tributaries that would confound efforts to isolate Project effects on riparian vegetation.
- Sites in IFIM reaches 1 and 4 were not monitored after 2009 due to significant human disturbance. The monitoring site that extended across IFIM reaches 7 and 9 at Big Trees campground was not monitored after 2009 due to improvements to the restroom facility there that lowered the groundwater table and added to the human disturbance already present in the form of vandalism of equipment and trampling of vegetation on the stream banks.

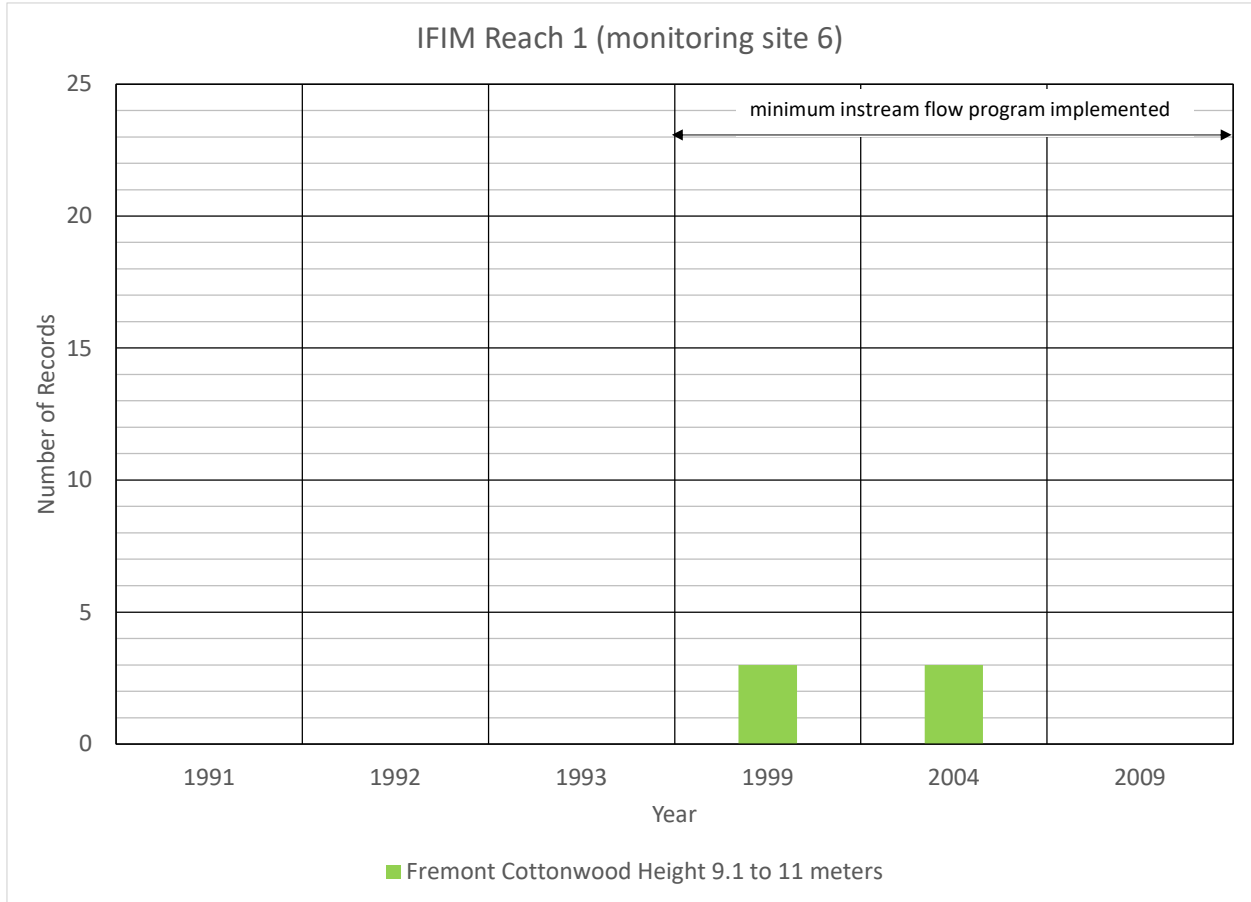




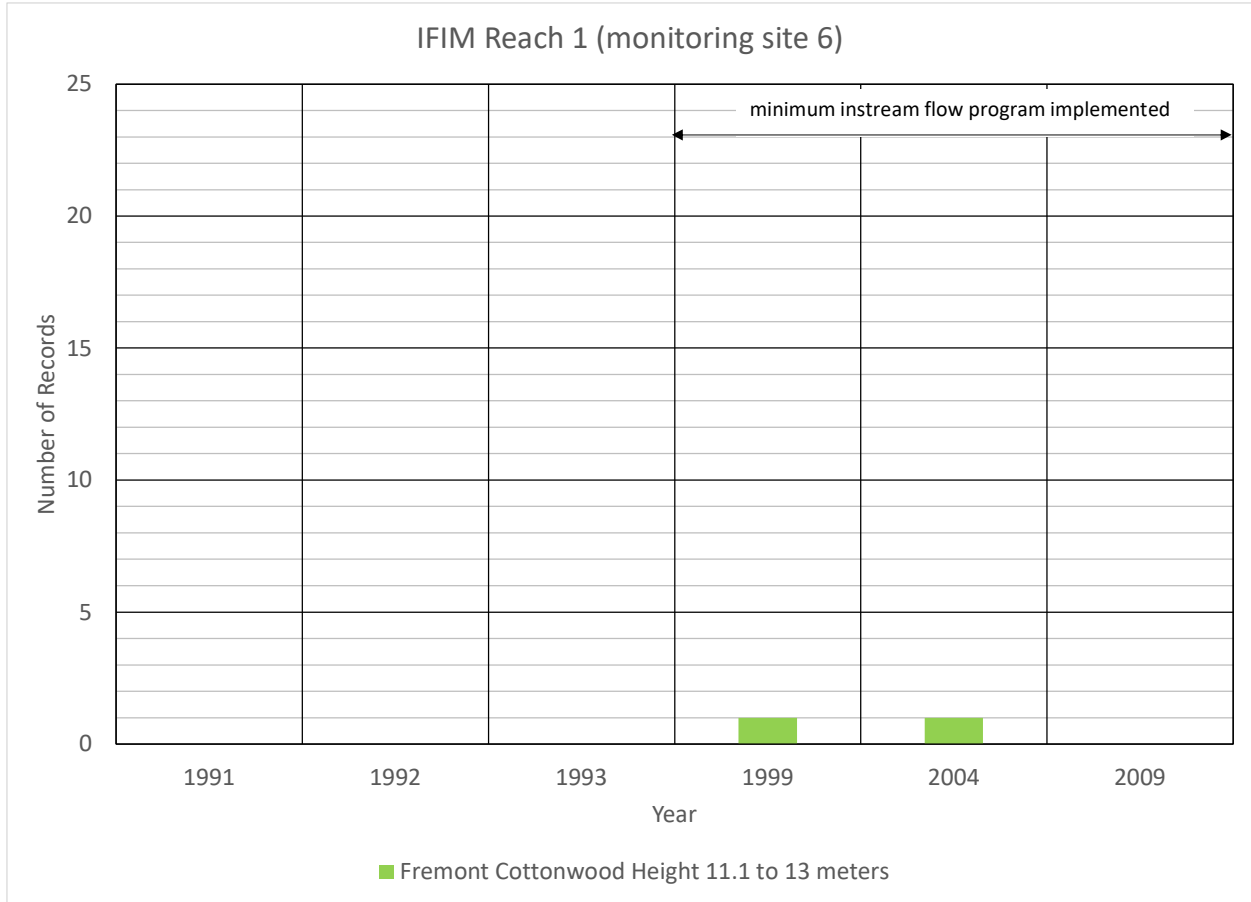


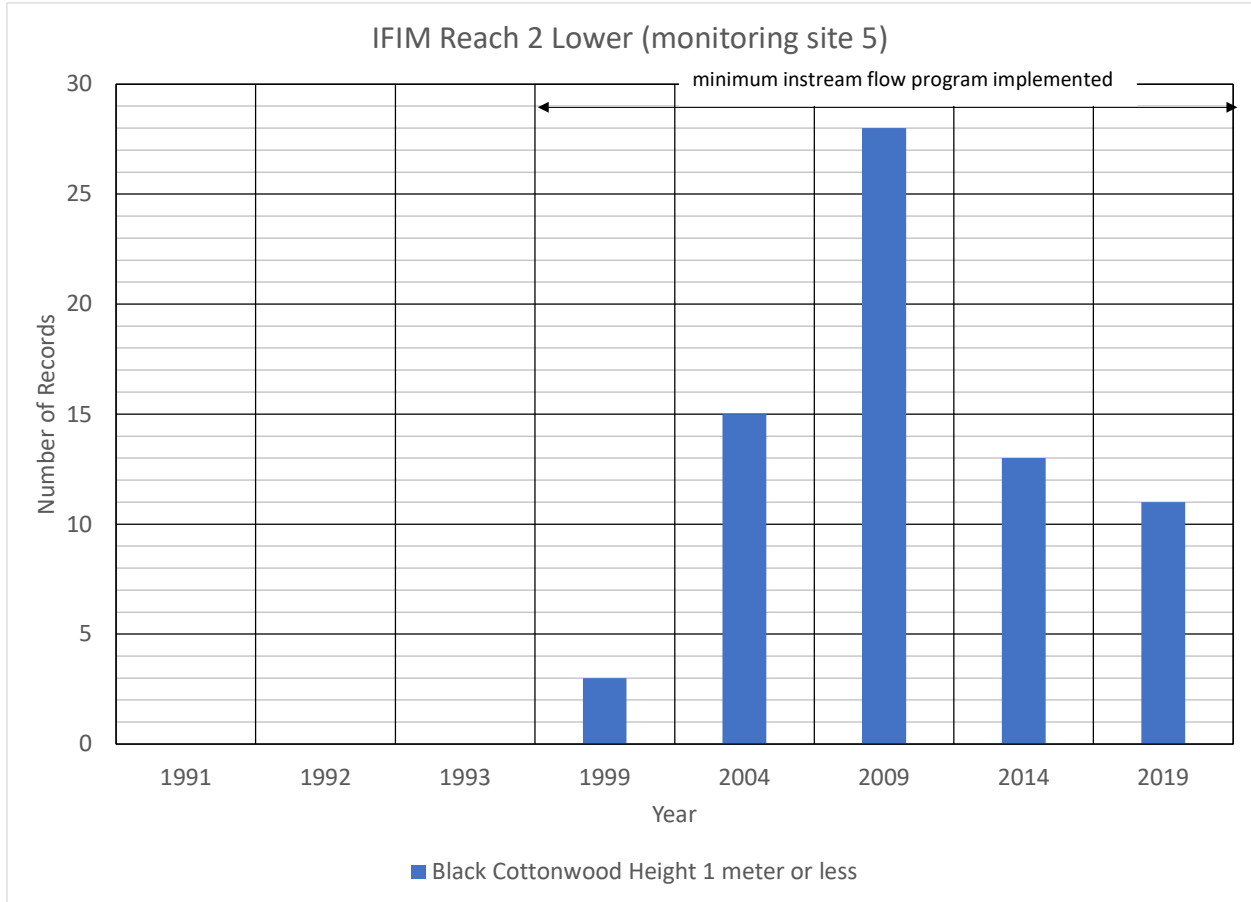


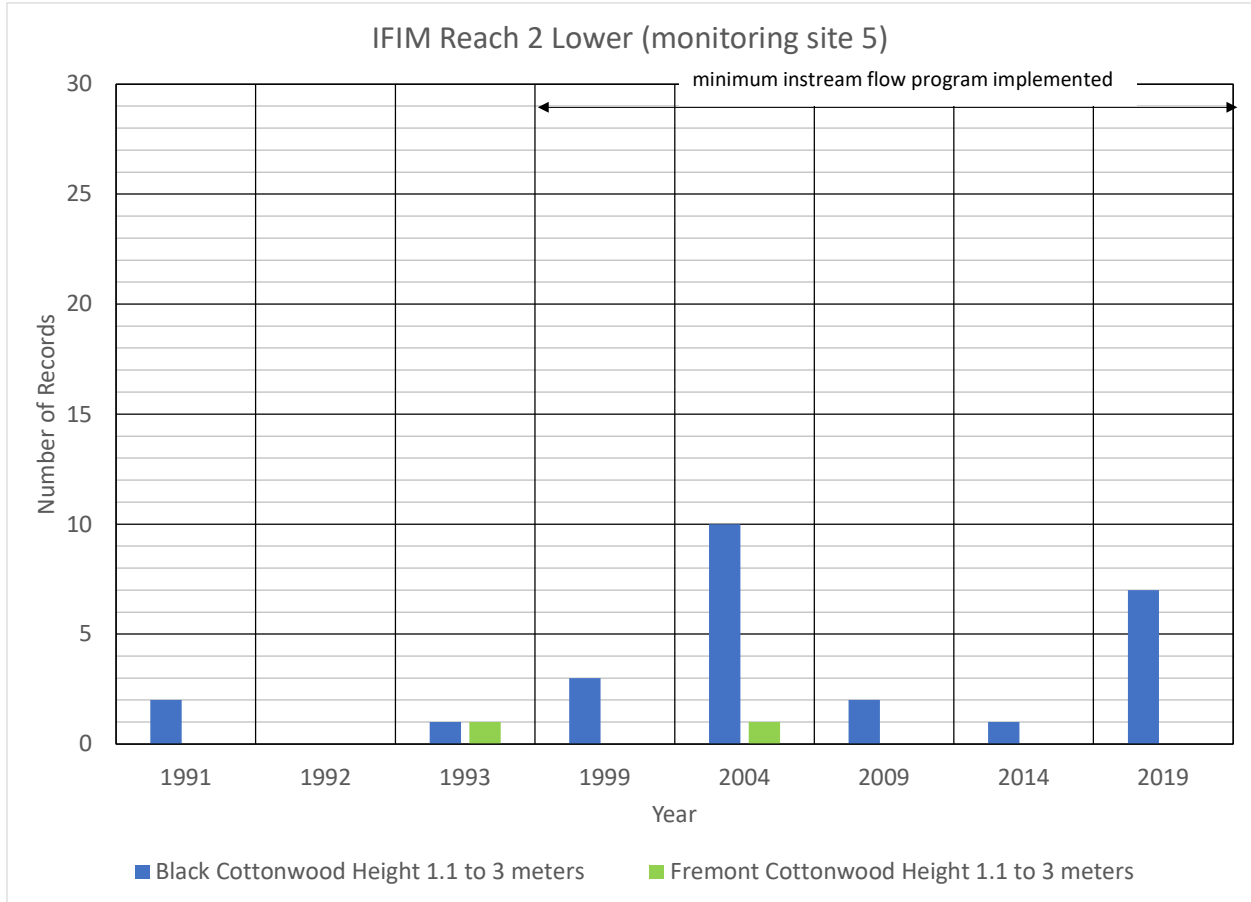


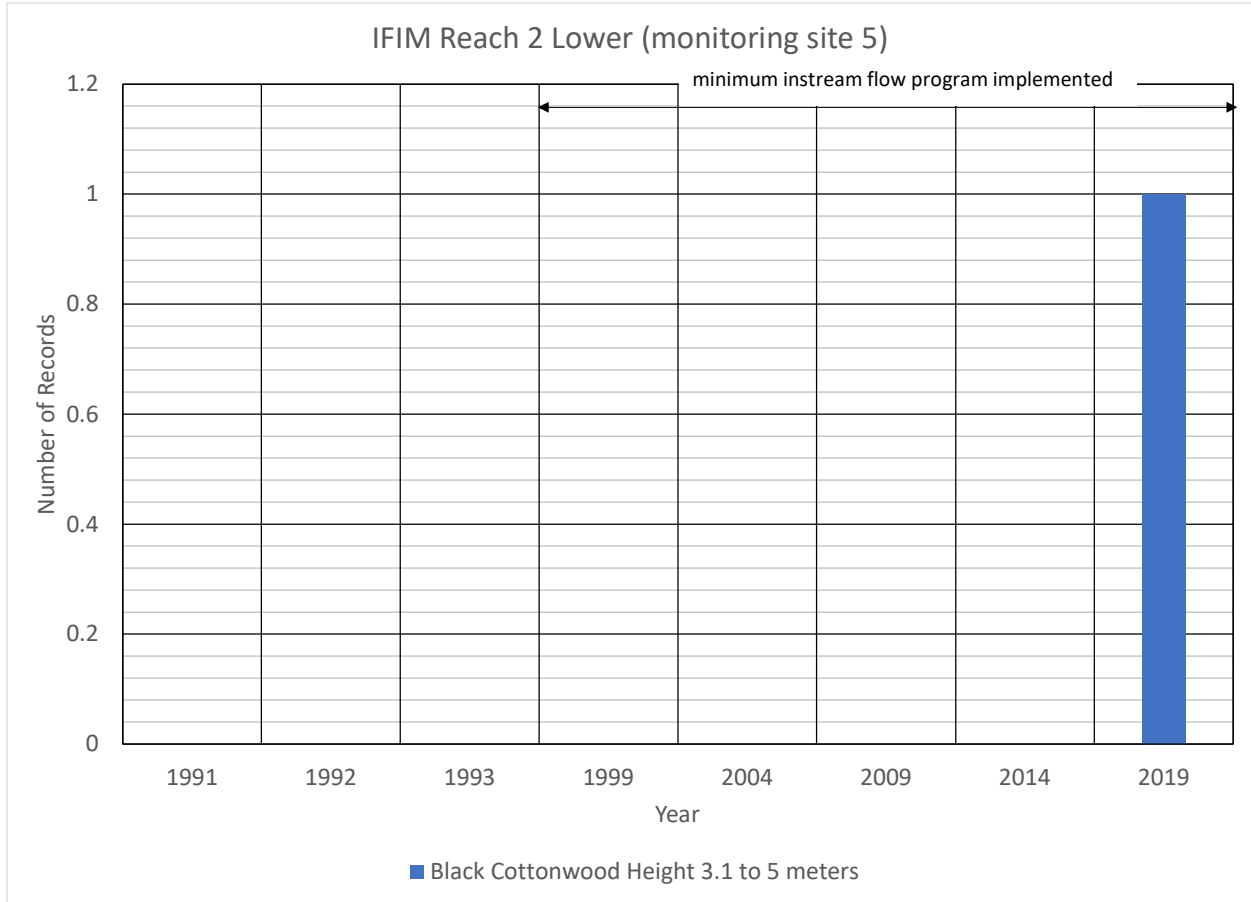


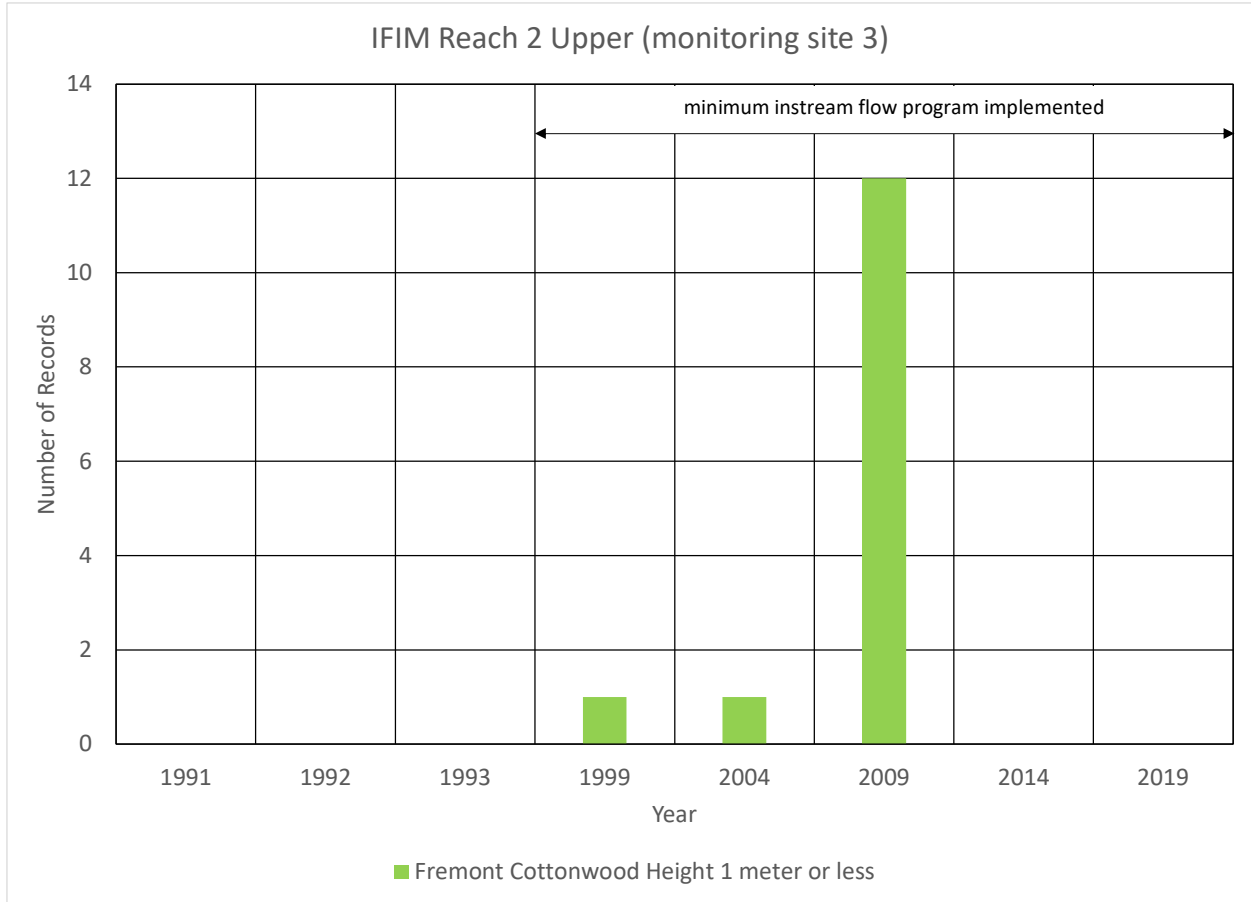


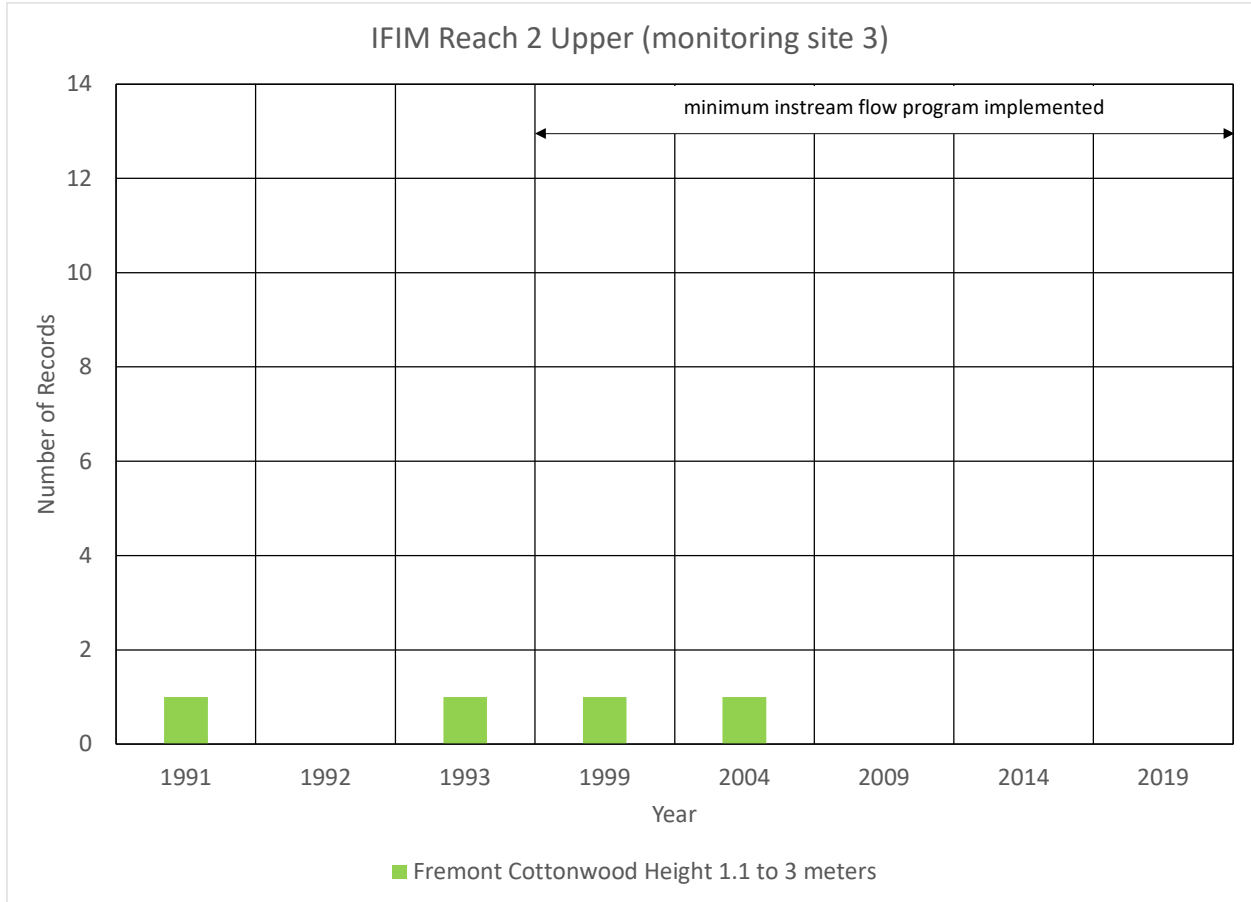


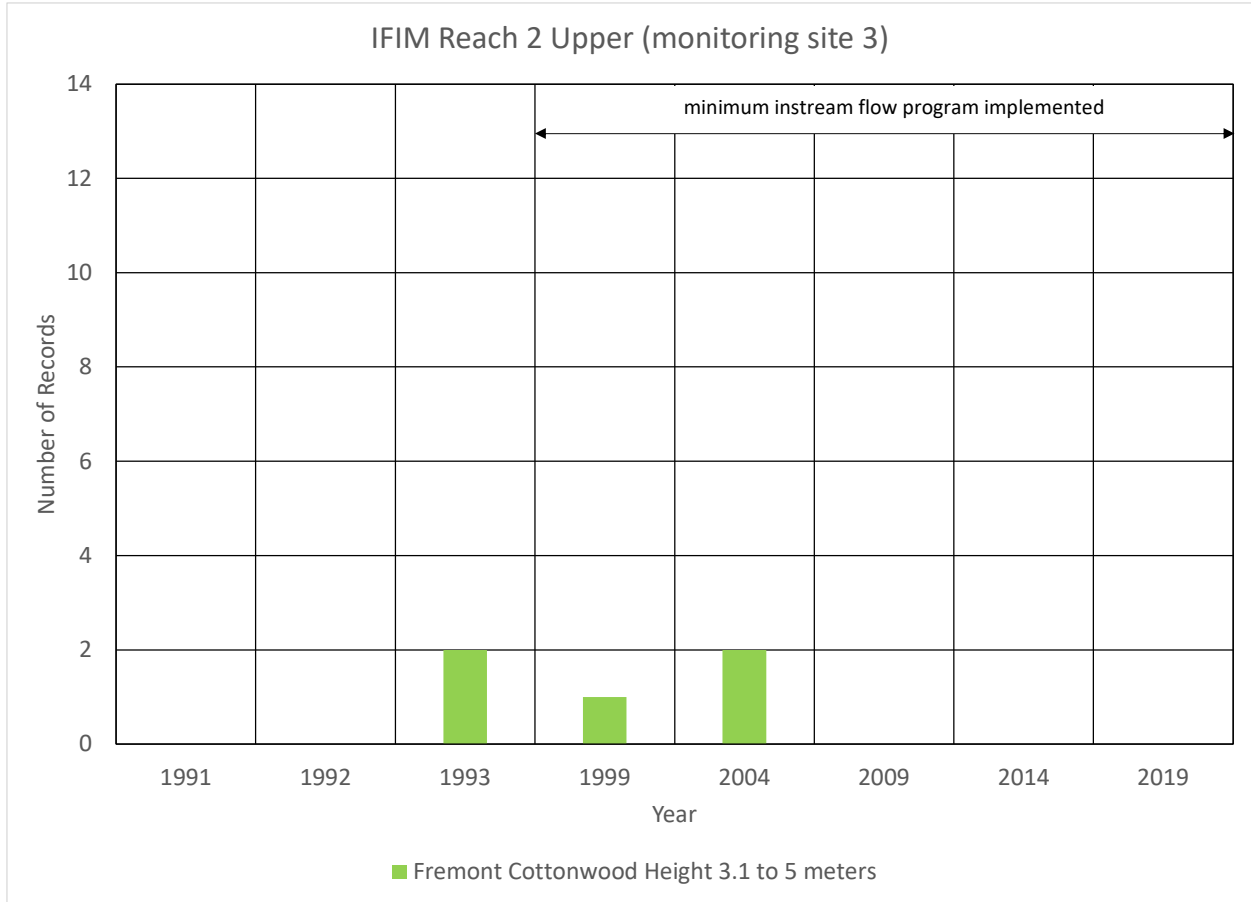


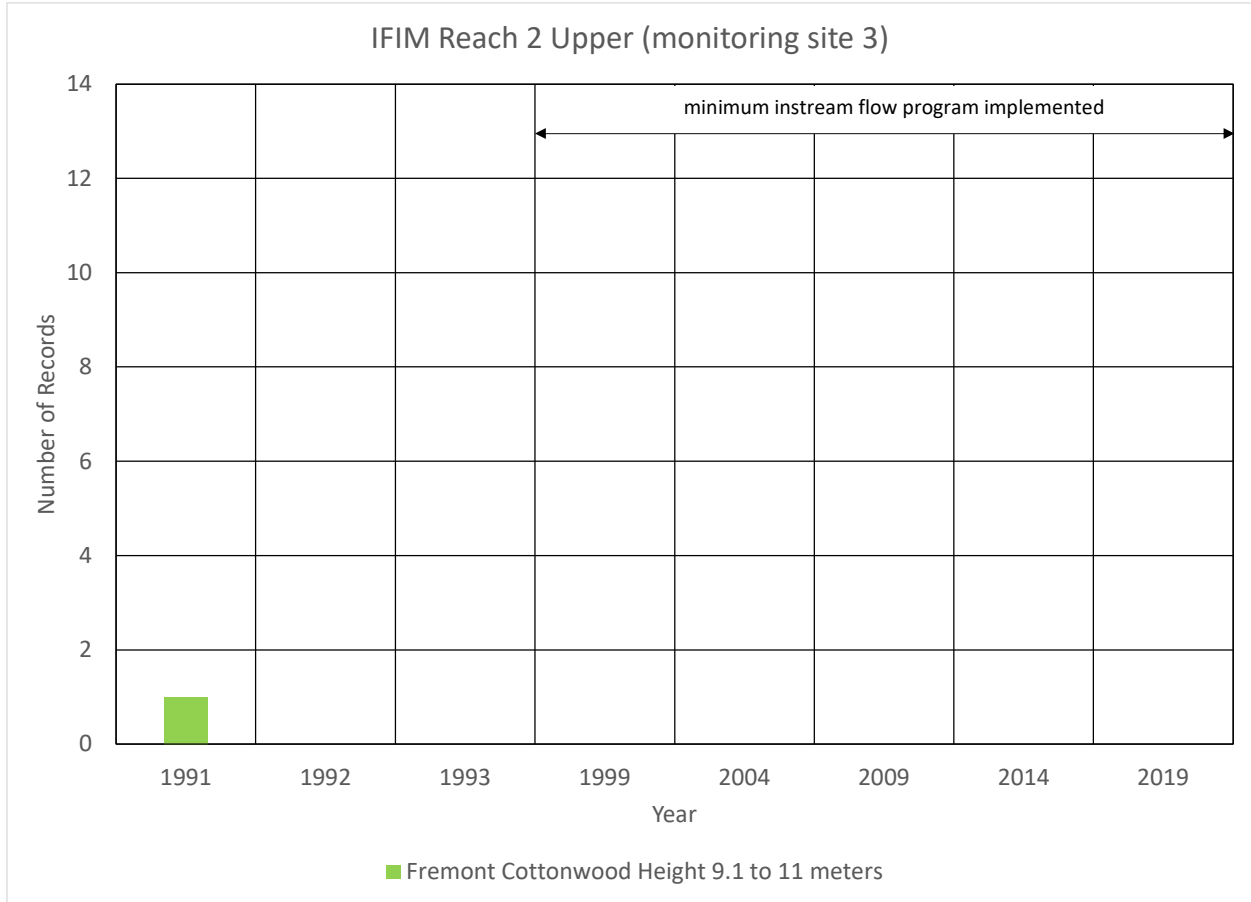




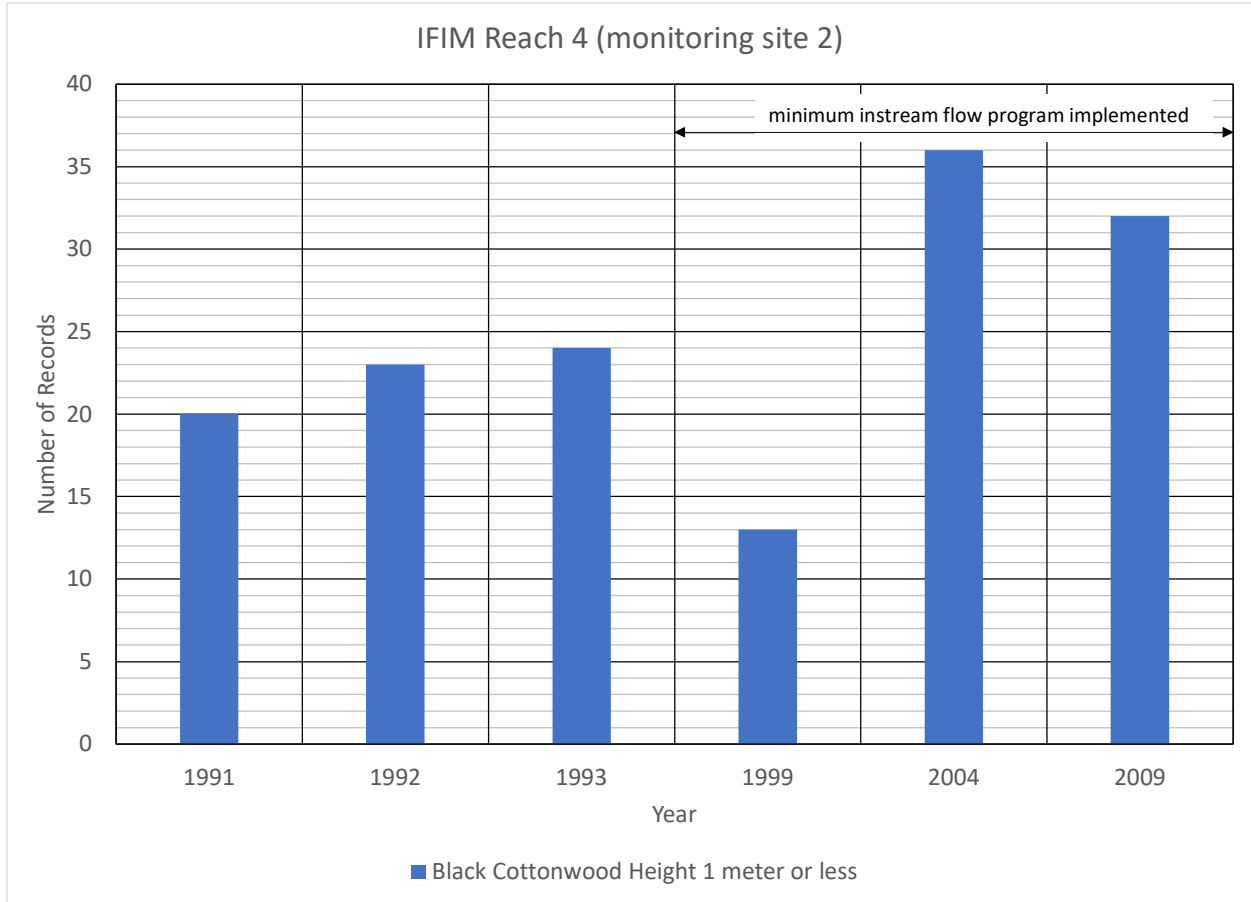


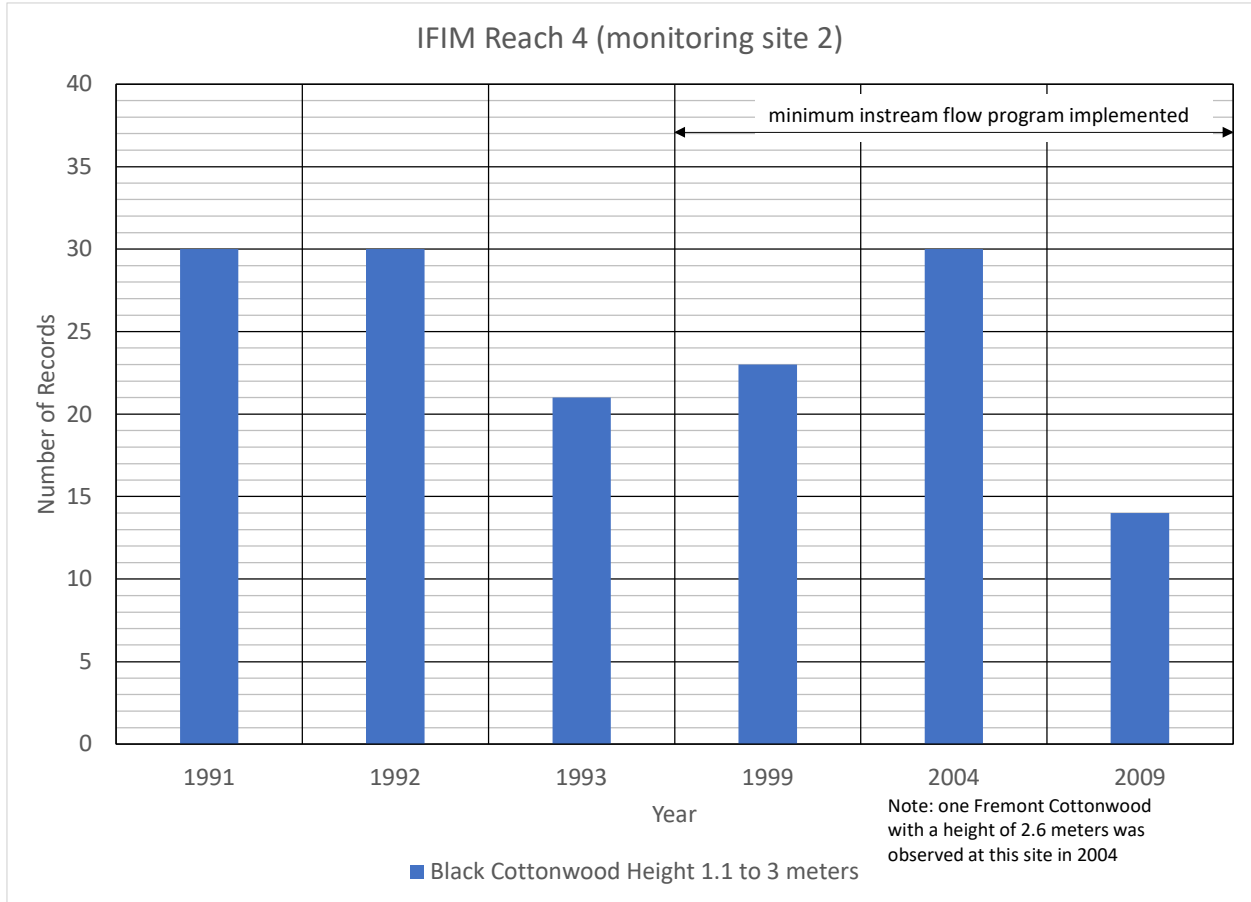


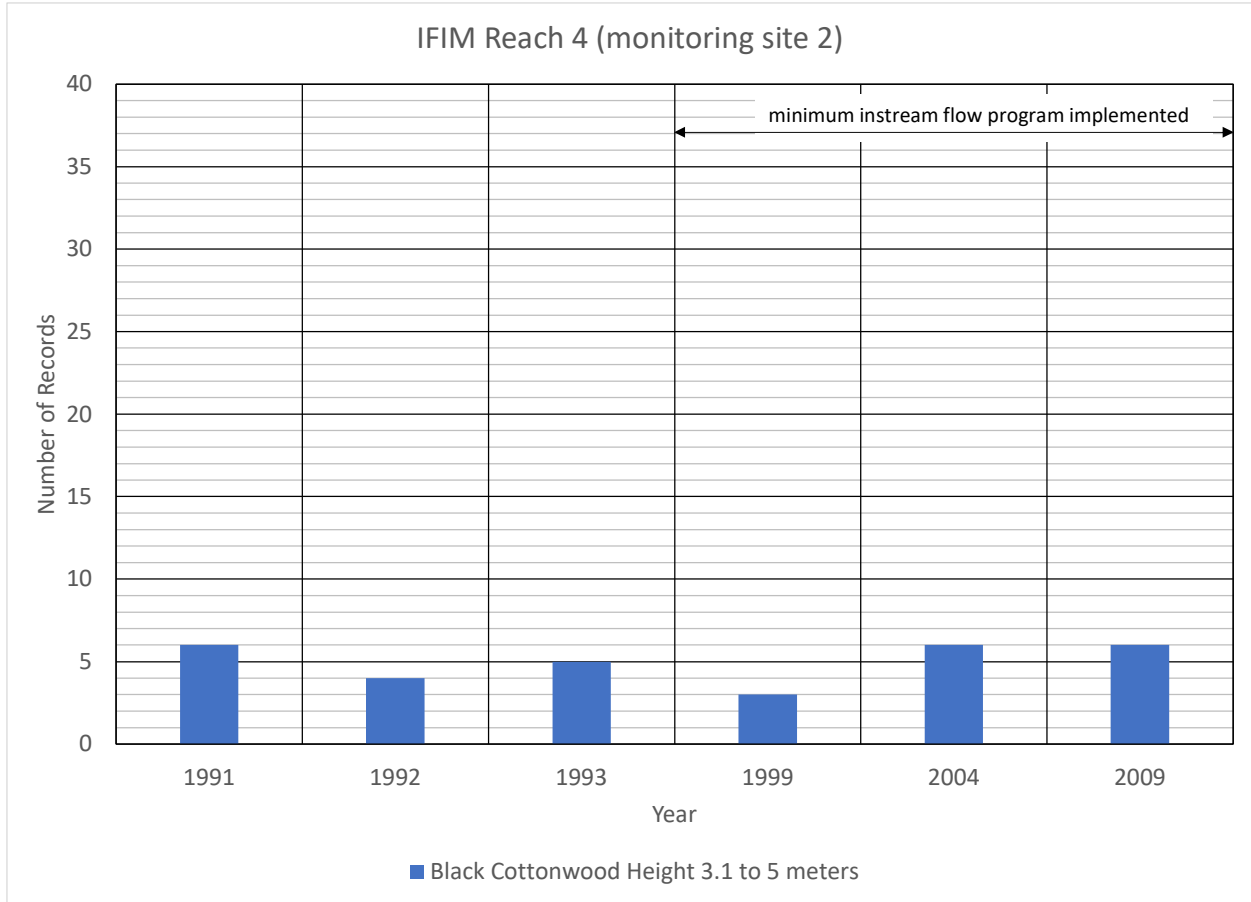


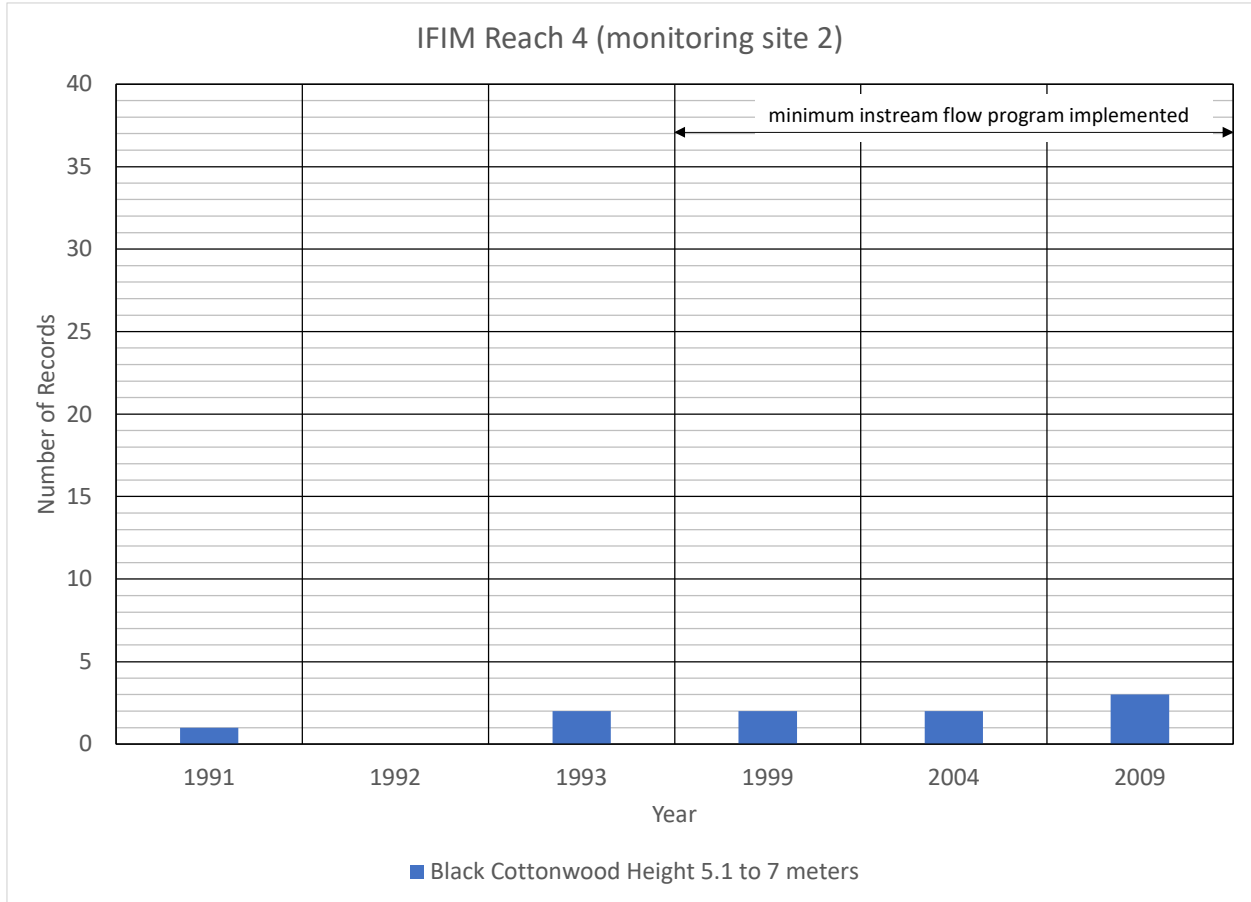


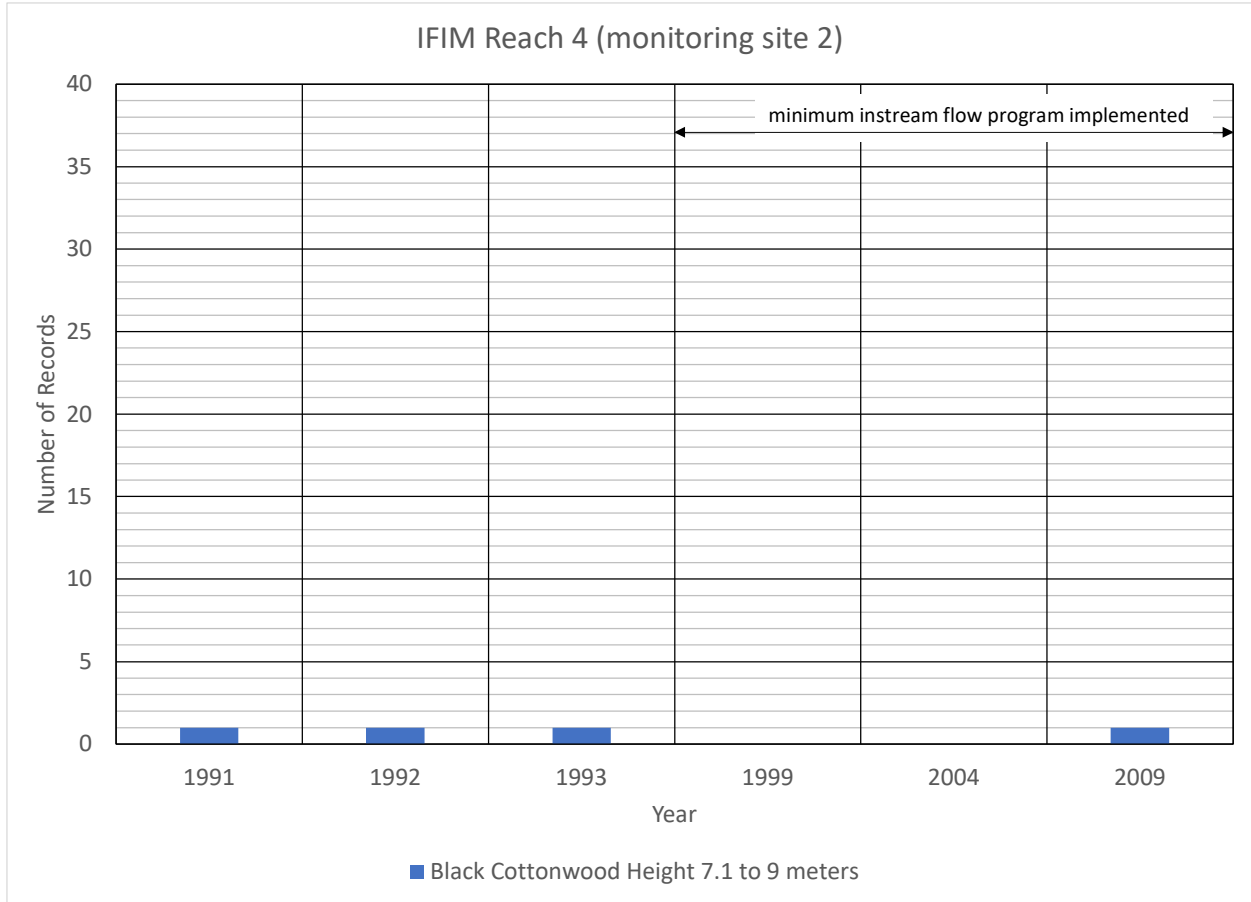


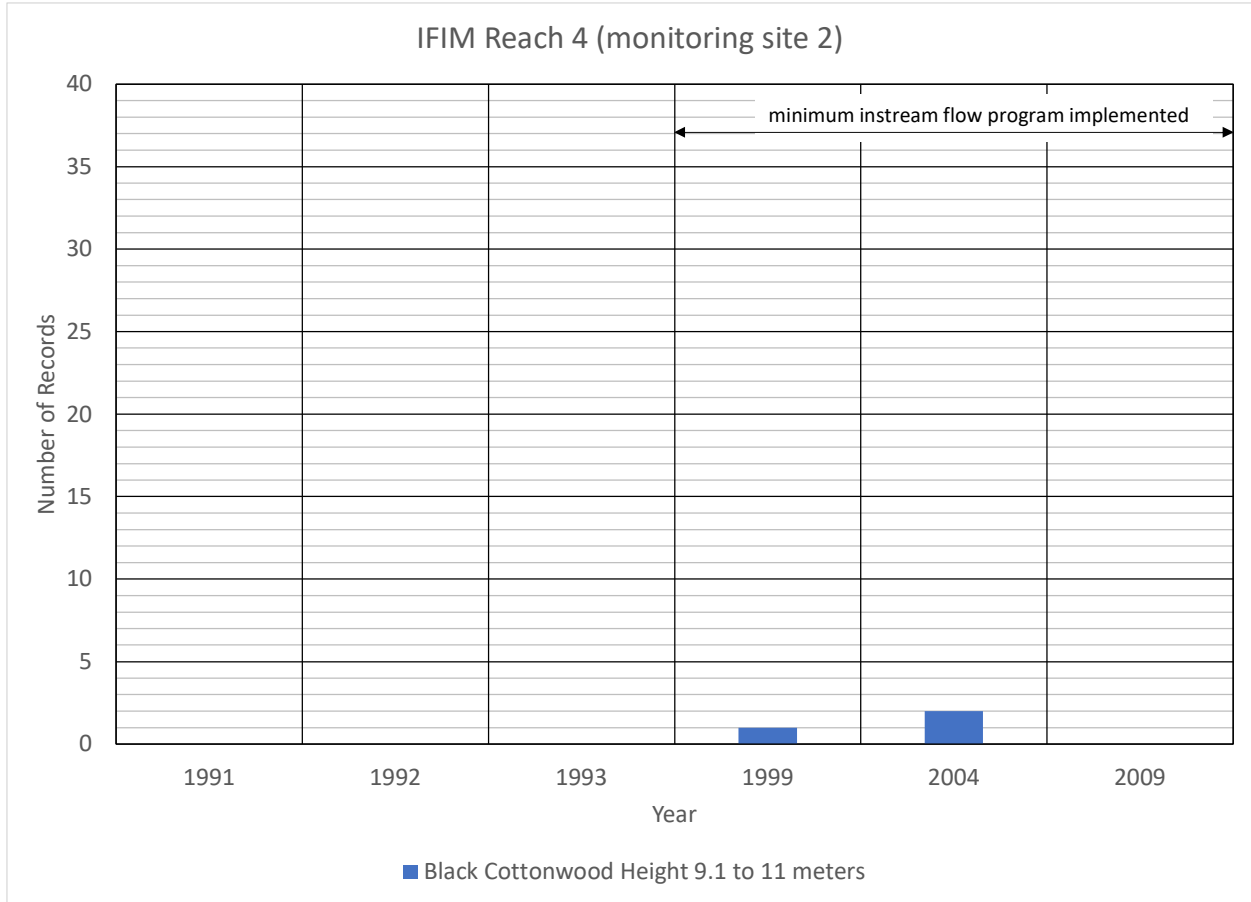


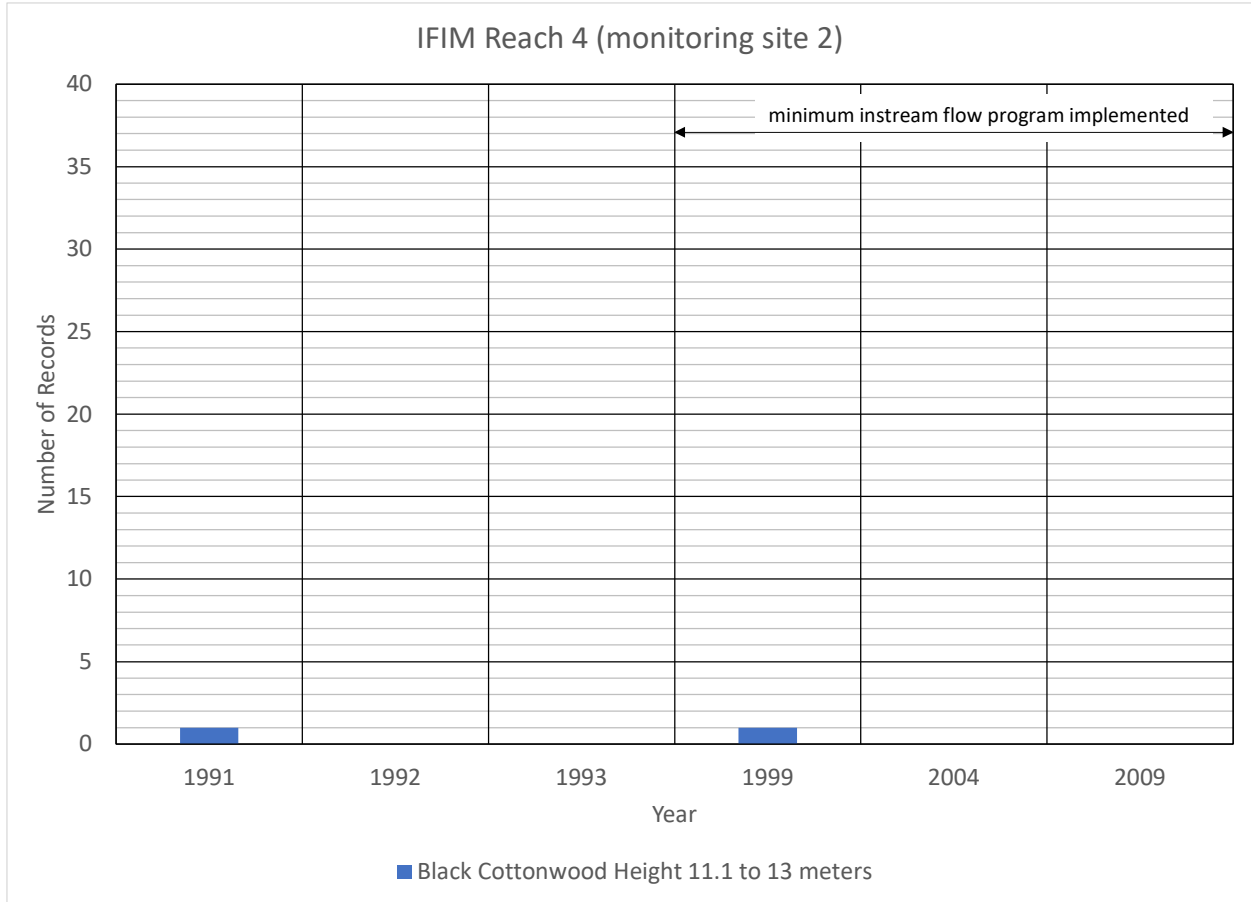


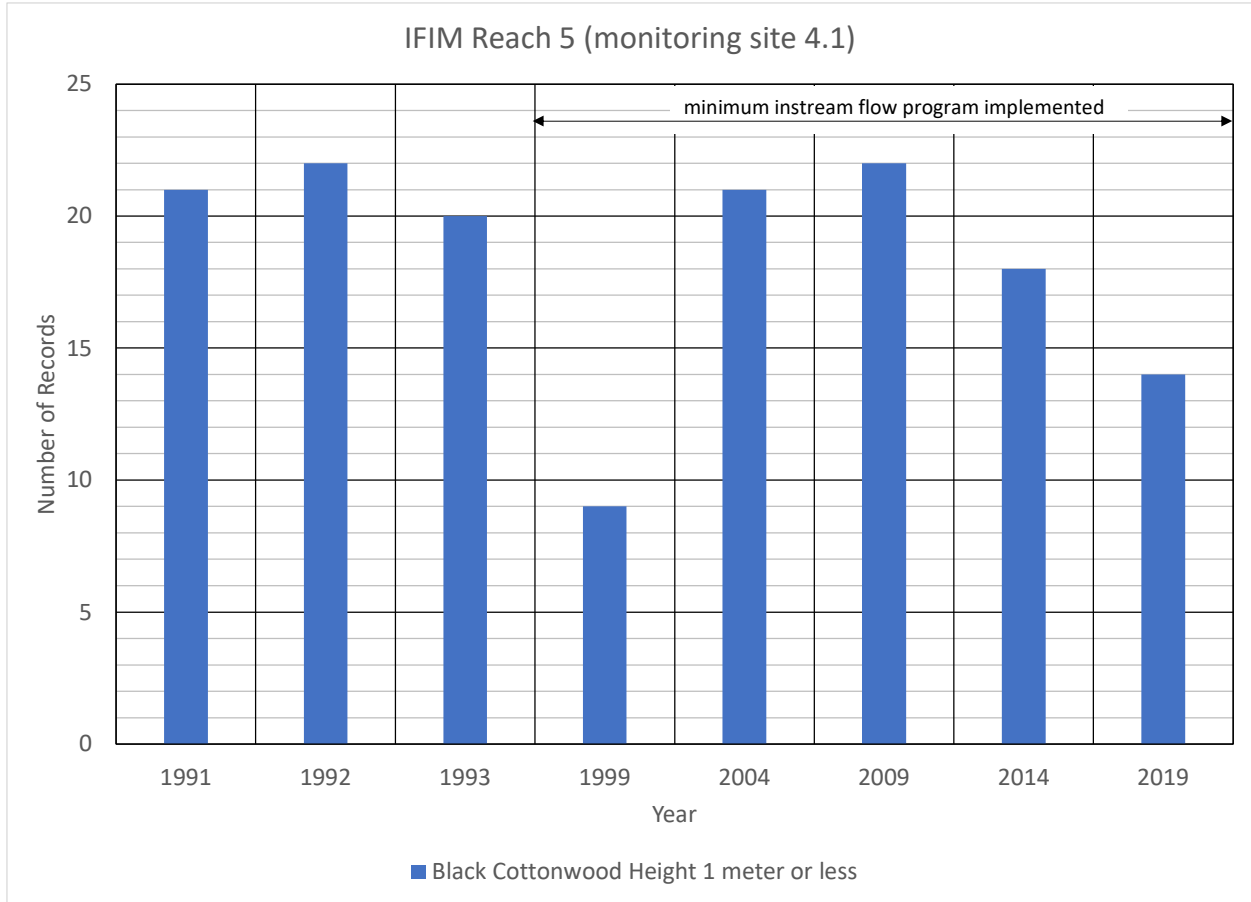




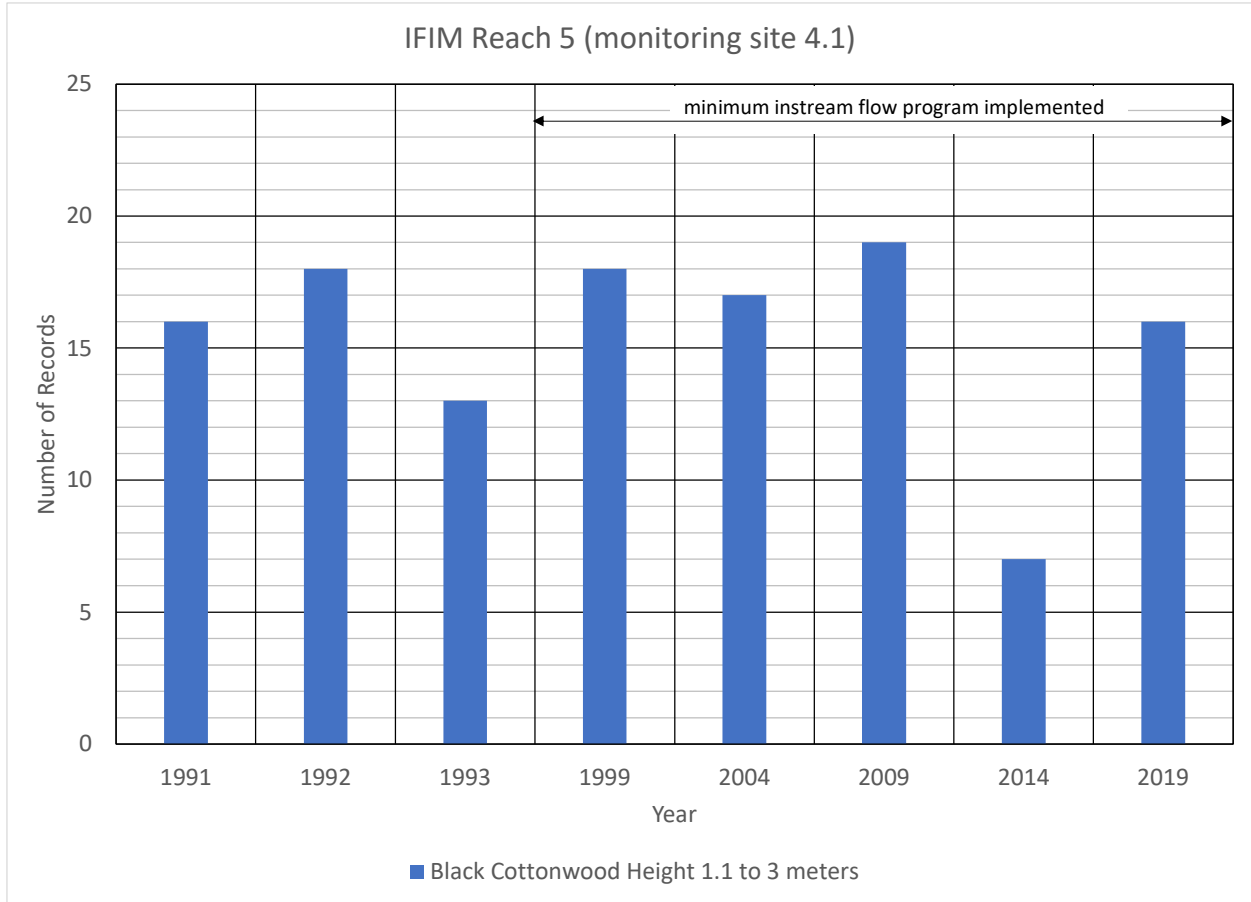


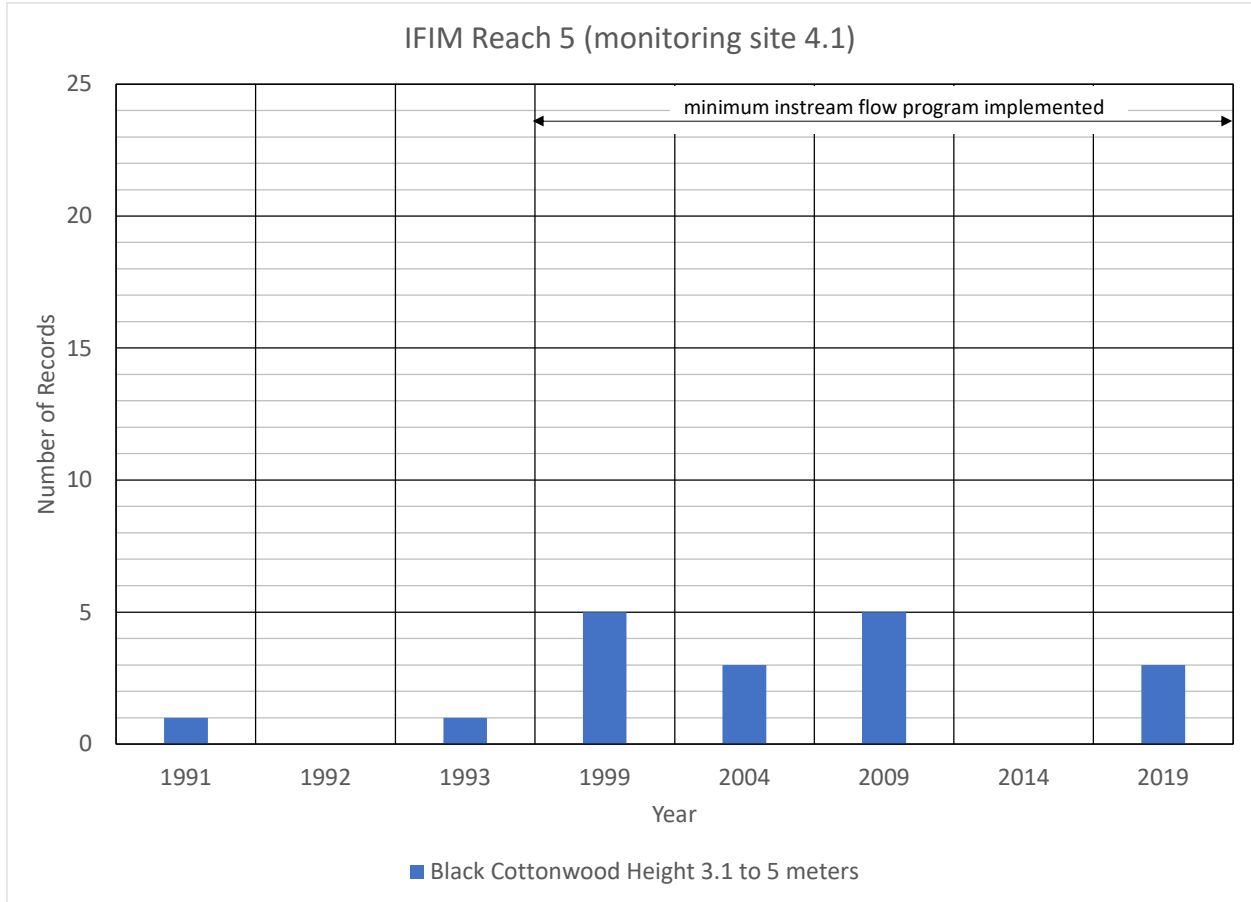


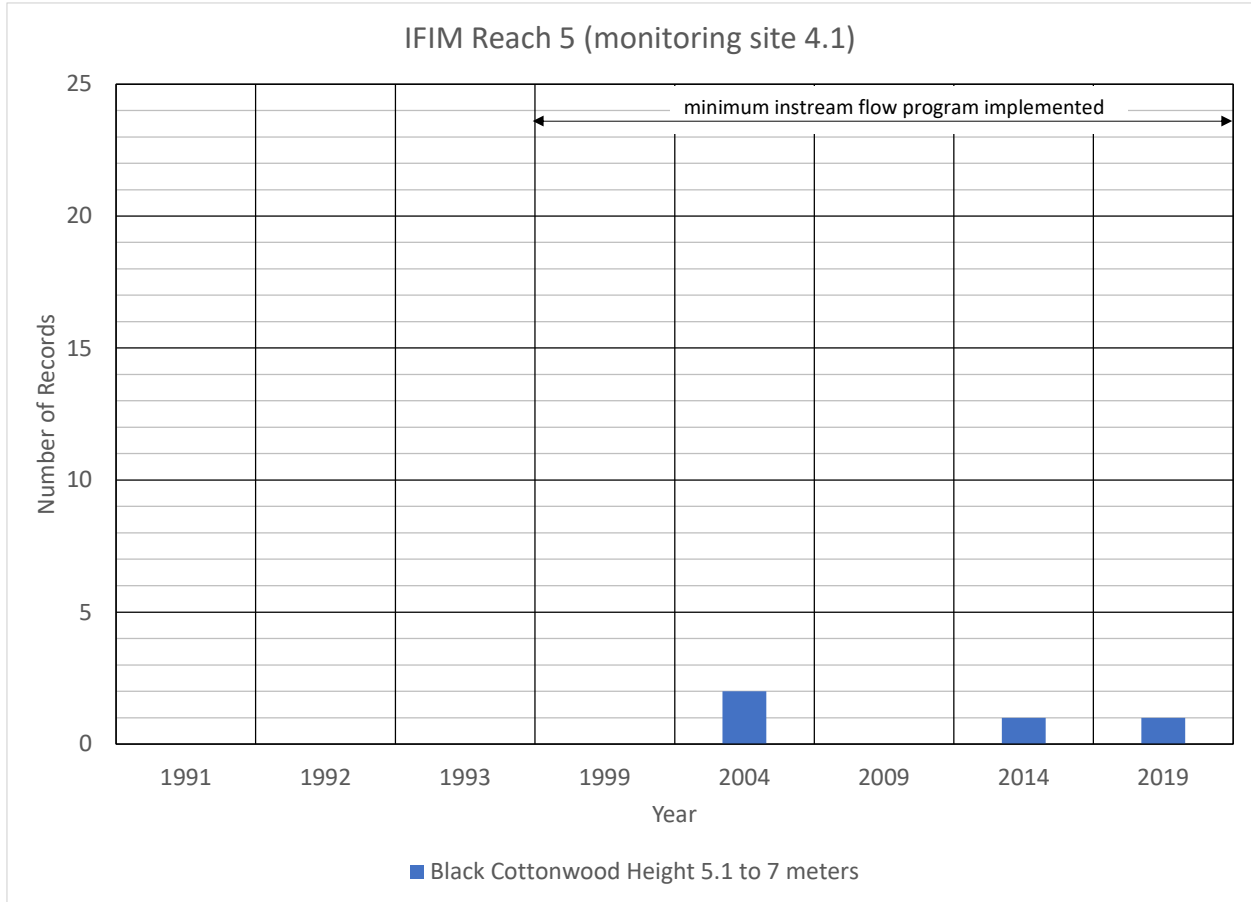


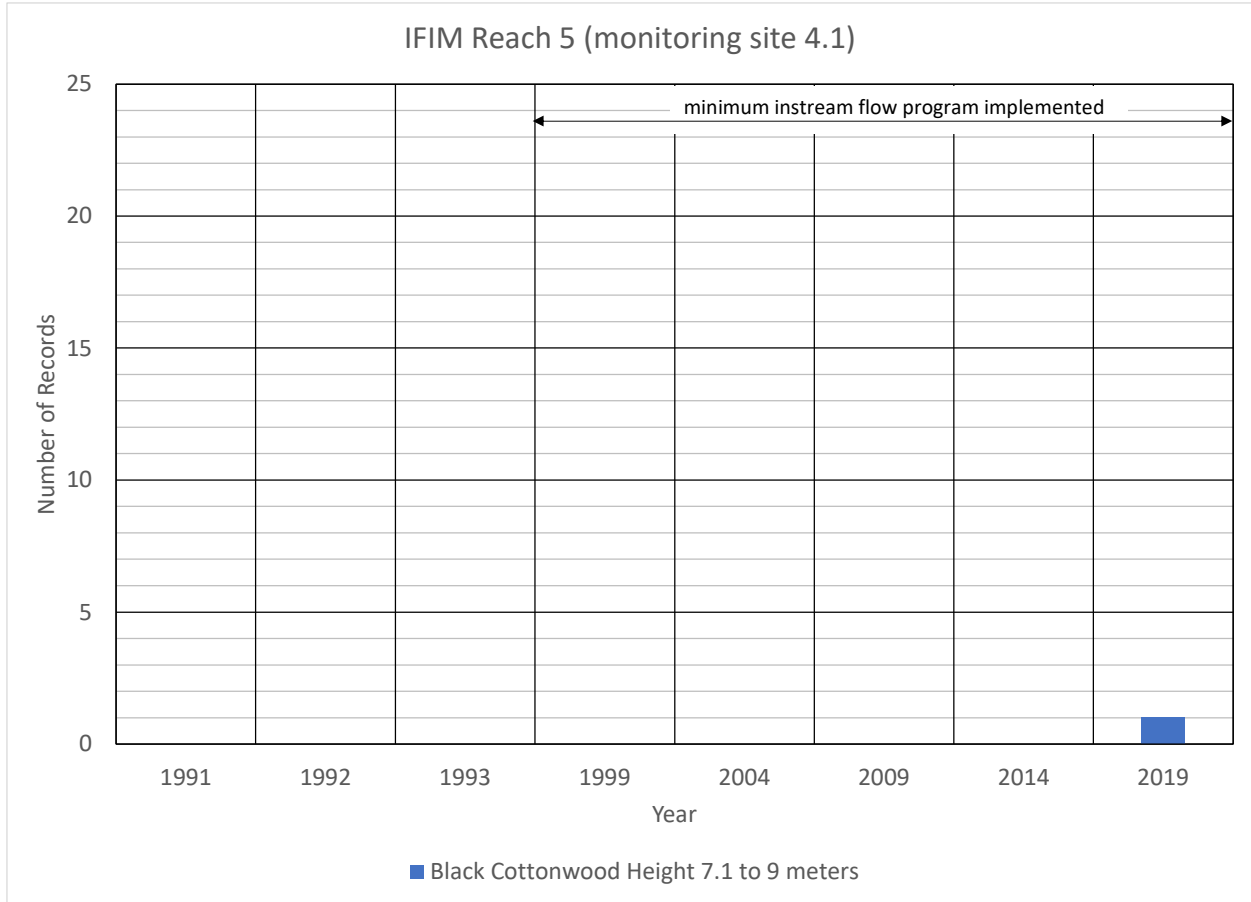


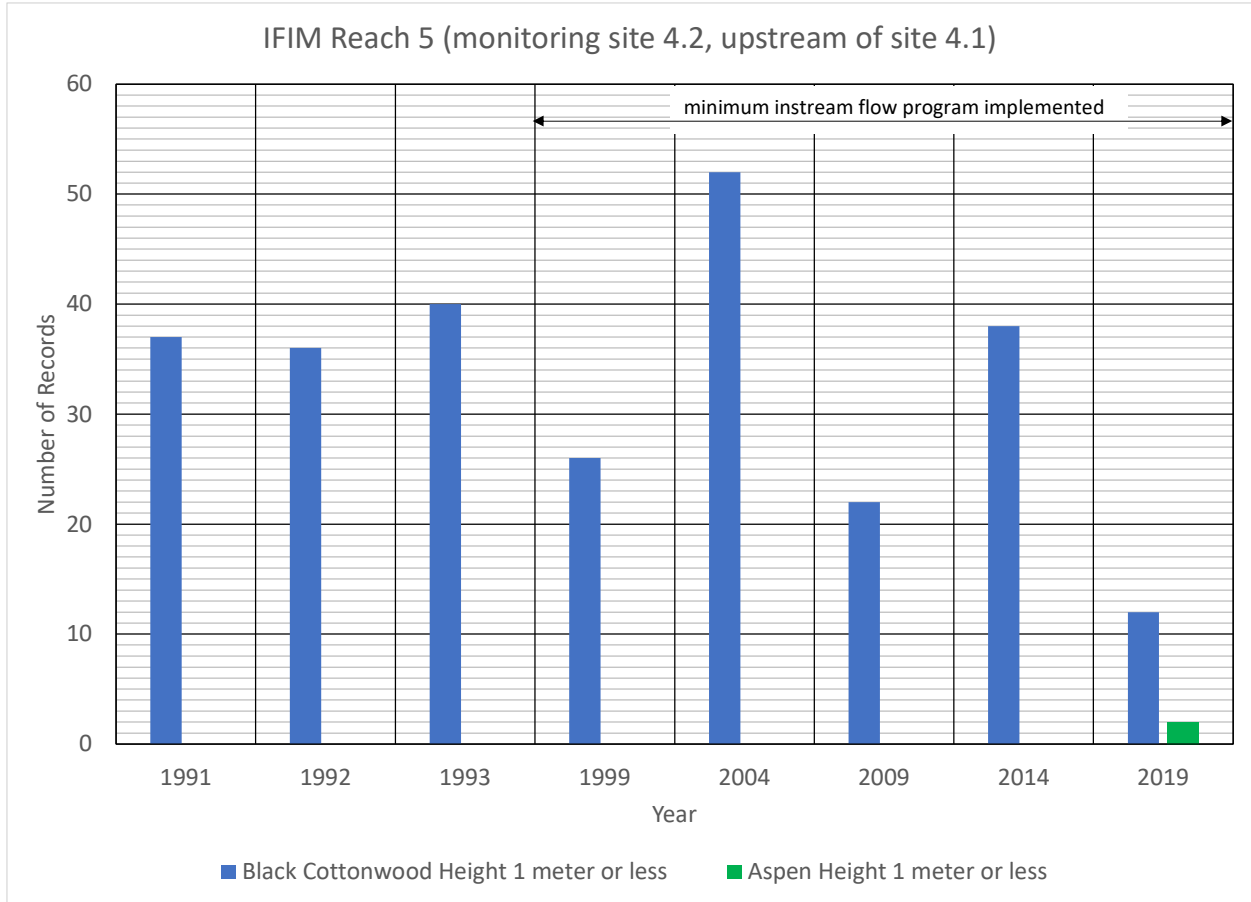


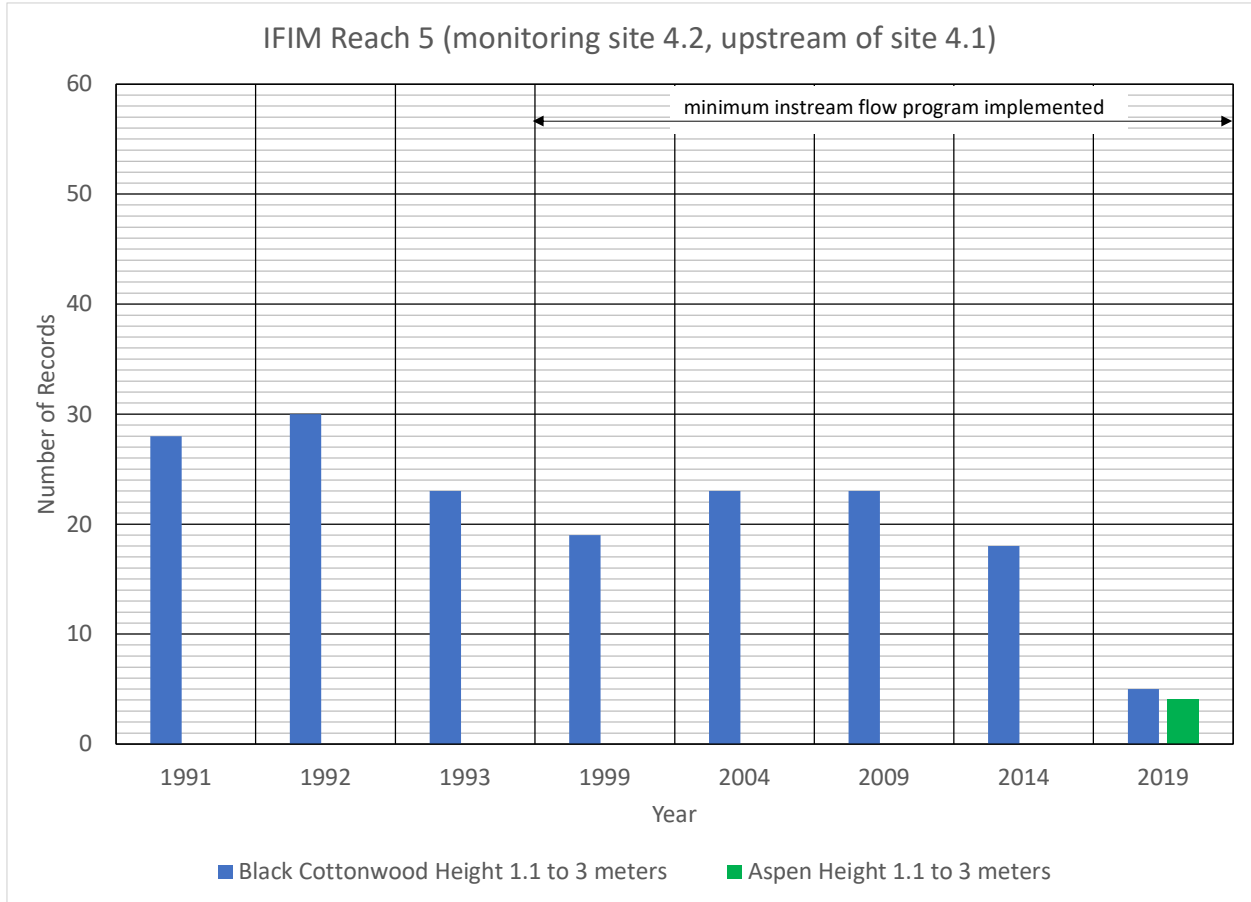


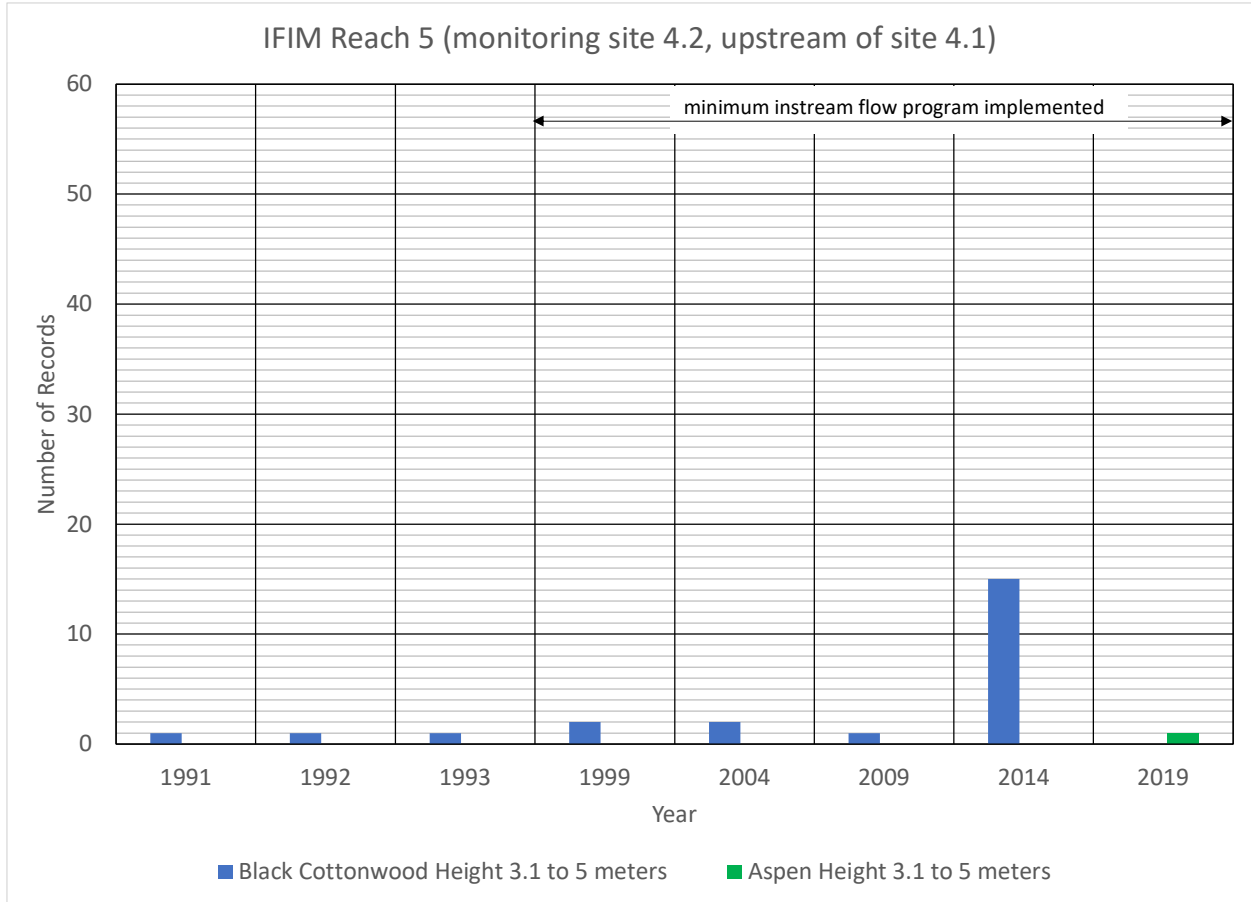


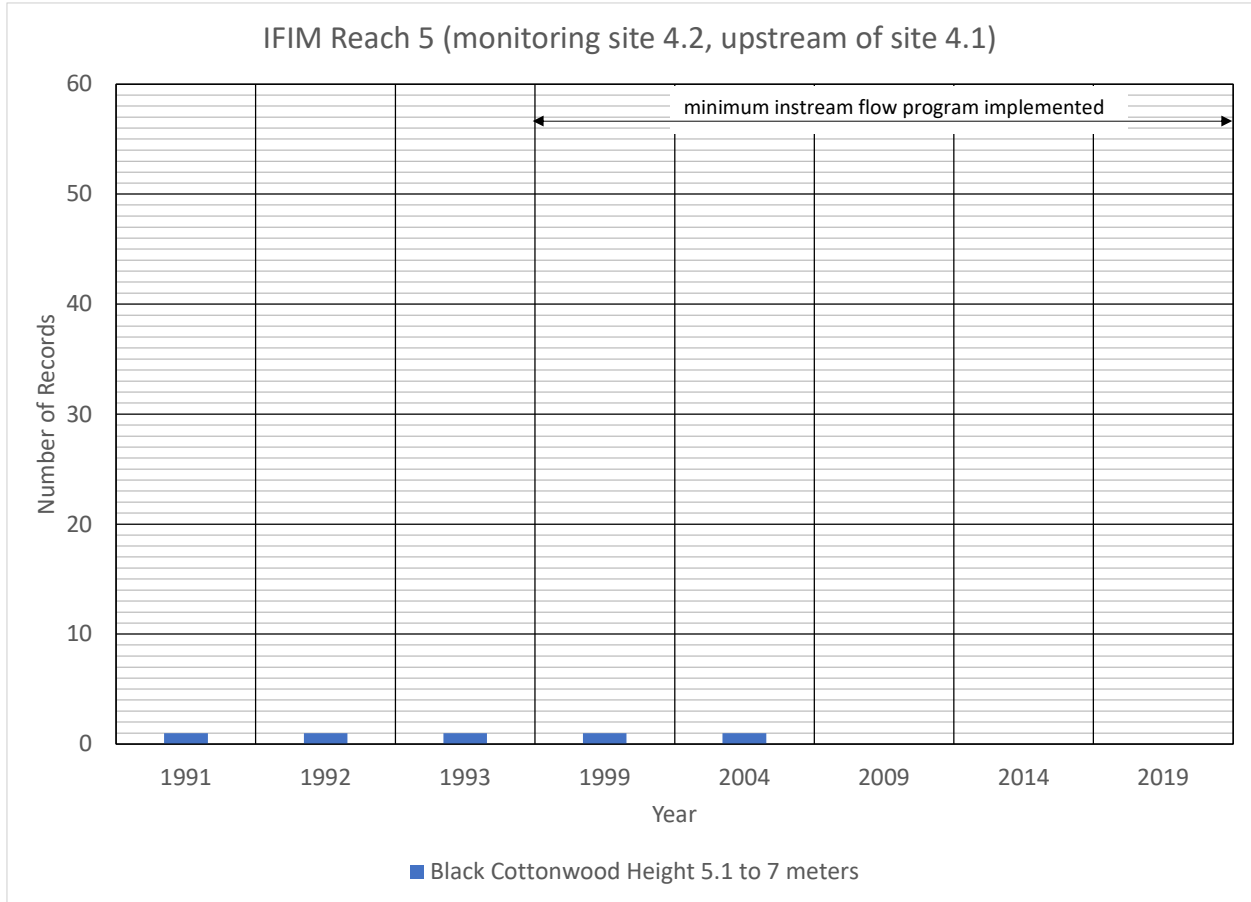




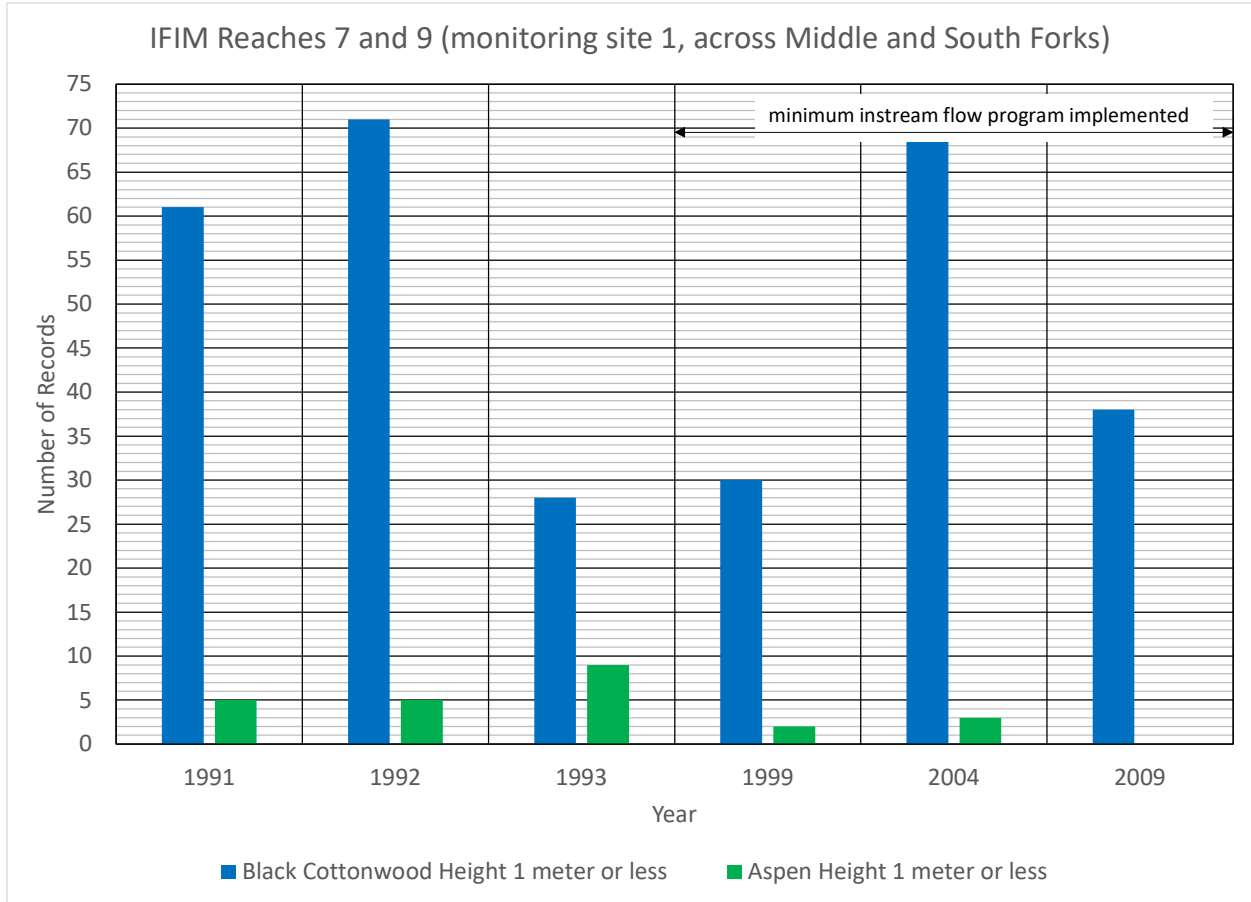


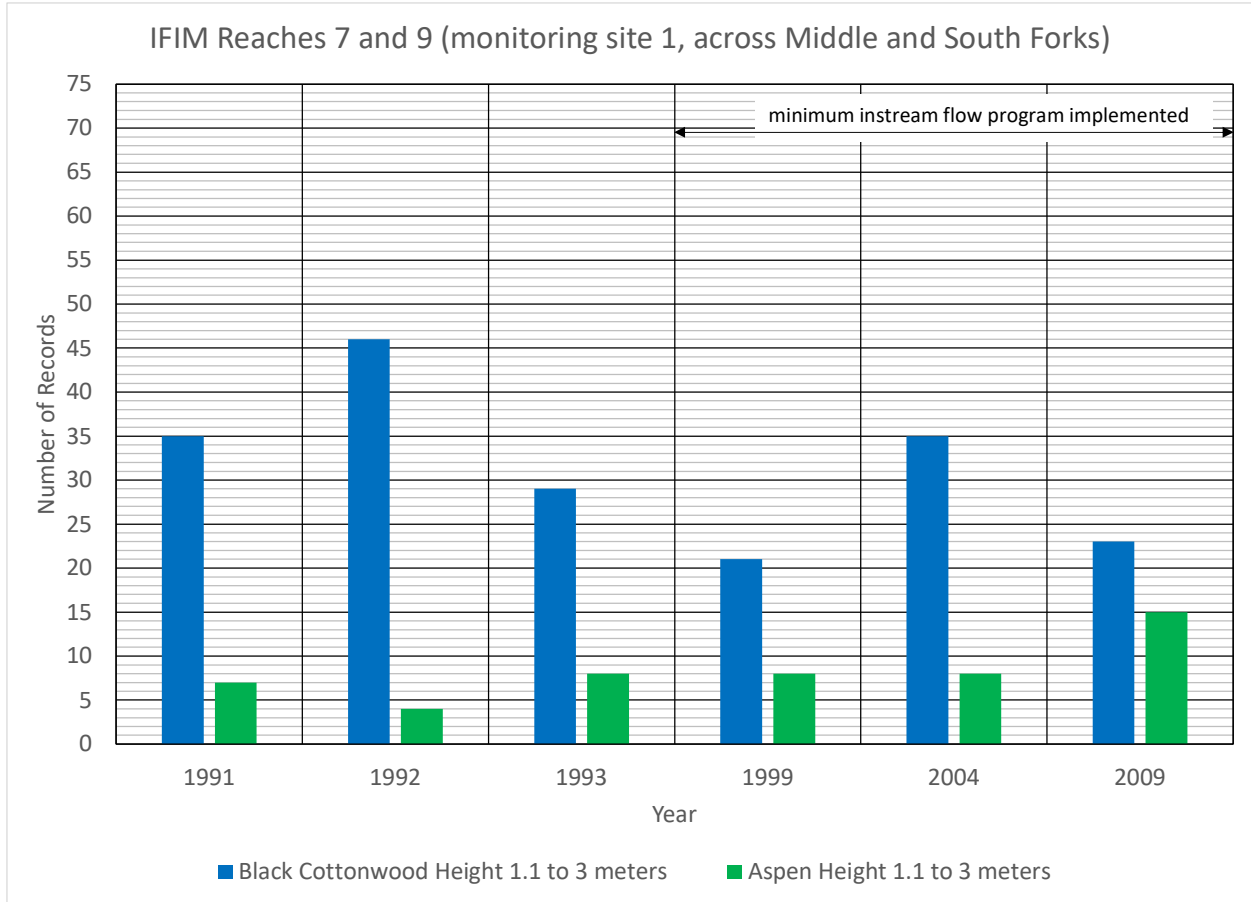


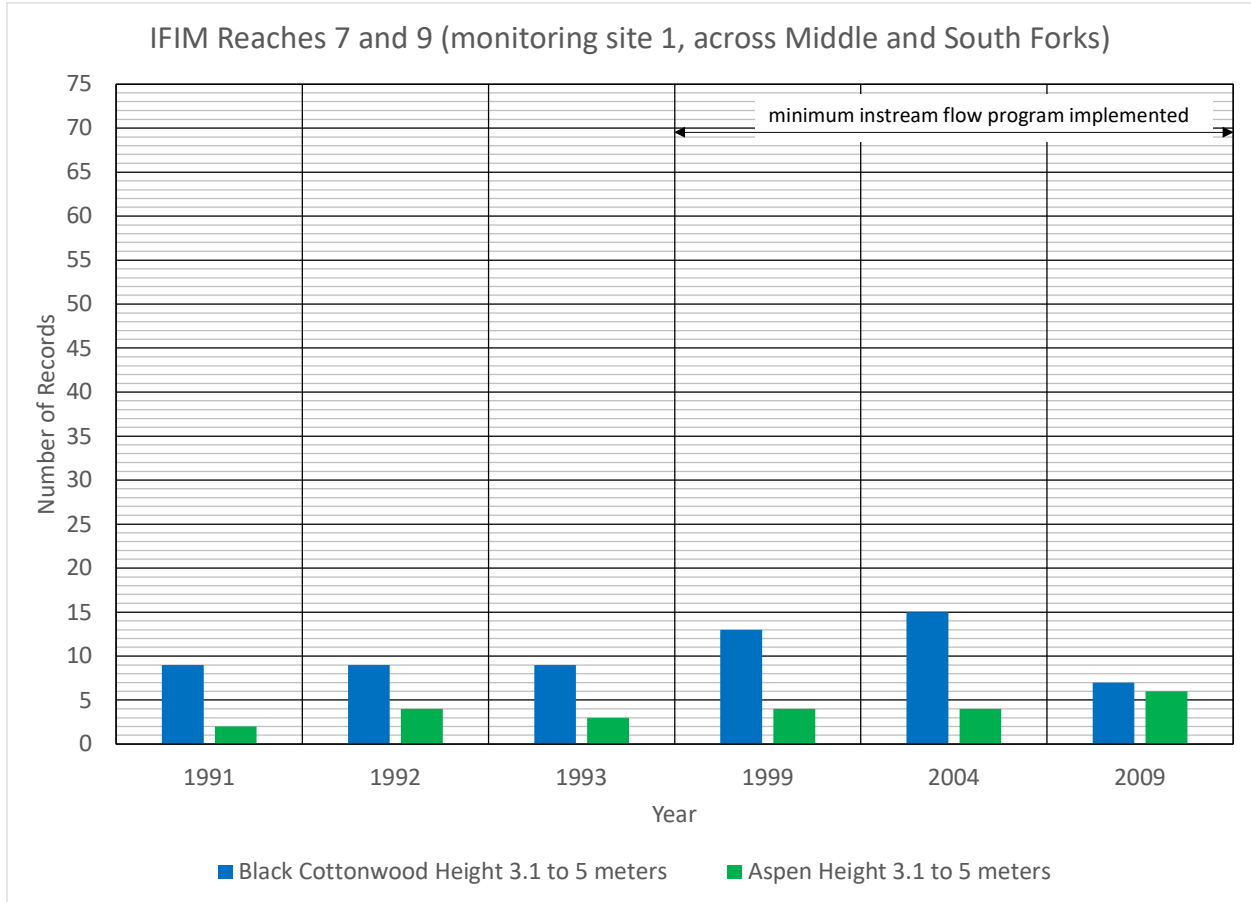


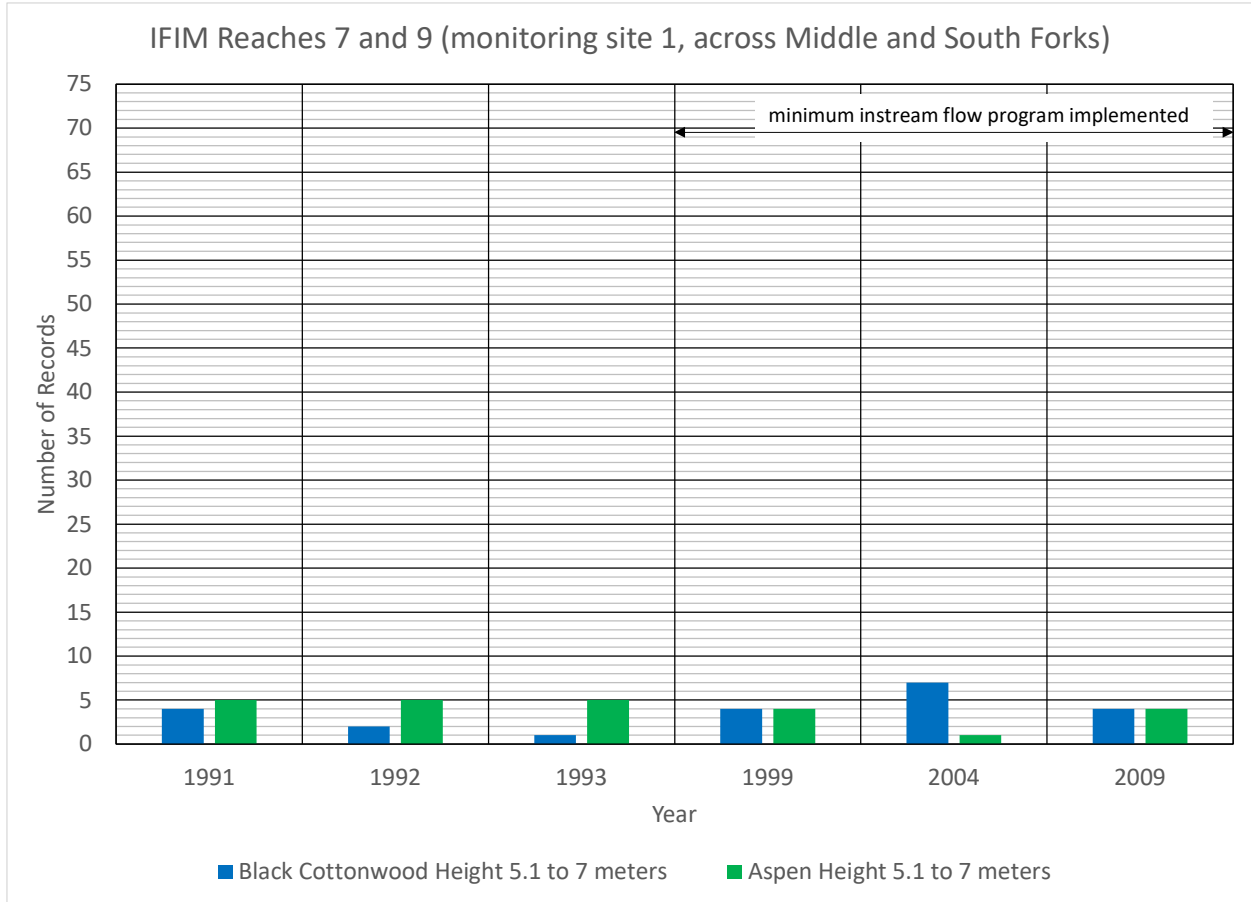


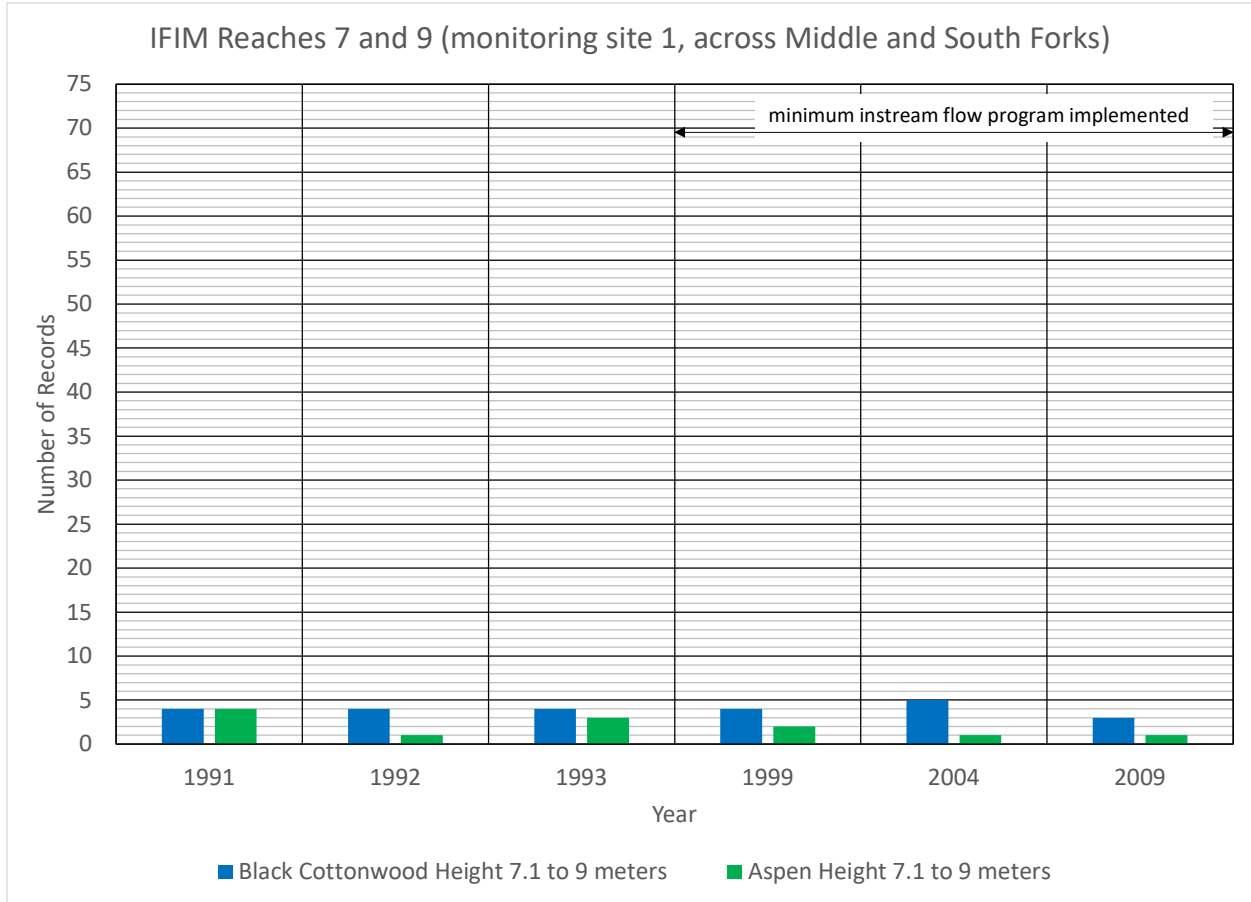


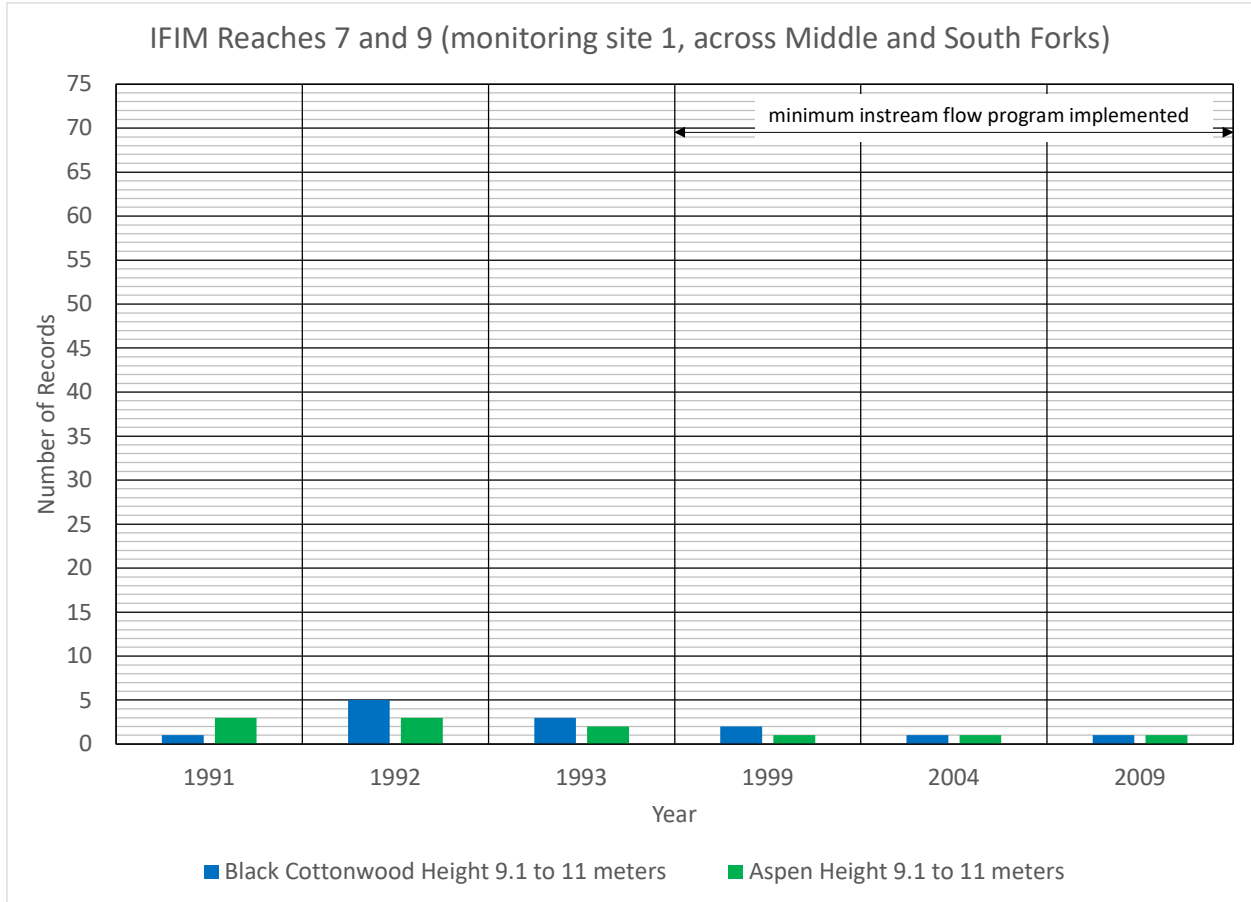


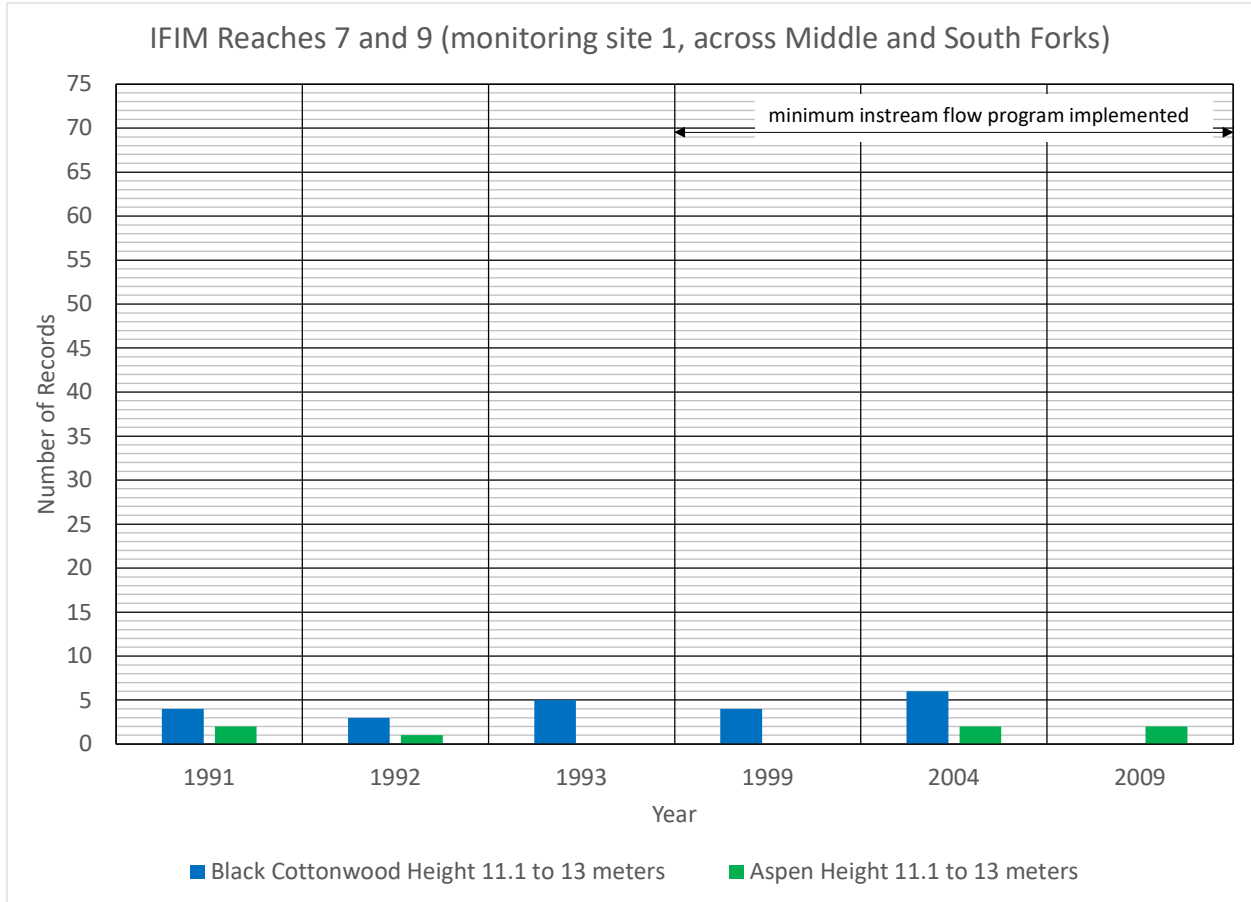


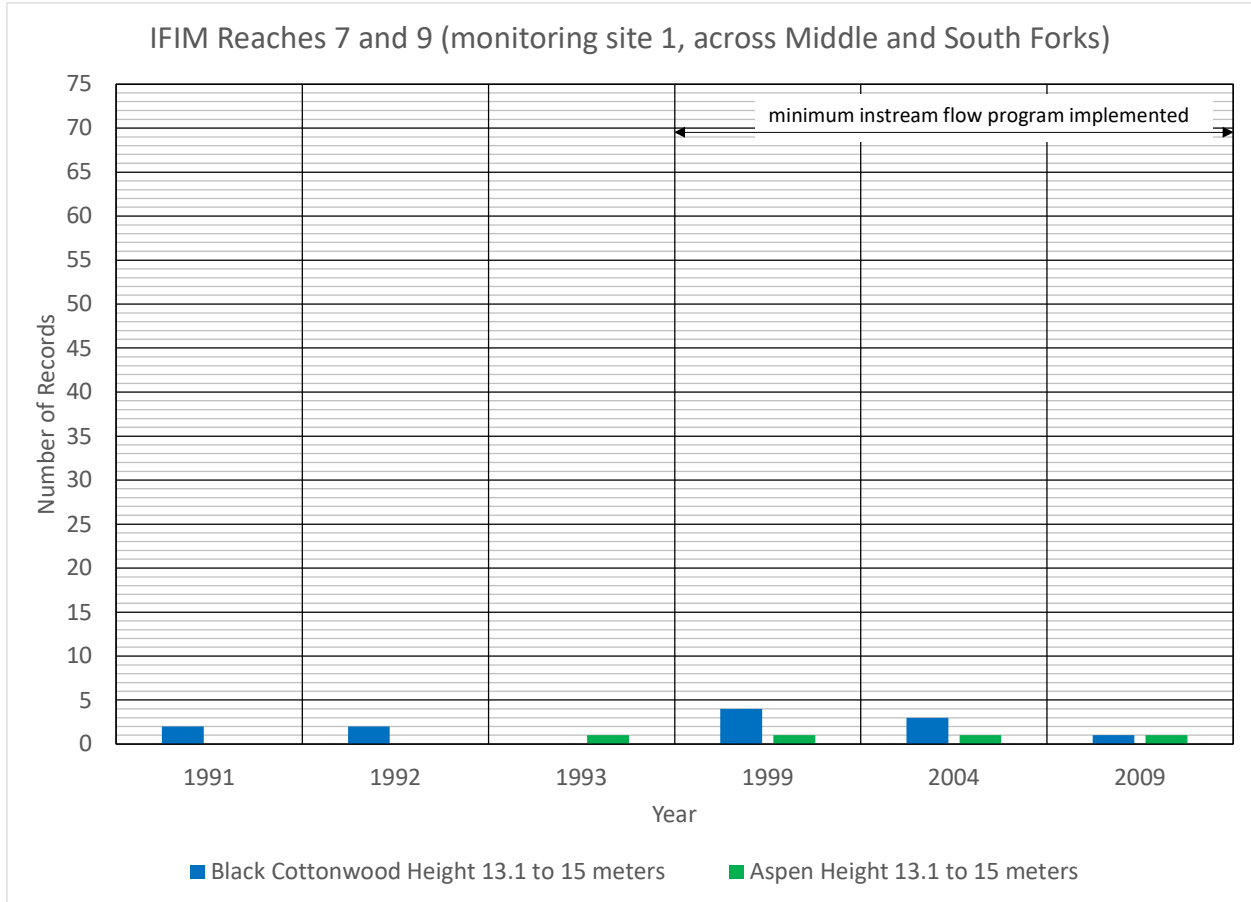




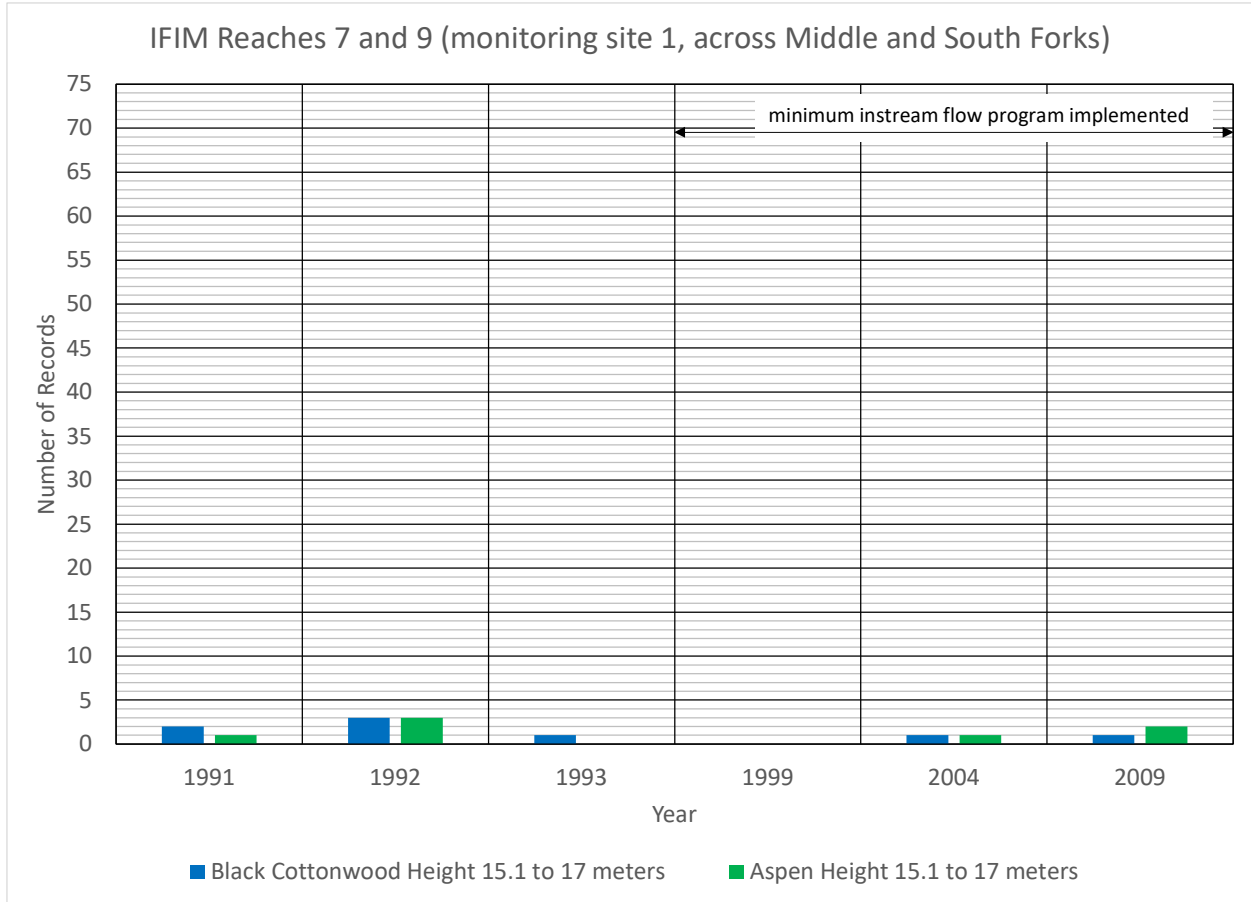


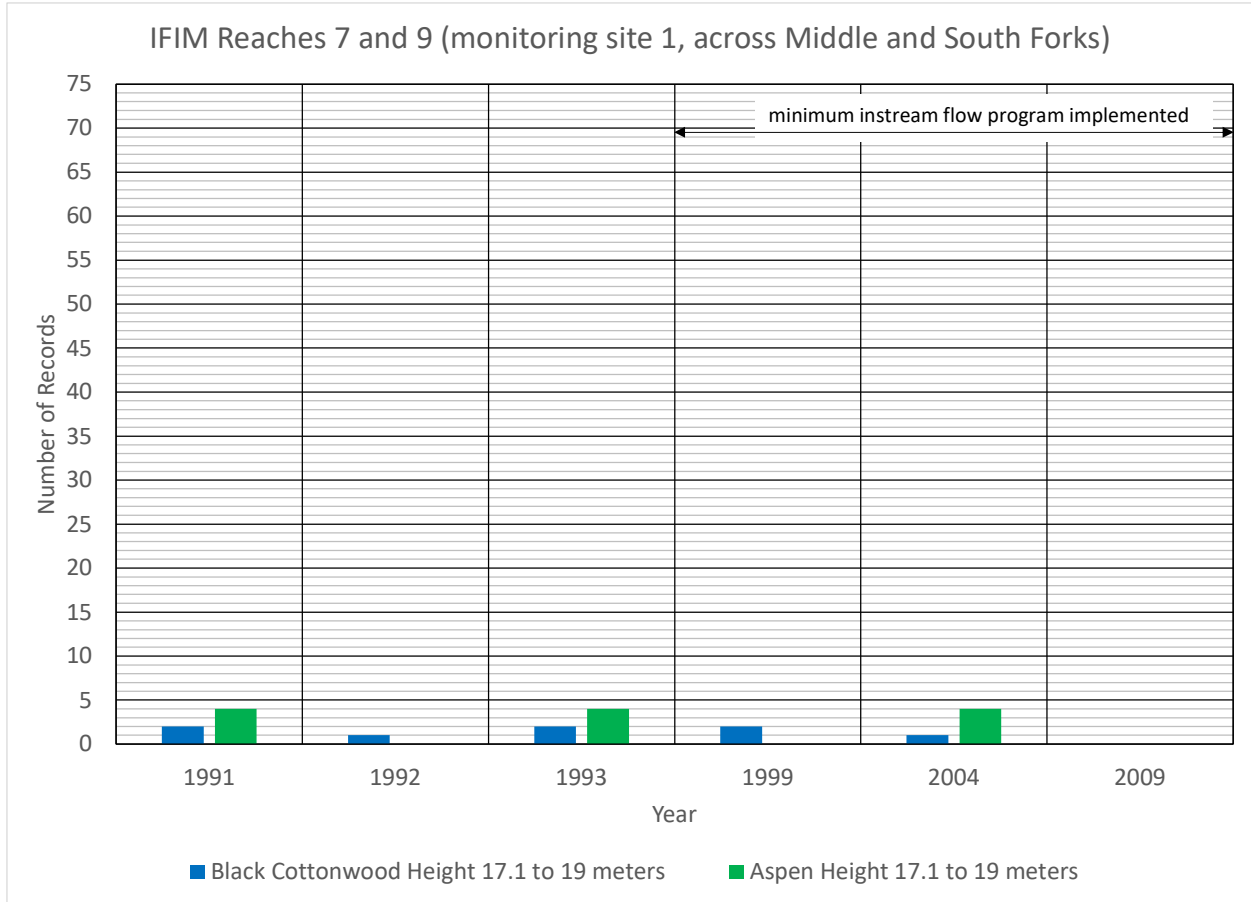


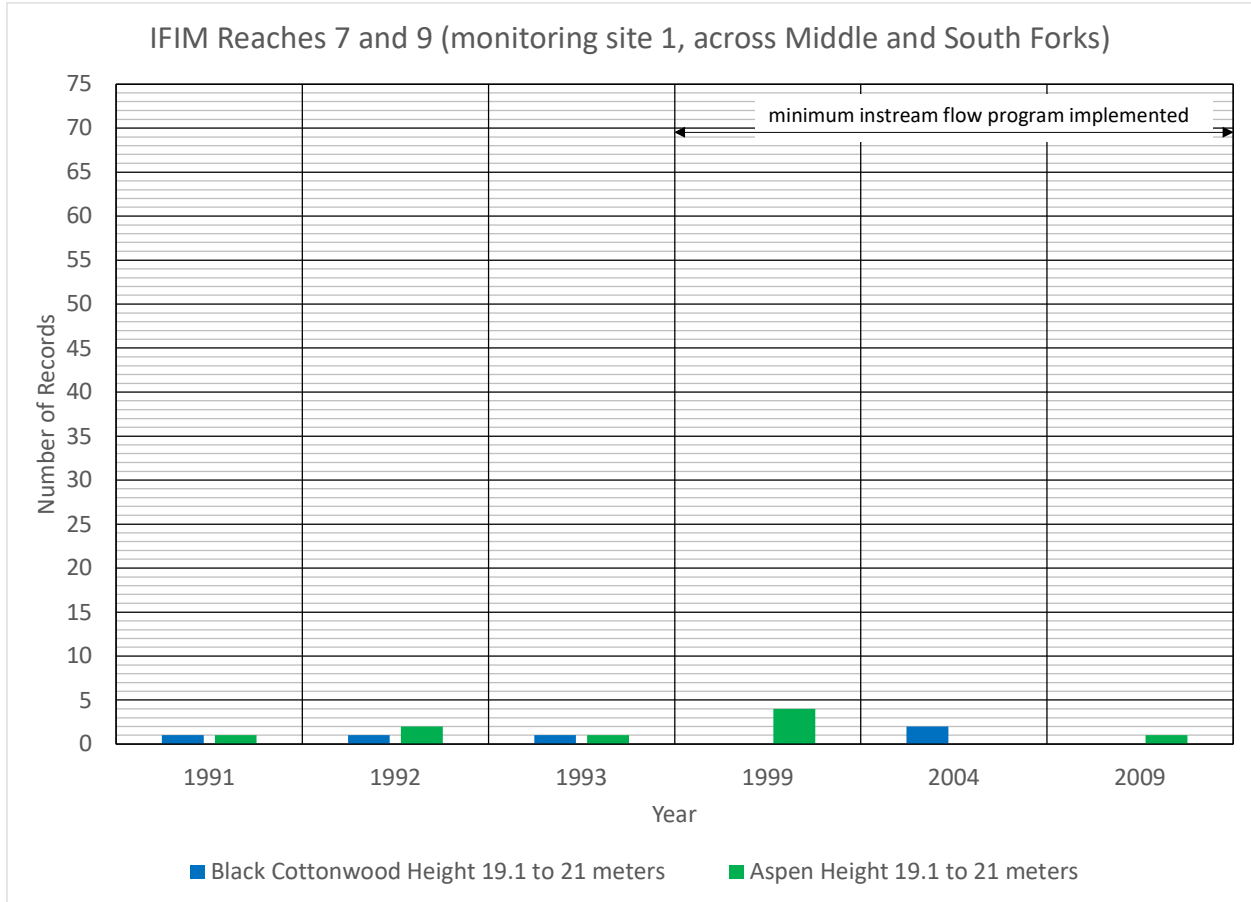


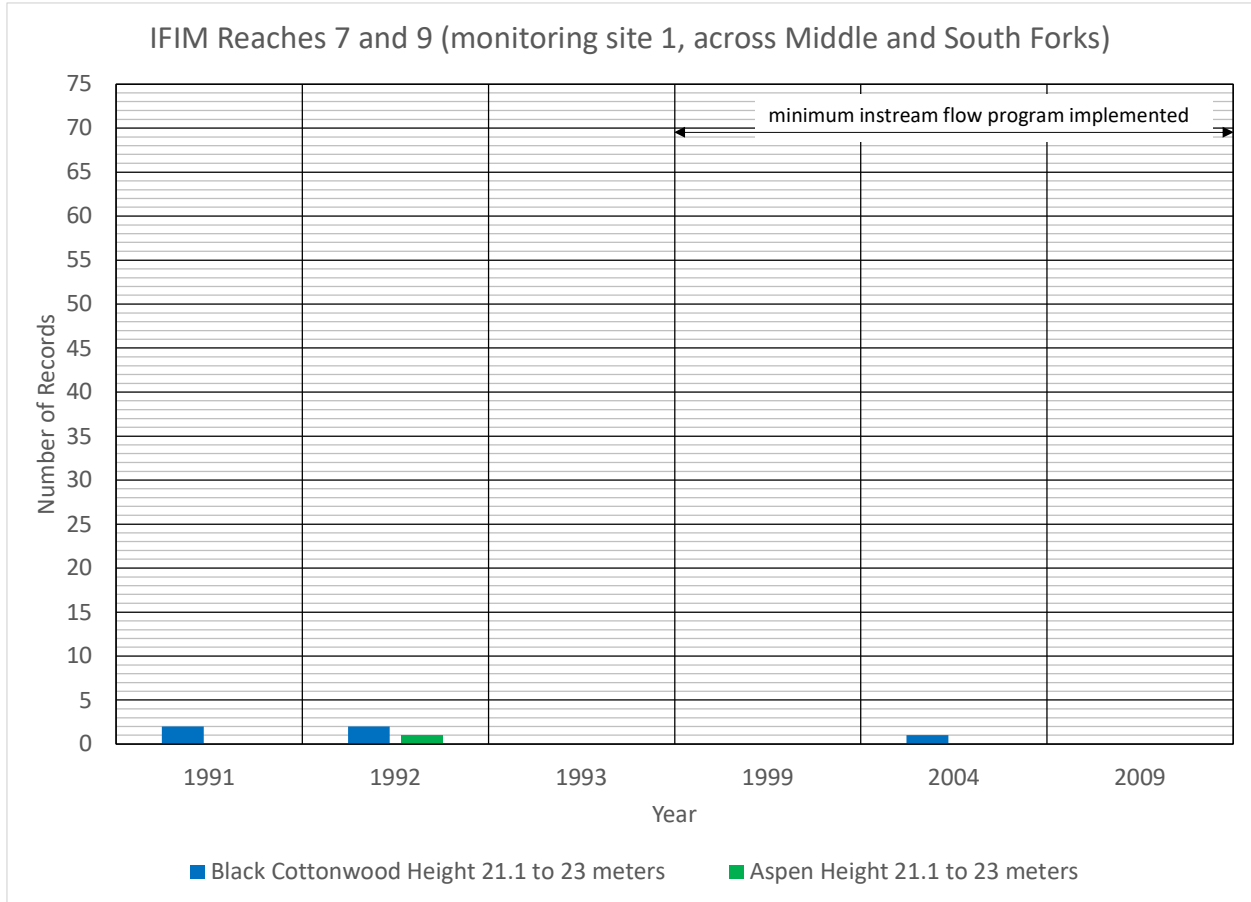


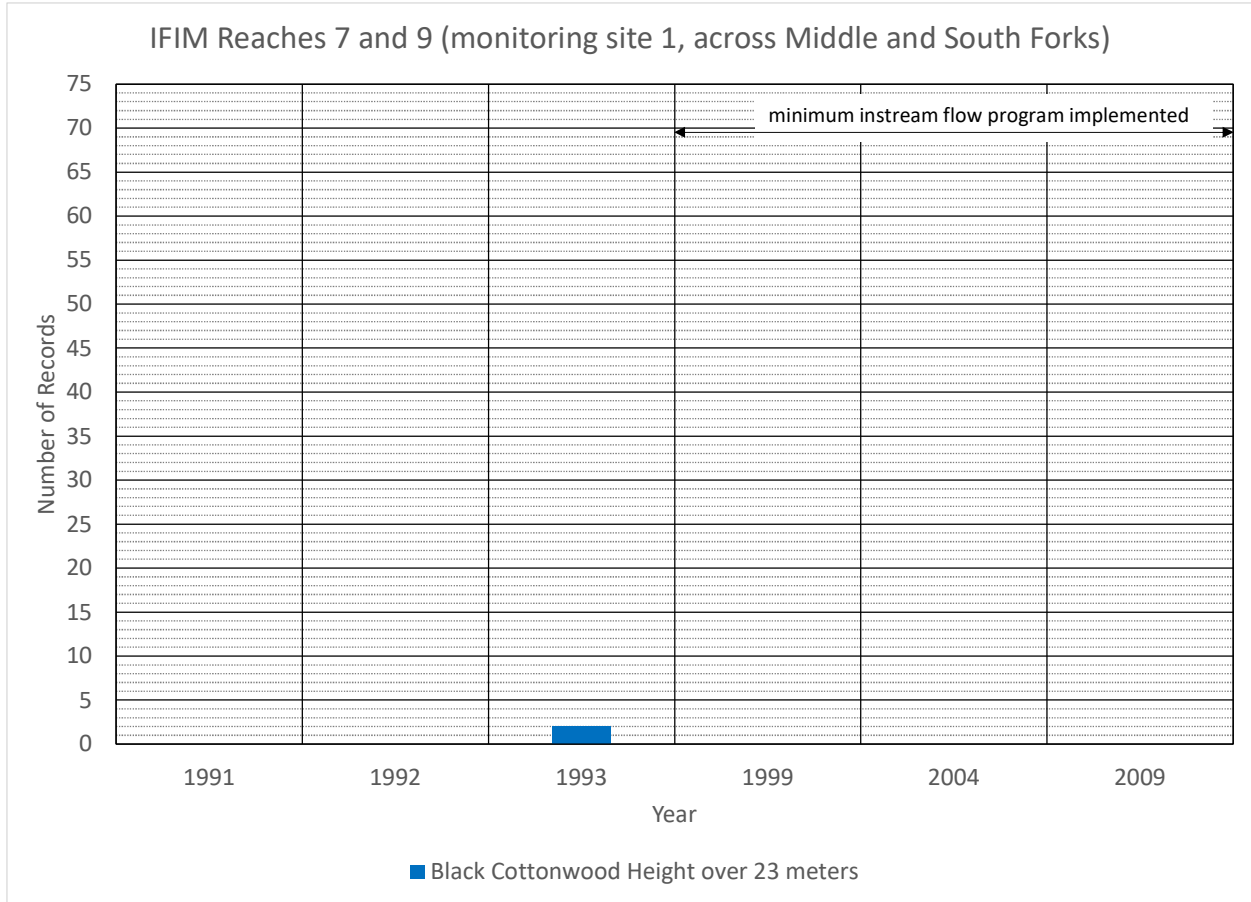












# **SOUTHERN CALIFORNIA EDISON**

## **Bishop Creek Hydroelectric Project (FERC Project No. 1394)**

### **FINAL LICENSE APPLICATION**

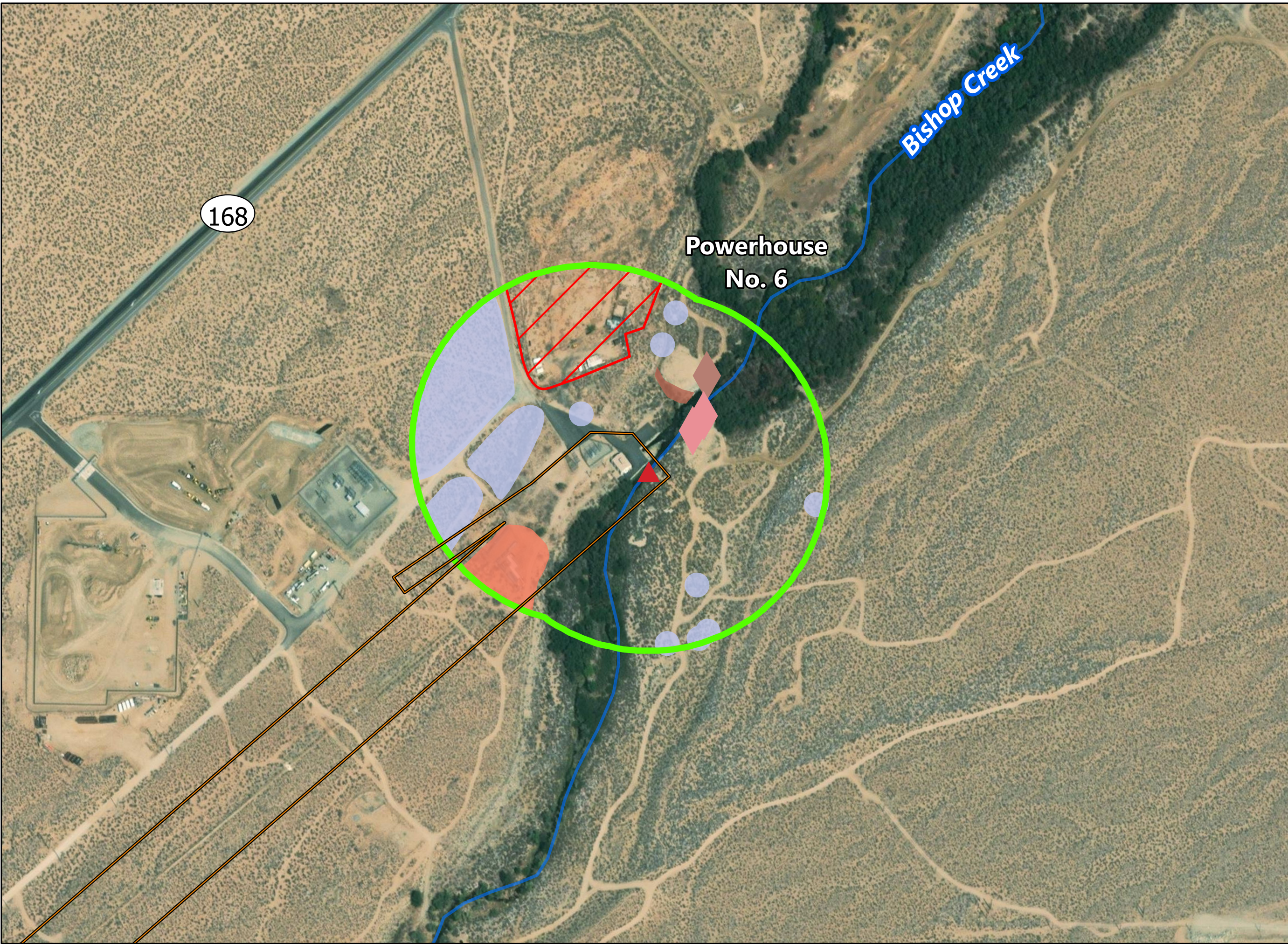
## **APPENDIX I**

### **SPECIAL STATUS AND INVASIVE PLANTS IN THE BISHOP CREEK PROJECT AREA**

June 2022

*Support from:*

***Kleinschmidt***



- Wildlife and Plant Study Area
- Areas Not Surveyed
- ▲ Powerhouse
- Project Boundary

**Invasive Species Points**

- ◆ Curly Dock
- ◆ Tumble Mustard

**Invasive Species Polygons**

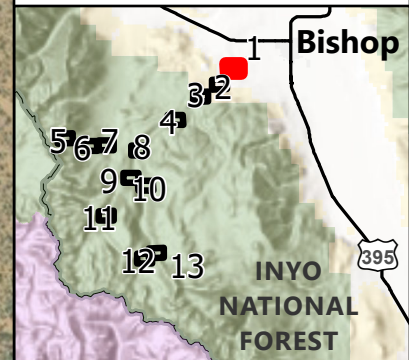
- Miscellaneous Weeds
- Wolly Mullein

**SS Plants Points**

- Few-Flowered Eriastrum

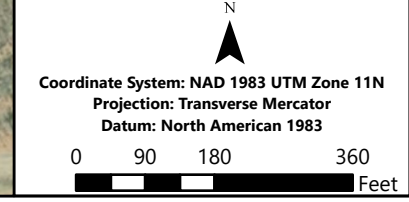
**SS Plant Polygons**

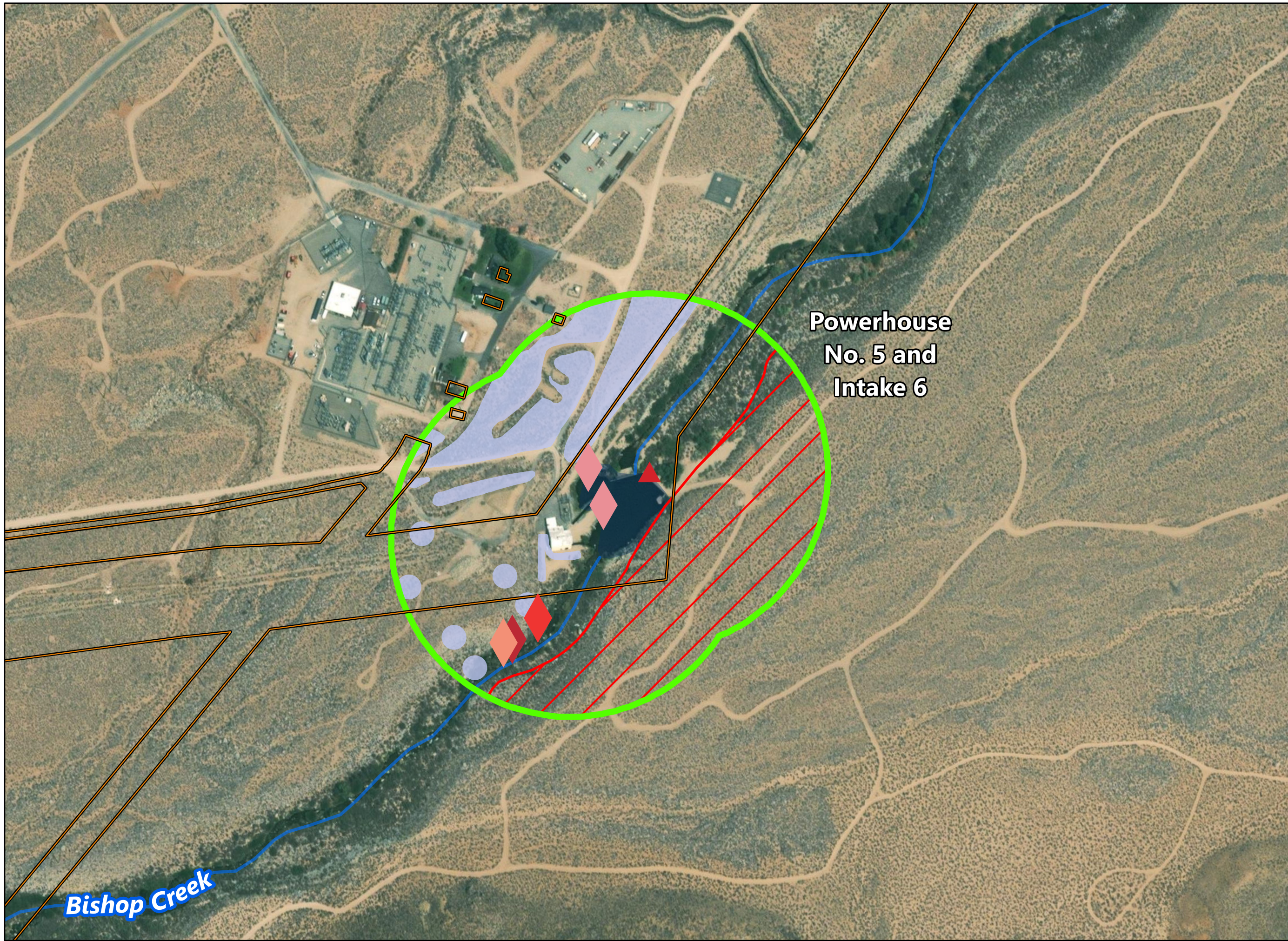
- Few-Flowered Eriastrum



**Observations of Special Status and Invasive Plants  
Bishop Creek Project Area  
Sheet 1 of 13**

**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**





**Powerhouse  
No. 5 and  
Intake 6**

**Bishop Creek**

- Wildlife and Plant Study Area
- Areas Not Surveyed
- ▲ Powerhouse
- Project Boundary

**Invasive Species Points**

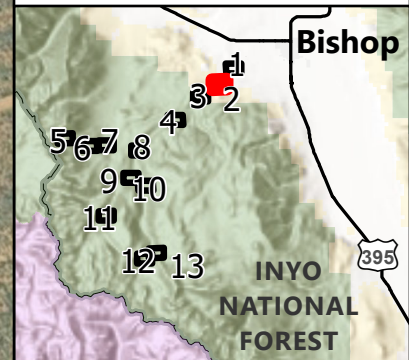
- ◆ Bermuda Grass
- ◆ Perennial Sweet
- ◆ Tumble Mustard
- ◆ Wolly Mullein

**SS Plants Points**

- Few-Flowered Eriastrum

**SS Plant Polygons**

- Few-Flowered Eriastrum




**SOUTHERN CALIFORNIA  
EDISON**  
Energy for What's Ahead<sup>SM</sup>

**Observations of Special  
Status and Invasive Plants  
Bishop Creek Project Area  
Sheet 2 of 13**

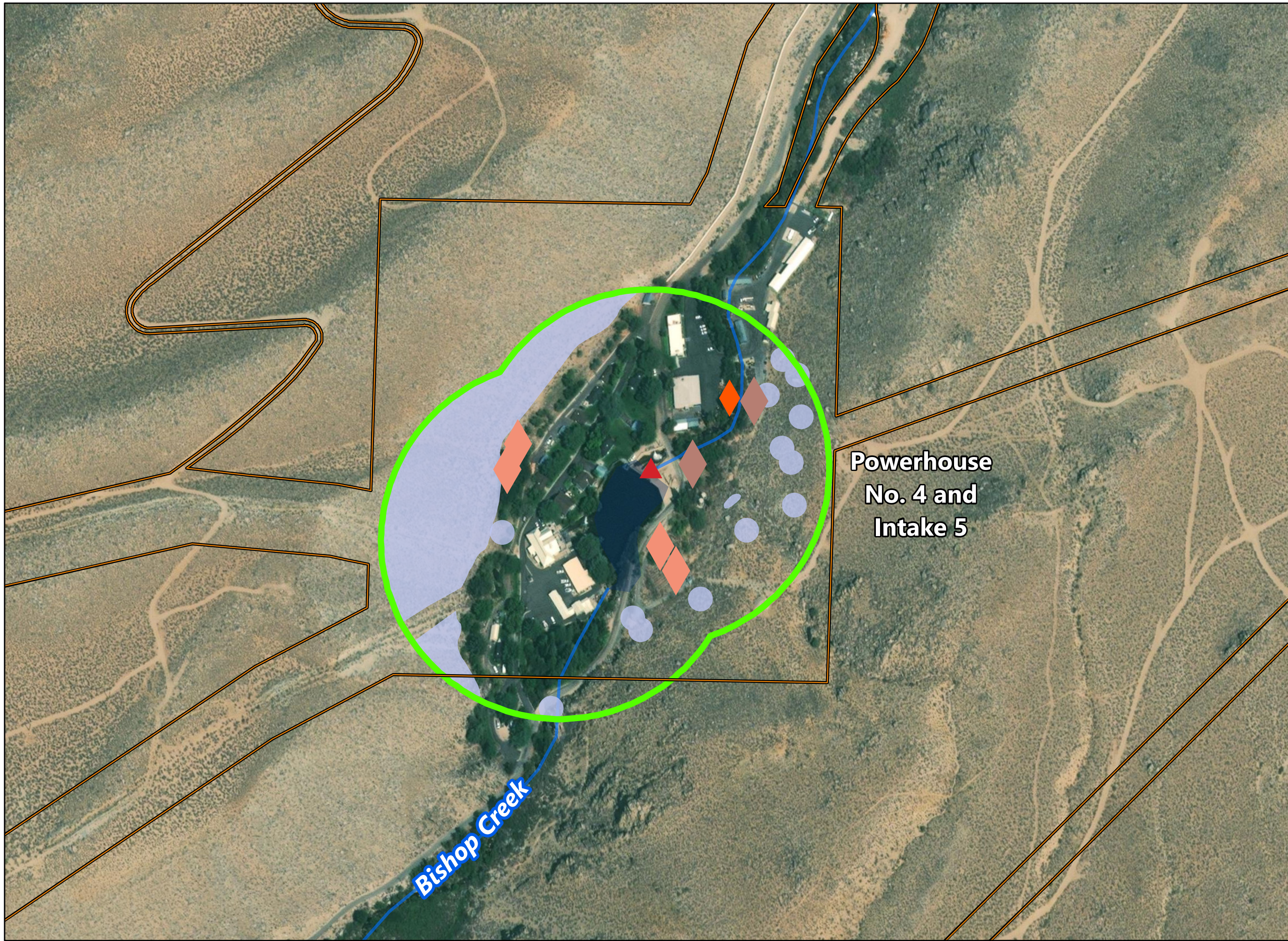
**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**

N  
▲

Coordinate System: NAD 1983 UTM Zone 11N  
Projection: Transverse Mercator  
Datum: North American 1983

0    90    180    360  
Feet





- Wildlife and Plant Study Area
- ▲ Powerhouse
- Project Boundary

**Invasive Species Points**

- ◆ Curly Dock
- ◆ Wolly Mullein
- ◆ Black Locust

**SS Plants Points**

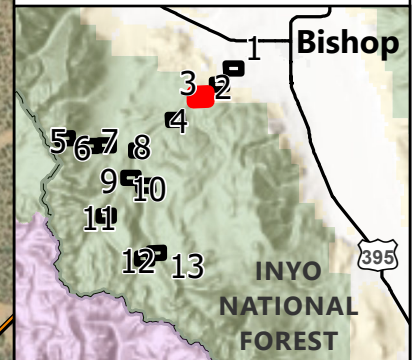
- Few-Flowered Eriastrum

**SS Plant Polygons**

- Few-Flowered Eriastrum

**Powerhouse  
No. 4 and  
Intake 5**

**Bishop Creek**



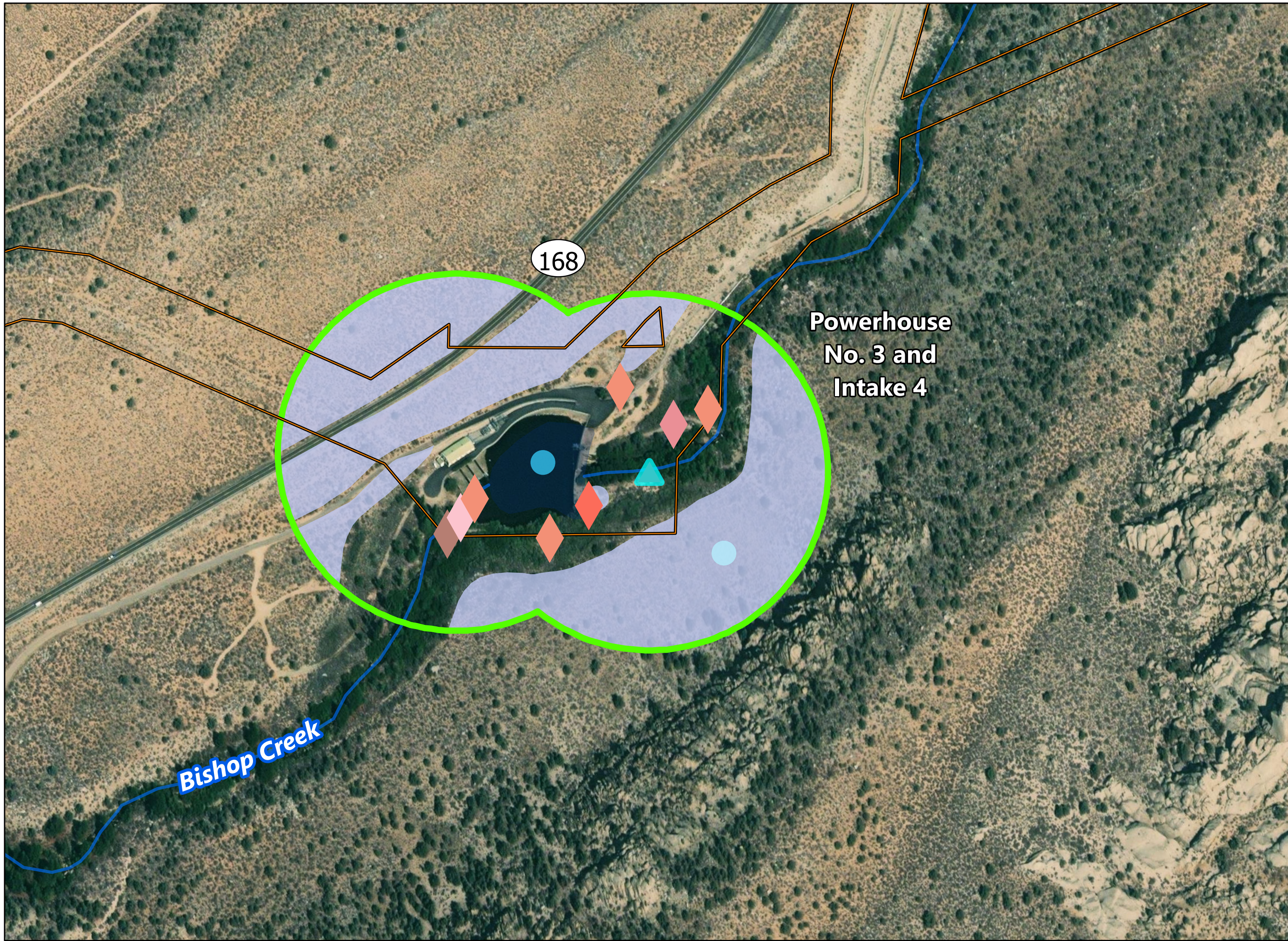
**Observations of Special  
Status and Invasive Plants  
Bishop Creek Project Area  
Sheet 3 of 13**

**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**

N  
▲

Coordinate System: NAD 1983 UTM Zone 11N  
Projection: Transverse Mercator  
Datum: North American 1983

0    90    180    360  
Feet



Wildlife and Plant Study Area  
▲ Powerhouse  
 Project Boundary

**Invasive Species Points**

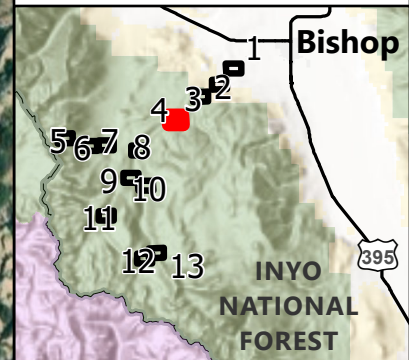
- ◆ Bull Thistle
- ◆ Curly Dock
- ◆ Russian Thistle
- ◆ Tumble Mustard
- ◆ Wolly Mullein

**SS Plants Points**

- Few-Flowered Eriastrum
- Frog's-Bit Buttercup
- Stiff Lomatium

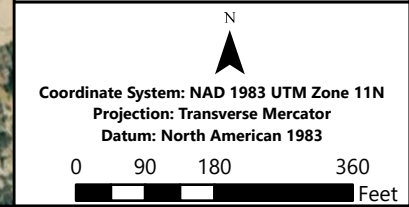
**SS Plant Polygons**

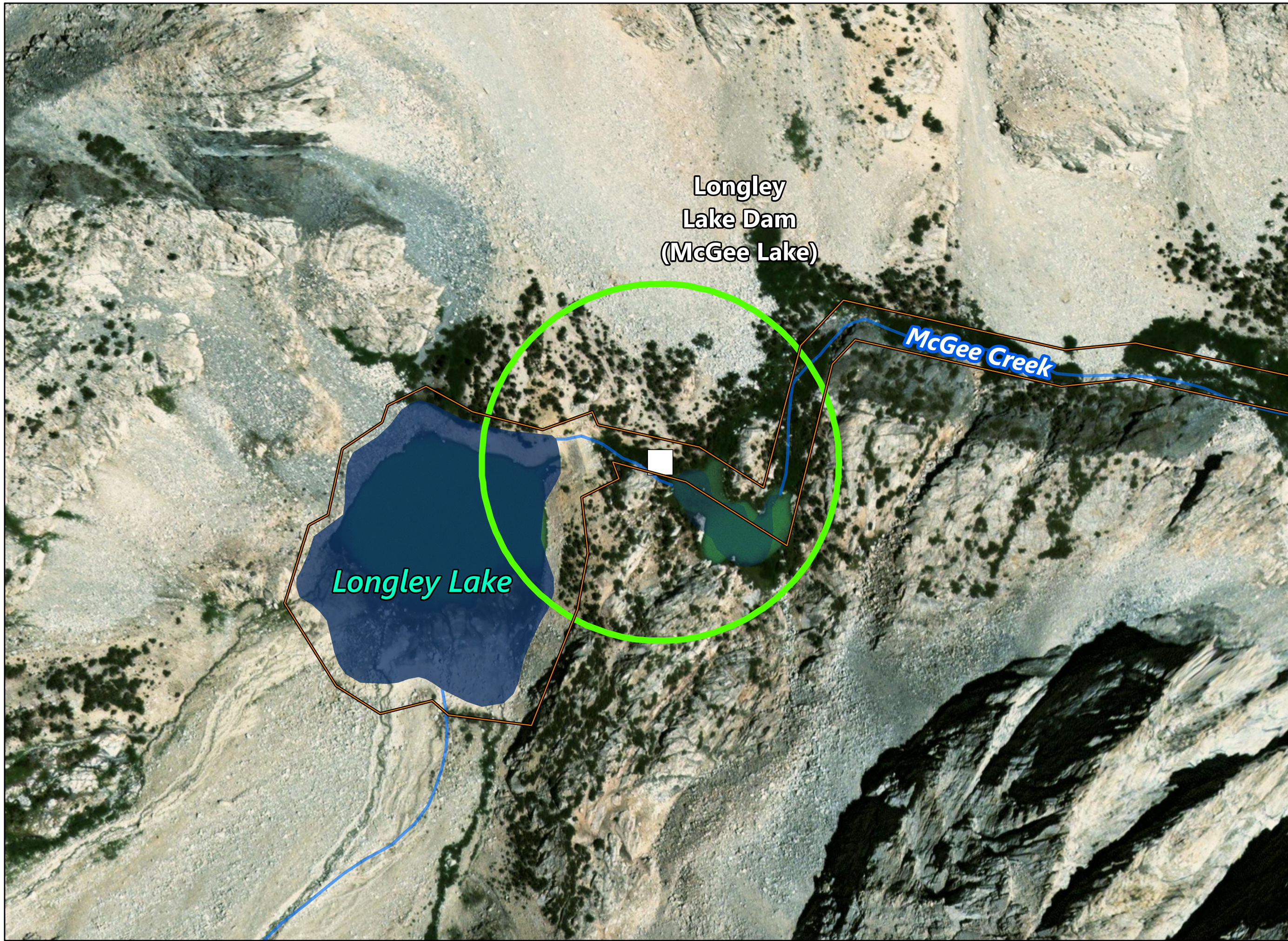
- Few-Flowered Eriastrum



**Observations of Special Status and Invasive Plants**  
**Bishop Creek Project Area**  
**Sheet 4 of 13**

**BISHOP CREEK**  
**HYDROELECTRIC PROJECT**  
**FERC PROJECT NO. 1394**



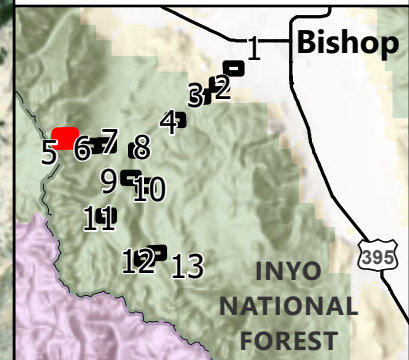


Longley  
Lake Dam  
(McGee Lake)

McGee Creek

Longley Lake

- Wildlife and Plant Study Area
- ▲ Powerhouse
- Dam
- Project Boundary



**Observations of Special Status and Invasive Plants Bishop Creek Project Area Sheet 5 of 13**

**BISHOP CREEK HYDROELECTRIC PROJECT FERC PROJECT NO. 1394**

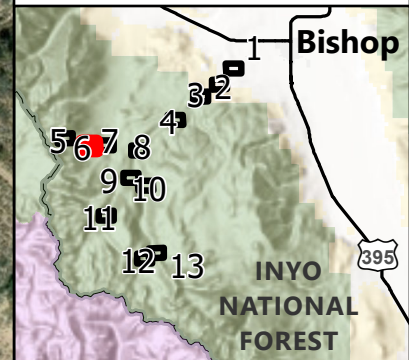
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Coordinate System: NAD 1983 UTM Zone 11N  
Projection: Transverse Mercator  
Datum: North American 1983

0    90    180    360  
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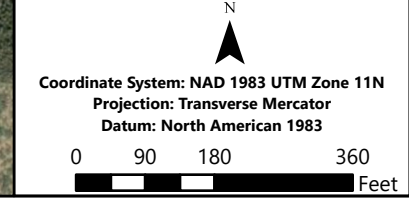


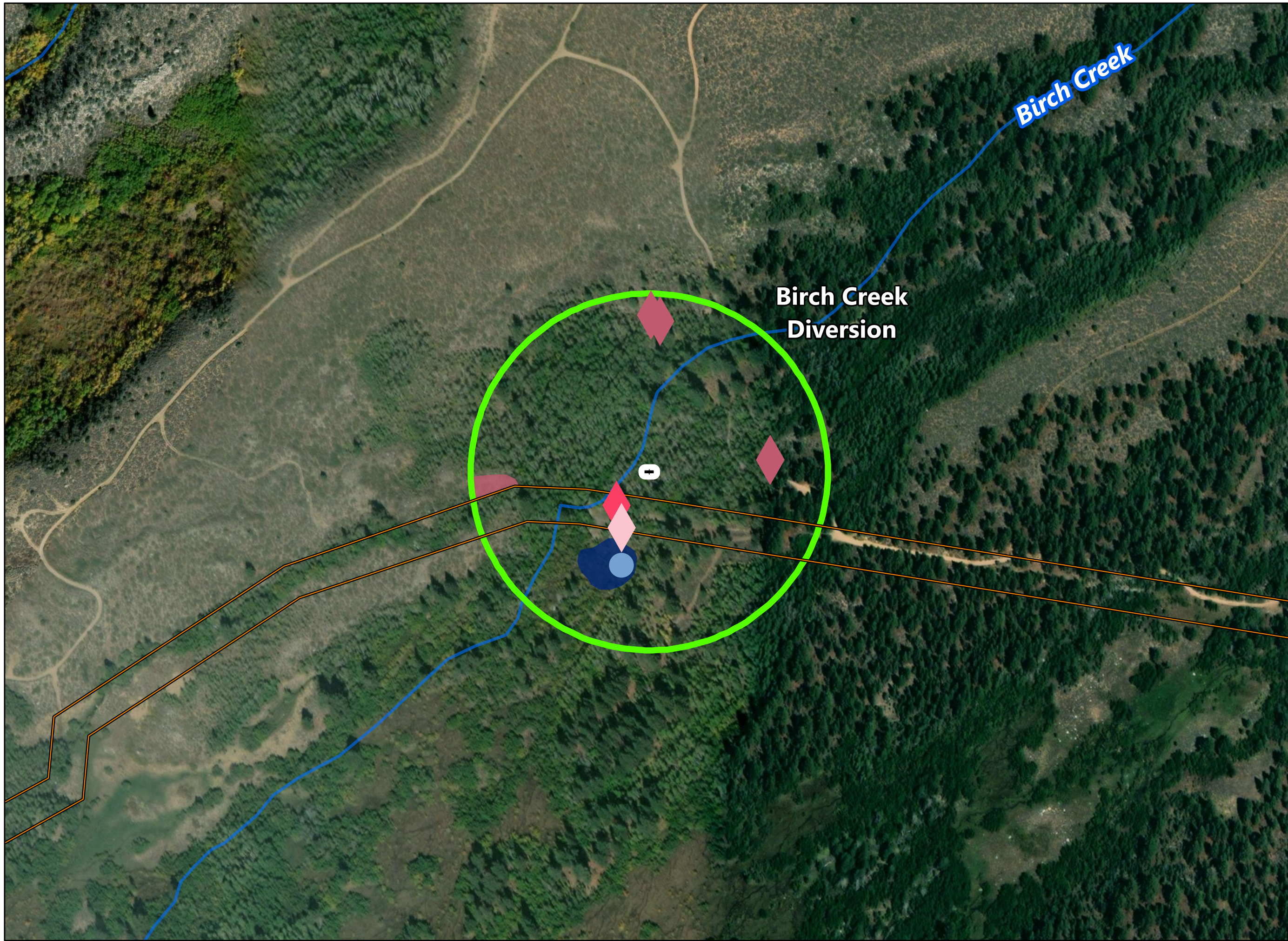
- Wildlife and Plant Study Area
- ▲ Powerhouse
- Diversion
- Project Boundary
- Invasive Species Points**
- ◆ Cheat Grass
- SS Plant Polygons**
- Stiff Lomatium



**Observations of Special Status and Invasive Plants  
Bishop Creek Project Area  
Sheet 6 of 13**

**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**





- Wildlife and Plant Study Area
- ▲ Powerhouse
- Diversion
- Project Boundary

**Invasive Species Points**

- ◆ Bull Thistle
- ◆ Cheat Grass
- ◆ English Plantain
- ◆ Cirsium vulgare
- ◆ Plantago Lancelata

**Invasive Species Polygons**

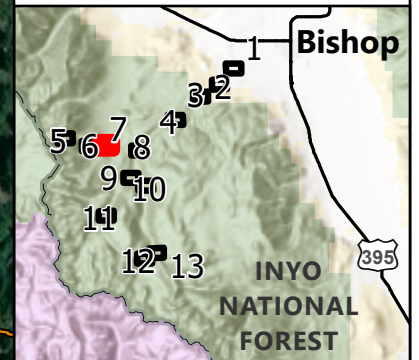

- Cheat Grass

**SS Plants Points**

- Marsh Arrow-Grass

**SS Plant Polygons**

- Small-Flowered Grass-Of-Parnassus

**SOUTHERN CALIFORNIA EDISON**  
Energy for What's Ahead<sup>SM</sup>

**Observations of Special Status and Invasive Plants  
Bishop Creek Project Area  
Sheet 7 of 13**

**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**

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Coordinate System: NAD 1983 UTM Zone 11N  
Projection: Transverse Mercator  
Datum: North American 1983

0    90    180    360  
Feet



**Legend**

- Wildlife and Plant Study Area
- Areas Not Surveyed
- ▲ Powerhouse
- Project Boundary

**Invasive Species Points**

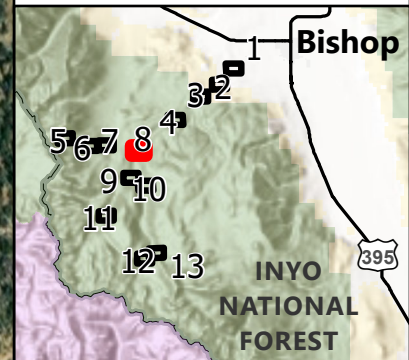
- ◆ Curly Dock
- ◆ Russian Thistle
- ◆ Tumble Mustard
- ◆ Wolly Mullein

**Invasive Species Polygons**

- Cheat Grass
- Cheat Grass And Russian Thistle
- Tumble Mustard
- White Sweetclover

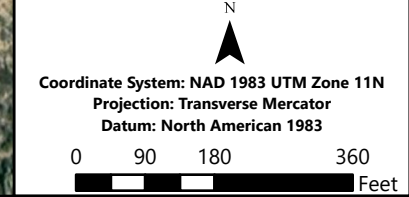
**SS Plants Points**

- Few-Flowered Eriastrum
- Stiff Lomatium



**Observations of Special Status and Invasive Plants  
Bishop Creek Project Area  
Sheet 8 of 13**

**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**





- Wildlife and Plant Study Area
- ▲ Powerhouse
- Dam
- Project Boundary

**Invasive Species Points**

- ◆ Bull Thistle
- ◆ Curly Dock
- ◆ Russian Thistle
- ◆ Tall Fescue
- ◆ Tumble Mustard
- ◆ Wolly Mullein

**Invasive Species Polygons**

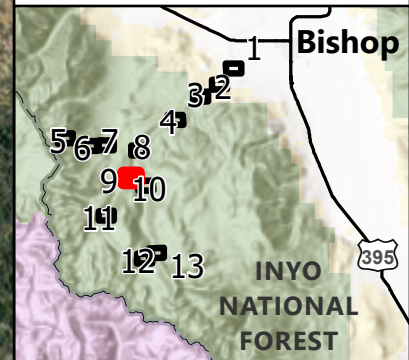
- Wolly Mullein

**SS Plants Points**

- Few-Flowered Eriastrum
- Stiff Lomatium

**SS Plant Polygons**

- Stiff Lomatium



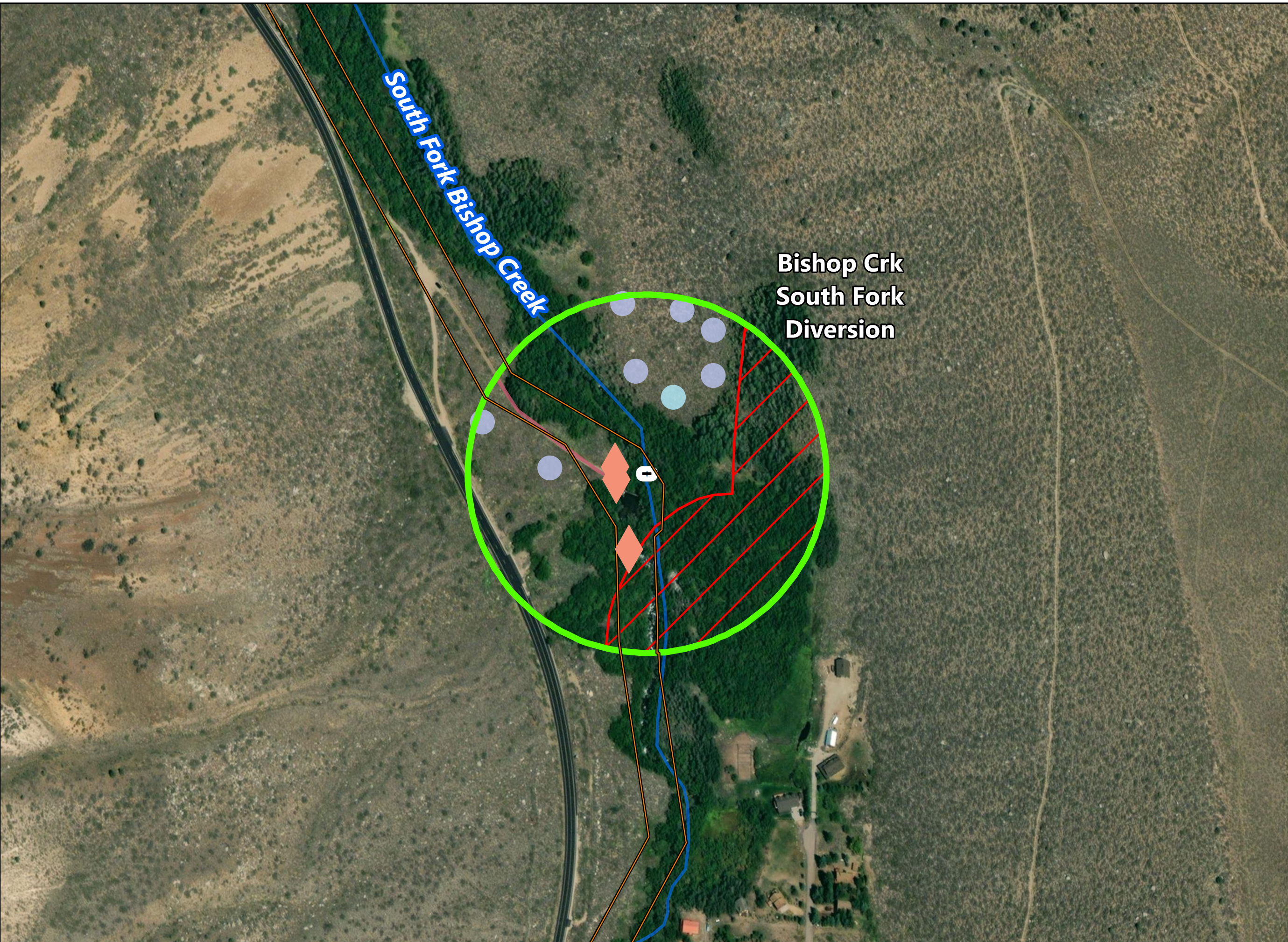
**Observations of Special Status and Invasive Plants  
Bishop Creek Project Area  
Sheet 9 of 13**

**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**

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Coordinate System: NAD 1983 UTM Zone 11N  
Projection: Transverse Mercator  
Datum: North American 1983

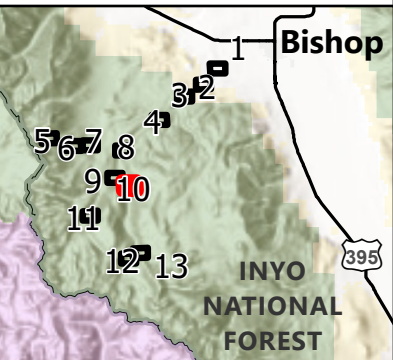
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Feet



South Fork Bishop Creek

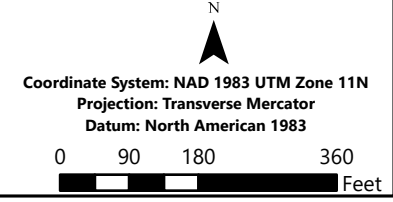
Bishop Crk  
South Fork  
Diversion

- Wildlife and Plant Study Area
- Areas Not Surveyed
- ▲ Powerhouse
- Diversion
- Project Boundary
- Invasive Species Points**
- ◆ Wolly Mullein
- Invasive Species Polygons**
- Cheat Grass
- SS Plants Points**
- Few-Flowered Eriastrum
- Stiff Lomatium

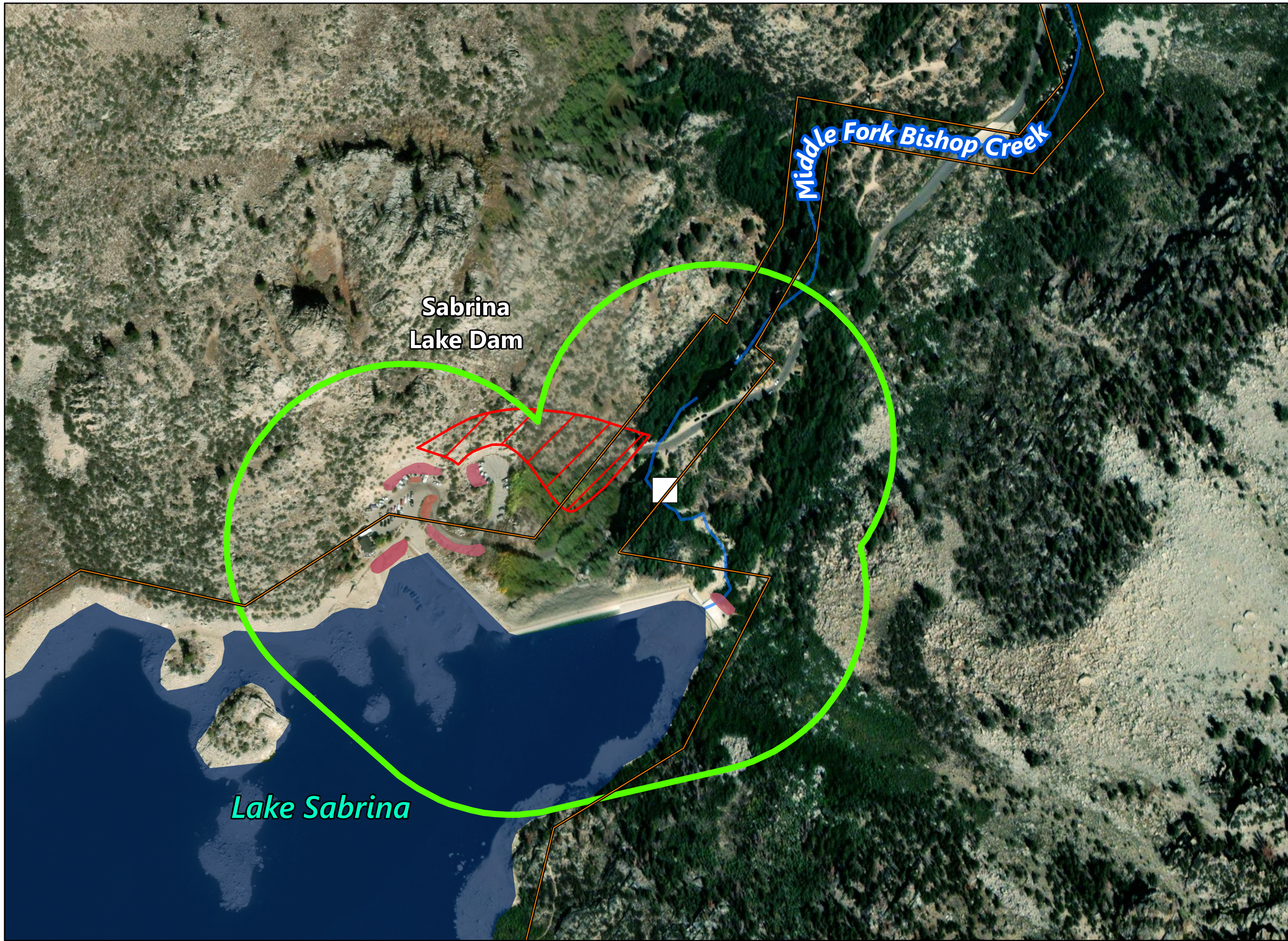


**Observations of Special Status and Invasive Plants  
Bishop Creek Project Area  
Sheet 10 of 13**

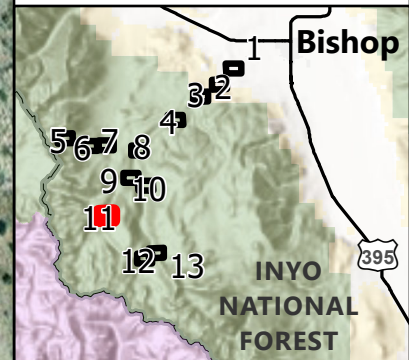
**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**





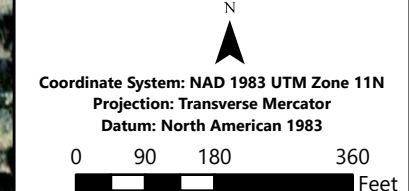


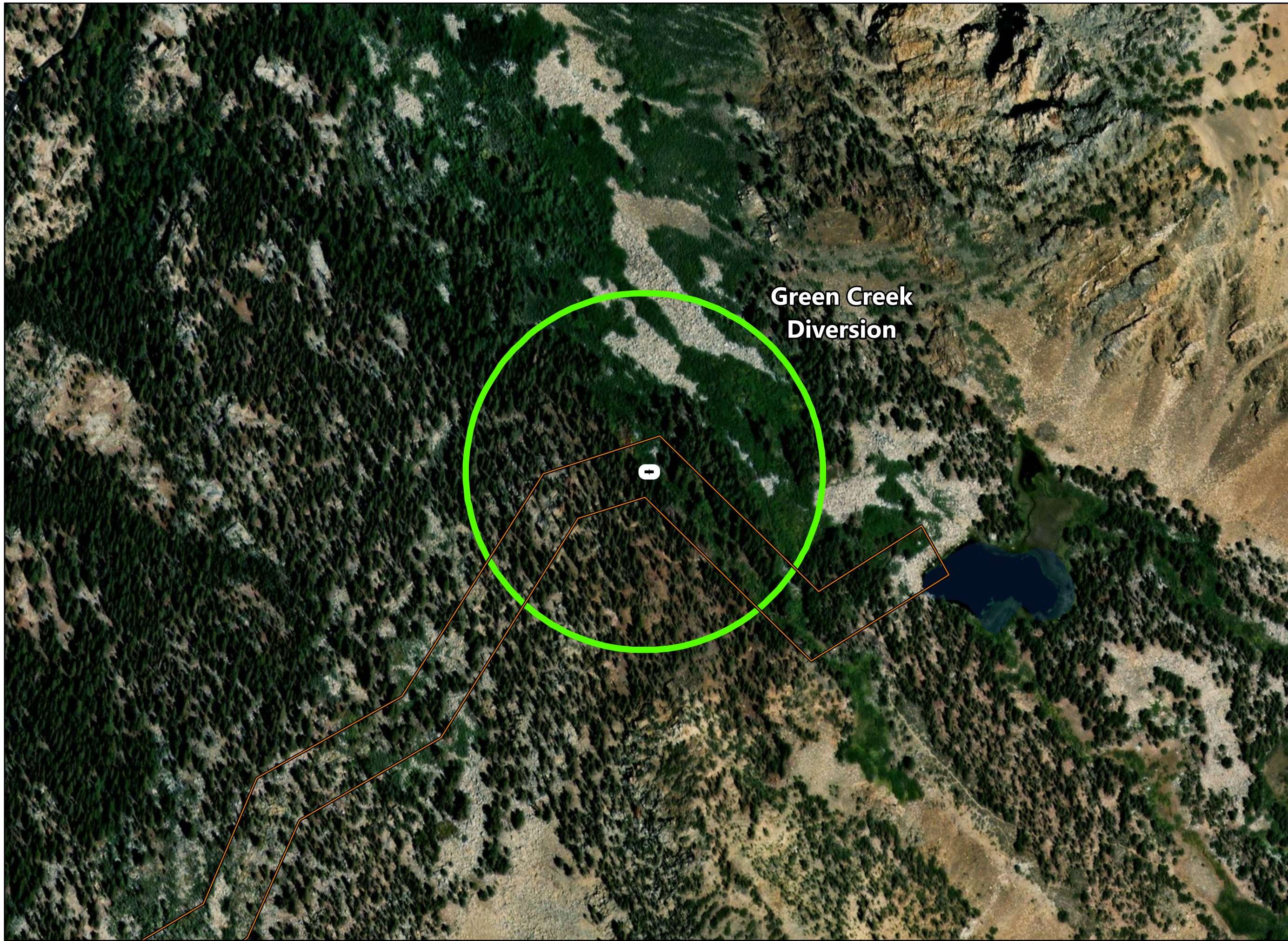
- Wildlife and Plant Study Area
  - Areas Not Surveyed
  - ▲ Powerhouse
  - Dam
  - Project Boundary
- Invasive Species Polygons**
- Cheat Grass
  - Cheat Grass And Wolly Mullein
  - Wolly Mullein



**Observations of Special Status and Invasive Plants  
Bishop Creek Project Area  
Sheet 11 of 13**

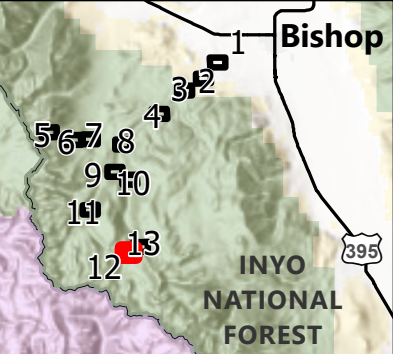
**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**





**Green Creek  
Diversion**

- Wildlife and Plant Study Area
- ▲ Powerhouse
- Diversion
- Project Boundary



**Observations of Special  
Status and Invasive Plants  
Bishop Creek Project Area  
Sheet 12 of 13**

**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**

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Coordinate System: NAD 1983 UTM Zone 11N  
Projection: Transverse Mercator  
Datum: North American 1983

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Feet



**Legend**

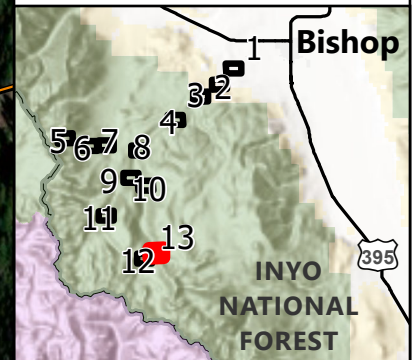
- Wildlife and Plant Study Area
- Areas Not Surveyed
- Powerhouse
- Dam
- Project Boundary

**Invasive Species Points**

- White Sweetclover

**Invasive Species Polygons**

- Wise Tansy Mustard
- Wolly Mullein



SOUTHERN CALIFORNIA EDISON  
Energy for What's Ahead<sup>SM</sup>

**Observations of Special Status and Invasive Plants  
Bishop Creek Project Area  
Sheet 13 of 13**

**BISHOP CREEK  
HYDROELECTRIC PROJECT  
FERC PROJECT NO. 1394**

N

Coordinate System: NAD 1983 UTM Zone 11N  
Projection: Transverse Mercator  
Datum: North American 1983

0 90 180 360  
Feet

# **SOUTHERN CALIFORNIA EDISON**

## **Bishop Creek Hydroelectric Project (FERC Project No. 1394)**

### **FINAL LICENSE APPLICATION**

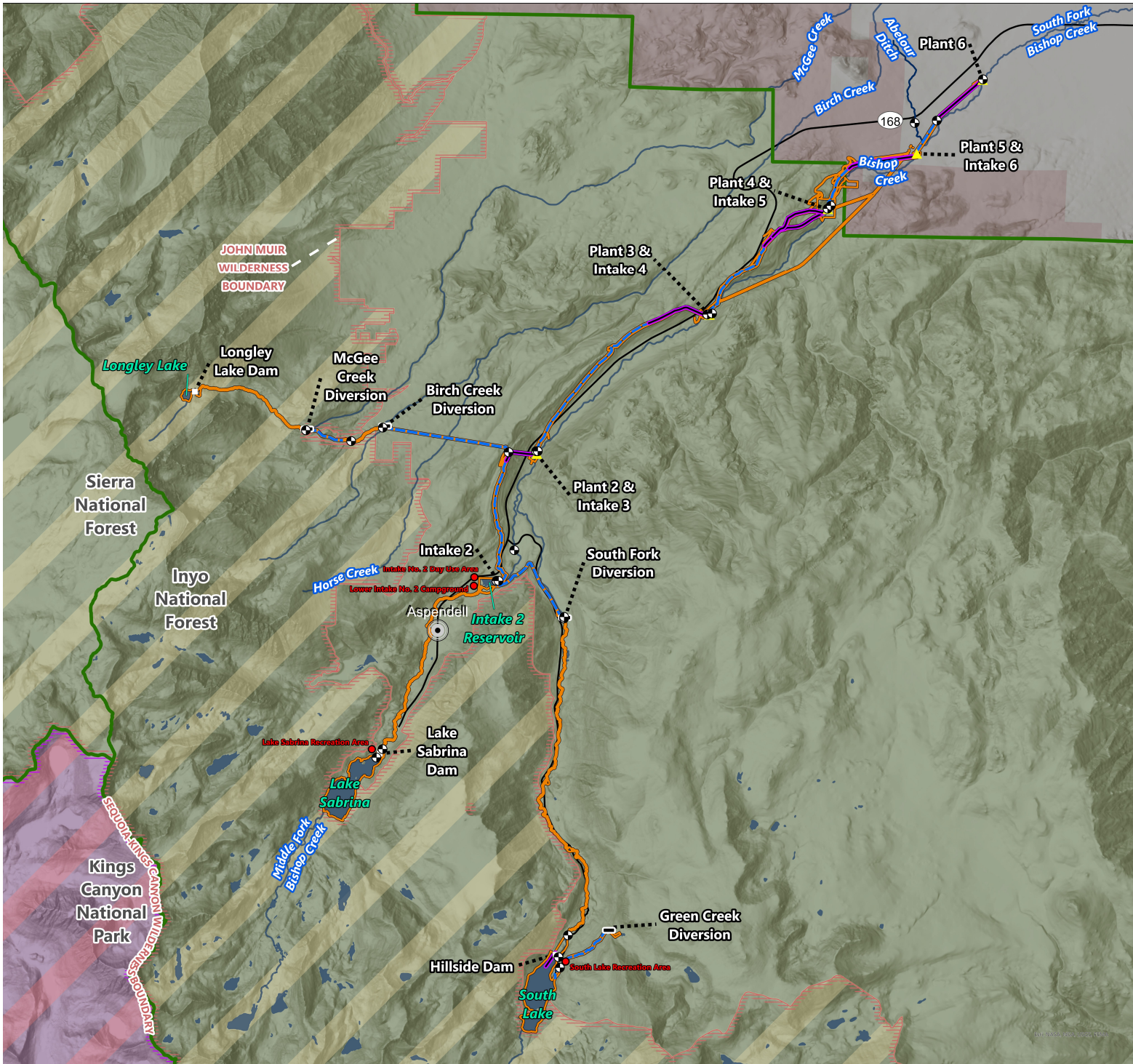
#### **APPENDIX J**

##### **LOCATION MAP FULFILLING REQUIREMENTS OF 18 CFR § 5.18 (b)(iii)**

June 2022

*Support from:*

***Kleinschmidt***



- FERC Project Boundary (Proposed)
- Existing Project Recreation Sites (Pro)
- Stream/Reservoir Gauge
- Flowline
- Penstock/Tunnel
- Power Plant
- Diversion
- Dam
- City/Town
- US Forest Service
- National Park Service
- Bureau of Land Management
- Wilderness Area Boundary

SOUTHERN CALIFORNIA  
 BISHOP CREEK HYDROELECTRIC  
 FERC NO. 13  
 Project Facilities



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