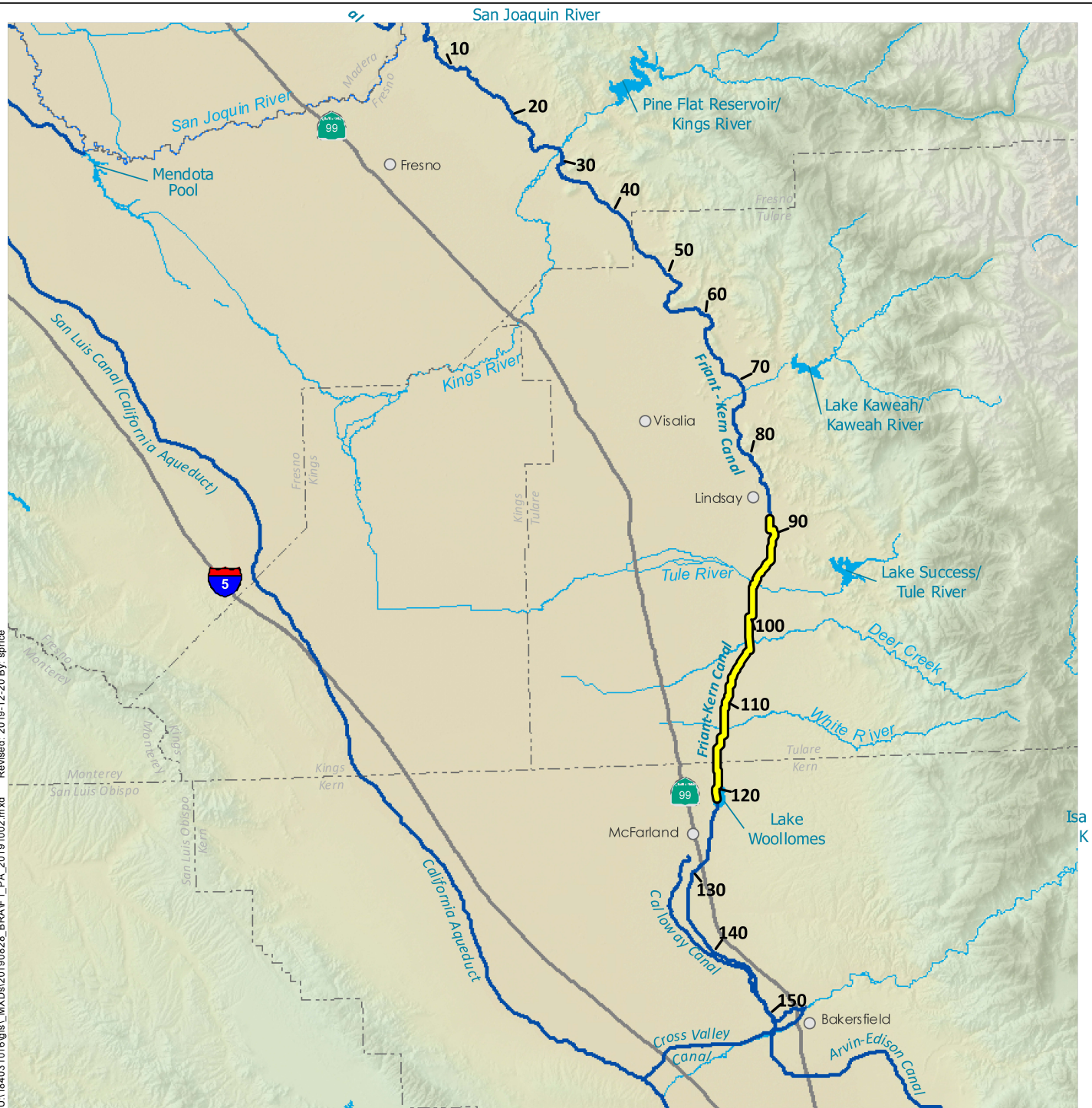


## **Biological Resources Assessment**

### **Appendix F, Figures 1-5**

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-  Project Area
-  Canal / Conveyance
-  Major Highway
-  County Boundaries
-  Cities
-  Canal Mile Post

0 4 8 16  
Miles

1:1,013,760 (At Original document size of 8.5 x 11)



Figure No.  
**1 Project Location**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

1840031016

Prepared by SCP on 2019-08-28  
Technical Review by MW on 2019-10-02  
Updated by SCP on 2019-12-20

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction  
Project - Biological Resources Assessment

**Notes**  
1. Coordinate System: NAD 1983 UTM Zone 10N  
2. Stantec, 2019, ESRI Major Roads

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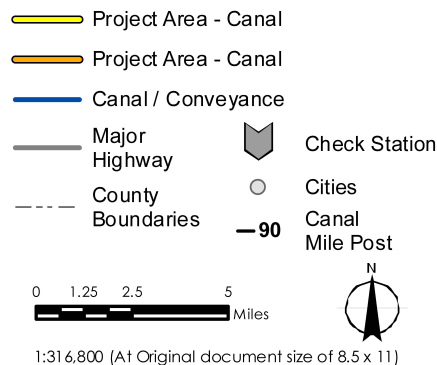
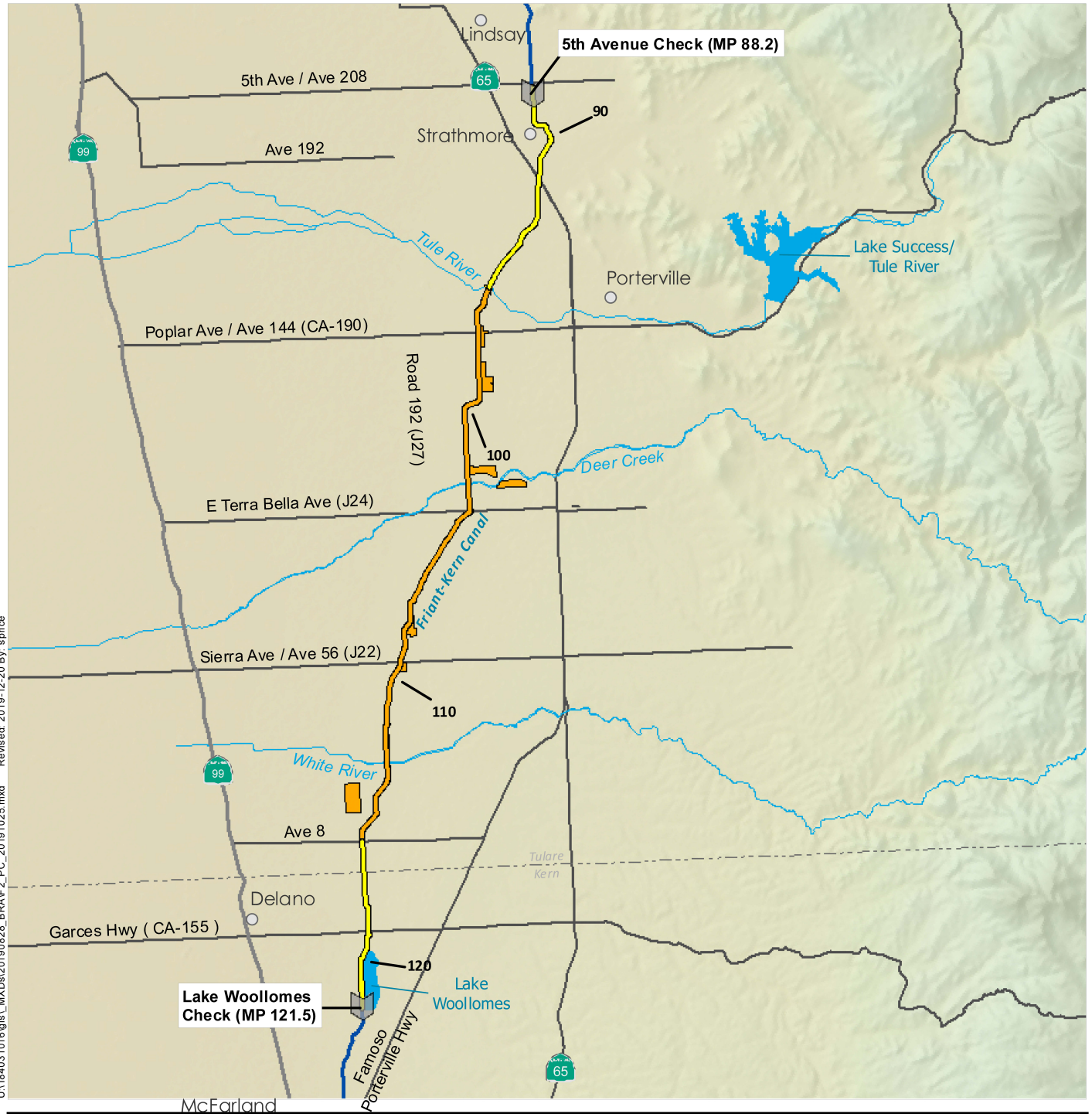


Figure No. 2 Project Components

**Project Location**  
 Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
 Porterville, California (1971)  
 Sausalito School, California (1971)  
 Ducor, California (1972)

1840031016

Prepared by SCP on 2019-08-28  
 Technical Review by MW on 2019-10-02  
 Updated by SCP on 2019-12-20

Client/Project  
 Friant Water Authority  
 Friant-Kern Canal Middle Reach Capacity Correction  
 Project - Biological Resources Assessment

**Notes**  
 1. Coordinate System: NAD 1983 UTM Zone 10N  
 2. Stantec, 2019, ESRI Major Roads

U:\184031016\gis\MXDs\20190828\_BRA\2\_PC\_20191025.mxd Revised: 2019-12-20 By: spice

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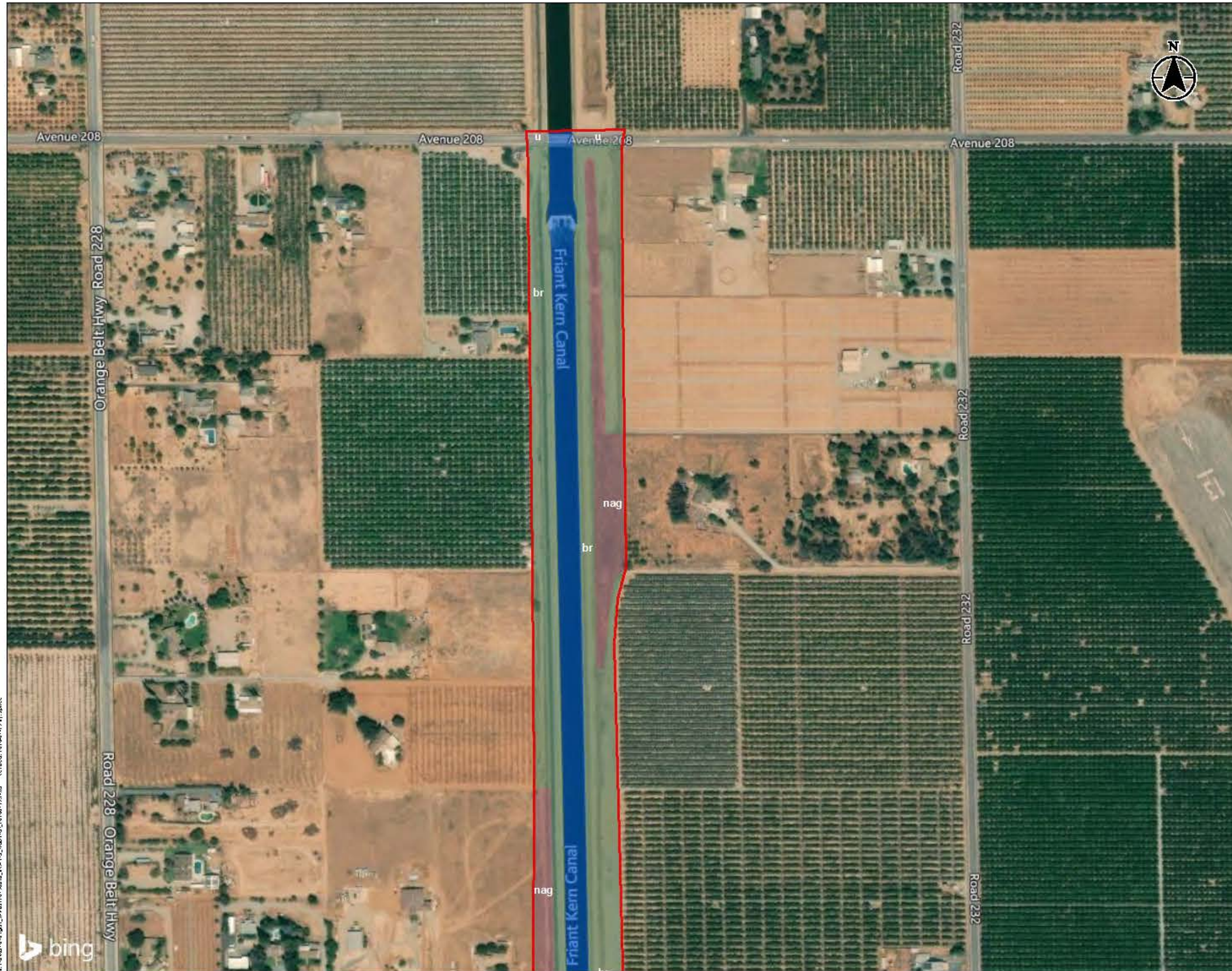


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3A

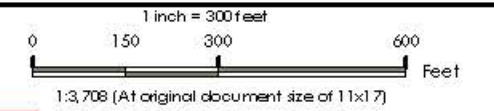
# Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5 USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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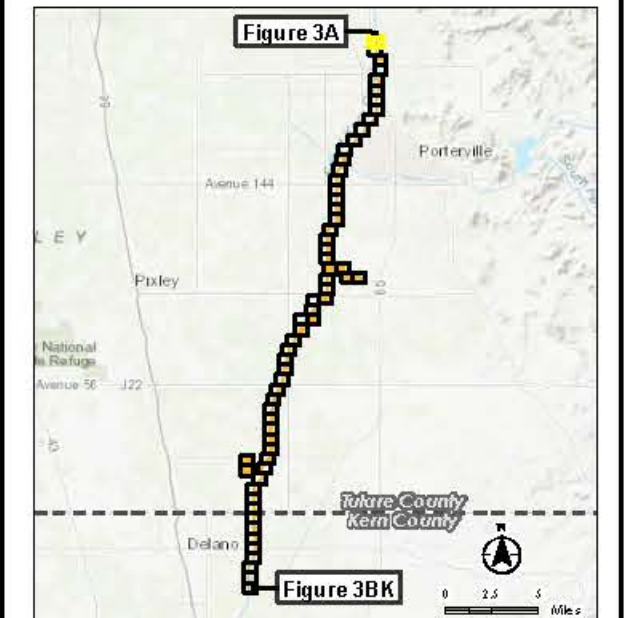
Prepared by S&P on 2020-01-29



Project Area

## Habitat

- Barren/Ruderal (br)
- Non-Native Annual Grassland (nag)
- Urban (u)
- Water (w)



- Notes
- Coordinate System: NAD 1983 State Plane, California IV FIPS 0404 Feet
  - Stantec, 2019, Stantec Field Observations
  - Orthoimagery Bing Maps 2019







Figure No.  
3B

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

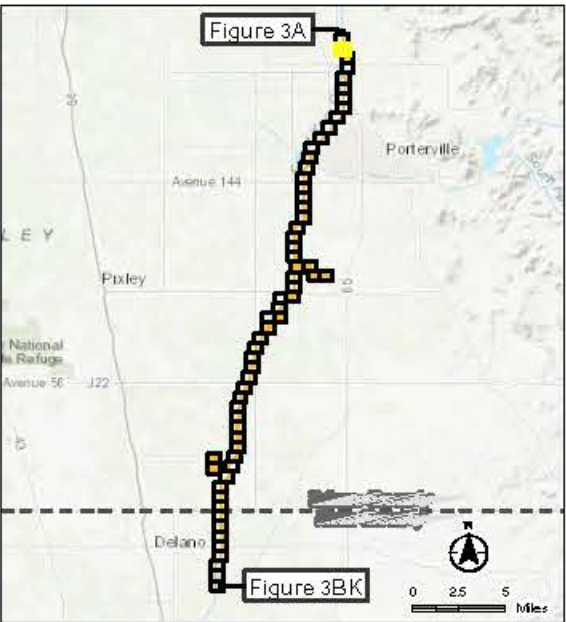
184031016  
Revised by SCF on 2020-01-29

1 inch = 300 feet  
0 150 300 600 Feet  
1:3,708 (At original document size of 11x17)

Project Area

Habitat

- Agriculture - Orchard (ao)
- Barren/Ruderal (br)
- Non-Native Annual Grassland (nag)
- Urban (u)
- Water (w)



Notes

- Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
- Stantec, 2019, Stantec Field Observations
- Orthomageary Bing Maps, 2019







Figure No.  
3C  
Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

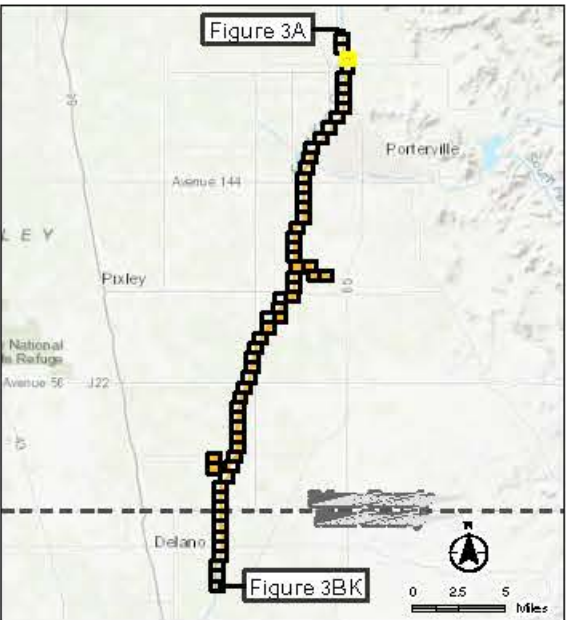
Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016

Revised by SCF on 2020-01-29

1 inch = 300 feet  
0 150 300 600 Feet  
1:3,708 (At original document size of 11x17)

- Project Area
- Habitat
- Agriculture - Orchard (ao)
  - Barren/Ruderal (br)
  - Non-Native Annual Grassland (nag)
  - Urban (u)
  - Water (w)



- Notes
1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
  2. Stantec, 2019, Stantec Field Observations
  3. Orthomosaic Bing Maps, 2019













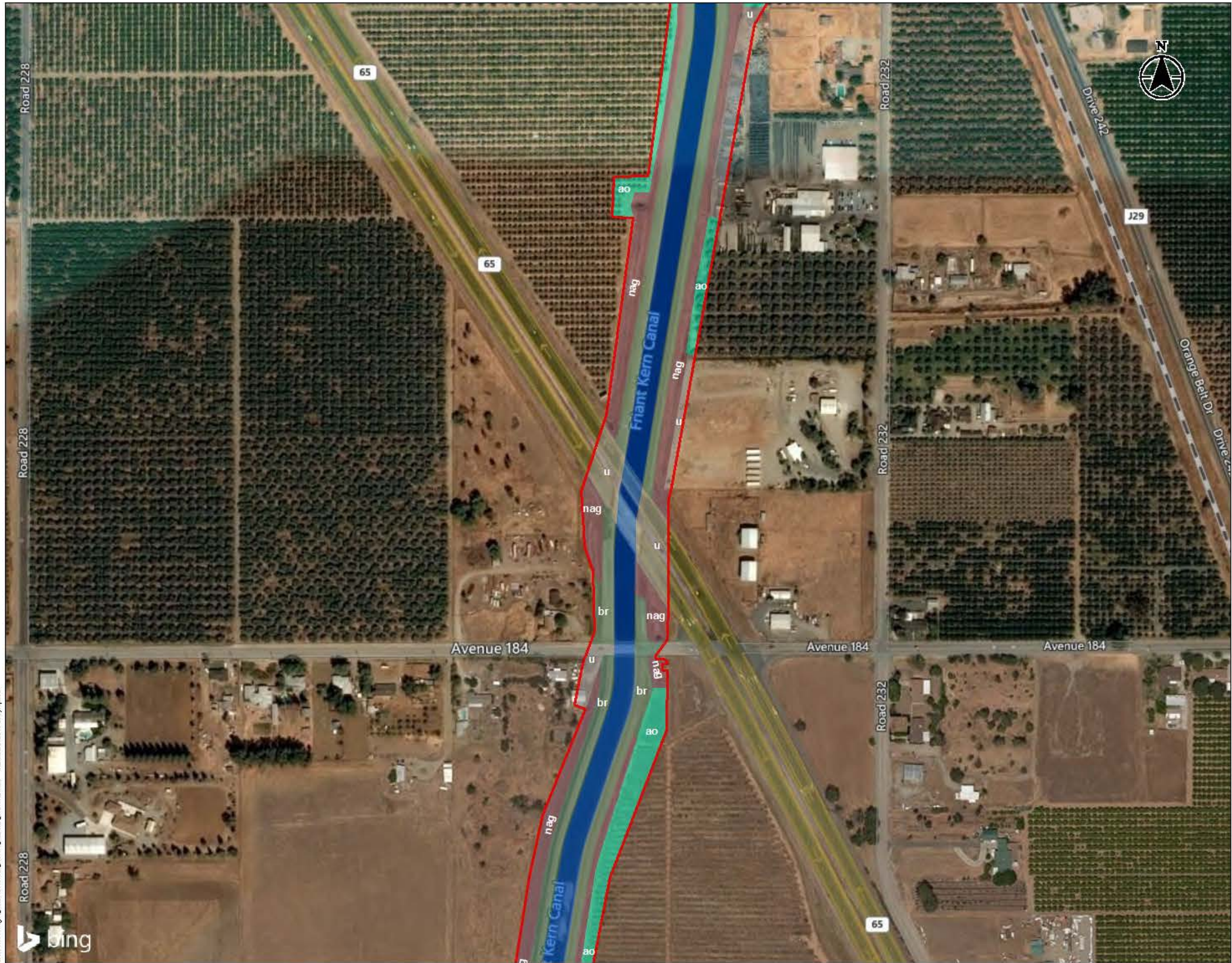


Figure No.  
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Title  
Habitats within the Project Area

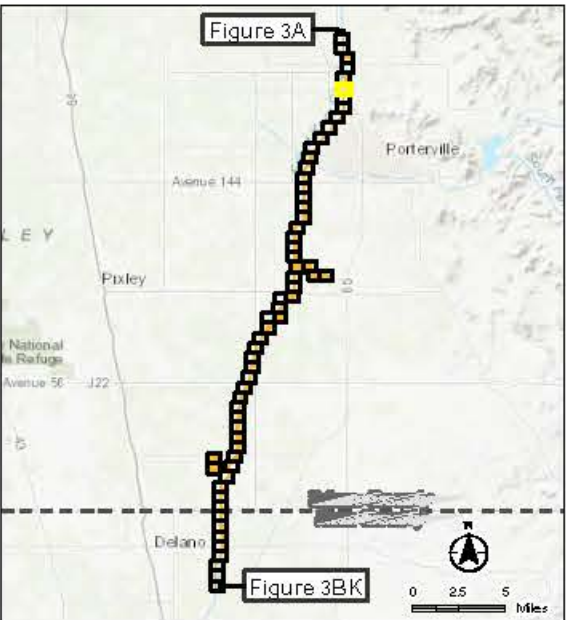
Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Revised by SCF on 2020-01-29

1 inch = 300 feet  
0 150 300 600 Feet  
1:3,708 (At original document size of 11x17)

- Project Area
- Habitat
- Agriculture - Orchard (ao)
  - Barren/Ruderal (br)
  - Non-Native Annual Grassland (nag)
  - Urban (u)
  - Water (w)



Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019



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Revised: 2020-01-29 by SCF



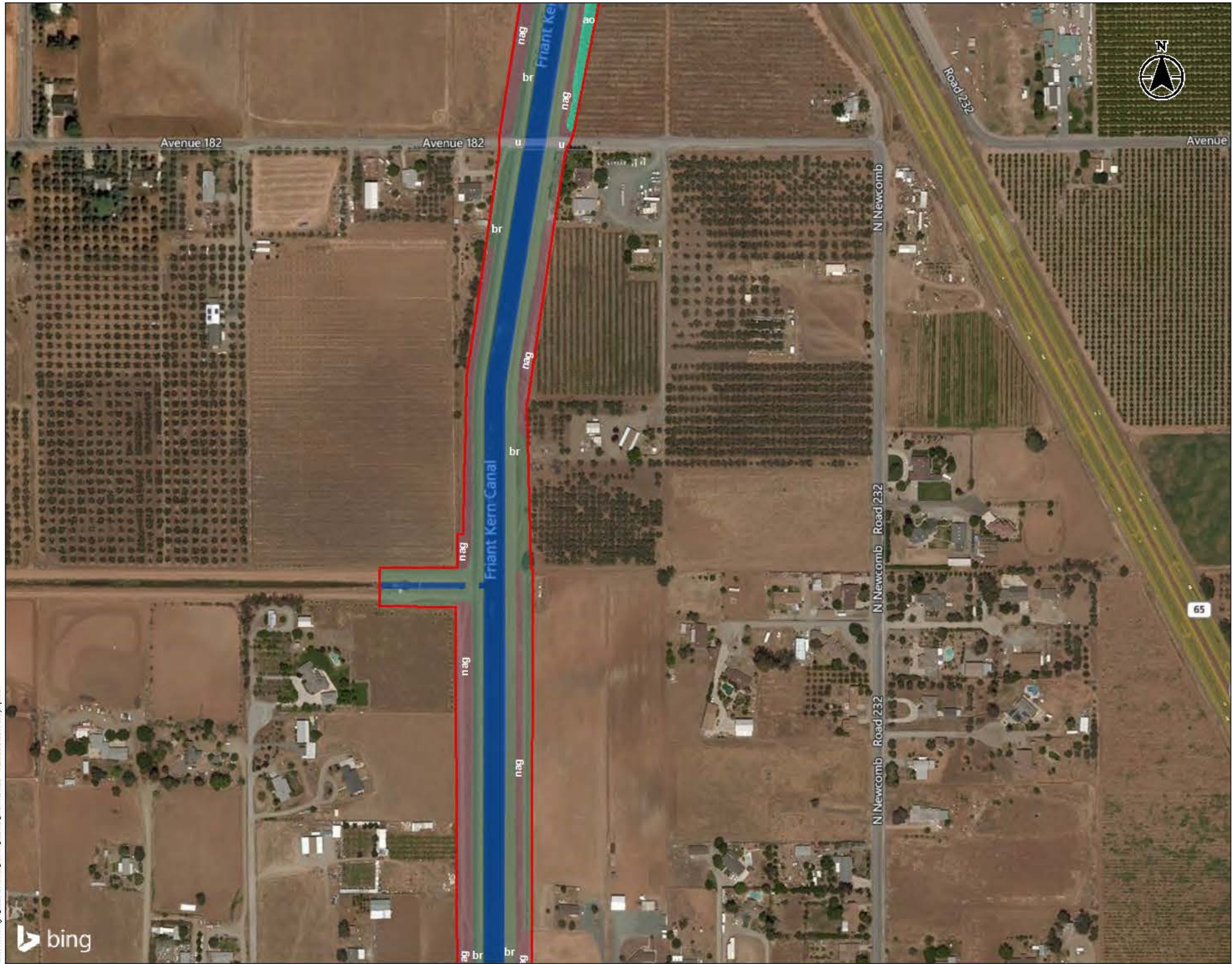


Figure No.  
3G  
Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

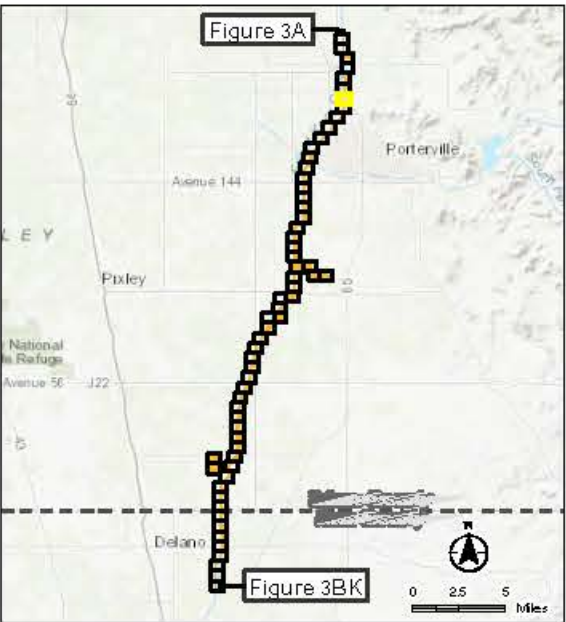
Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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1 inch = 300 feet  
0 150 300 600 Feet  
1:3,708 (At original document size of 11x17)

- Project Area
- Habitat
- Agriculture - Orchard (ao)
- Barren/Ruderal (br)
- Non-Native Annual Grassland (nag)
- Urban (u)
- Water (w)



- Notes
1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
  2. Stantec, 2019, Stantec Field Observations
  3. Orthomosaic Bing Maps, 2019



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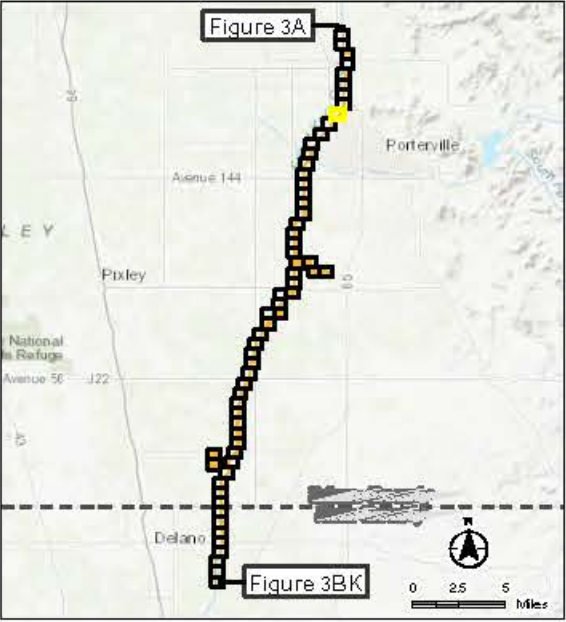
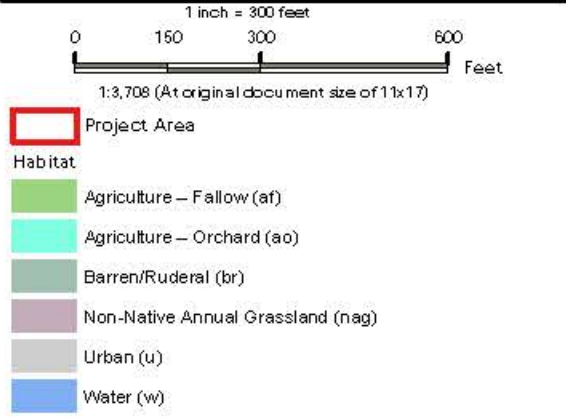
Figure No.  
31

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019

Stantec

Friant  
WATER AUTHORITY



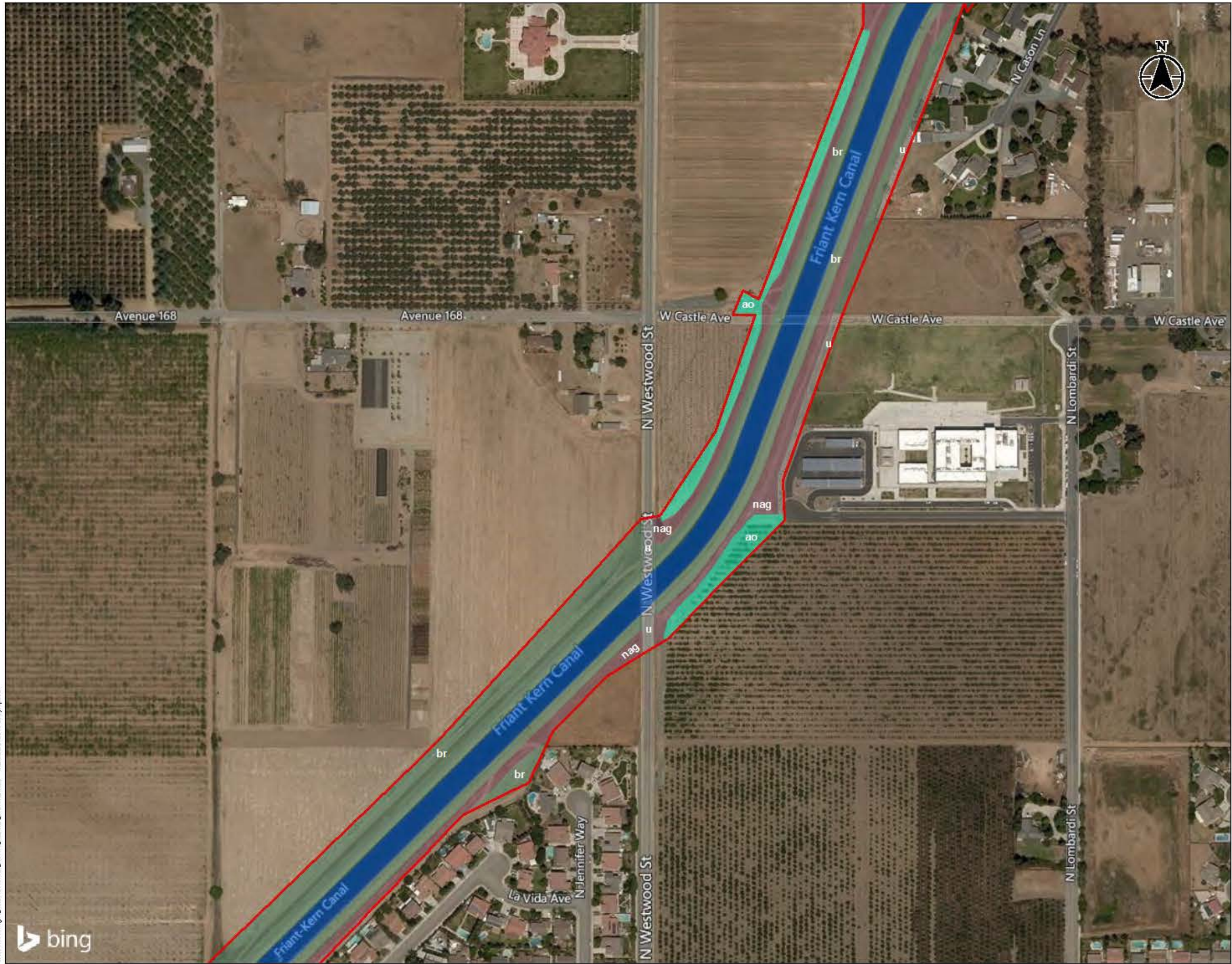


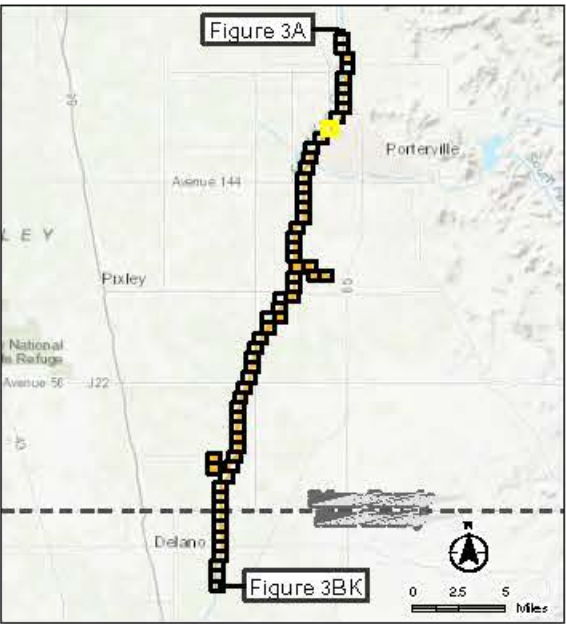
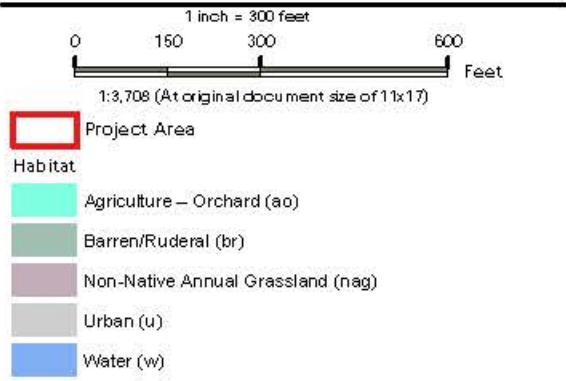
Figure No.  
3J

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019



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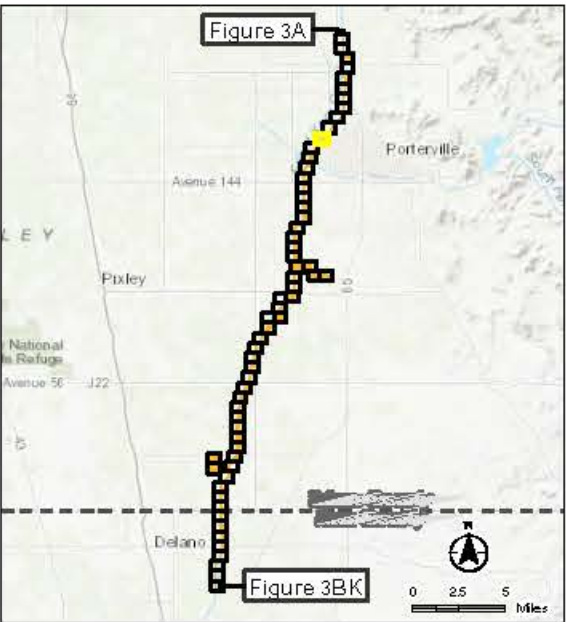
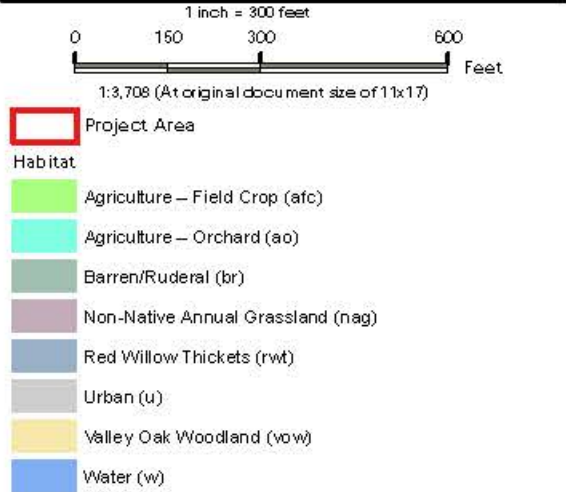
Figure No.  
3K

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Revised by SC-P on 2020-01-29



Notes

- Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
- Stantec, 2019, Stantec Field Observations
- Orthomosaic Bing Maps, 2019





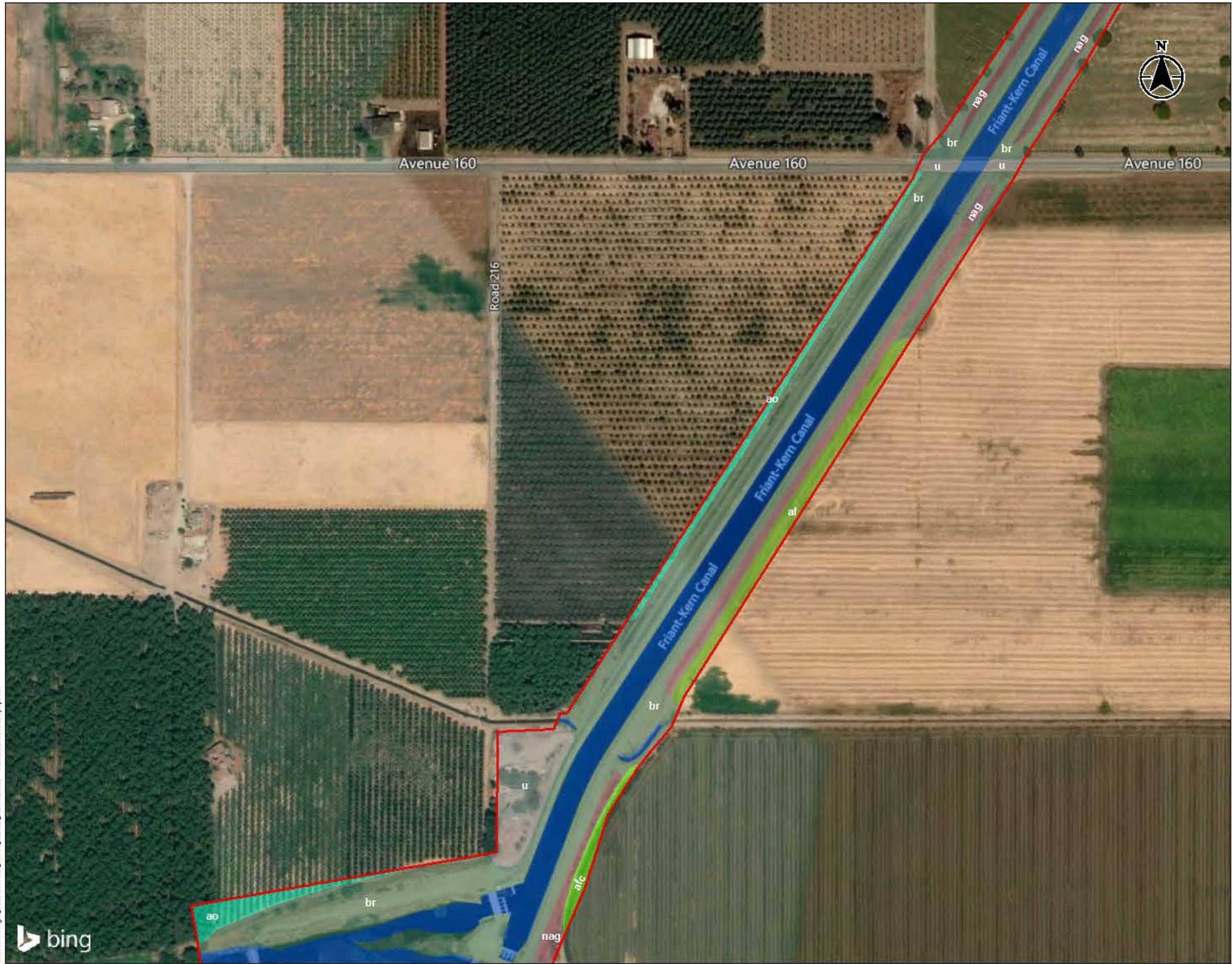


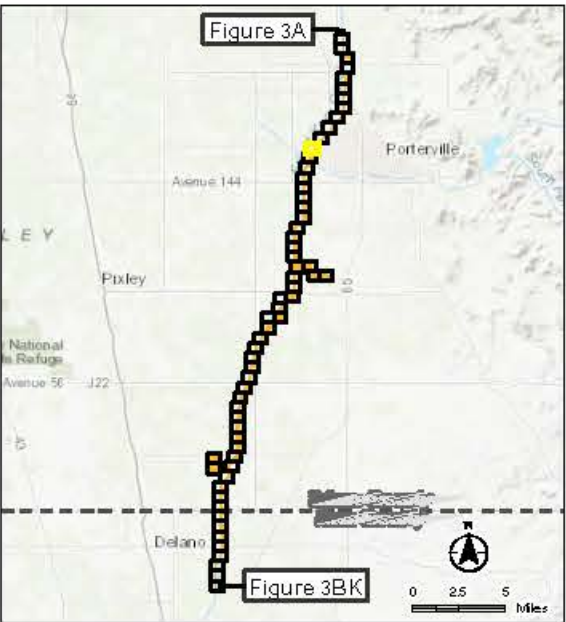
Figure No.  
3L  
Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Revised by SCP on 2020-01-29  
1 inch = 300 feet  
0 150 300 600 Feet  
1:3,708 (At original document size of 11x17)

- Project Area
- Habitat
- Agriculture - Fallow (af)
  - Agriculture - Field Crop (afc)
  - Agriculture - Orchard (ao)
  - Barren/Ruderal (br)
  - Non-Native Annual Grassland (nag)
  - Urban (u)
  - Water (w)



Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019



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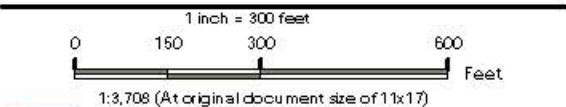
Figure No.  
3M

Title  
Habitats within the Project Area

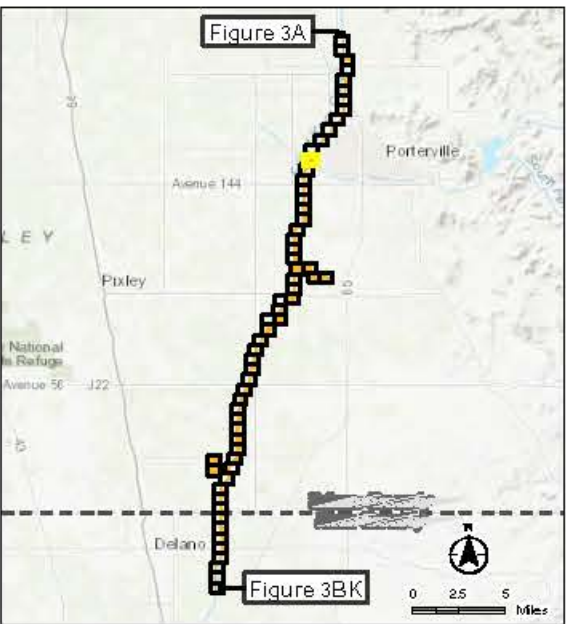
Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Revised by SCF on 2020-01-29



- Project Area**
- Habitat**
- Agriculture - Fallow (af)
  - Agriculture - Field Crop (afc)
  - Agriculture - Orchard (ao)
  - Agriculture - Vineyard (av)
  - Barren/Ruderal (br)
  - Non-Native Annual Grassland (nag)
  - Shining Willow Groves (swg)
  - Urban (u)
  - Water (w)



Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019



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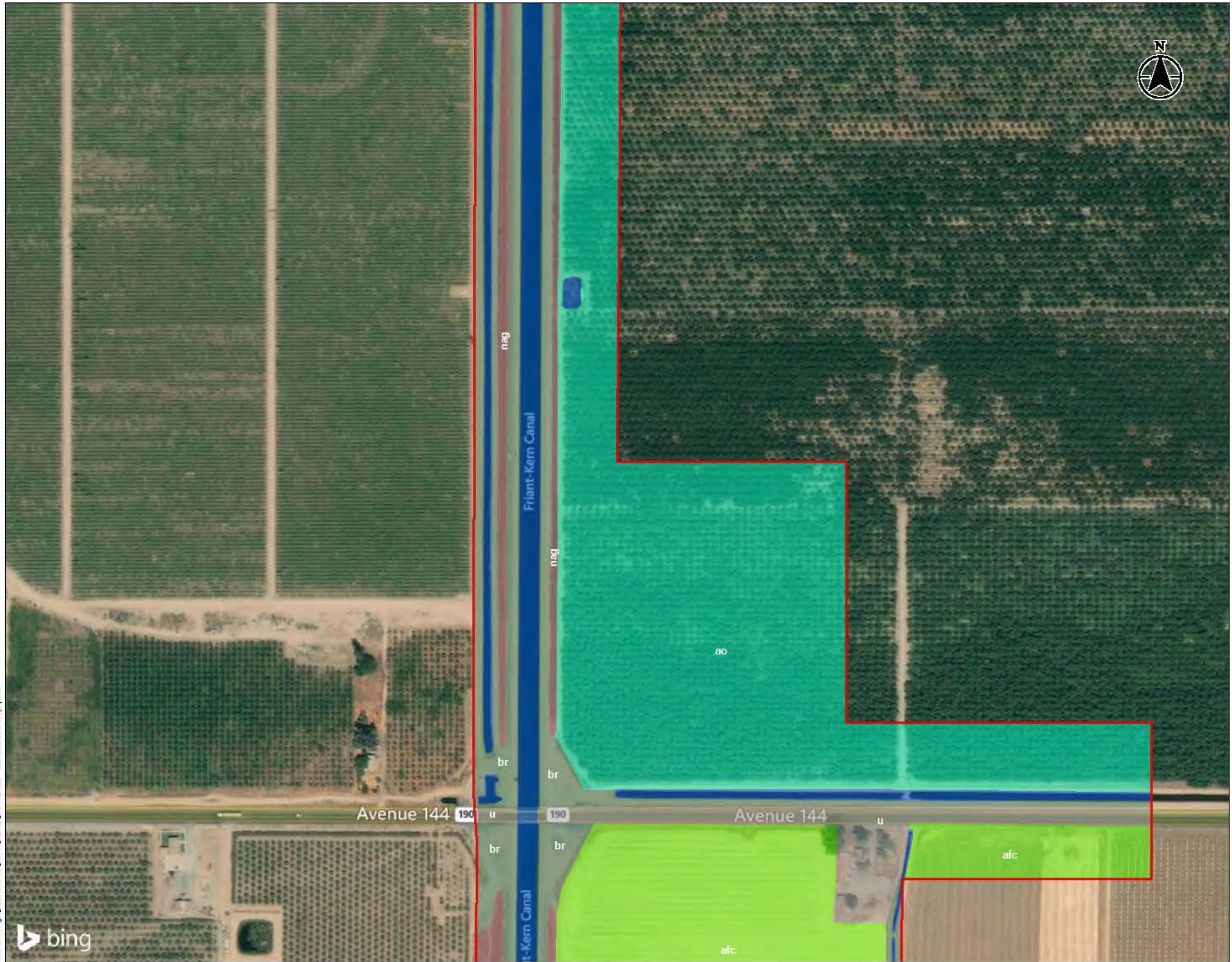


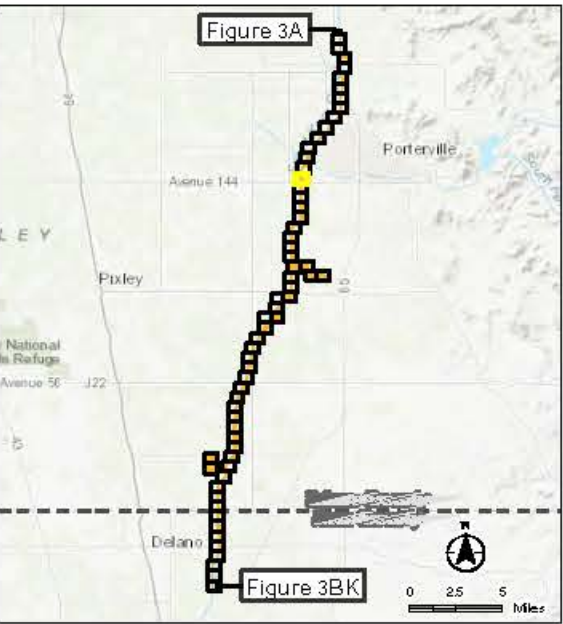
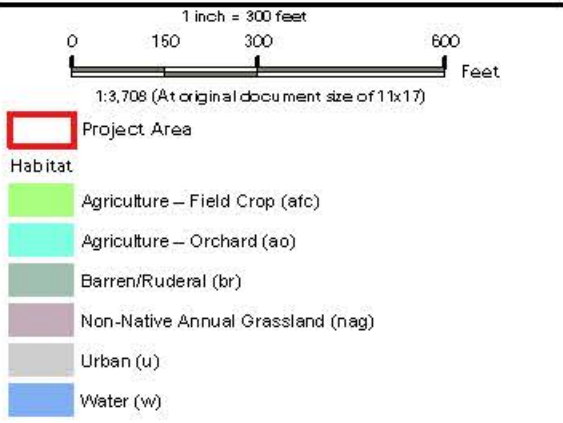
Figure No.  
30

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Revised by SCP on 2020-01-29



Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019



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Revised: 2020-01-29

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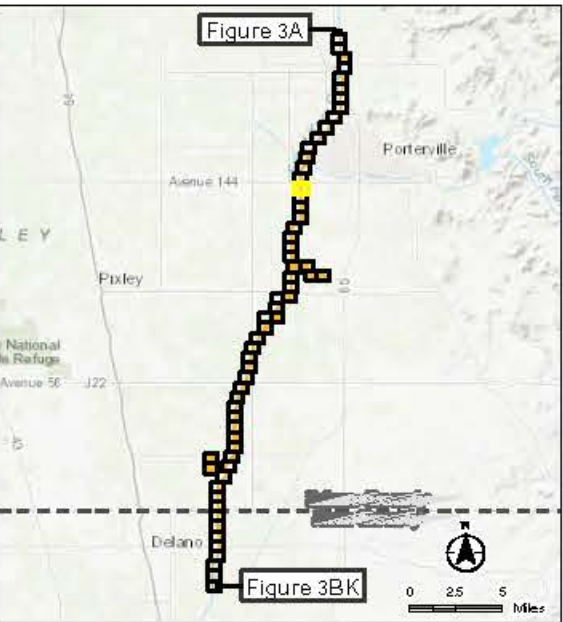
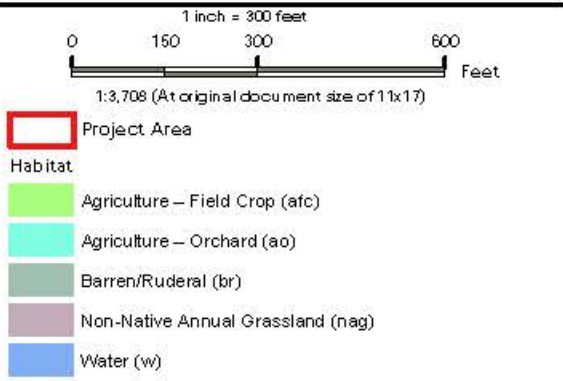
Figure No.  
3P

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
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Notes

- Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
- Stantec, 2019, Stantec Field Observations
- Orthomageary Bing Maps, 2019



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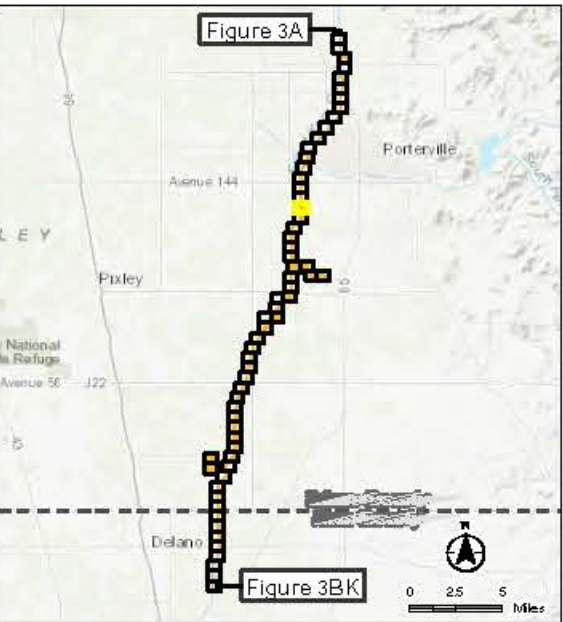
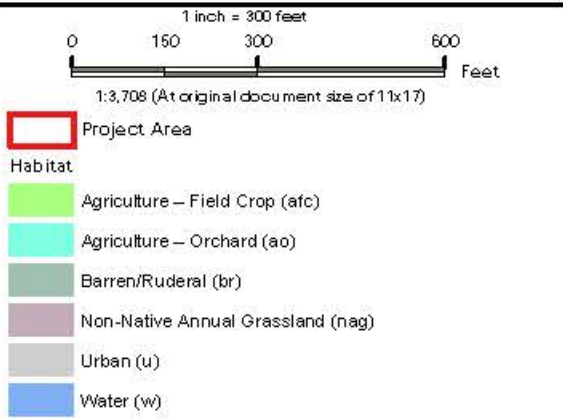
Figure No.  
3R

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Revised by SCP on 2020-01-29



Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019



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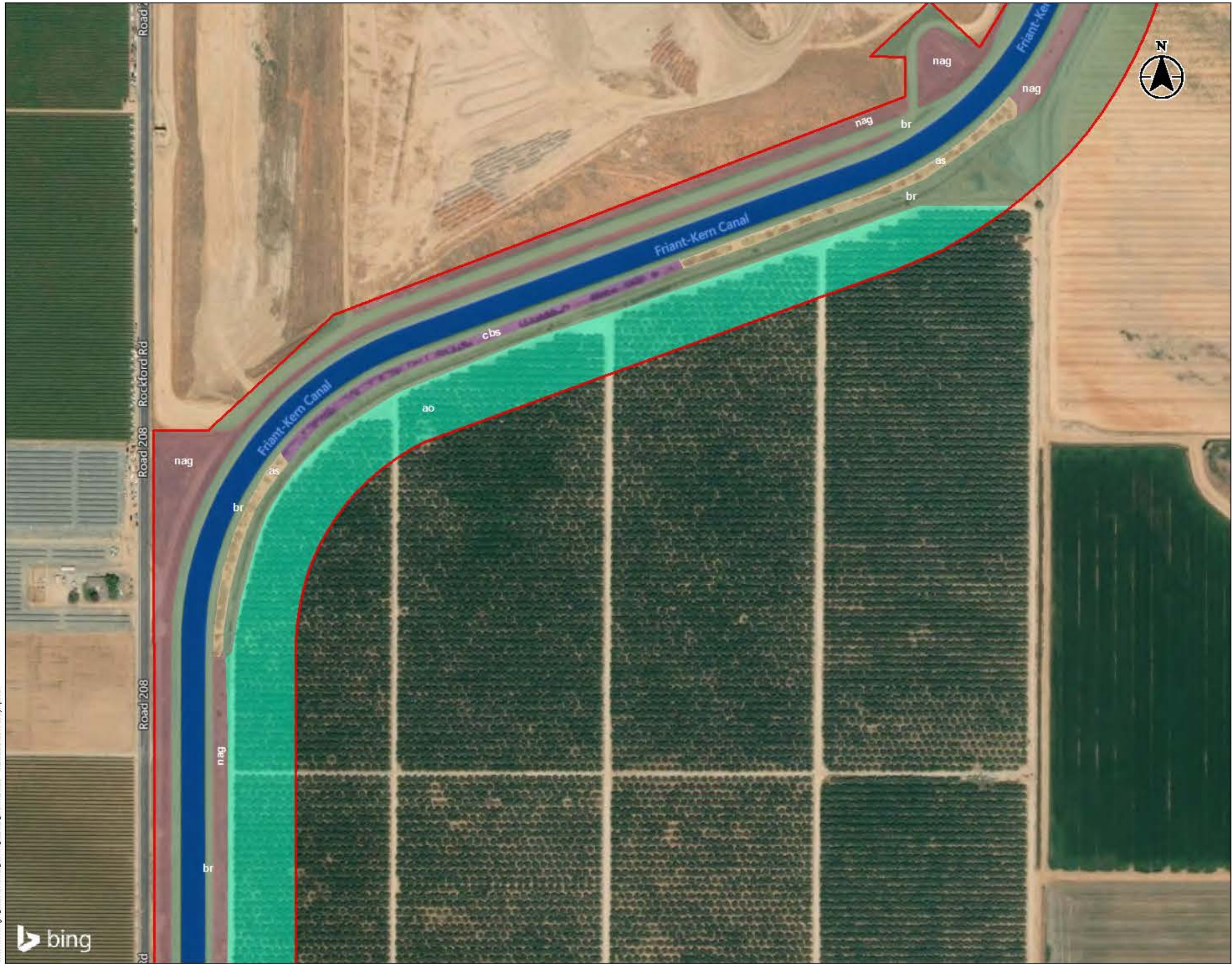


Figure No.  
3T  
Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

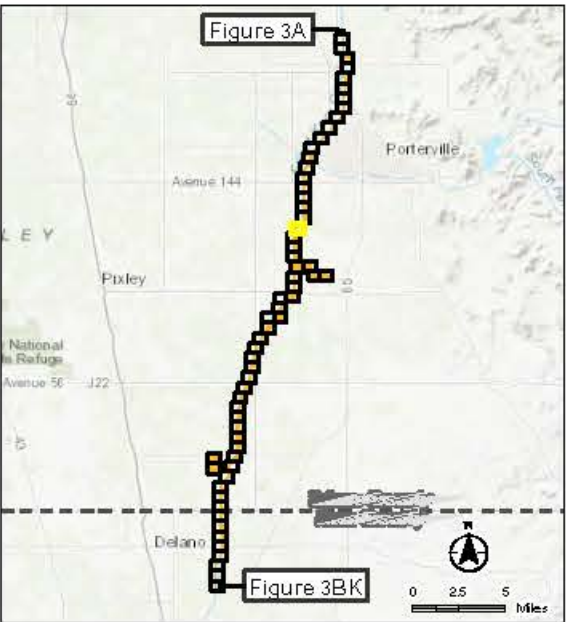
Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016

Revised by SCP on 2020-01-29

1 inch = 300 feet  
0 150 300 600 Feet  
1:3,708 (At original document size of 11x17)

- Project Area
- Habitat
- Agriculture - Orchard (ao)
  - Allscale Scrub (as)
  - Barren/Ruderal (br)
  - California Buckwheat Scrub (cbs)
  - Non-Native Annual Grassland (nag)
  - Water (w)



- Notes
1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
  2. Stantec, 2019, Stantec Field Observations
  3. Orthomosaic Bing Maps, 2019



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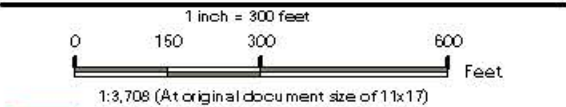
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3U

Title  
Habitats within the Project Area

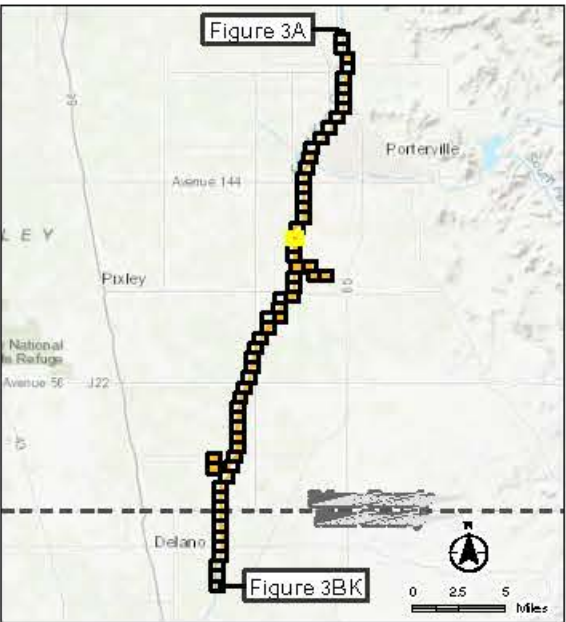
Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Revised by SCF on 2020-01-29



- Project Area
- Habitat
- Agriculture – Orchard (ao)
  - Barren/Ruderal (br)
  - Non-Native Annual Grassland (nag)
  - Urban (u)
  - Water (w)



Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthorectified Bing Maps, 2019



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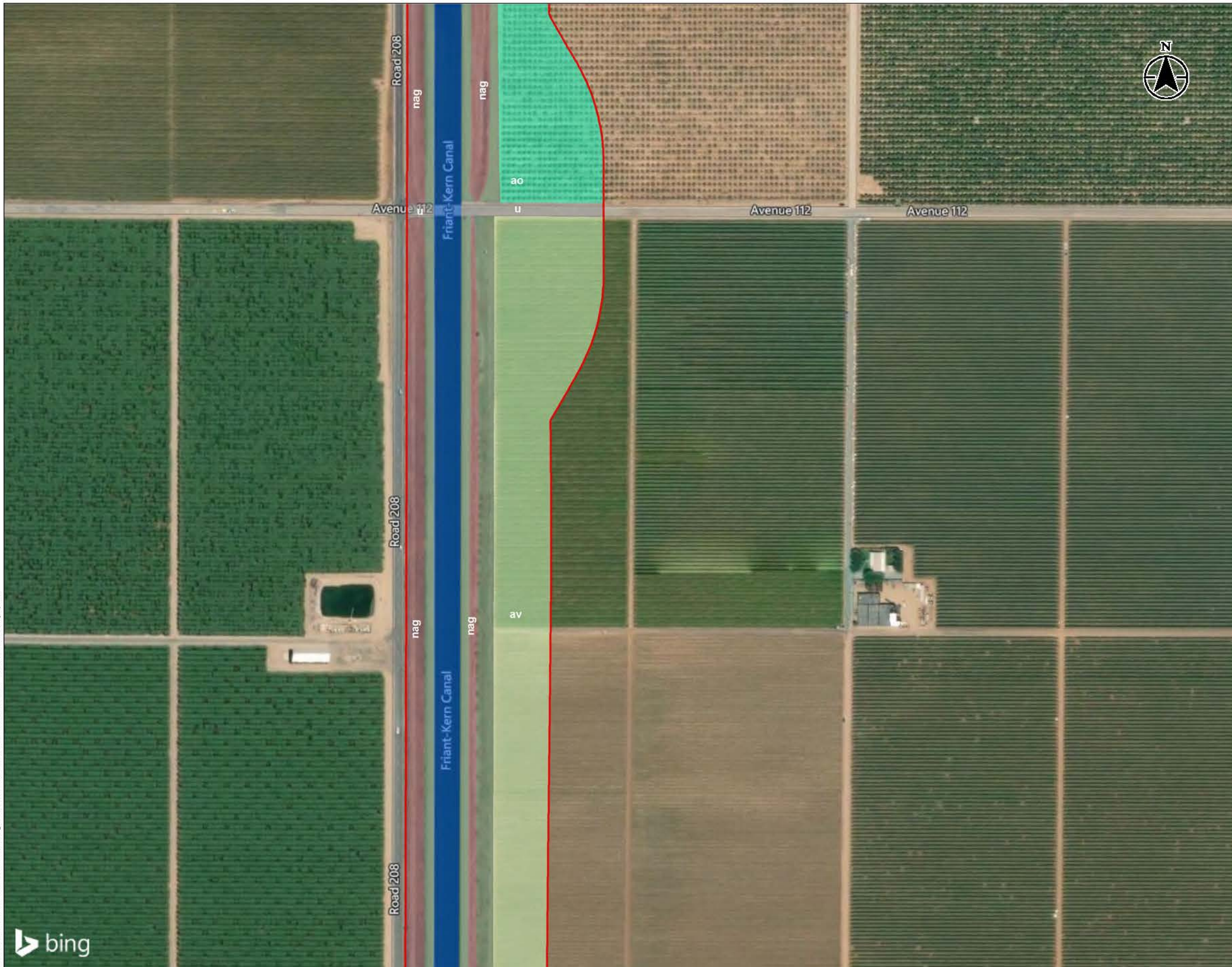


Figure No.  
3W

Title  
**Habitats within the Project Area**

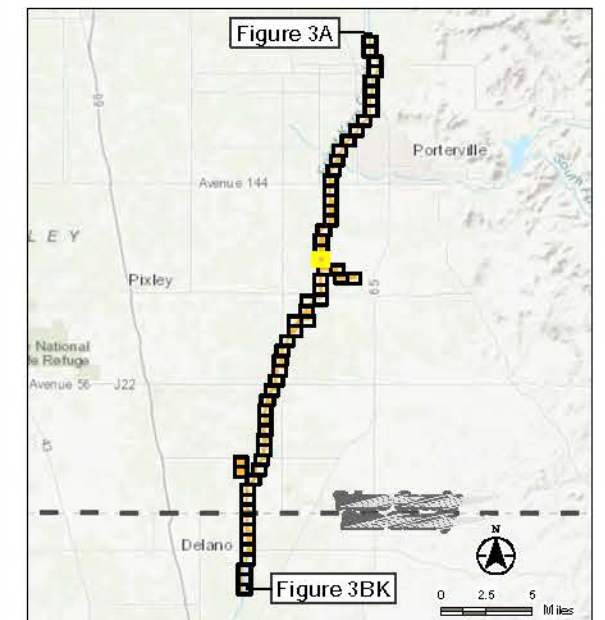
Client/Project  
**Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment**

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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1 inch = 300 feet  
0 150 300 600 Feet  
1:3,708 (At original document size of 11x17)

- Project Area
- Habitat
- Agriculture – Orchard (ao)
  - Agriculture – Vineyard (av)
  - Barren/Ruderal (br)
  - Non-Native Annual Grassland (nag)
  - Urban (u)
  - Water (w)



- Notes
- Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
  - Stantec, 2019, Stantec Field Observations
  - Orthimagery Bing Maps, 2019



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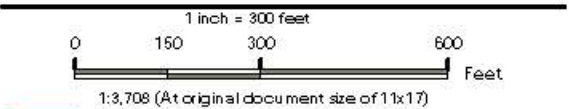
Figure No.  
3X

Title  
Habitats within the Project Area

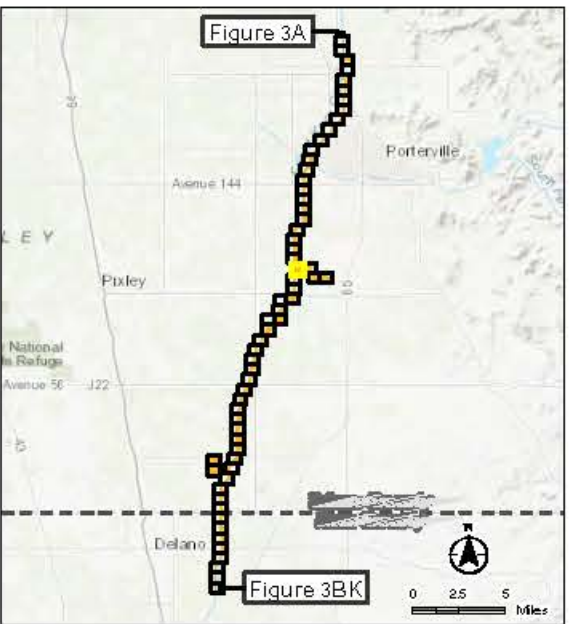
Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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- Project Area
- Habitat
- Agriculture - Fallow (af)
  - Agriculture - Vineyard (av)
  - Barren/Ruderal (br)
  - Fremont Cottonwood Forest (fcf)
  - Non-Native Annual Grassland (nag)
  - Smartweed - Cocklebur Patches (scp)
  - Water (w)



Notes

- Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
- Stantec, 2019, Stantec Field Observations
- Orthorectified Bing Maps, 2019



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Figure No.  
3Y

Title  
Habitats within the Project Area

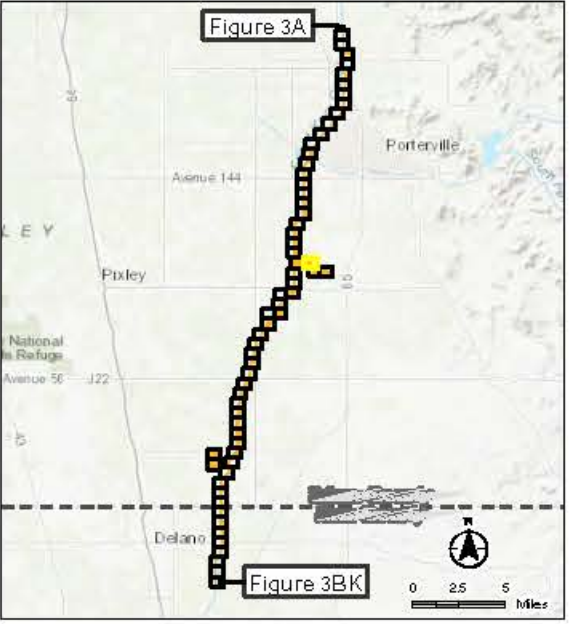
Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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1 inch = 300 feet  
0 150 300 600 Feet  
1:3,708 (At original document size of 11x17)

Project Area  
Habitat  
Agriculture - Fallow (af)



Notes  
1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet  
2. Stantec, 2019, Stantec Field Observations  
3. Orthomogery Bing Maps, 2019



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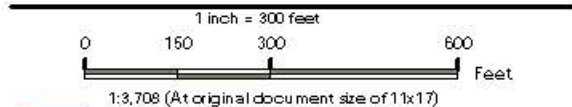
Figure No.  
3AC

Title  
Habitats within the Project Area

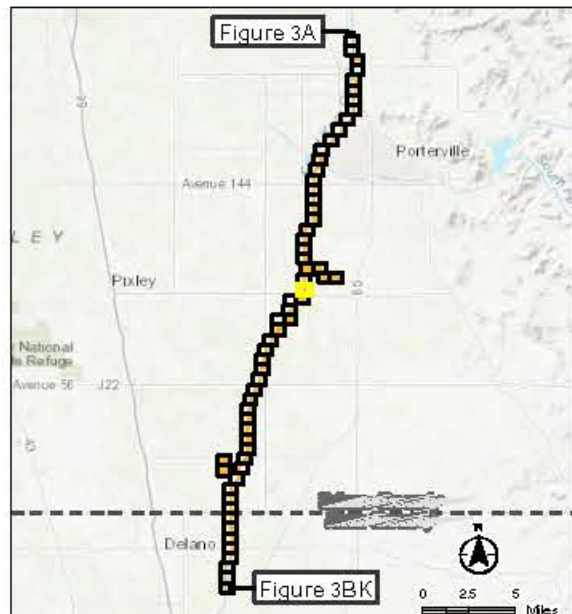
Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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- 1 inch = 300 feet
- 0 150 300 600 Feet
- 1:3,708 (At original document size of 11x17)
- Project Area
- Habitat
- Agriculture - Orchard (ao)
  - Agriculture - Vineyard (av)
  - Barren/Ruderal (br)
  - California Buckwheat Scrub (cbs)
  - Non-Native Annual Grassland (nag)
  - Urban (u)
  - Water (w)



- Notes
1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
  2. Stantec, 2019, Stantec Field Observations
  3. Orthomosaic Bing Maps, 2019



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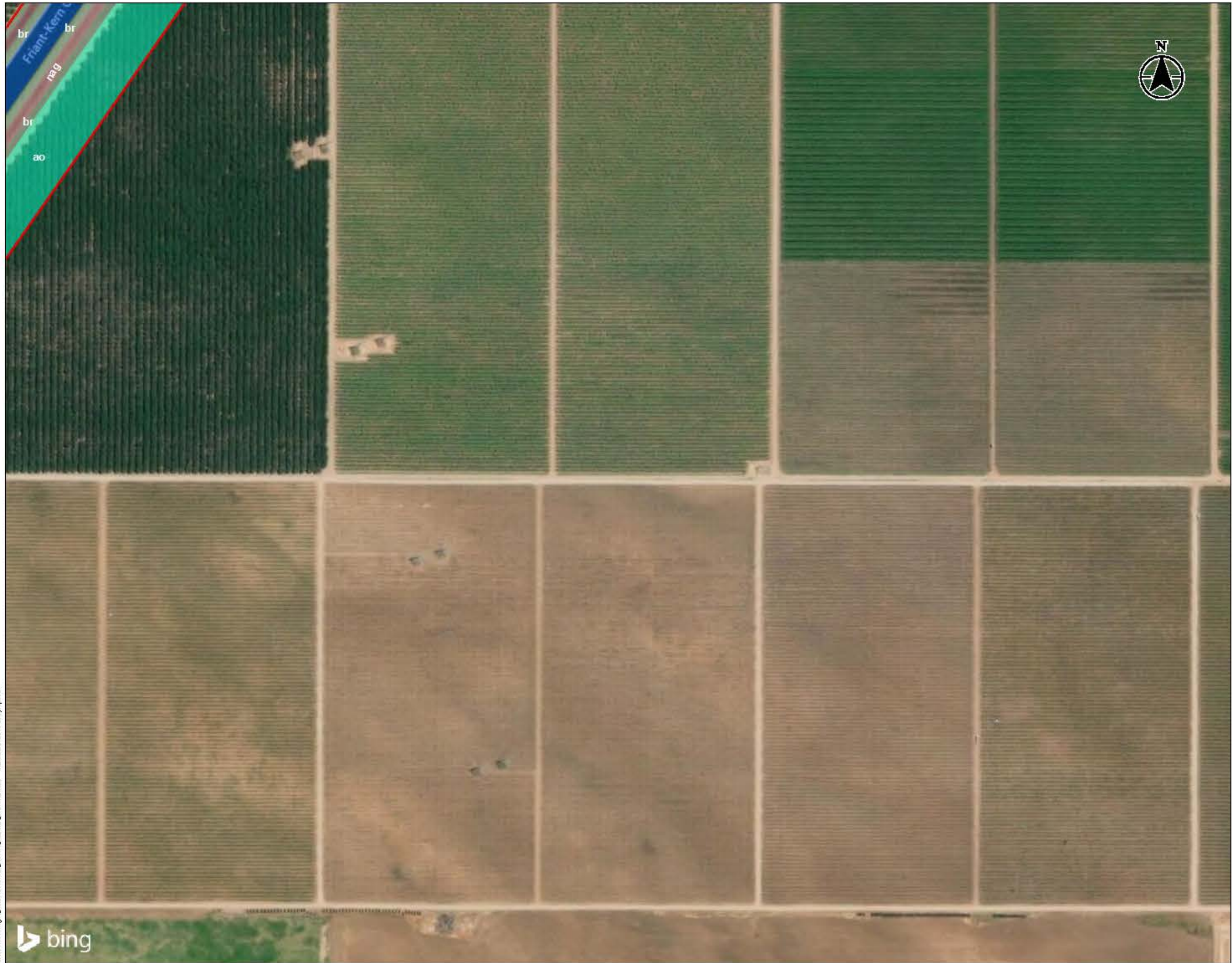


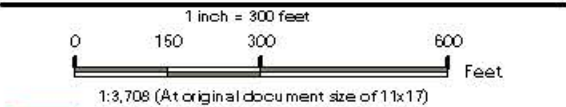
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Title  
**Habitats within the Project Area**

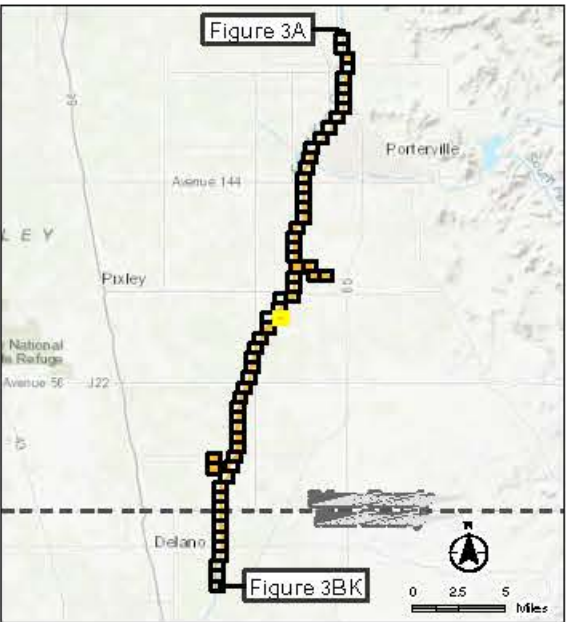
Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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- Project Area**
- Habitat**
- Agriculture - Orchard (ao)
  - Barren/Ruderal (br)
  - Non-Native Annual Grassland (nag)
  - Water (w)



Notes

- Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
- Stantec, 2019, Stantec Field Observations
- Orthomageary Bing Maps, 2019



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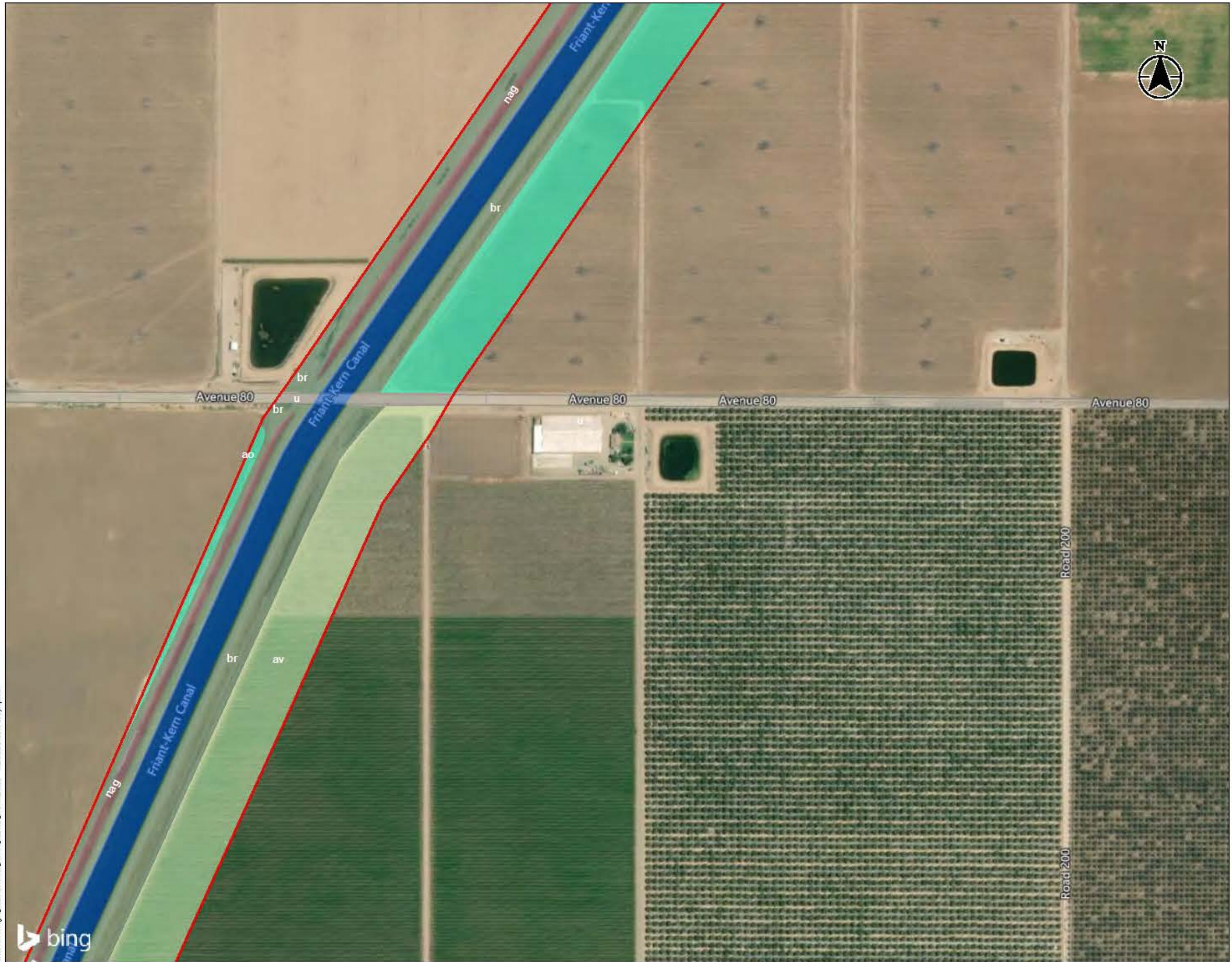


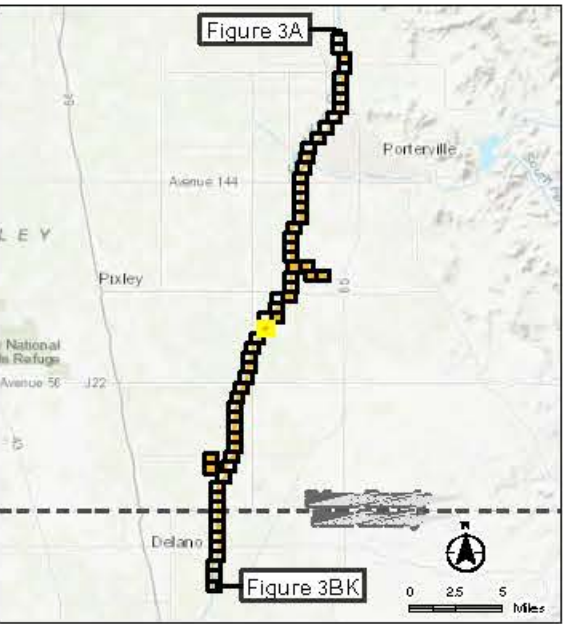
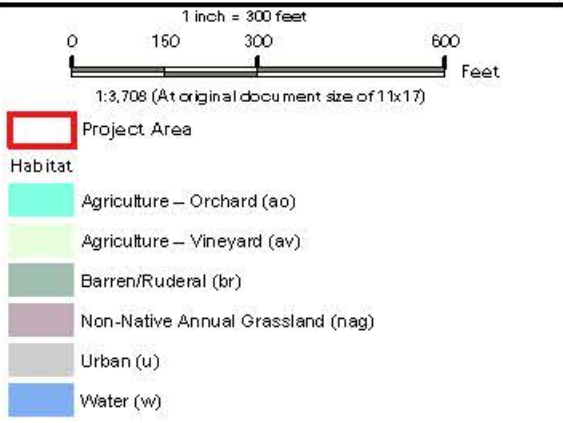
Figure No.  
3A1

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019





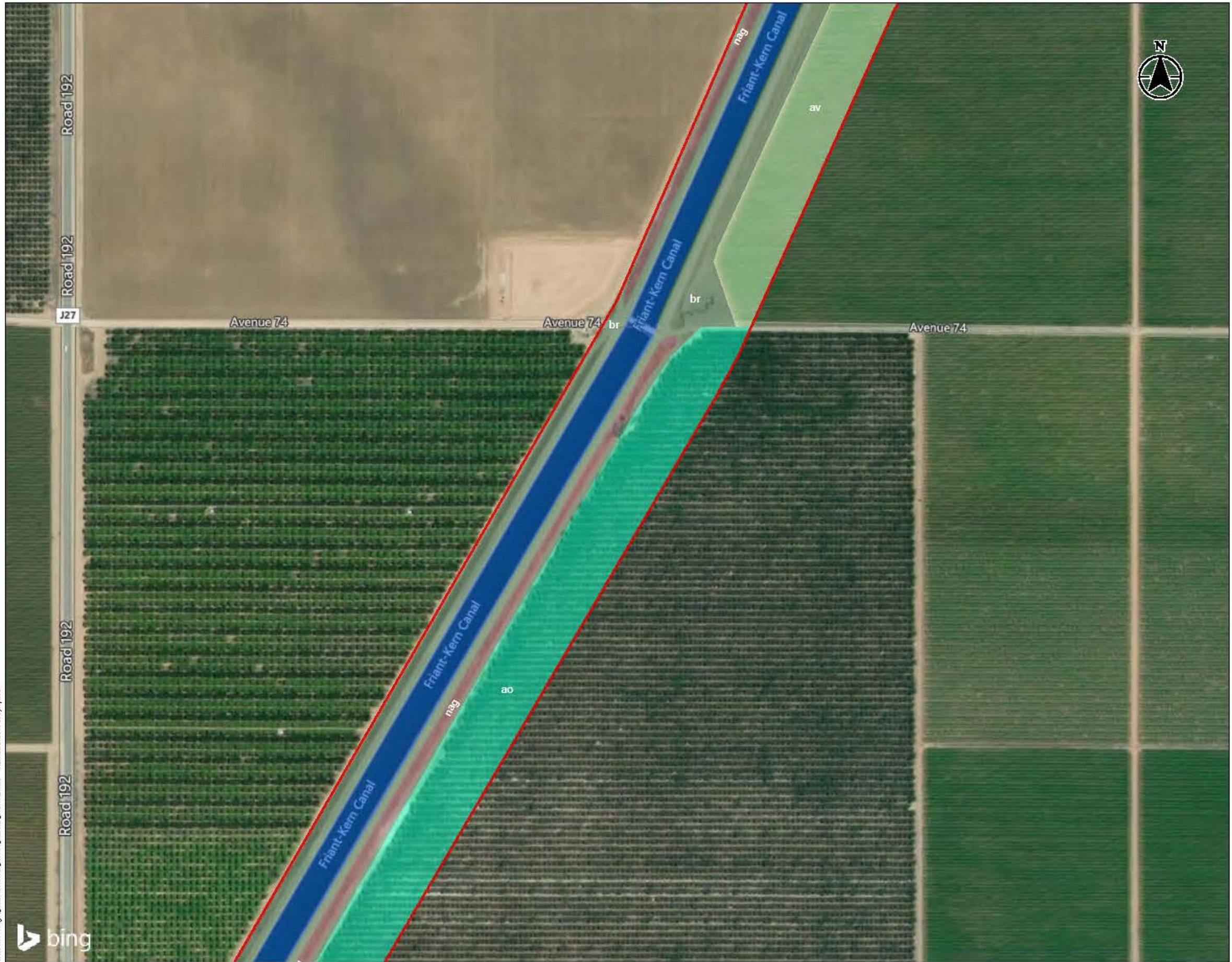


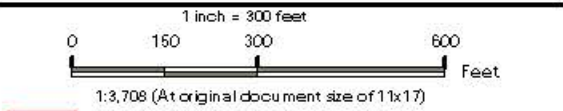
Figure No.  
3AJ

Title  
Habitats within the Project Area

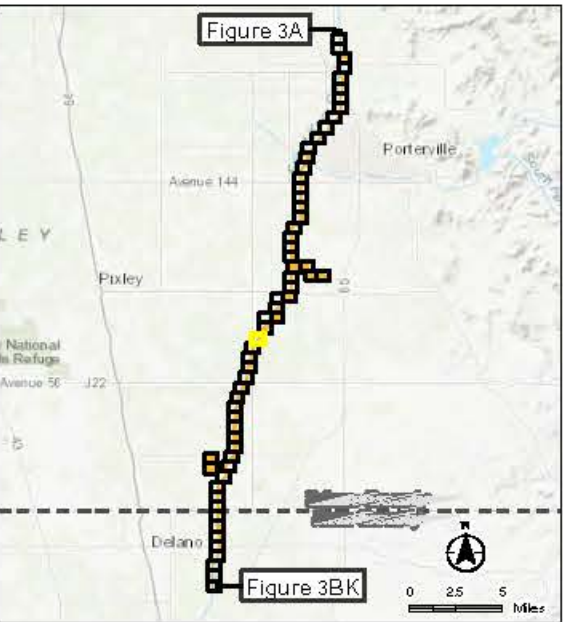
Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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- Project Area
- Habitat
- Agriculture - Orchard (ao)
  - Agriculture - Vineyard (av)
  - Barren/Ruderal (br)
  - Non-Native Annual Grassland (nag)
  - Water (w)



- Notes
- Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
  - Stantec, 2019, Stantec Field Observations
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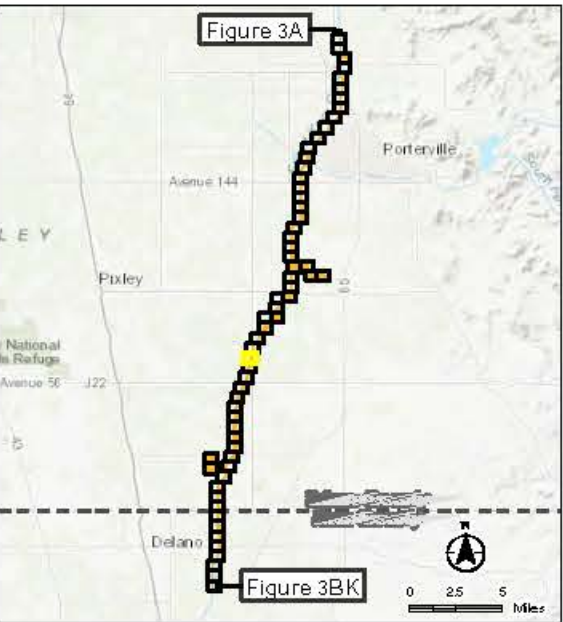
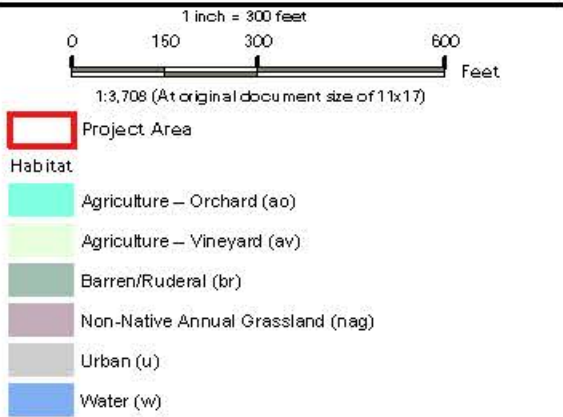
Figure No.  
**3A1**

Title  
**Habitats within the Project Area**

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Notes  
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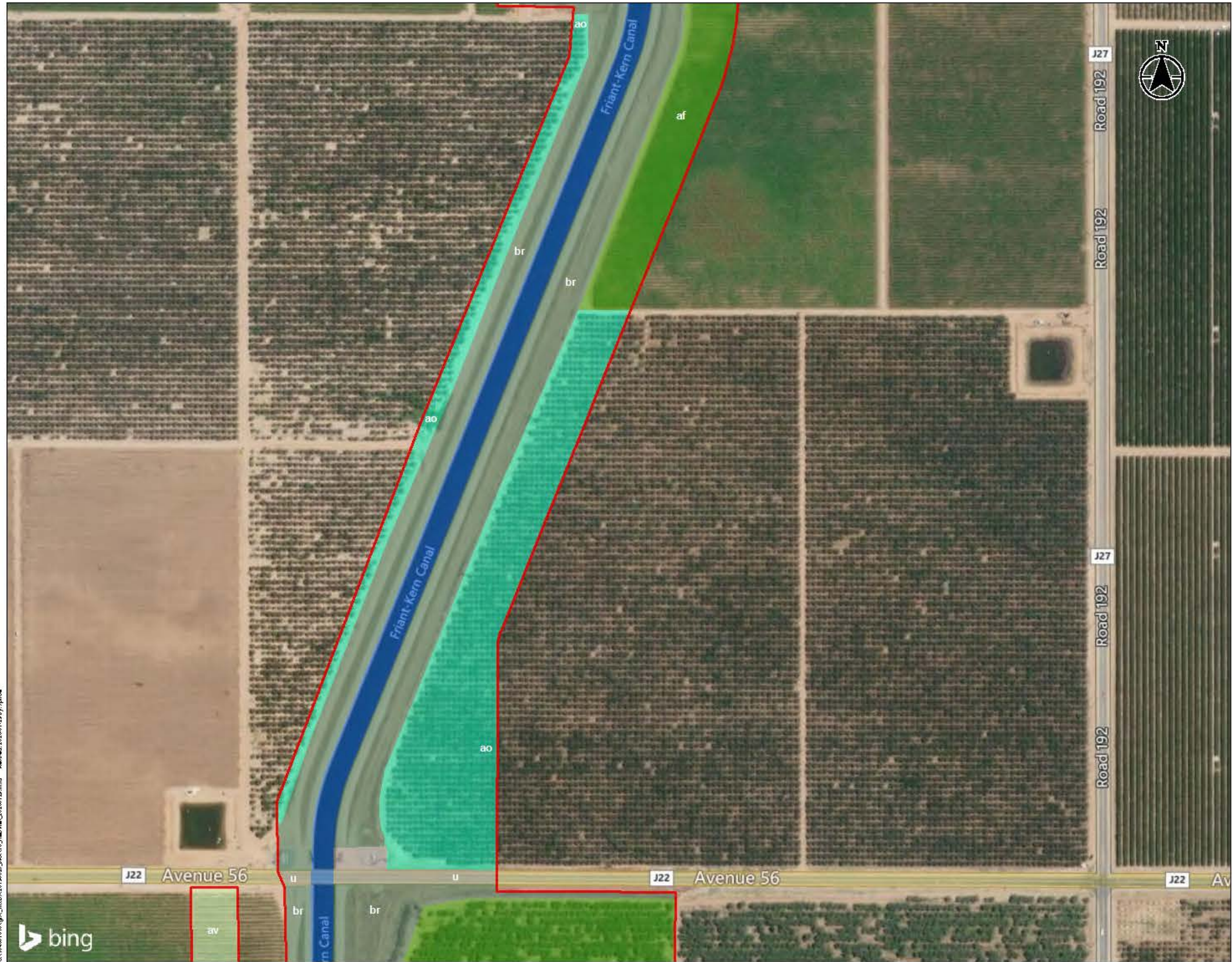


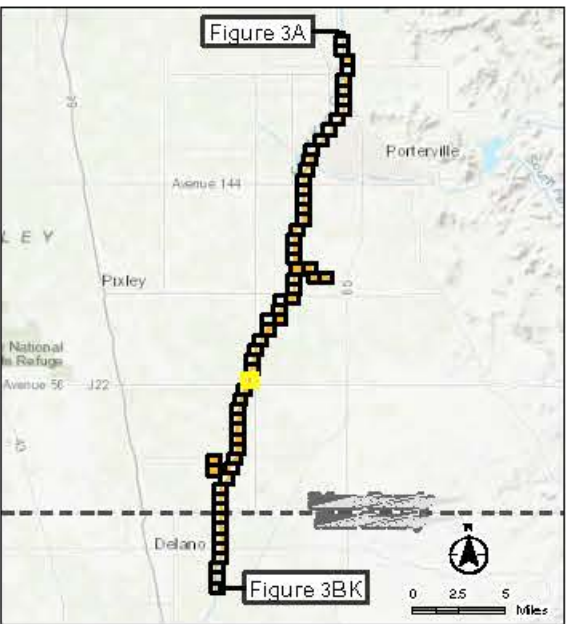
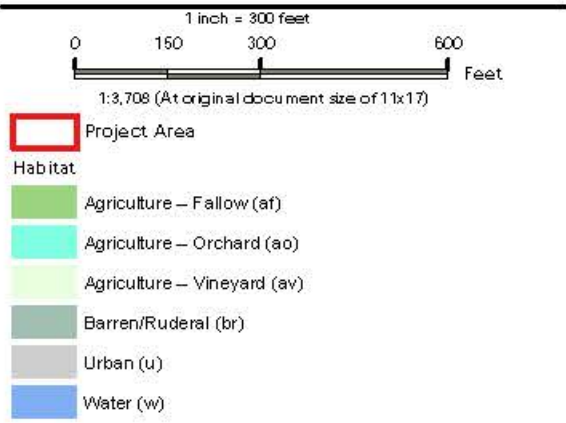
Figure No.  
3AN

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019











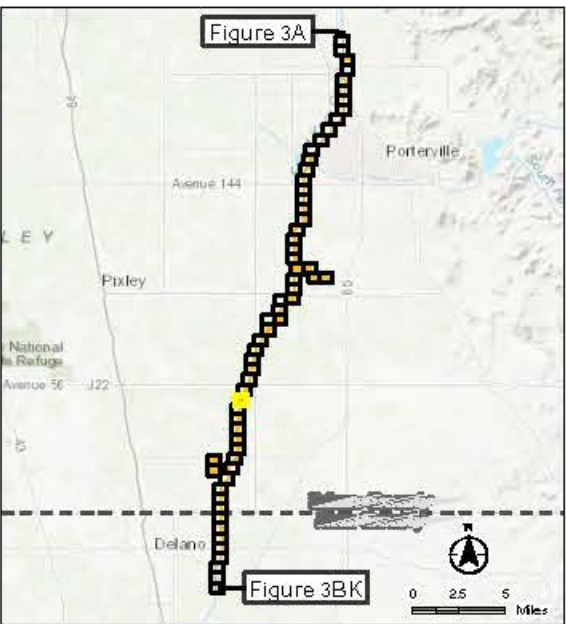
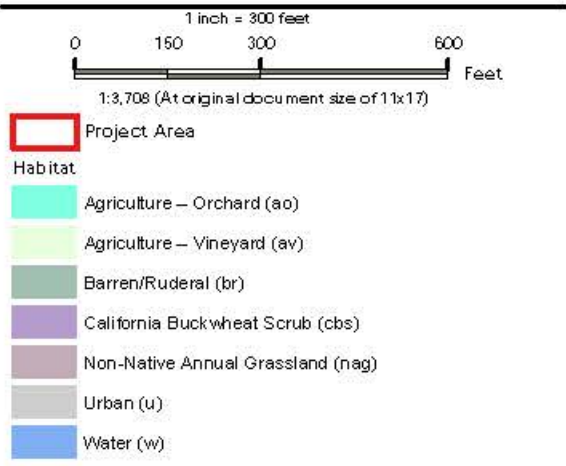
Figure No.  
3AP

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Notes

- Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
- Stantec, 2019, Stantec Field Observations
- Orthomageary Bing Maps, 2019











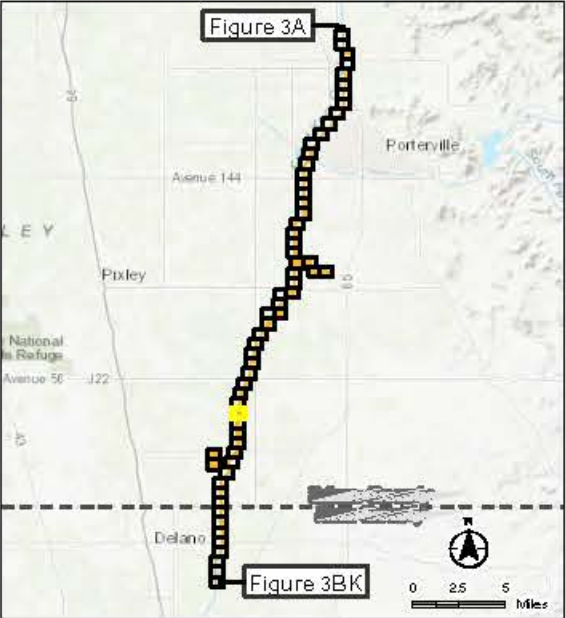
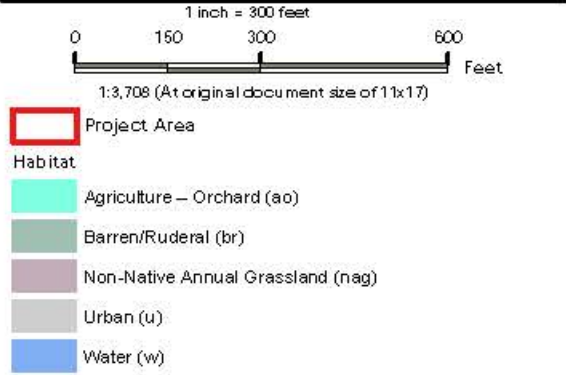
Figure No.  
**3AR**

Title  
**Habitats within the Project Area**

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Notes

- Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
- Stantec, 2019, Stantec Field Observations
- Orthomosaic Bing Maps, 2019





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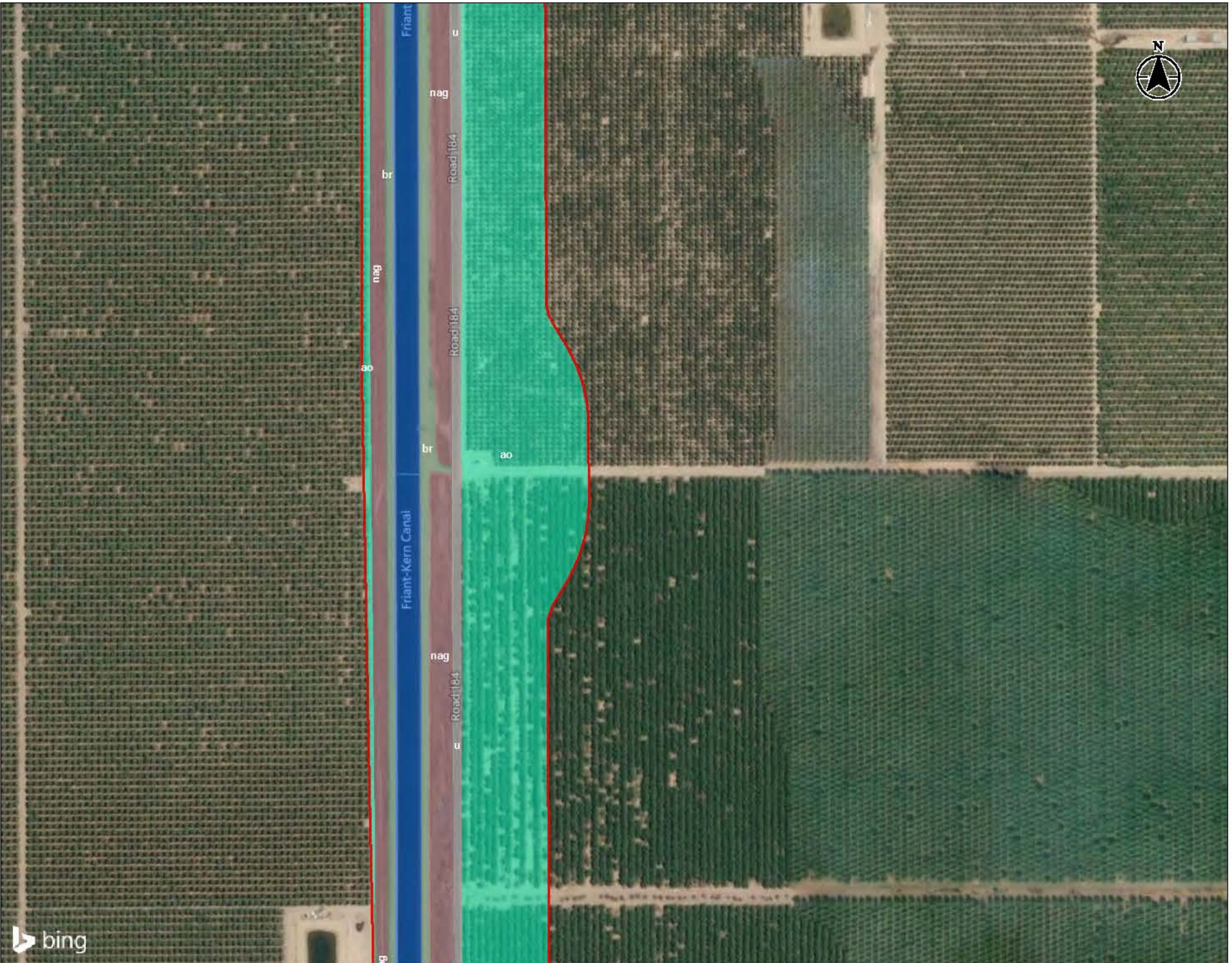


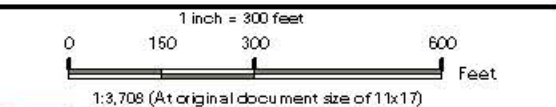
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Title  
**Habitats within the Project Area**

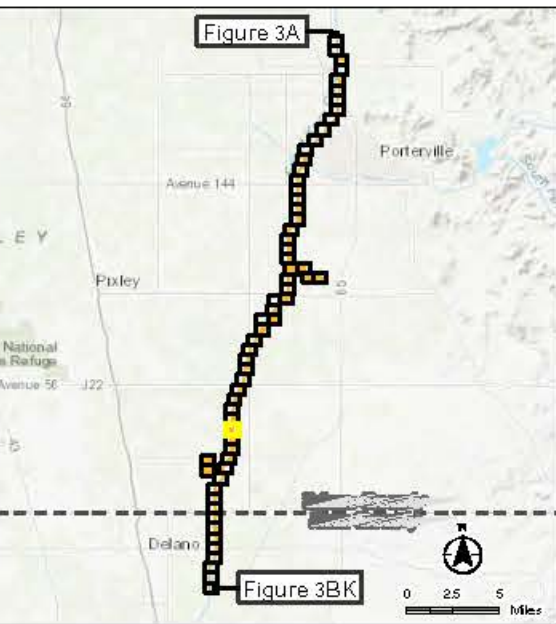
Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
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- Project Area
- Habitat
- Agriculture – Orchard (ao)
  - Barren/Ruderal (br)
  - Non-Native Annual Grassland (nag)
  - Urban (u)
  - Water (w)



- Notes
1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
  2. Stantec, 2019, Stantec Field Observations
  3. Orthomosaic Bing Maps, 2019



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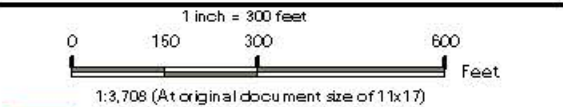
Figure No.  
3AU

Title  
Habitats within the Project Area

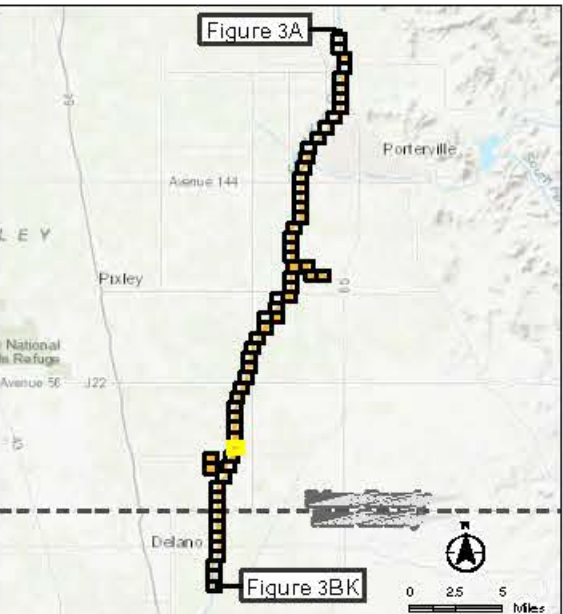
Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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- Project Area
- Habitat
- Agriculture - Orchard (ao)
  - Agriculture - Vineyard (av)
  - Barren/Ruderal (br)
  - Non-Native Annual Grassland (nag)
  - Urban (u)
  - Water (w)



Notes

- Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
- Stantec, 2019, Stantec Field Observations
- Orthomosaic Bing Maps, 2019



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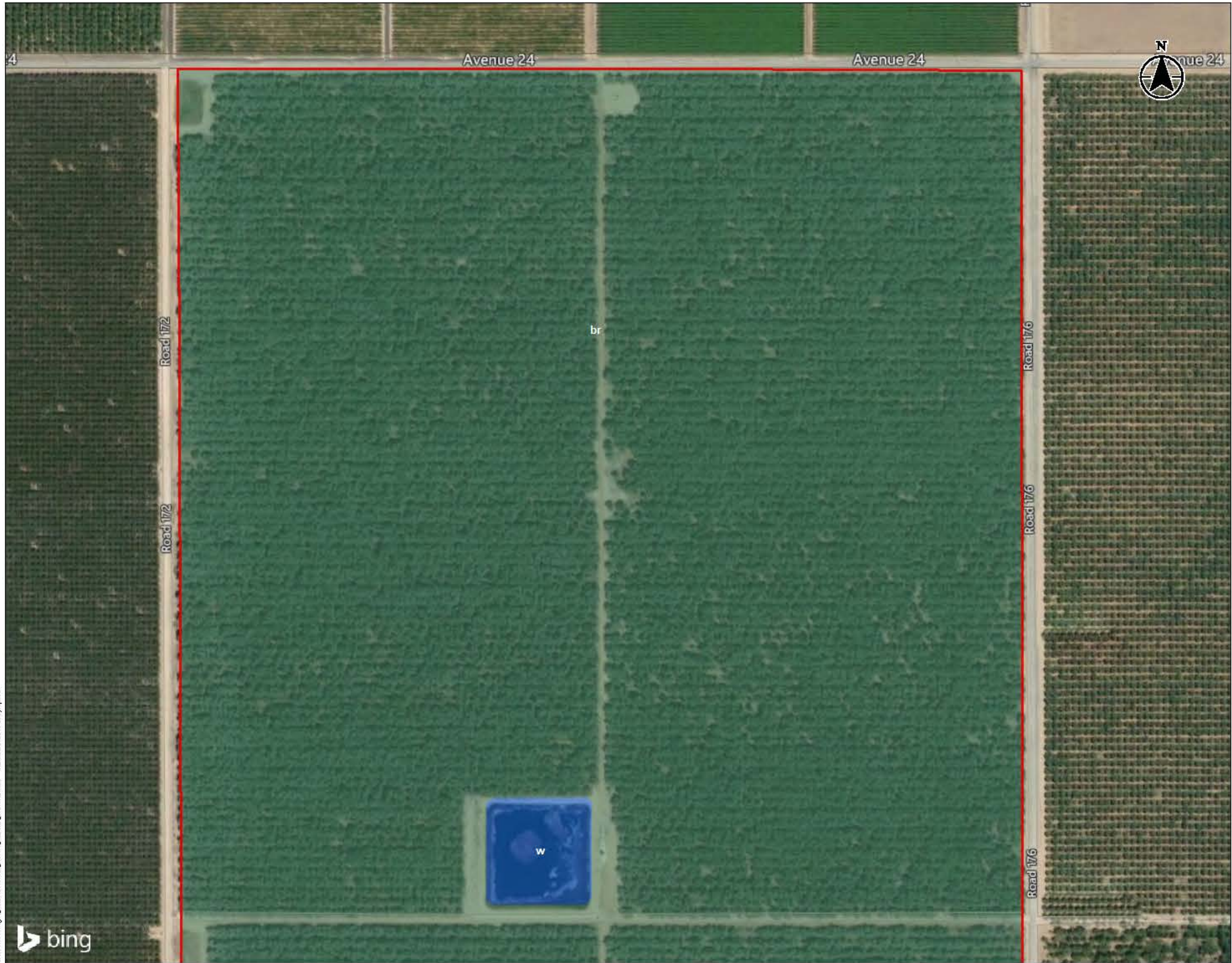


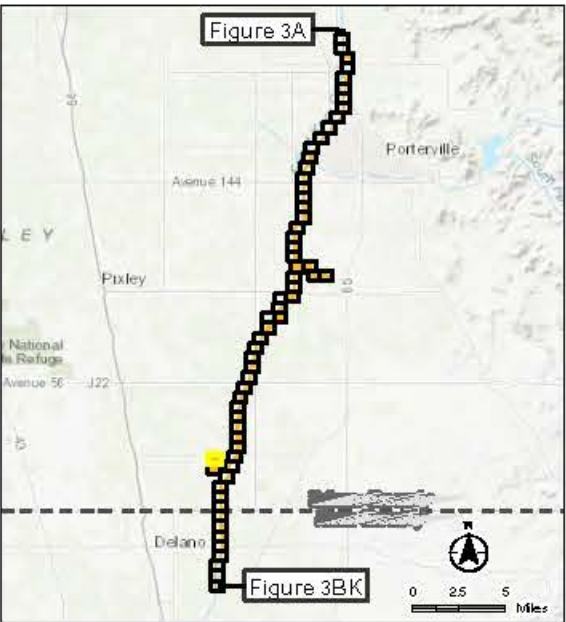
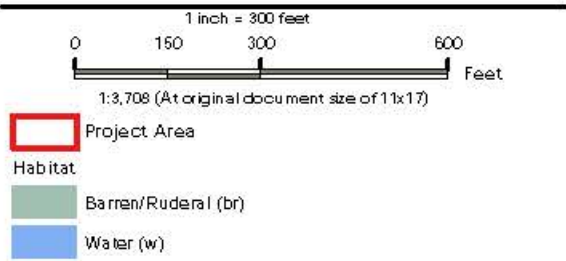
Figure No.  
3AW

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
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Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019



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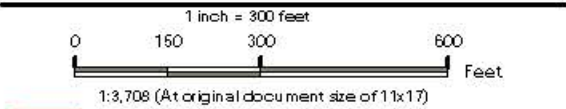
Figure No.  
**3AX**

Title  
**Habitats within the Project Area**

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

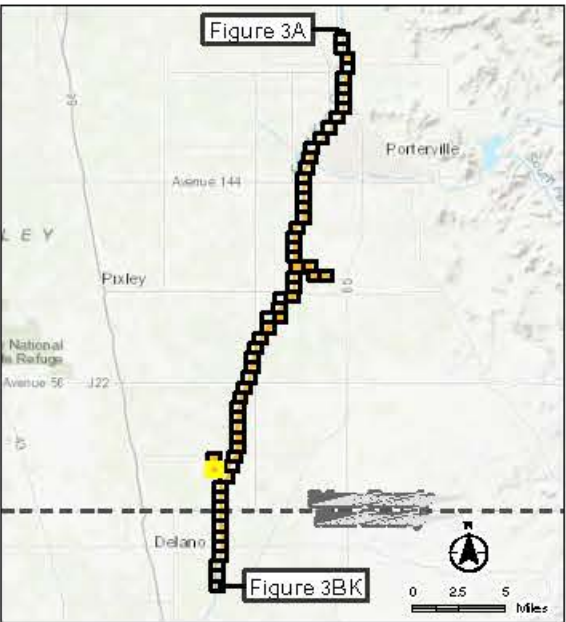
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Revised by SCP on 2020-01-29



Project Area

Habitat

Barren/Ruderal (br)



Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019





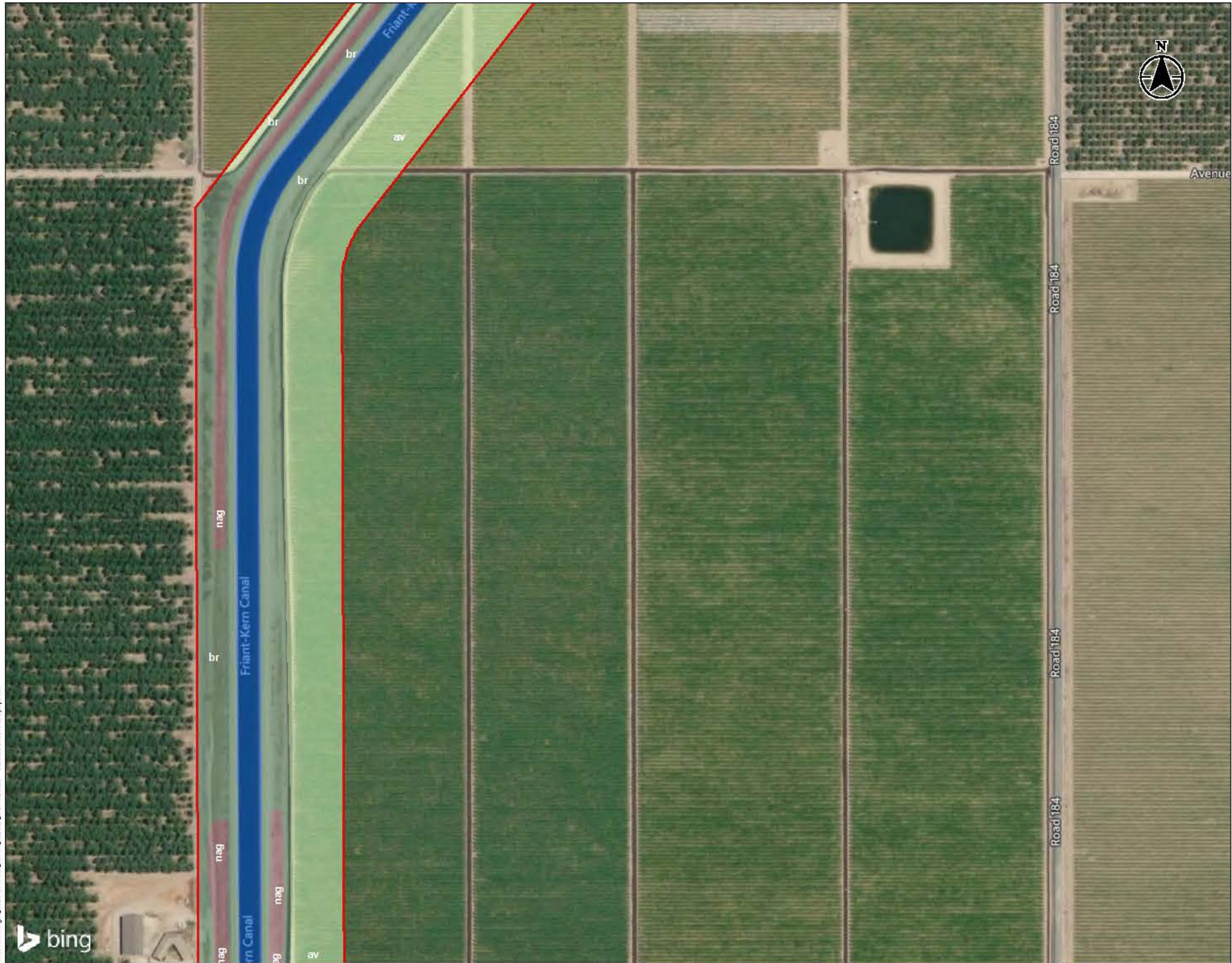


Figure No.  
3AY

Title  
Habitats within the Project Area

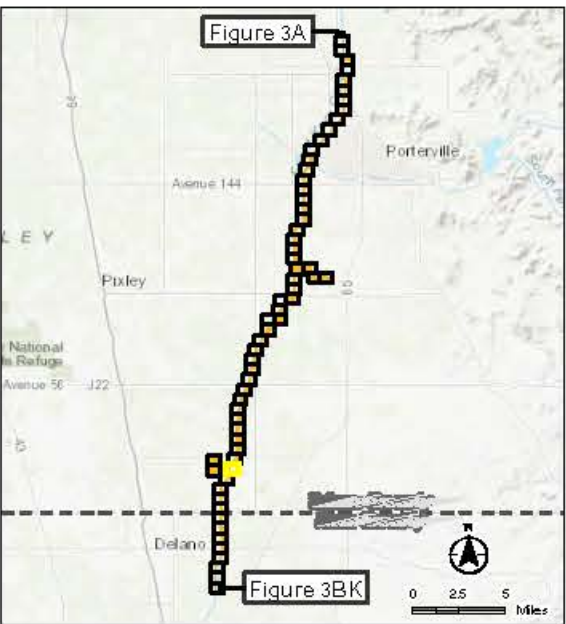
Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.6' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Revised by SCP on 2020-01-29

1 inch = 300 feet  
0 150 300 600 Feet  
1:3,708 (At original document size of 11x17)

- Project Area
- Habitat
- Agriculture - Vineyard (av)
  - Barren/Ruderal (br)
  - Non-Native Annual Grassland (nag)
  - Water (w)



Notes

- Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
- Stantec, 2019, Stantec Field Observations
- Orthomosaic Bing Maps, 2019



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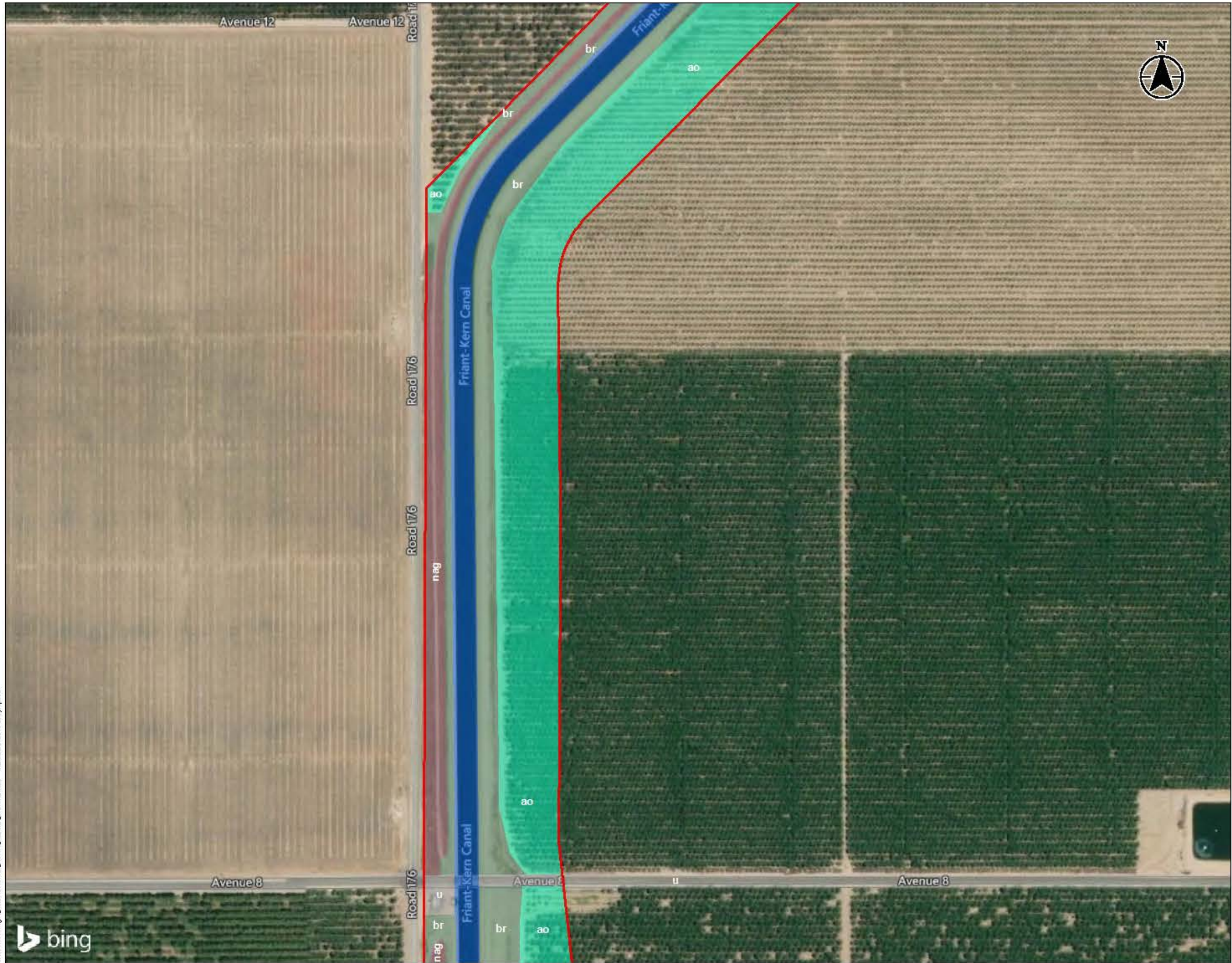


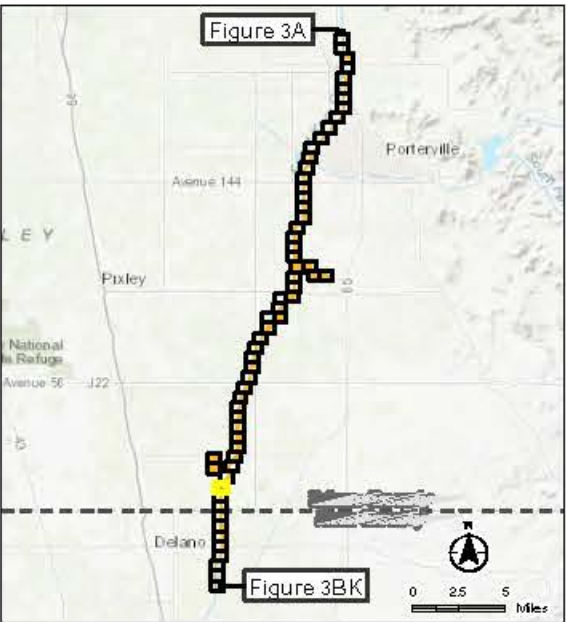
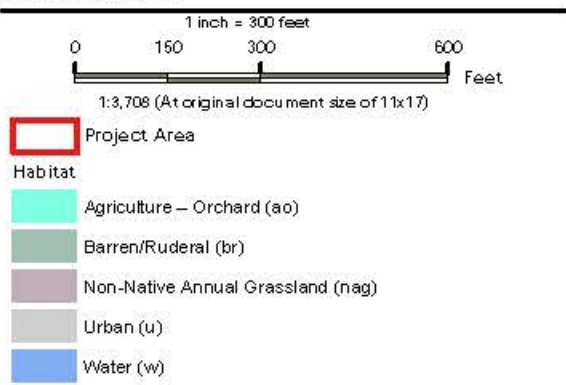
Figure No.  
**3BA**

Title  
**Habitats within the Project Area**

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Revised by SCP on 2020-01-29



Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019



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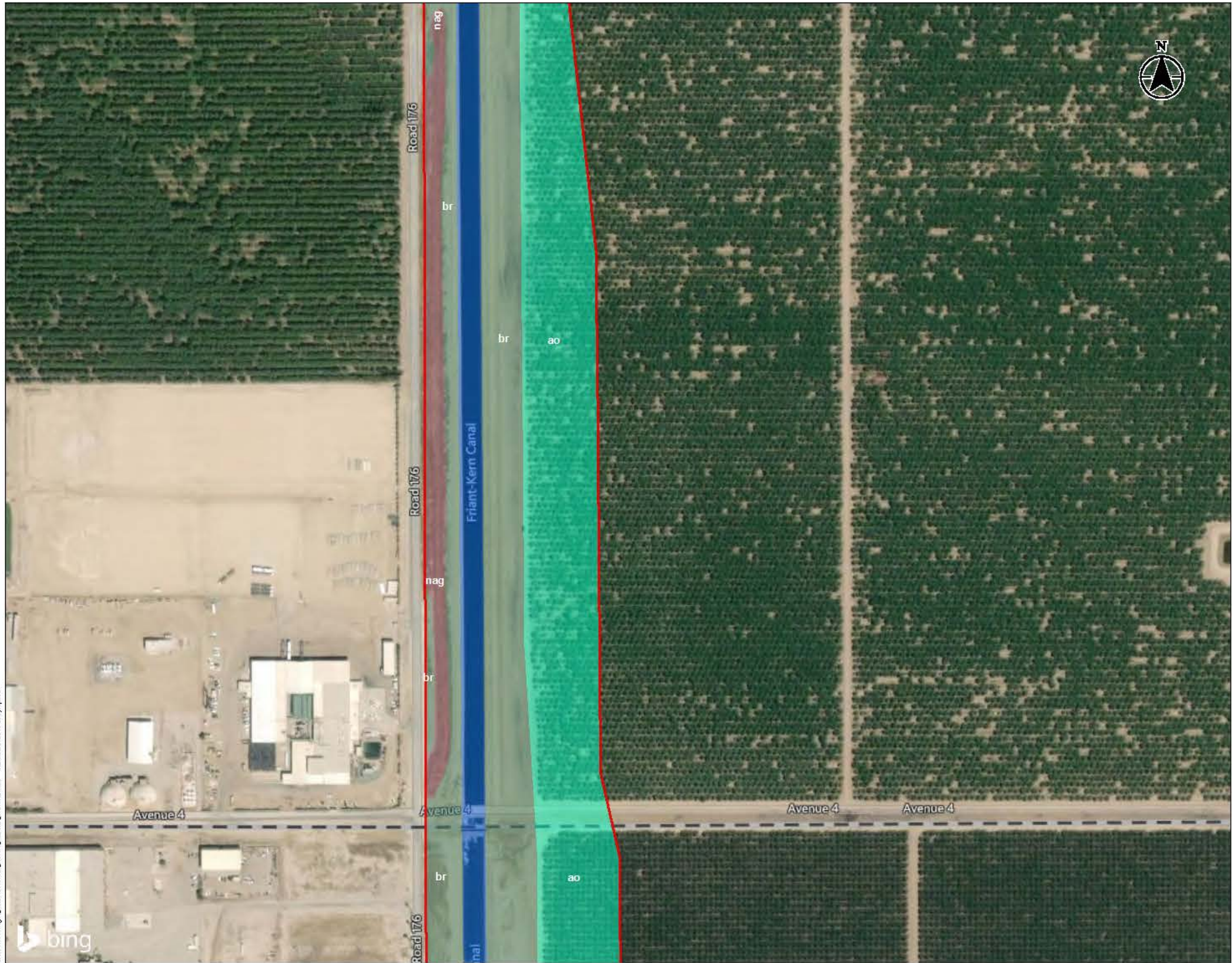


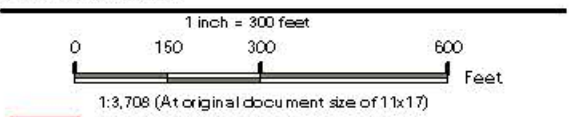
Figure No.  
3BB

Title  
Habitats within the Project Area

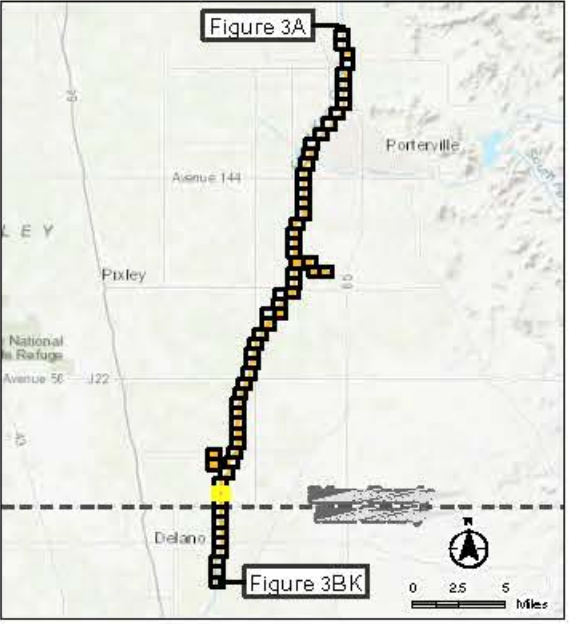
Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Revised by SCP on 2020-01-29



- Project Area
- Habitat
- Agriculture - Orchard (ao)
  - Barren/Ruderal (br)
  - Non-Native Annual Grassland (nag)
  - Water (w)



Notes

- Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
- Stantec, 2019, Stantec Field Observations
- Orthomosaic Bing Maps, 2019



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Revised: 2020-01-29 by jpr

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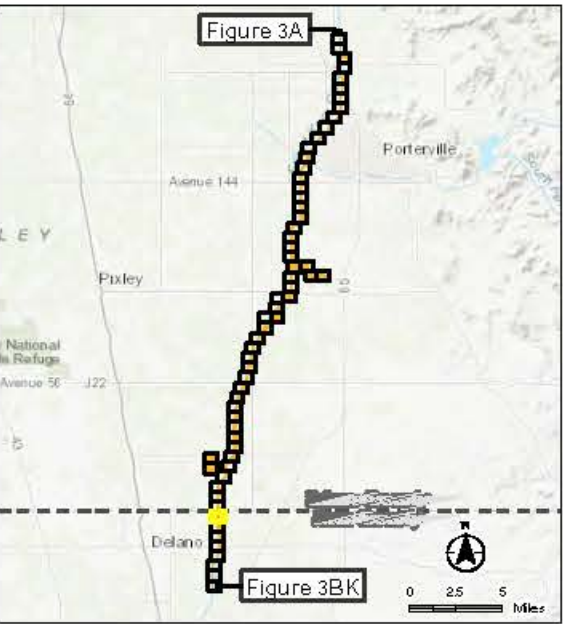
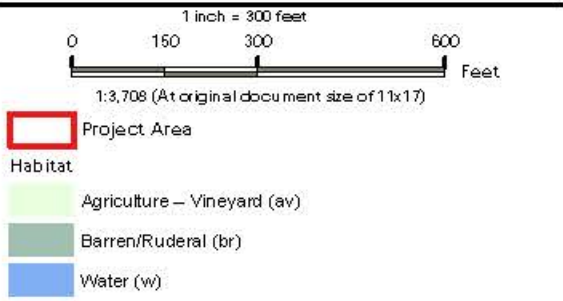
Figure No.  
3BD

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Revised by SCP on 2020-01-29



Notes

- Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
- Stantec, 2019, Stantec Field Observations
- Orthomosaic Bing Maps, 2019



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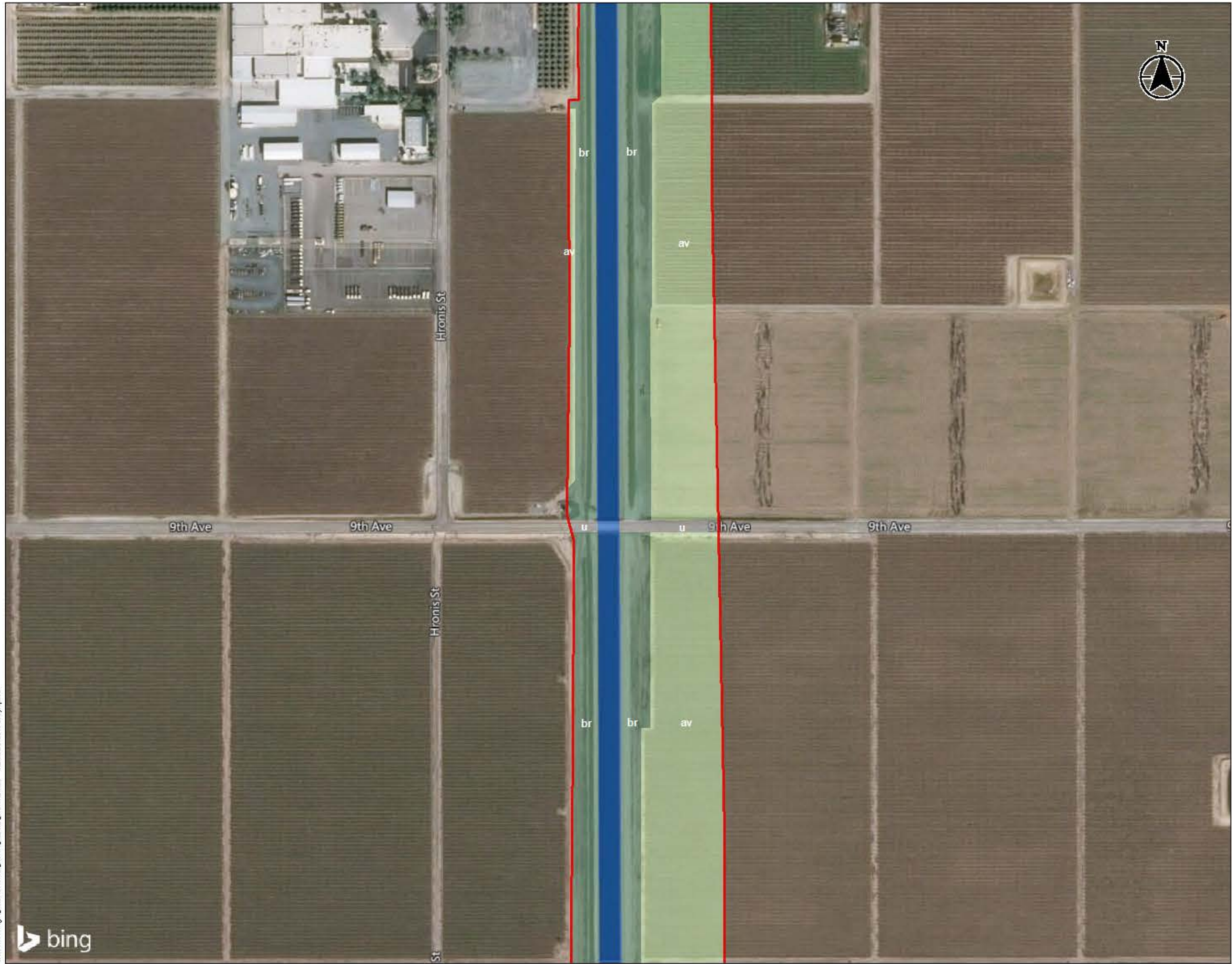


Figure No.  
3BF

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

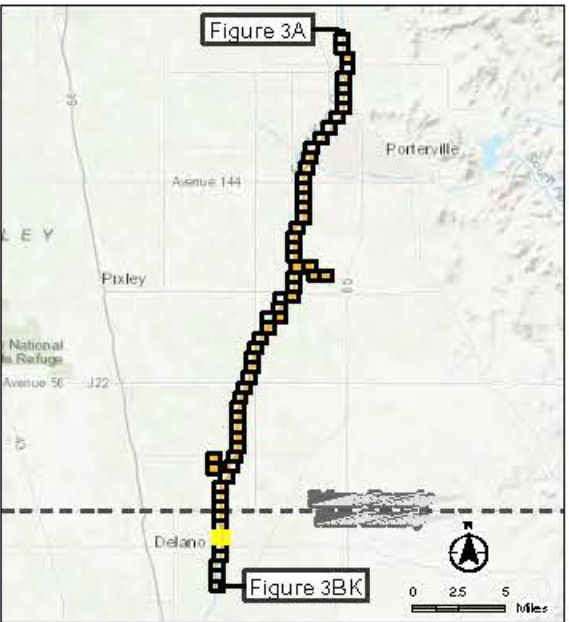
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Project Area

Habitat

Agriculture - Vineyard (av)  
Barren/Ruderal (br)  
Urban (u)  
Water (w)



Notes  
1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet  
2. Stantec, 2019, Stantec Field Observations  
3. Orthomosaic Bing Maps, 2019



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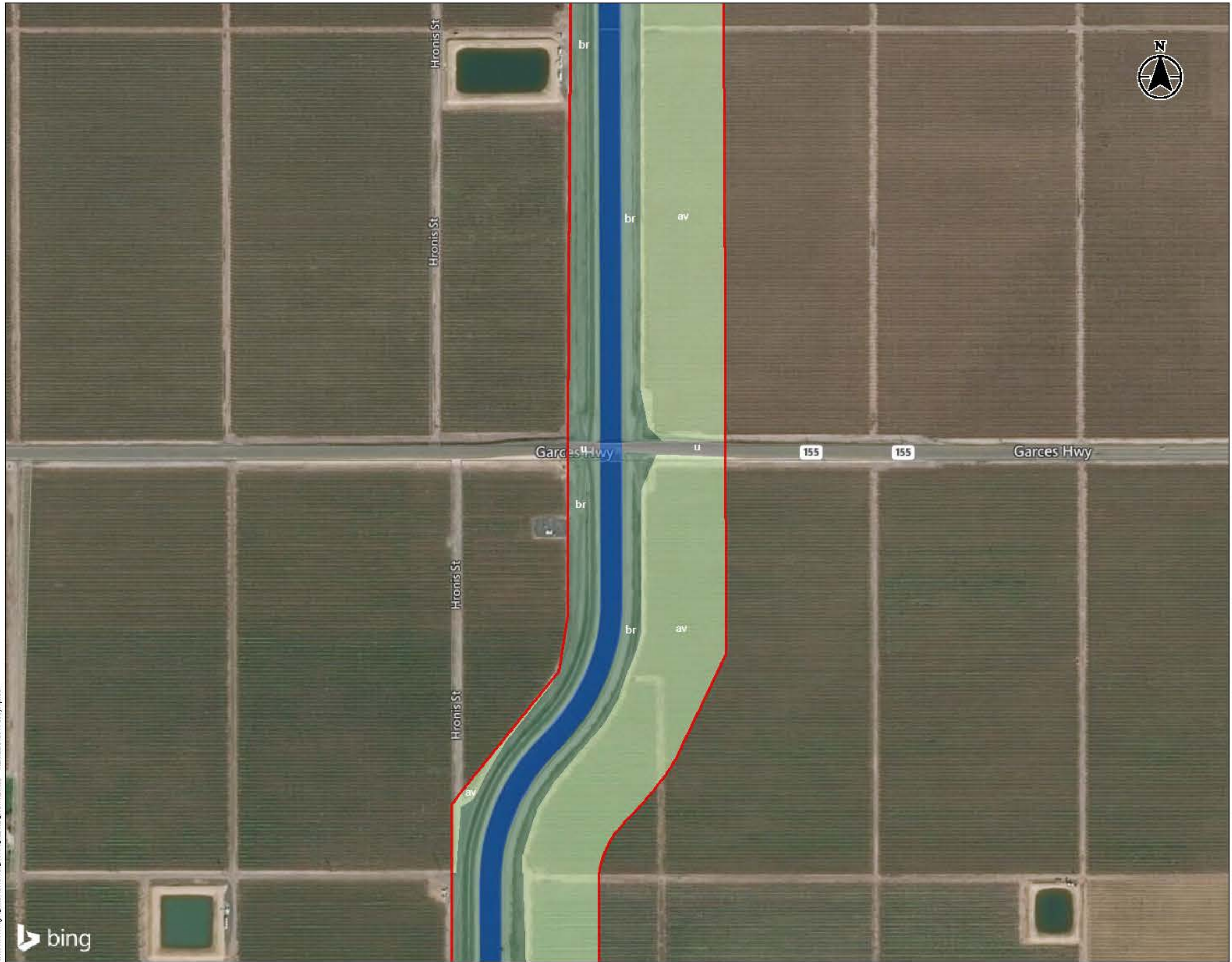


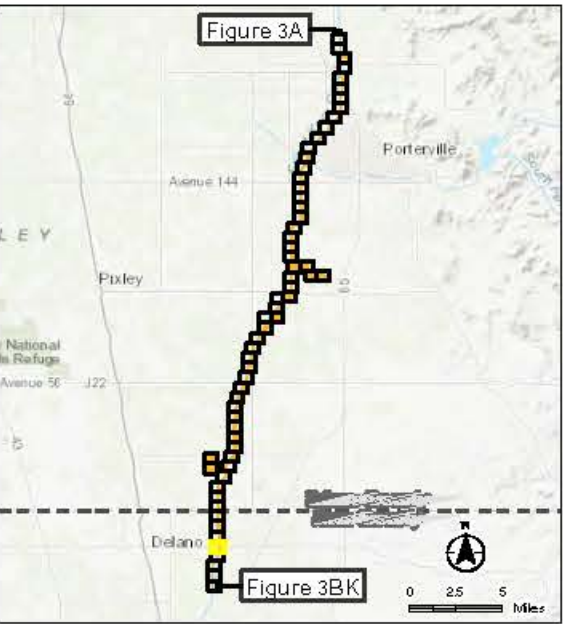
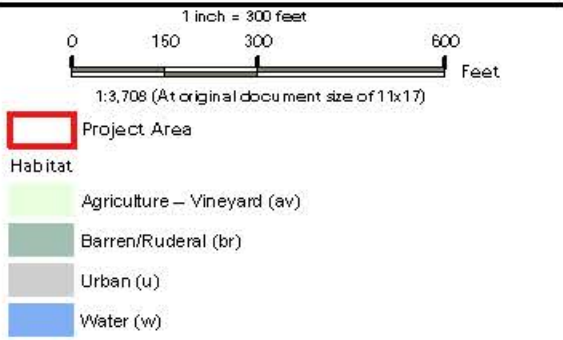
Figure No.  
3BG

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.6' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
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Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019



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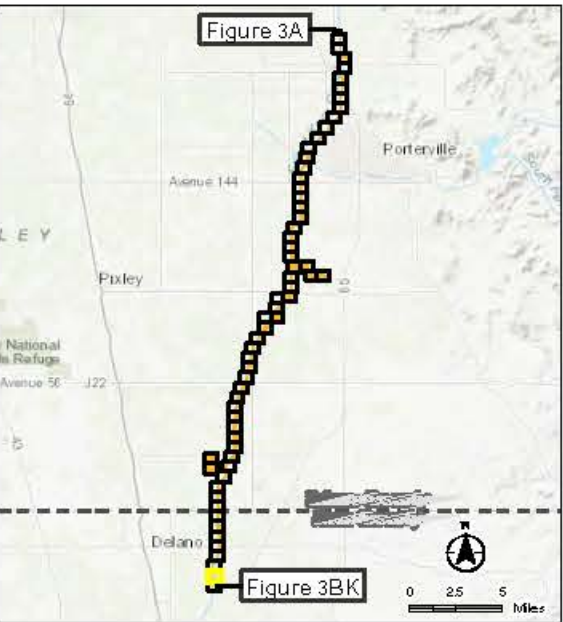
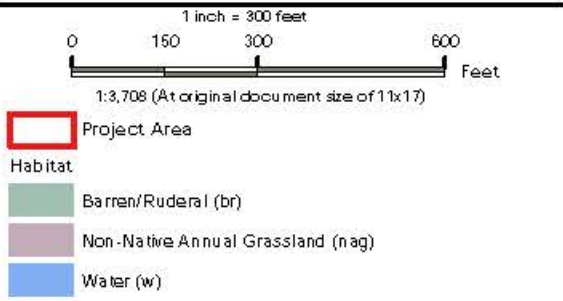
Figure No.  
3BJ

Title  
Habitats within the Project Area

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity  
Correction Project - Biological Resources Assessment

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Revised by SCP on 2020-01-29



Notes

1. Coordinate System: NAD 1983 State Plane California IV FIPS 0404 Feet
2. Stantec, 2019, Stantec Field Observations
3. Orthomosaic Bing Maps, 2019



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Revised: 2020-01-29 by jpr

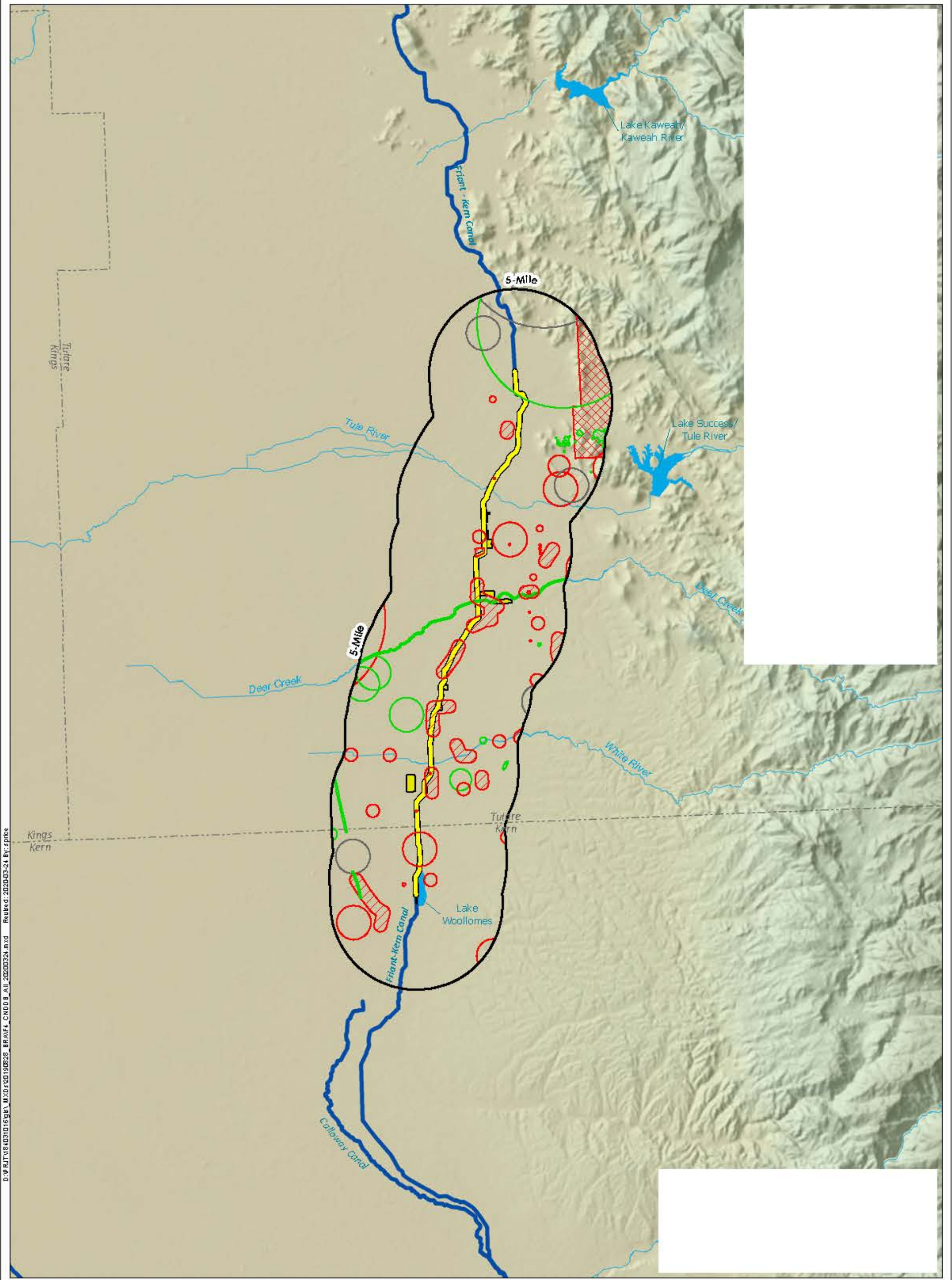


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- Project Area
- Canal / Conveyance
- County Boundaries
- 5-Mile Buffer of the Project Area

CNDD8 version 03/2020. Please Note: The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDD8 about a species or an area can never be used as proof that no special-status species occur in an area.

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FIGURE NO. 4

**CNDD8 Occurrences Within a 5-Mile Radius**

Project Location  
Tulare and Kern Counties, CA  
7.5' USGS Quadrangles  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction  
Project - Biological Resources Assessment

Notes  
1. Coordinate System: NAD 1983 UTM Zone 10 N  
2. Stantec, 2020, CDFW/CNDD8 March 2020

10 400 2 10 16

Prepared by SCP on 2019-11-18  
Updated by SCP on 2020-03-24



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|              |                                     | Area (acre)        |                  |                   |
|--------------|-------------------------------------|--------------------|------------------|-------------------|
| Layer        | Subset                              | Tulare - Permanent | Kern - Permanent | Permanent Impacts |
| Project Area | N/A                                 | 698.85             | 46.67            | 745.52            |
| Habitat      | N/A                                 | 698.85             | 46.67            | 745.52            |
|              | Agriculture - Fallow (af)           | 39.54              | 0.00             | 39.54             |
|              | Agriculture - Field Crop (afc)      | 27.91              | 0.00             | 27.91             |
|              | Agriculture - Orchard (ao)          | 247.36             | 0.00             | 247.36            |
|              | Agriculture - Vineyard (av)         | 113.11             | 0.01             | 113.12            |
|              | Allscale Scrub (as)                 | 1.39               | 0.00             | 1.39              |
|              | Barren/Ruderal (br)                 | 0.00               | 0.00             | 0.00              |
|              | California Buckwheat Scrub (cbs)    | 4.03               | 0.00             | 4.03              |
|              | Fremont Cottonwood Forest (fcf)     | 0.95               | 0.00             | 0.95              |
|              | Mulefat Thickets (mt)               | 1.02               | 0.00             | 1.02              |
|              | Non-Native Annual Grassland (nag)   | 0.00               | 0.00             | 0.00              |
|              | Red Willow Thickets (rwt)           | 0.00               | 0.00             | 0.00              |
|              | Shining Willow Groves (swg)         | 0.00               | 0.00             | 0.00              |
|              | Smartweed - Cocklebur Patches (scp) | 3.89               | 0.00             | 3.89              |
|              | Urban (u)                           | 6.50               | 0.49             | 6.99              |
|              | Valley Oak Woodland (vow)           | 0.00               | 0.00             | 0.00              |
|              | Water (w)                           | 253.15             | 46.17            | 299.32            |

|              |                                     | Area (acre)        |                  |                   |
|--------------|-------------------------------------|--------------------|------------------|-------------------|
| Layer        | Subset                              | Tulare - Temporary | Kern - Temporary | Temporary Impacts |
| Project Area | N/A                                 | 1,360.45           | 90.87            | 1,451.32          |
| Habitat      | N/A                                 | 1,360.45           | 90.87            | 1,451.32          |
|              | Agriculture - Fallow (af)           | 301.17             | 0.00             | 301.17            |
|              | Agriculture - Field Crop (afc)      | 158.48             | 0.00             | 158.48            |
|              | Agriculture - Orchard (ao)          | 180.67             | 0.00             | 180.67            |
|              | Agriculture - Vineyard (av)         | 33.82              | 7.97             | 41.79             |
|              | Allscale Scrub (as)                 | 0.00               | 0.00             | 0.00              |
|              | Barren/Ruderal (br)                 | 434.79             | 71.43            | 506.22            |
|              | California Buckwheat Scrub (cbs)    | 4.93               | 0.00             | 4.93              |
|              | Fremont Cottonwood Forest (fcf)     | 0.87               | 0.00             | 0.87              |
|              | Mulefat Thickets (mt)               | 0.47               | 0.00             | 0.47              |
|              | Non-Native Annual Grassland (nag)   | 211.34             | 10.48            | 221.82            |
|              | Red Willow Thickets (rwt)           | 0.00               | 0.00             | 0.00              |
|              | Shining Willow Groves (swg)         | 0.00               | 0.00             | 0.00              |
|              | Smartweed - Cocklebur Patches (scp) | 1.14               | 0.00             | 1.14              |
|              | Urban (u)                           | 30.10              | 0.99             | 31.09             |
|              | Valley Oak Woodland (vow)           | 0.00               | 0.00             | 0.00              |
|              | Water (w)                           | 2.67               | 0.00             | 2.67              |

|              |                                     | Area (acre) |          |        |
|--------------|-------------------------------------|-------------|----------|--------|
| Layer        | Subset                              | Total Area  | Tulare   | Kern   |
| Project Area | N/A                                 | 2,695.67    | 2,493.75 | 201.92 |
| Habitat      | N/A                                 | 2,695.67    | 2,493.75 | 201.92 |
|              | Agriculture - Fallow (af)           | 341.44      | 341.44   | 0.00   |
|              | Agriculture - Field Crop (afc)      | 187.47      | 187.47   | 0.00   |
|              | Agriculture - Orchard (ao)          | 455.02      | 455.02   | 0.00   |
|              | Agriculture - Vineyard (av)         | 256.89      | 191.33   | 65.56  |
|              | Allscale Scrub (as)                 | 1.39        | 1.39     | 0.00   |
|              | Barren/Ruderal (br)                 | 829.56      | 757.59   | 71.97  |
|              | California Buckwheat Scrub (cbs)    | 8.96        | 8.96     | 0.00   |
|              | Fremont Cottonwood Forest (fcf)     | 1.82        | 1.82     | 0.00   |
|              | Mulefat Thickets (mt)               | 1.49        | 1.49     | 0.00   |
|              | Non-Native Annual Grassland (nag)   | 230.30      | 216.78   | 13.52  |
|              | Red Willow Thickets (rwt)           | 0.13        | 0.13     | 0.00   |
|              | Shining Willow Groves (swg)         | 0.57        | 0.57     | 0.00   |
|              | Smartweed - Cocklebur Patches (scp) | 5.03        | 5.03     | 0.00   |
|              | Urban (u)                           | 61.00       | 56.30    | 4.70   |
|              | Valley Oak Woodland (vow)           | 1.07        | 1.07     | 0.00   |
|              | Water (w)                           | 313.53      | 267.36   | 46.17  |

FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT

Canal Enlargement and Re-alignment Alternative

Impacts Table - Accompany Mapbook

Figure No. 5: Impacts

Date: Mar 24, 2020

Title

Impacts by Habitat

Project Location 184031016  
Tulare and Kern Counties, CA Prepared by SCP  
17.5' USGS Quadrangles (2020-03-24)  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)



Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



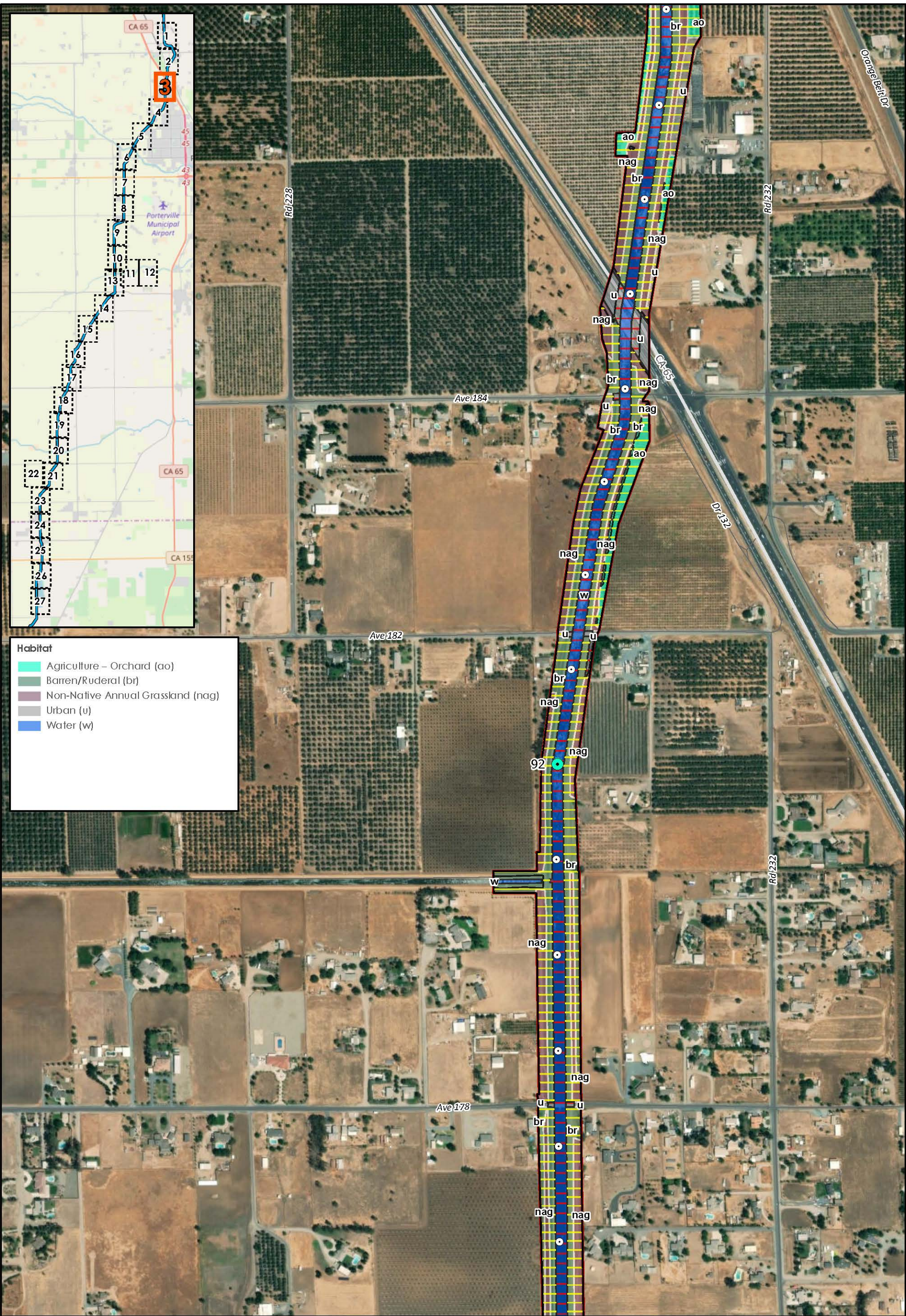








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**FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT**  
**Canal Enlargement and Re-alignment Alternative**

- Project Area**
- Project Area
- Potential Impacts**
- No Impact
  - Permanent
  - Temporary
- Proposed Canal Re-alignment Centerline**
- Proposed Canal Re-alignment Centerline
- Mile Post**
- Mile Post
- Tenth-of-Mile**
- Tenth-of-Mile

Figure No.  
**5C**

Date:  
**Mar 04, 2020**

**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Prepared by SCP  
(2020-03-04)

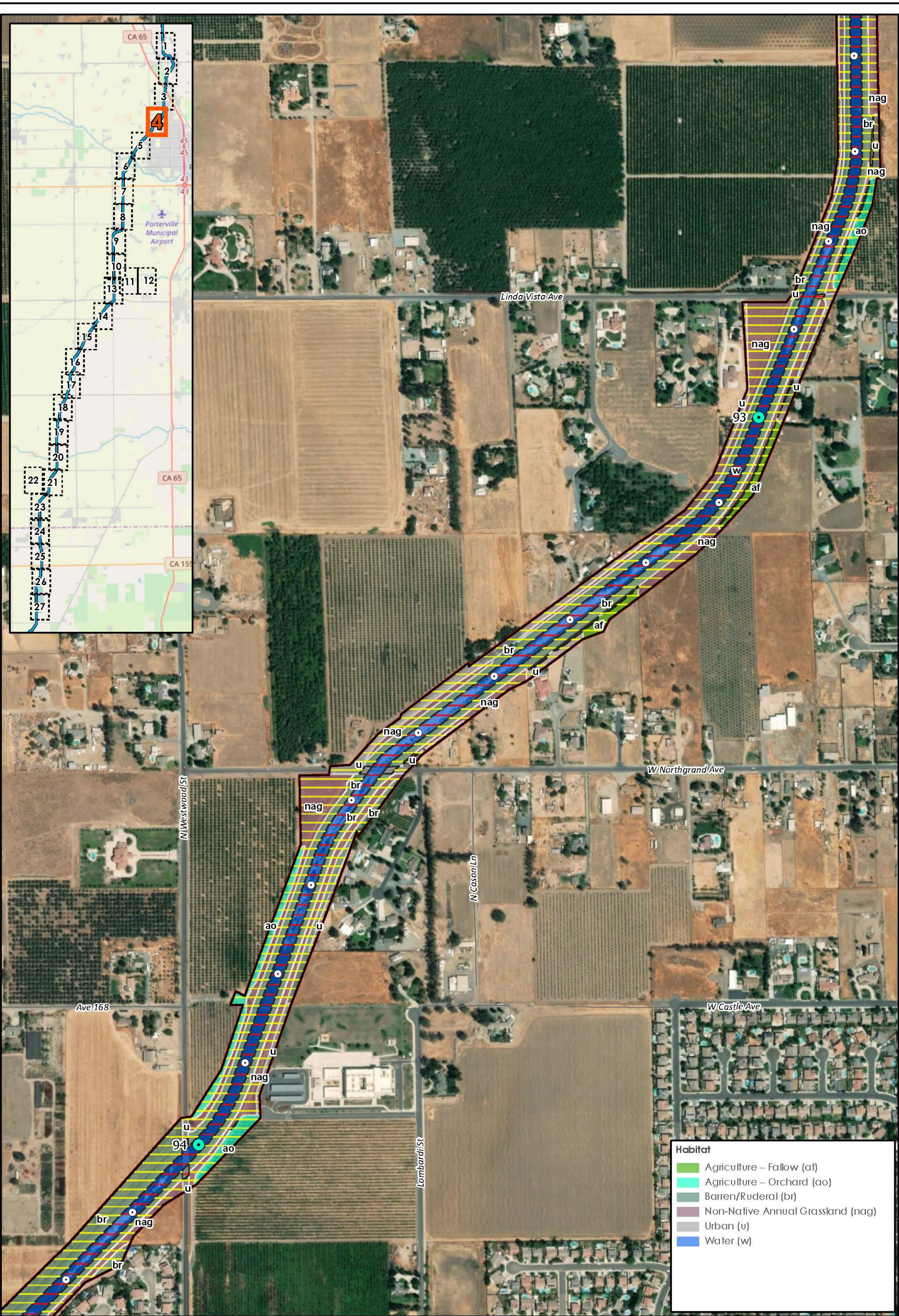


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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



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**FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT**  
**Canal Enlargement and Re-alignment Alternative**

- Project Area**
- Project Area
- Potential Impacts**
- No Impact
  - Permanent
  - Temporary
- Proposed Canal Re-alignment Centerline**
- Proposed Canal Re-alignment Centerline
- Mile Post**
- Mile Post
- Tenth-of-Mile**
- Tenth-of-Mile

Figure No.  
**5D**

Date:  
**Mar 04, 2020**

**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Prepared by SCP  
(2020-03-04)



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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project

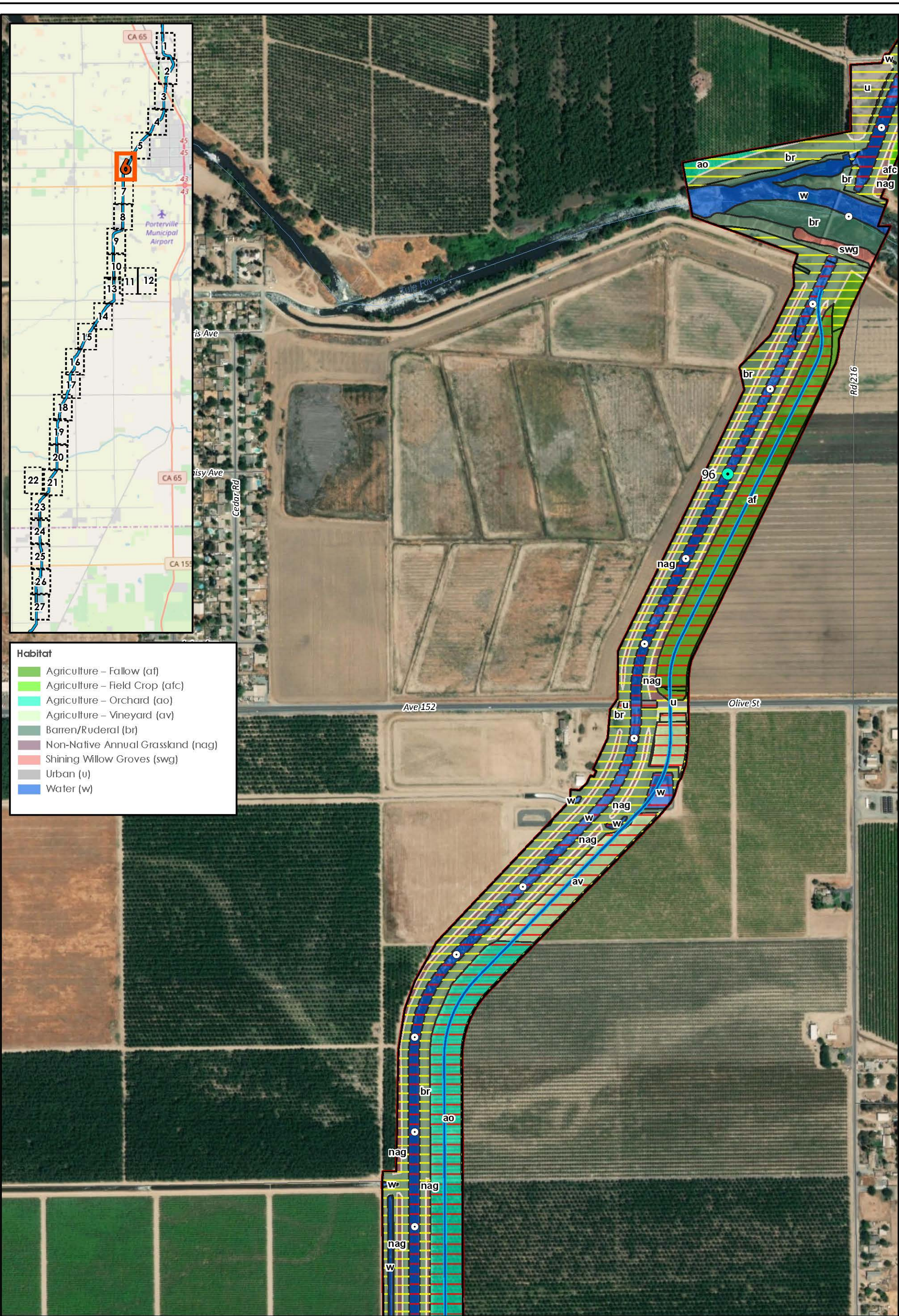


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**FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT**  
**Canal Enlargement and Re-alignment Alternative**

- Project Area**
- Project Area
  - Proposed Canal Re-alignment Centerline
- Potential Impacts**
- No Impact
  - Permanent
  - Temporary
- Mile Post**
- Mile Post
  - Tenth-of-Mile

Figure No.  
**5F**

Date:  
**Mar 04, 2020**

**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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(2020-03-04)

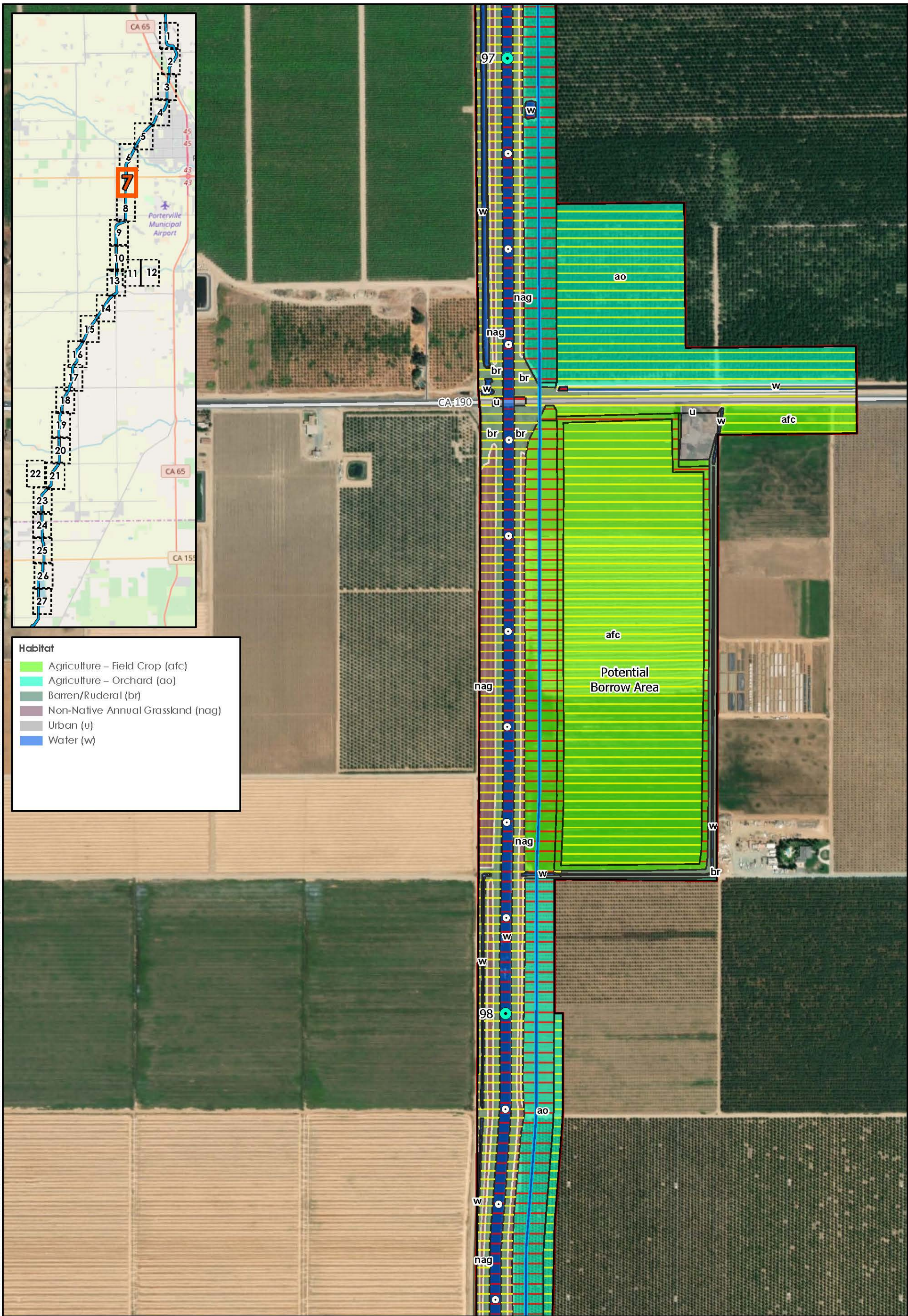


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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



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**FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT**  
**Canal Enlargement and Re-alignment Alternative**

- Project Area**
- Project Area
  - Proposed Canal Re-alignment Centerline
- Potential Impacts**
- No Impact
  - Permanent
  - Temporary
- Mile Post**
- Mile Post
  - Tenth-of-Mile

Figure No.  
**5G**

Date:  
**Mar 04, 2020**

**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5 USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Prepared by SCP  
(2020-03-04)

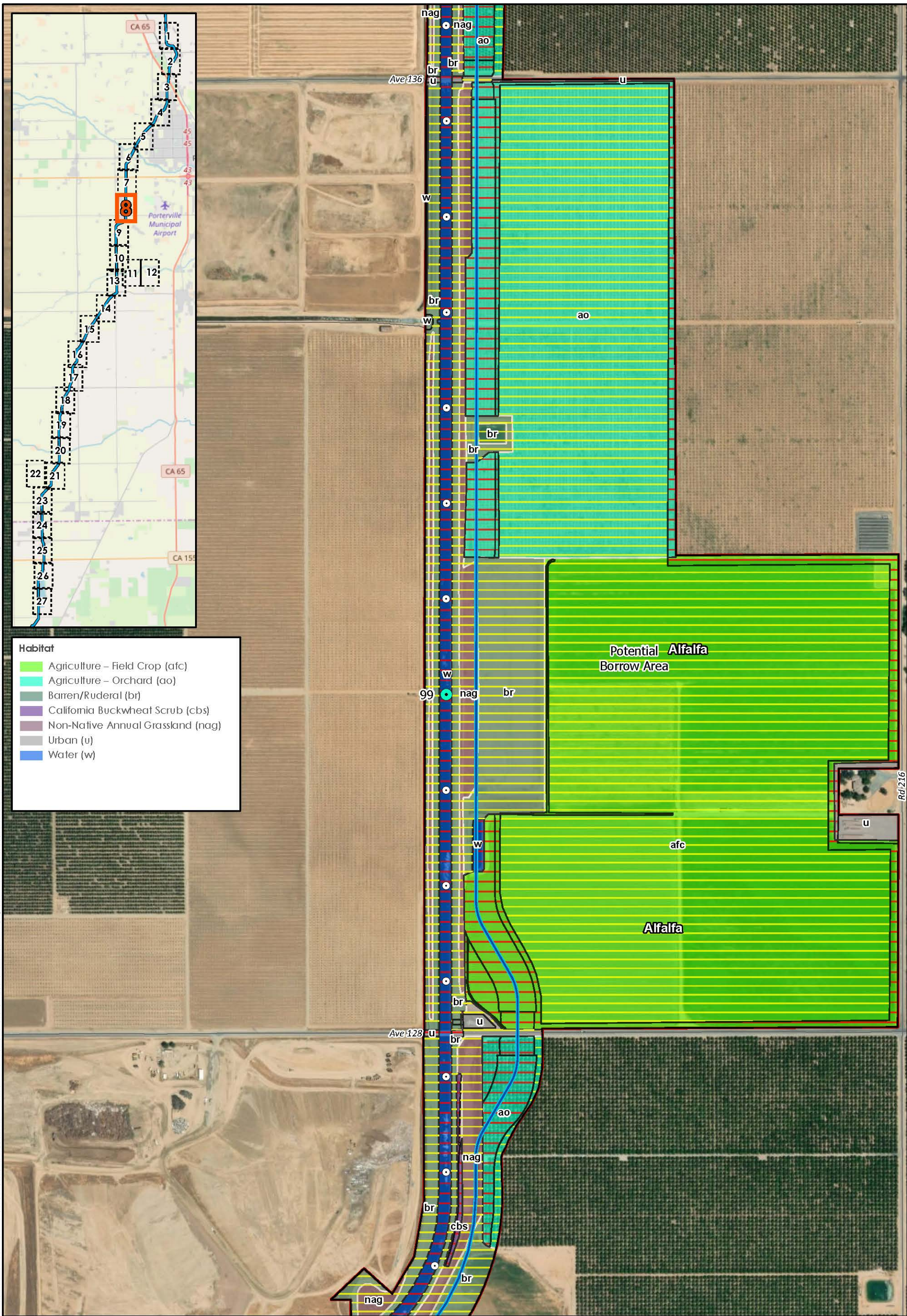
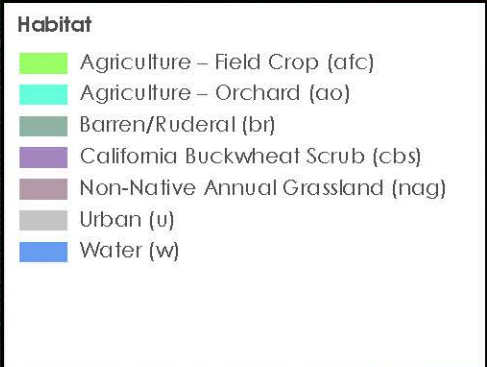


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1:6,000 (At original document size of 11x17)

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



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**FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT**  
**Canal Enlargement and Re-alignment Alternative**

- Project Area**
- Project Area
  - Proposed Canal Re-alignment Centerline
- Potential Impacts**
- No Impact
  - Permanent
  - Temporary
- Mile Post**
- Mile Post
  - Tenth-of-Mile

Figure No. **5H**  
Date: **Mar 04, 2020**

**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Prepared by SCP  
(2020-03-04)

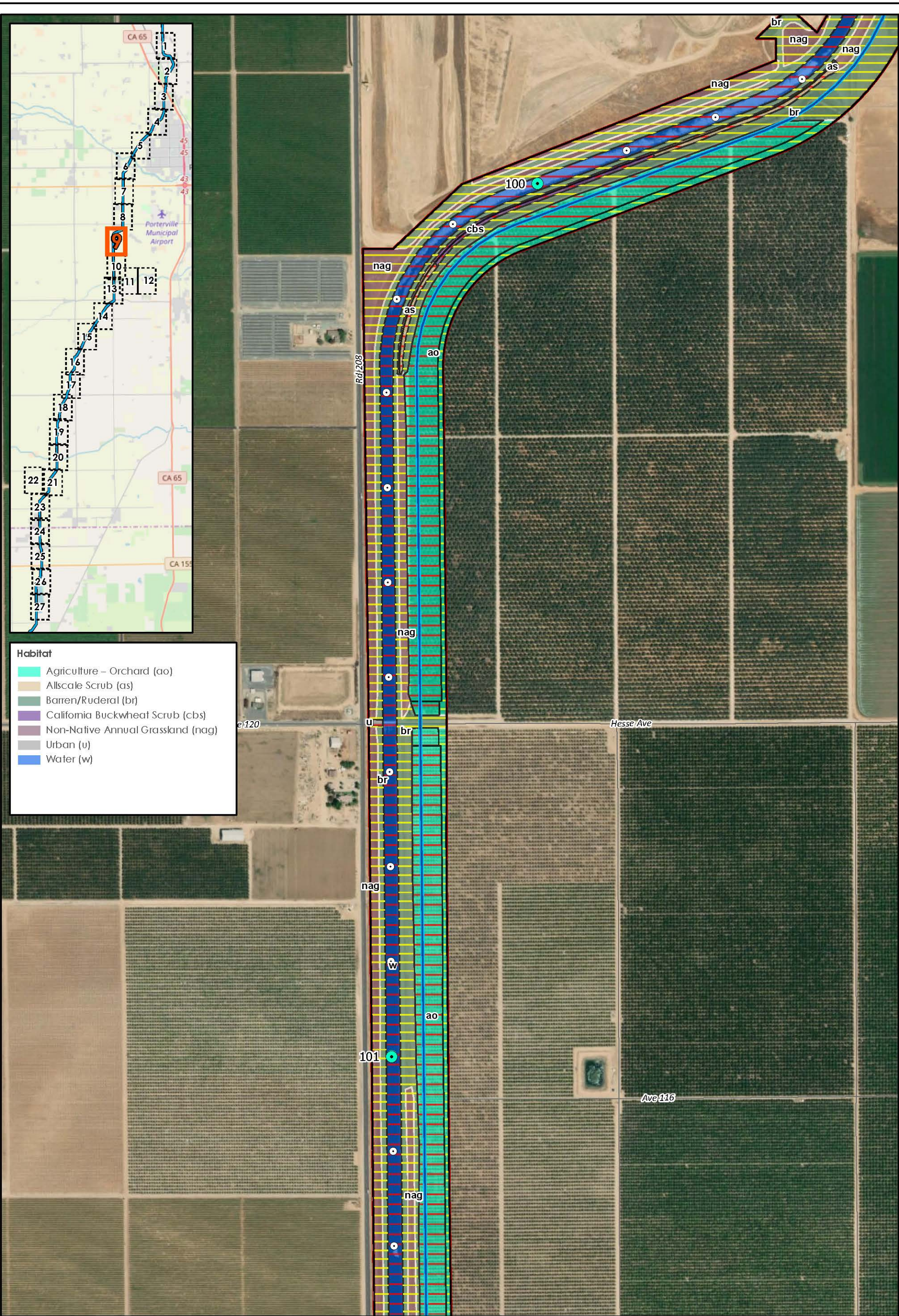


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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



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# FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT Canal Enlargement and Re-alignment Alternative

- Potential Impacts**
- Project Area
  - Proposed Canal Re-alignment Centerline
  - No Impact
  - Permanent
  - Temporary
  - Mile Post
  - Tenth-of-Mile

Figure No.  
51

Date:  
Mar 04, 2020

## Impacts by Habitat

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Prepared by SCP  
(2020-03-04)

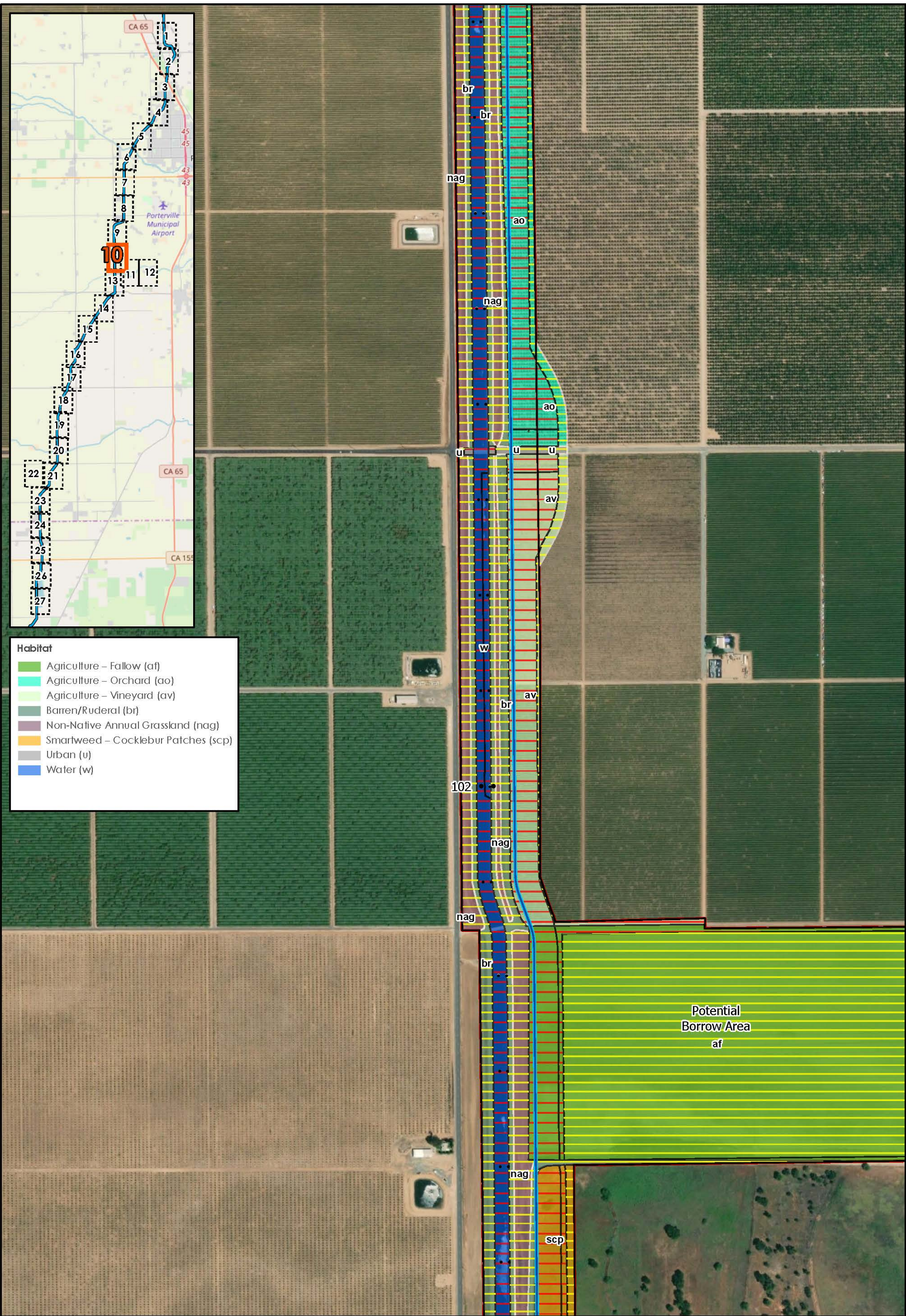


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Client/Project  
Frian Water Authority  
Frian-Kern Canal Middle Reach Capacity Correction Project



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**FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT**  
**Canal Enlargement and Re-alignment Alternative**

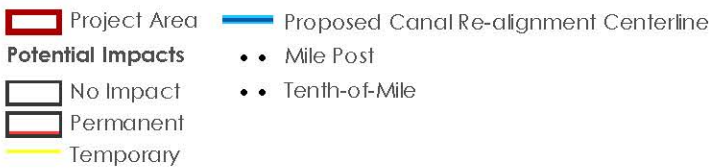


Figure No.  
**5J**

Date:  
**Mar 18, 2020**

Title  
**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Prepared by SCP  
(2020-03-04)

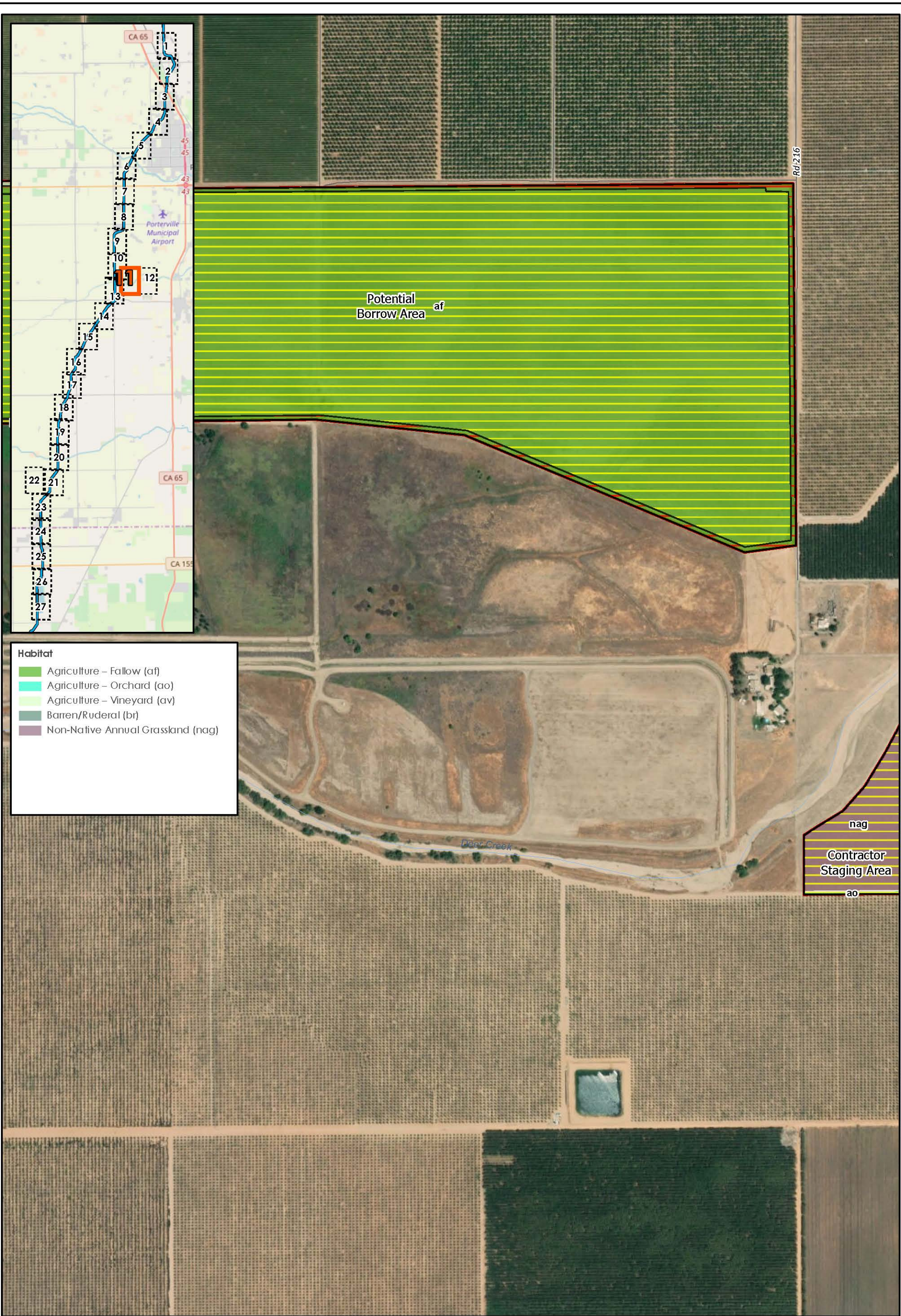


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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



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**FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT**  
**Canal Enlargement and Re-alignment Alternative**

- Potential Impacts**
- Project Area
  - Proposed Canal Re-alignment Centerline
  - No Impact
  - Permanent
  - Temporary
  - Mile Post
  - Tenth-of-Mile

Figure No. **5K**  
Date: **Mar 04, 2020**

**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Prepared by SCP  
(2020-03-04)

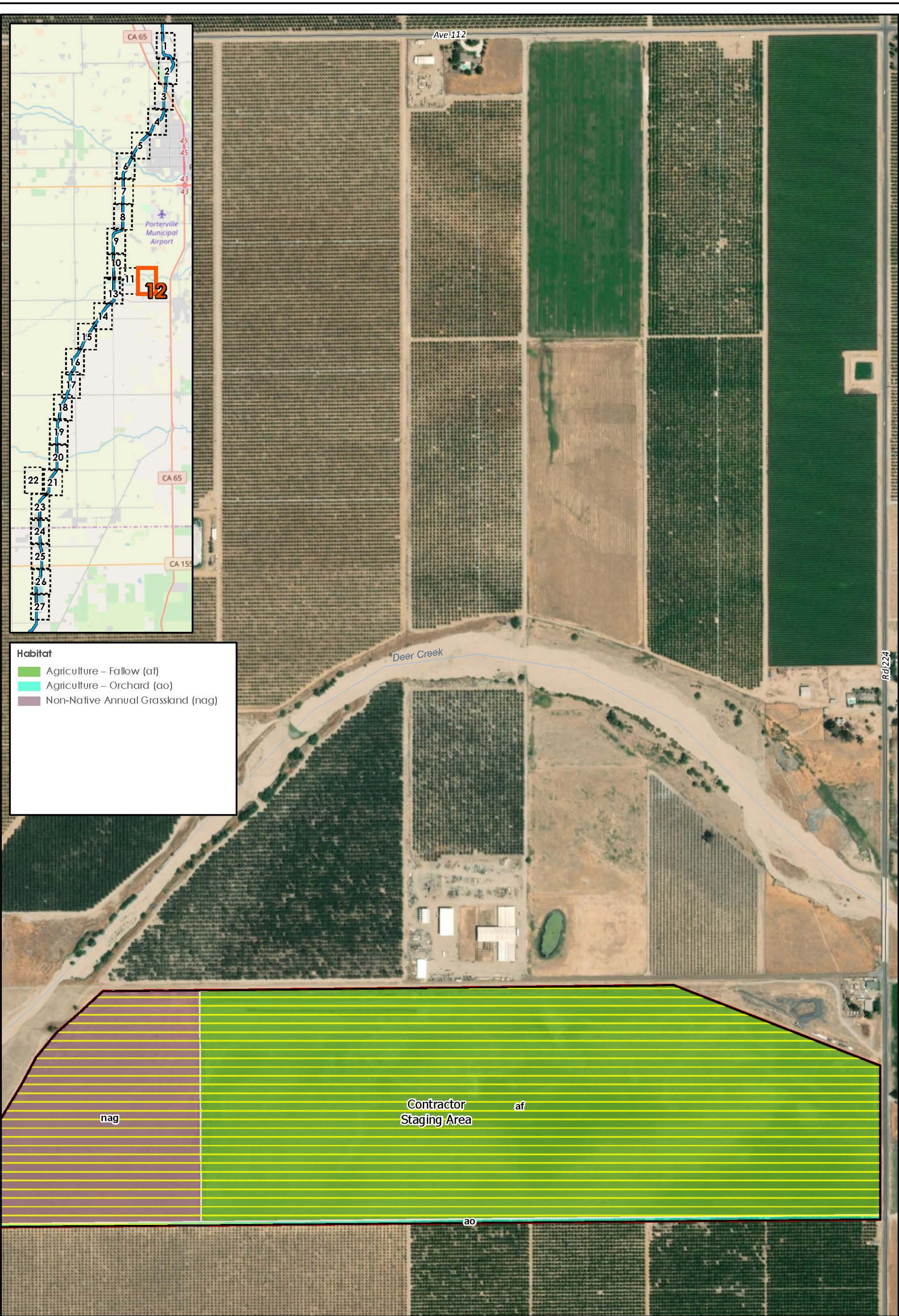


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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



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FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT  
Canal Enlargement and Re-alignment Alternative

- Project Area**
- Project Area
- Potential Impacts**
- No Impact
  - Permanent
  - Temporary
- Proposed Canal Re-alignment Centerline**
- Proposed Canal Re-alignment Centerline
  - Mile Post
  - Tenth-of-Mile

Figure No.  
5L

Date:  
Mar 04, 2020

Title  
Impacts by Habitat

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Prepared by SCP  
(2020-03-04)

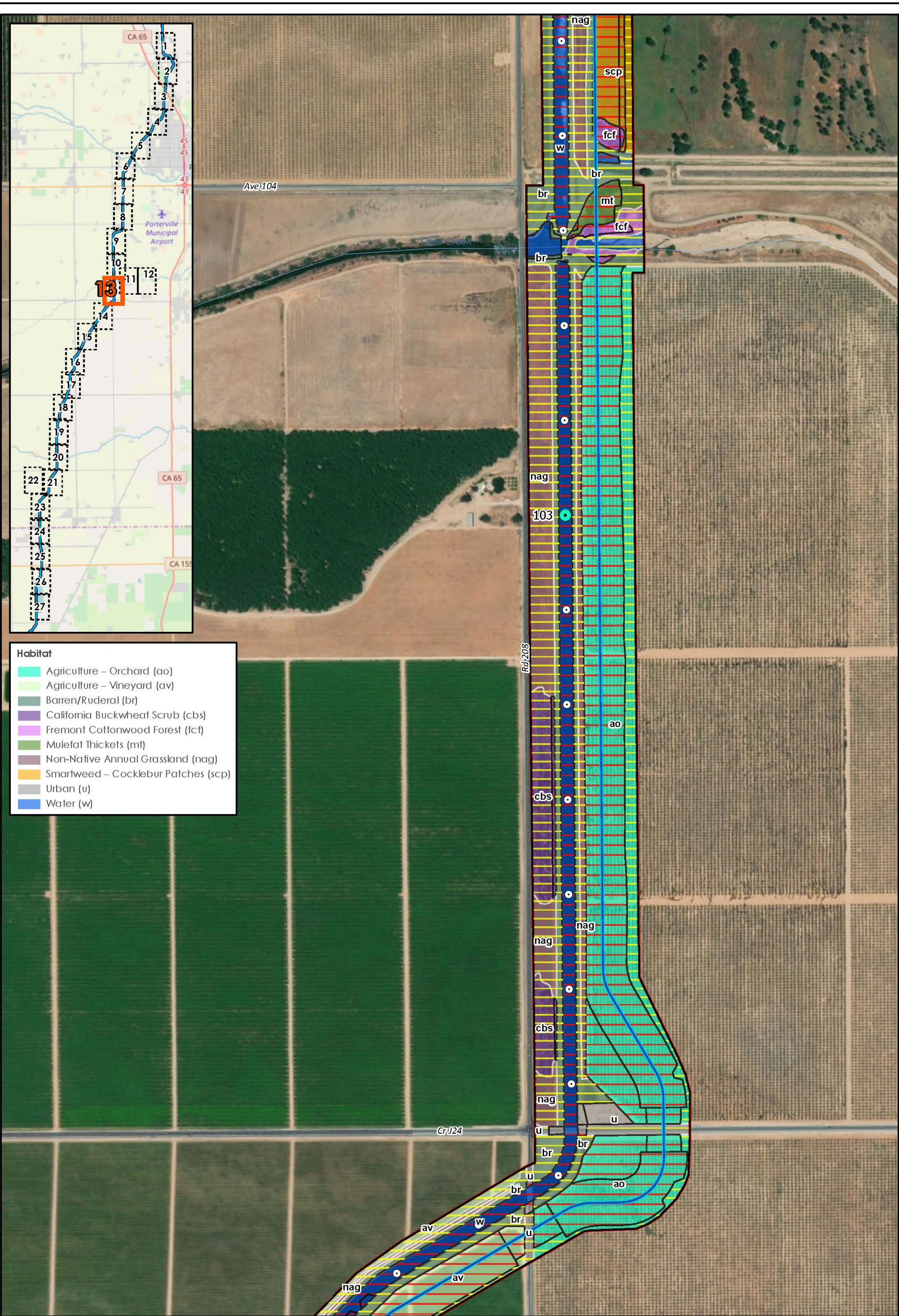


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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



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**Habitat**

- Agriculture – Orchard (ao)
- Agriculture – Vineyard (av)
- Barren/Ruderal (br)
- California Buckwheat Scrub (cbs)
- Fremont Cottonwood Forest (fcf)
- Mulefat Thickets (mt)
- Non-Native Annual Grassland (nag)
- Smartweed – Cocklebur Patches (scp)
- Urban (u)
- Water (w)

**FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT**  
**Canal Enlargement and Re-alignment Alternative**

**Project Area** (Red outline)  
**Potential Impacts**  
No Impact (White)  
Permanent (Red outline)  
Temporary (Yellow outline)  
Proposed Canal Re-alignment Centerline (Blue line)  
Mile Post (Green circle with dot)  
Tenth-of-Mile (White circle with dot)

Figure No. **5M**  
Date: **Mar 04, 2020**

**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Prepared by SCP  
(2020-03-04)

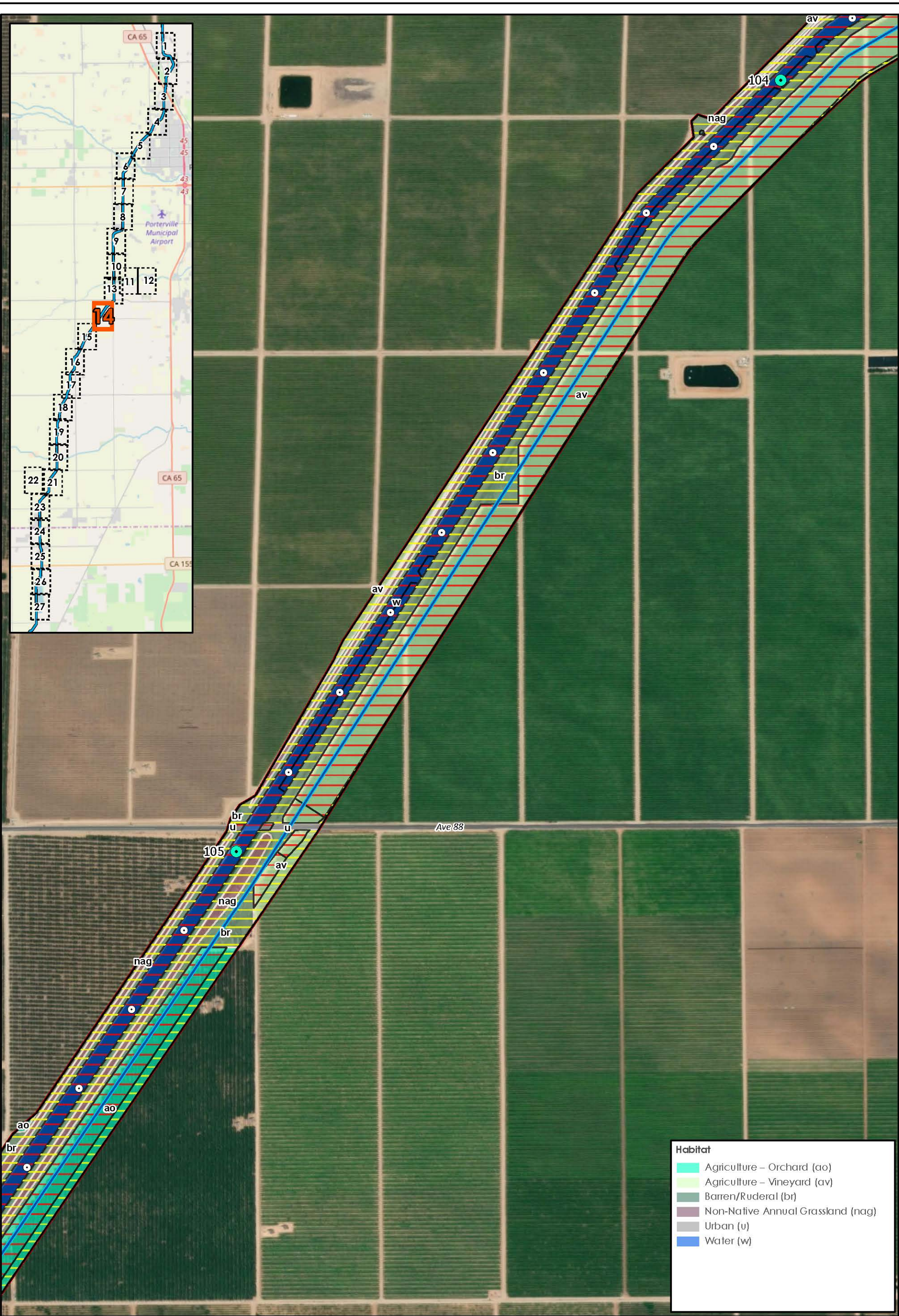
**Friant** WATER AUTHORITY **Stantec**

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1:6,000 (At original document size of 11x17)

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



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**Habitat**

Agriculture – Orchard (ao)

Agriculture – Vineyard (av)

Barren/Ruderal (br)

Non-Native Annual Grassland (nag)

Urban (u)

Water (w)

**FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT**  
**Canal Enlargement and Re-alignment Alternative**

Project Area

Potential Impacts

No Impact

Permanent

Temporary

Proposed Canal Re-alignment Centerline

Mile Post

Tenth-of-Mile

Figure No.  
**5N**

Title  
**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Prepared by SCP  
(2020-03-04)

Date:  
**Mar 04, 2020**

**Friant**  
WATER AUTHORITY

**Stantec**

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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project

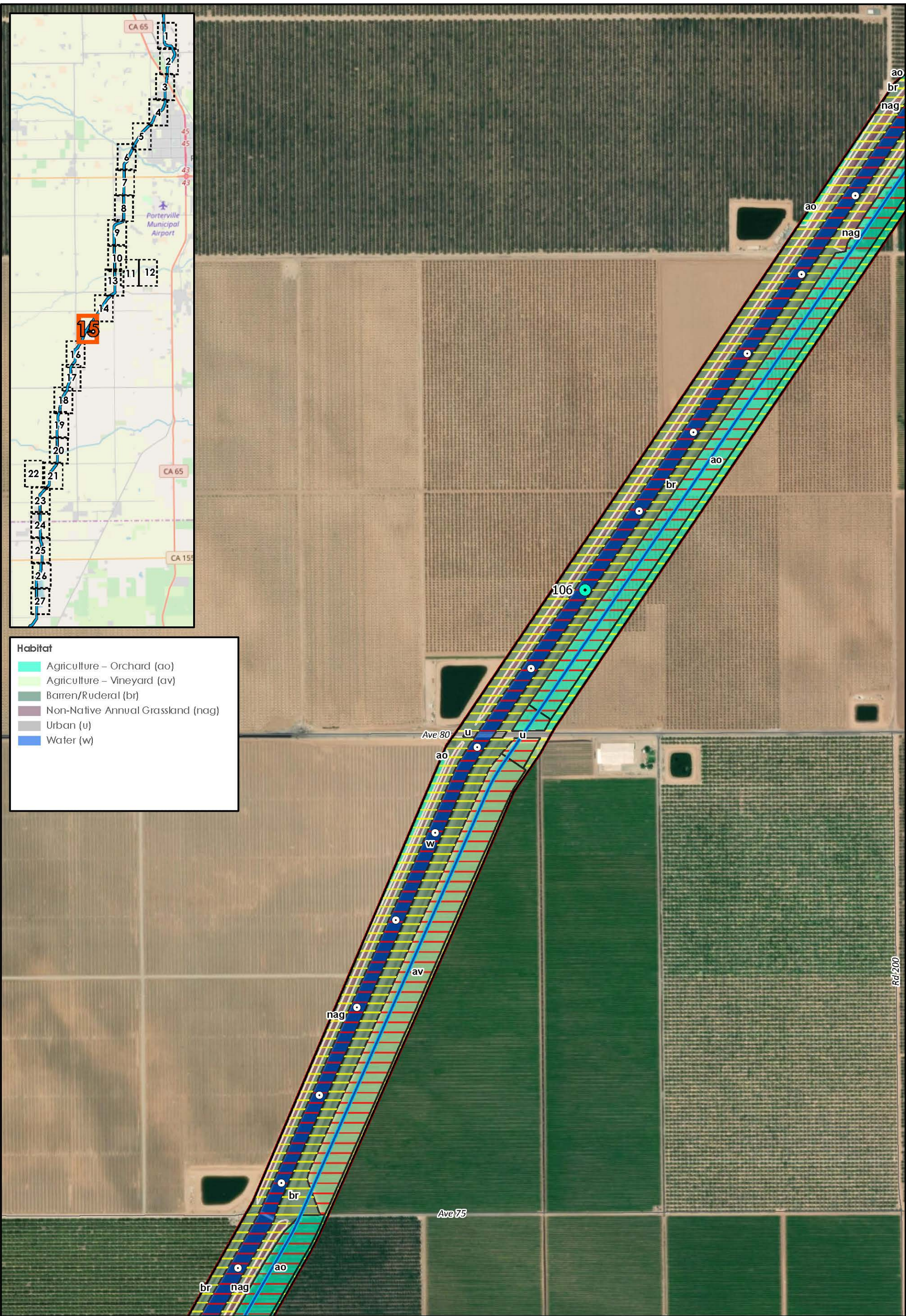
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Revised: 2020-03-04 By: s price

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**FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT**  
**Canal Enlargement and Re-alignment Alternative**

- Potential Impacts**
- Project Area
  - Proposed Canal Re-alignment Centerline
  - No Impact
  - Permanent
  - Temporary
  - Mile Post
  - Tenth-of-Mile

Figure No. 50  
Date: Mar 04, 2020

**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



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Habitat

Agriculture – Orchard (ao)

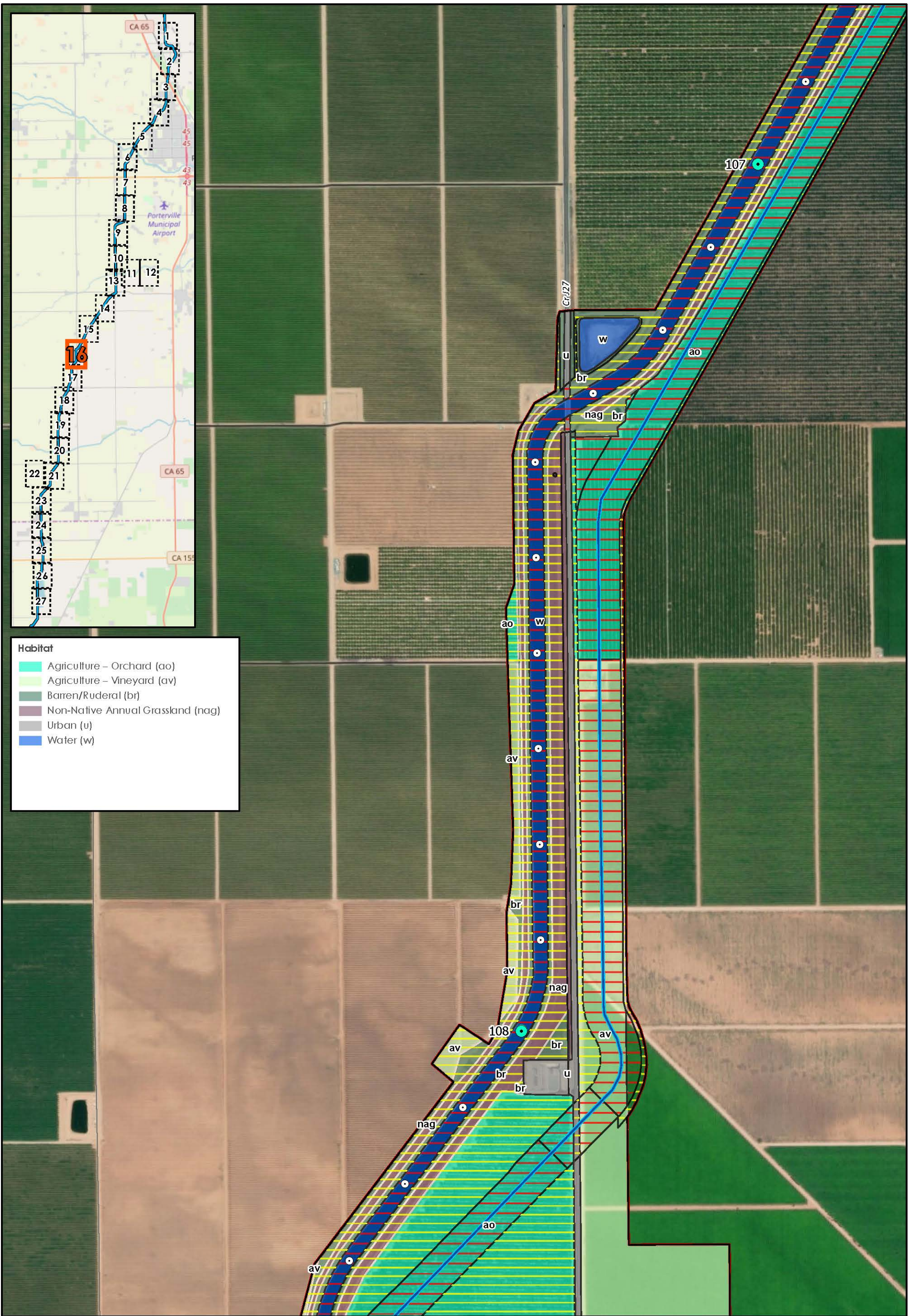
Agriculture – Vineyard (av)

Barren/Ruderal (br)

Non-Native Annual Grassland (nag)

Urban (u)

Water (w)



FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT  
Canal Enlargement and Re-alignment Alternative

- Project Area

Potential Impacts

No Impact

Permanent

Temporary
- Proposed Canal Re-alignment Centerline

Mile Post

Tenth-of-Mile

Figure No.  
5P

Date:  
Mar 04, 2020

Title  
Impacts by Habitat

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



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Habitat

Agriculture – Fallow (af)

Agriculture – Orchard (ao)

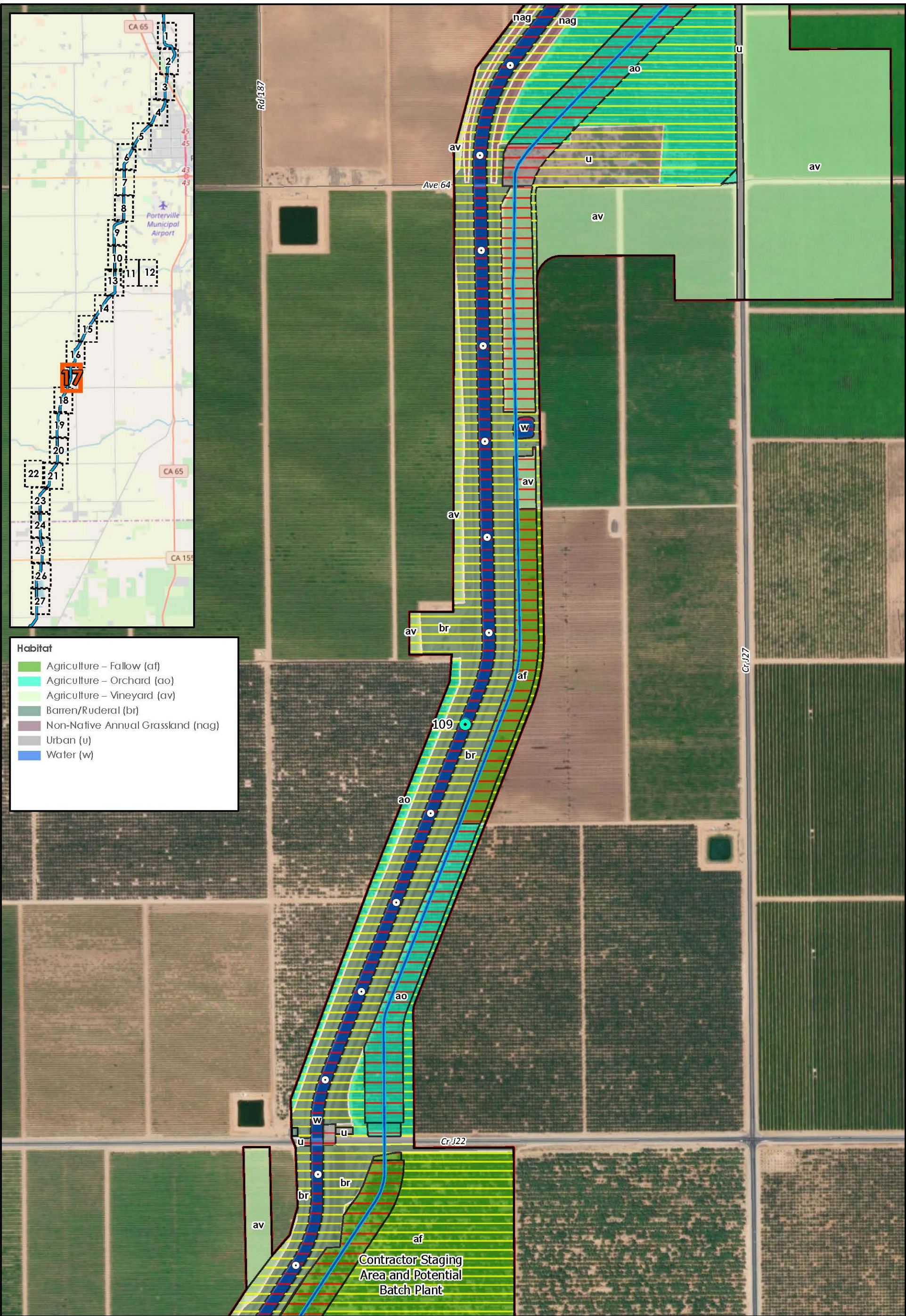
Agriculture – Vineyard (av)

Barren/Ruderal (br)

Non-Native Annual Grassland (nag)

Urban (u)

Water (w)



FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT  
Canal Enlargement and Re-alignment Alternative

Project Area

Potential Impacts

No Impact

Permanent

Temporary

Proposed Canal Re-alignment Centerline

Mile Post

Tenth-of-Mile

Figure No.  
5Q

Date:  
Mar 04, 2020

Title  
Impacts by Habitat

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Prepared by SCP  
(2020-03-04)

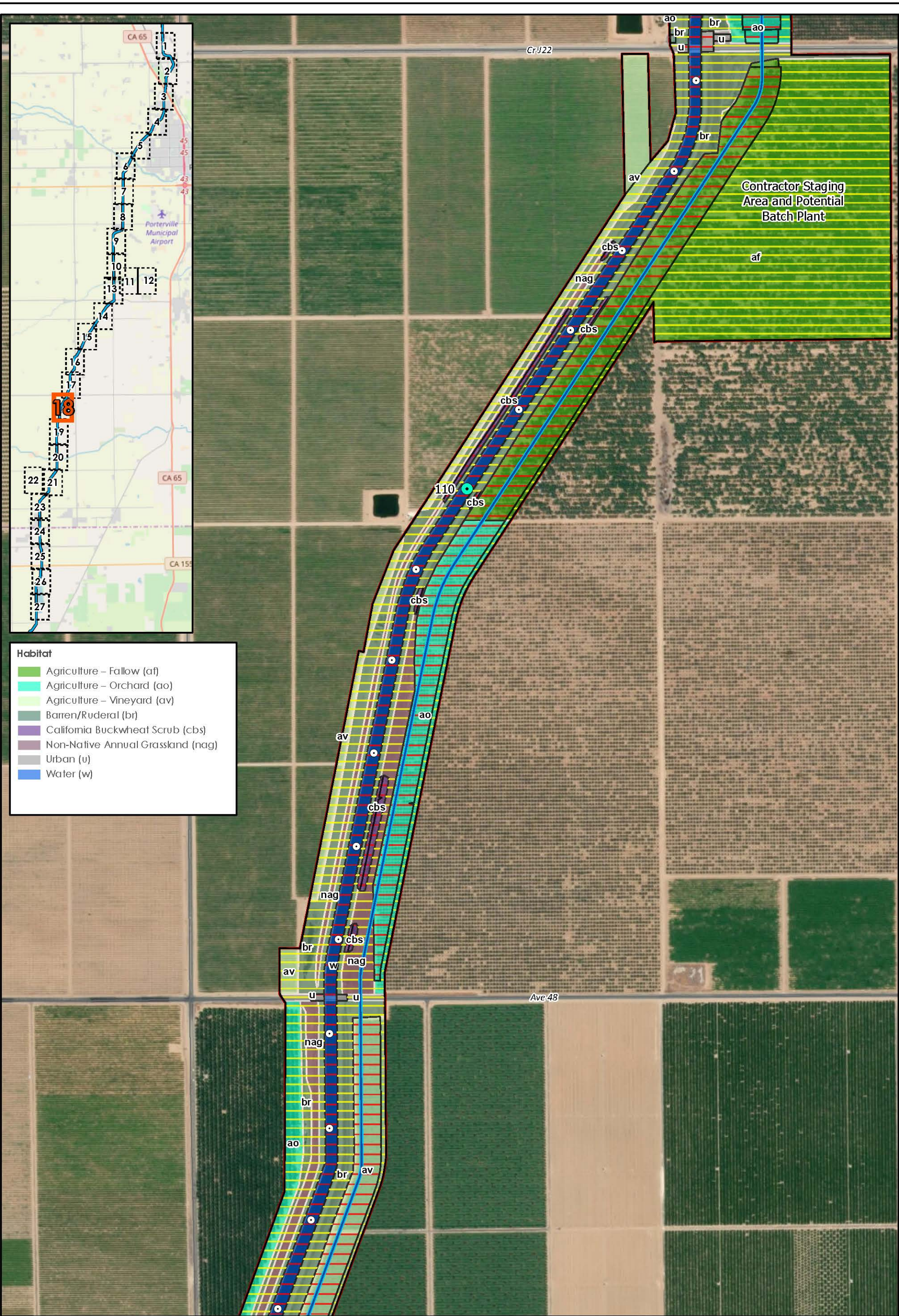


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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



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**FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT**  
**Canal Enlargement and Re-alignment Alternative**

- Project Area**
- Project Area
  - Proposed Canal Re-alignment Centerline
- Potential Impacts**
- No Impact
  - Permanent
  - Temporary
- Mile Post**
- Mile Post
  - Tenth-of-Mile

Figure No.  
**5R**

Date:  
**Mar 04, 2020**

**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



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Habitat

Agriculture – Orchard (ao)

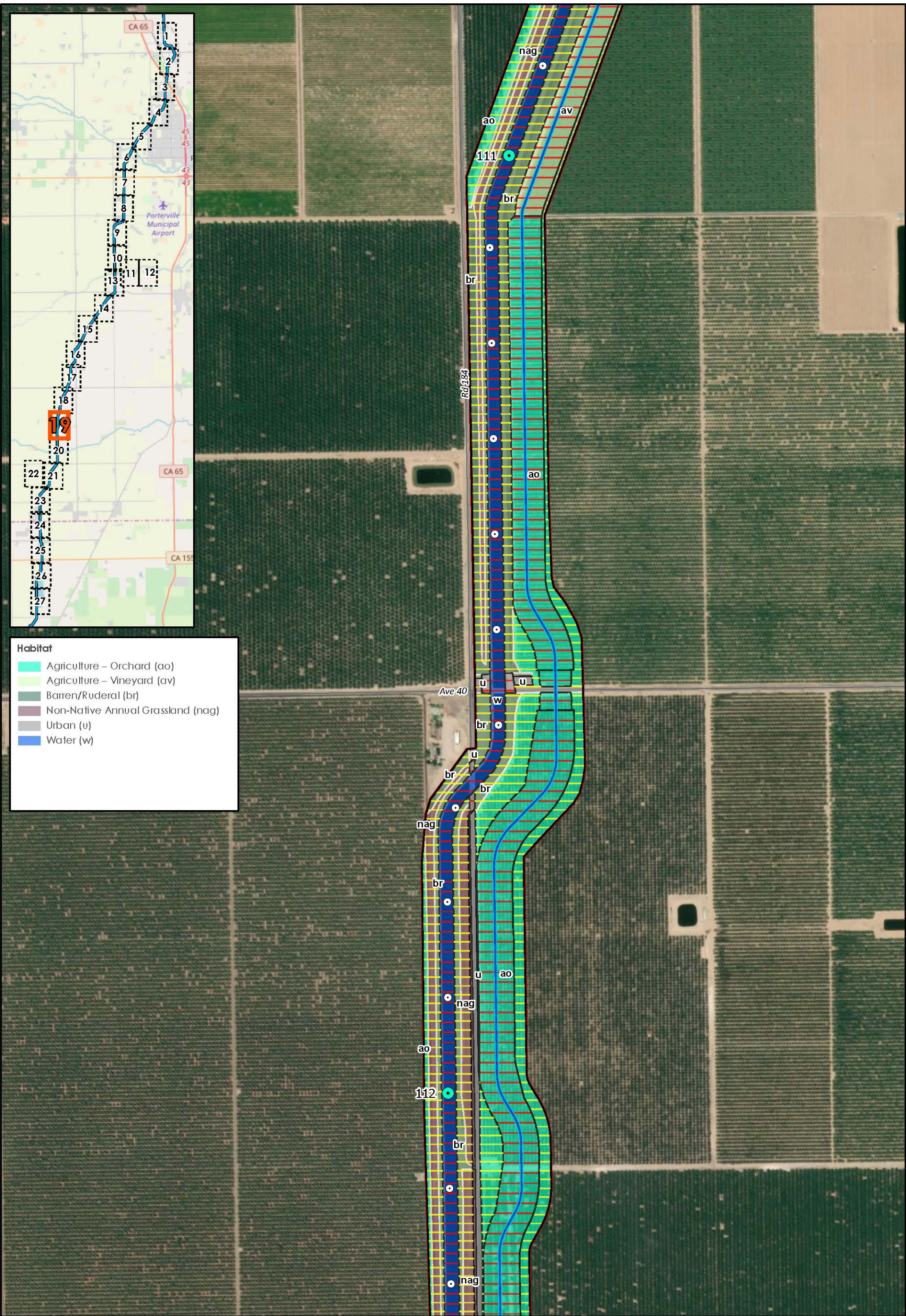
Agriculture – Vineyard (av)

Barren/Ruderal (br)

Non-Native Annual Grassland (nag)

Urban (u)

Water (w)



FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT  
Canal Enlargement and Re-alignment Alternative

Project Area

Potential Impacts

No Impact

Permanent

Temporary

Proposed Canal Re-alignment Centerline

Mile Post

Tenth-of-Mile

Figure No.  
**5S**

Date:  
**Mar 04, 2020**

Title  
**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project







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Habitat

Agriculture – Orchard (ao)

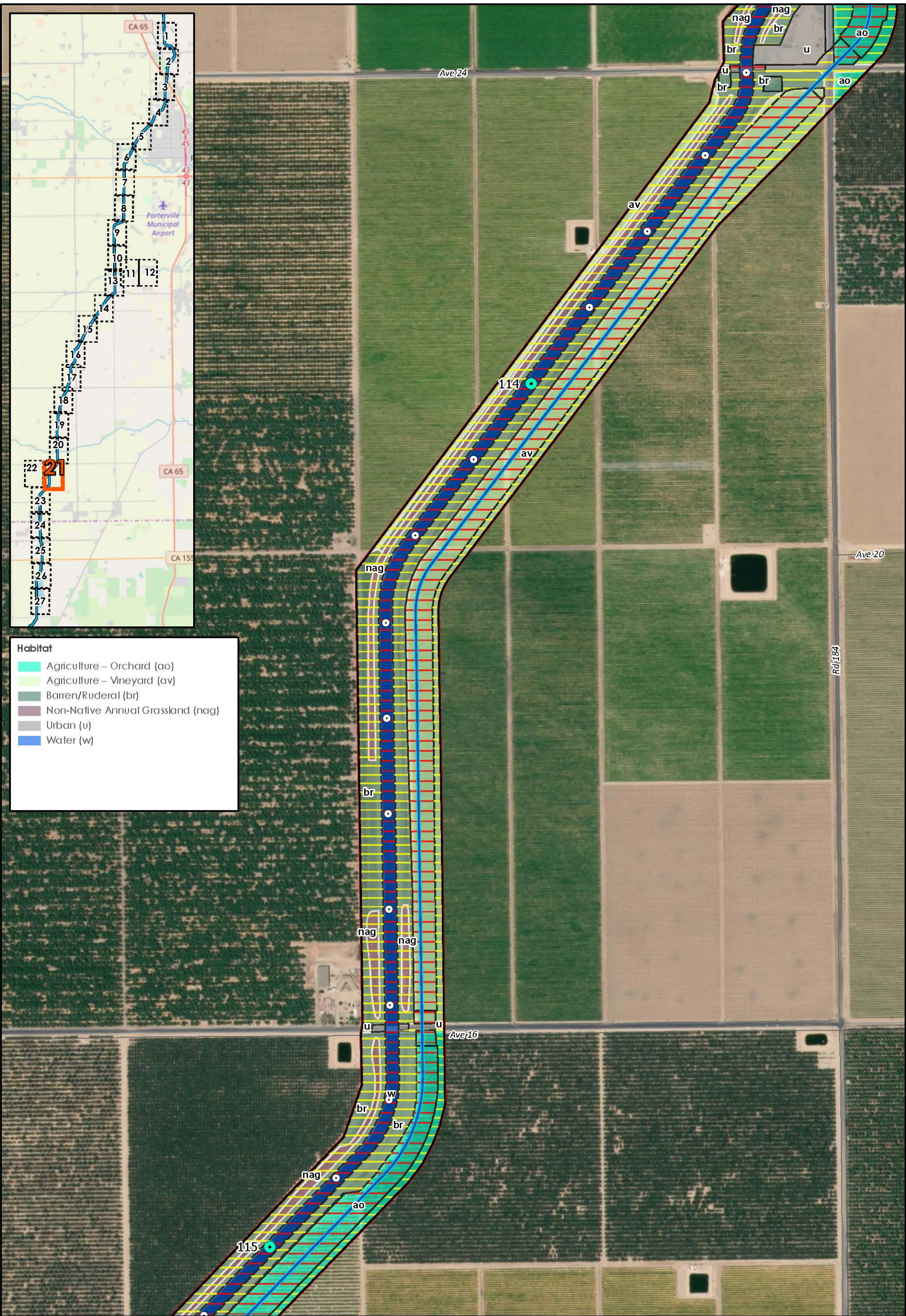
Agriculture – Vineyard (av)

Barren/Ruderal (br)

Non-Native Annual Grassland (nag)

Urban (u)

Water (w)



FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT  
Canal Enlargement and Re-alignment Alternative

- Project Area

Potential Impacts

No Impact

Permanent

Temporary
- Proposed Canal Re-alignment Centerline

Mile Post

Tenth-of-Mile

Figure No.  
5U

Date:  
Mar 04, 2020

Title  
Impacts by Habitat

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project



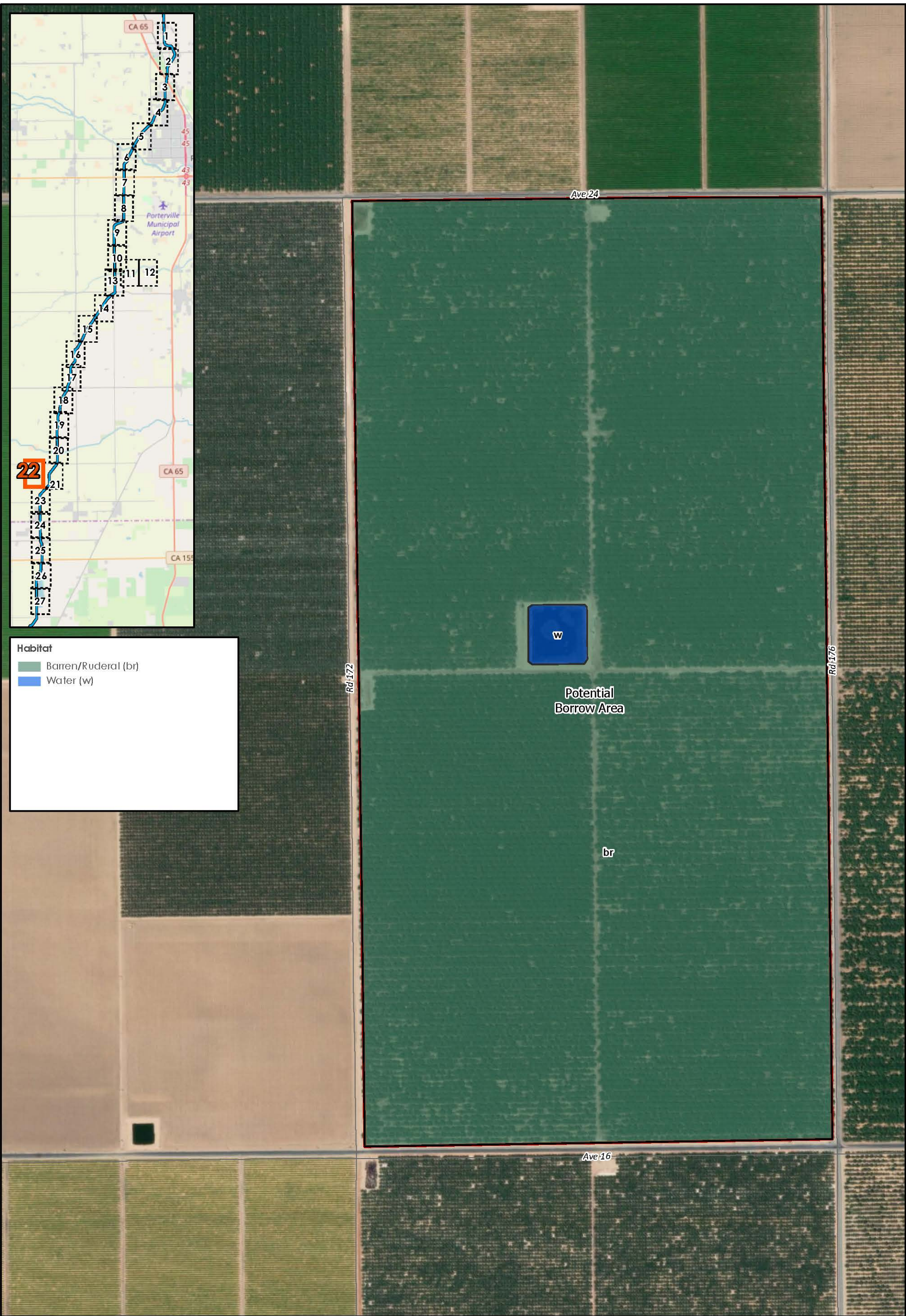
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Habitat

Barren/Ruderal (br)

Water (w)



FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT  
Canal Enlargement and Re-alignment Alternative

- Project Area
- Proposed Canal Re-alignment Centerline
- Potential Impacts
- No Impact
- Permanent
- Temporary
- Mile Post
- Tenth-of-Mile

Figure No.  
5V

Date:  
Mar 04, 2020

Title  
Impacts by Habitat

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Prepared by SCP  
(2020-03-04)

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Feet

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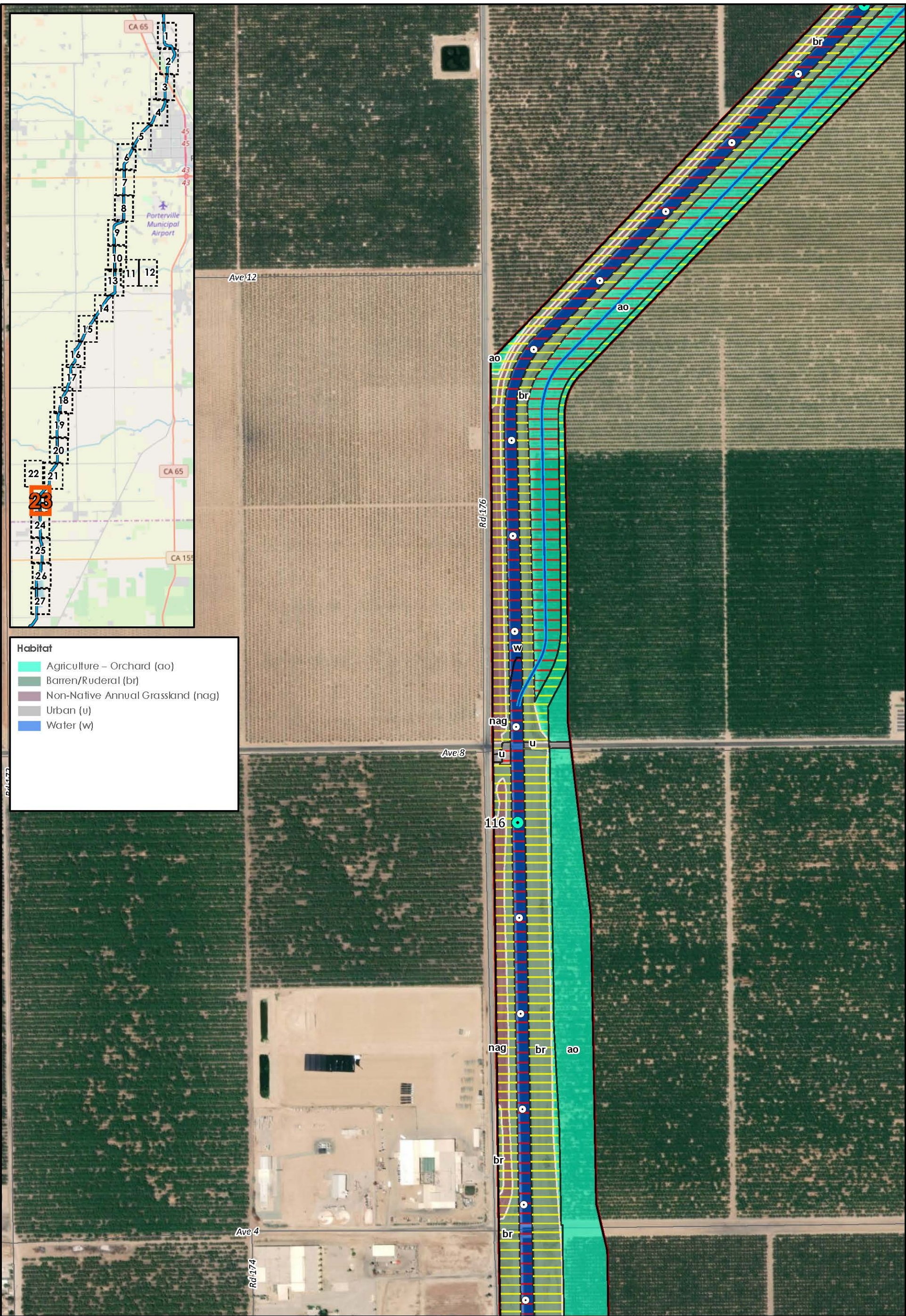
Client/Project

Friant Water Authority

Friant-Kern Canal Middle Reach Capacity Correction Project



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FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT  
Canal Enlargement and Re-alignment Alternative

- Potential Impacts**
- Project Area
  - Proposed Canal Re-alignment Centerline
  - No Impact
  - Permanent
  - Temporary
  - Mile Post
  - Tenth-of-Mile

Figure No. 5W  
Date: Mar 04, 2020

**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
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(2020-03-04)



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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project







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Habitat

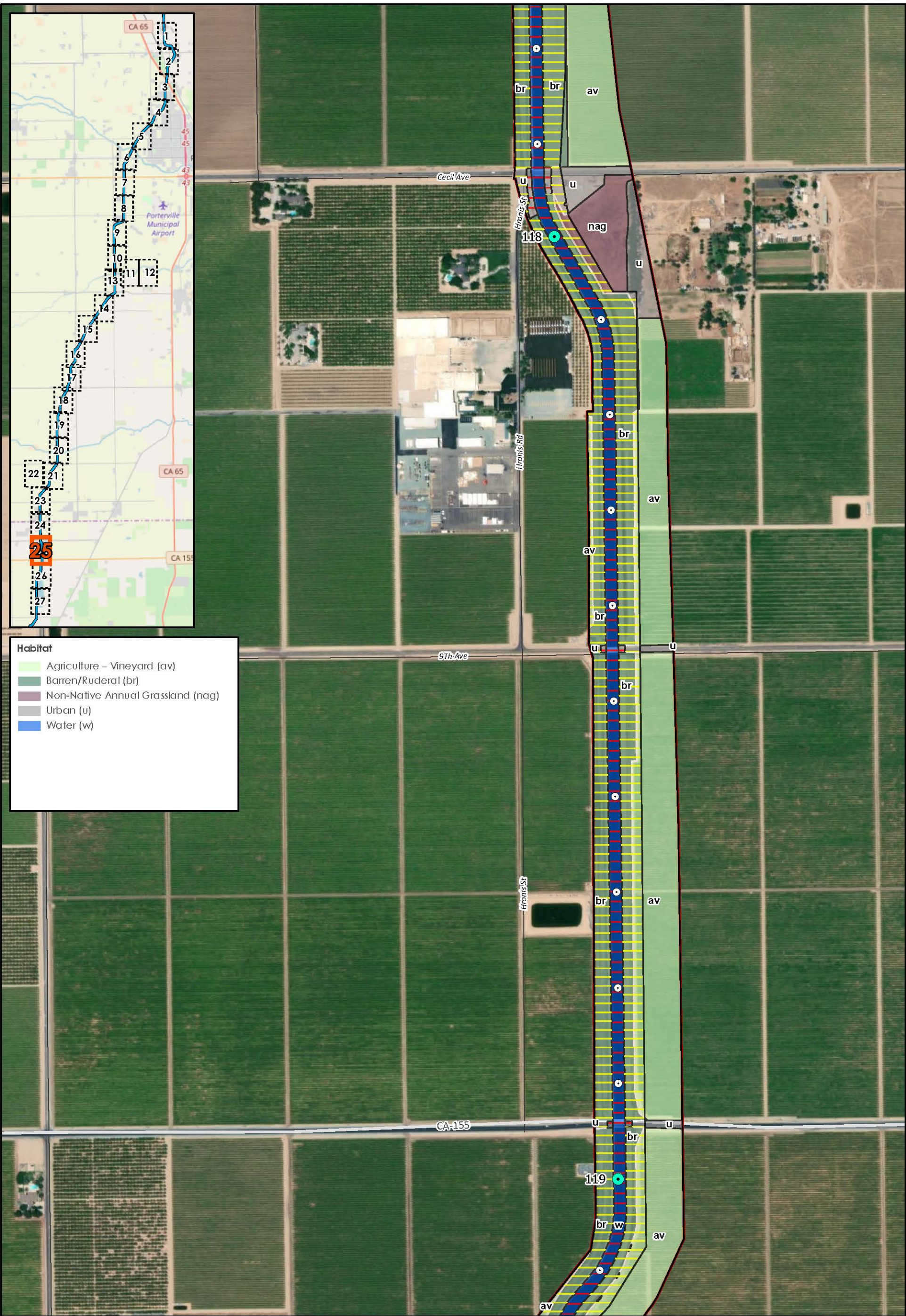
Agriculture – Vineyard (av)

Barren/Ruderal (br)

Non-Native Annual Grassland (nag)

Urban (u)

Water (w)



FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT  
Canal Enlargement and Re-alignment Alternative

- Project Area

Potential Impacts

No Impact

Permanent

Temporary
- Proposed Canal Re-alignment Centerline

Mile Post

Tenth-of-Mile

Figure No.  
**5Y**

Date:  
**Mar 04, 2020**

Title  
**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
Prepared by SCP  
(2020-03-04)



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Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project







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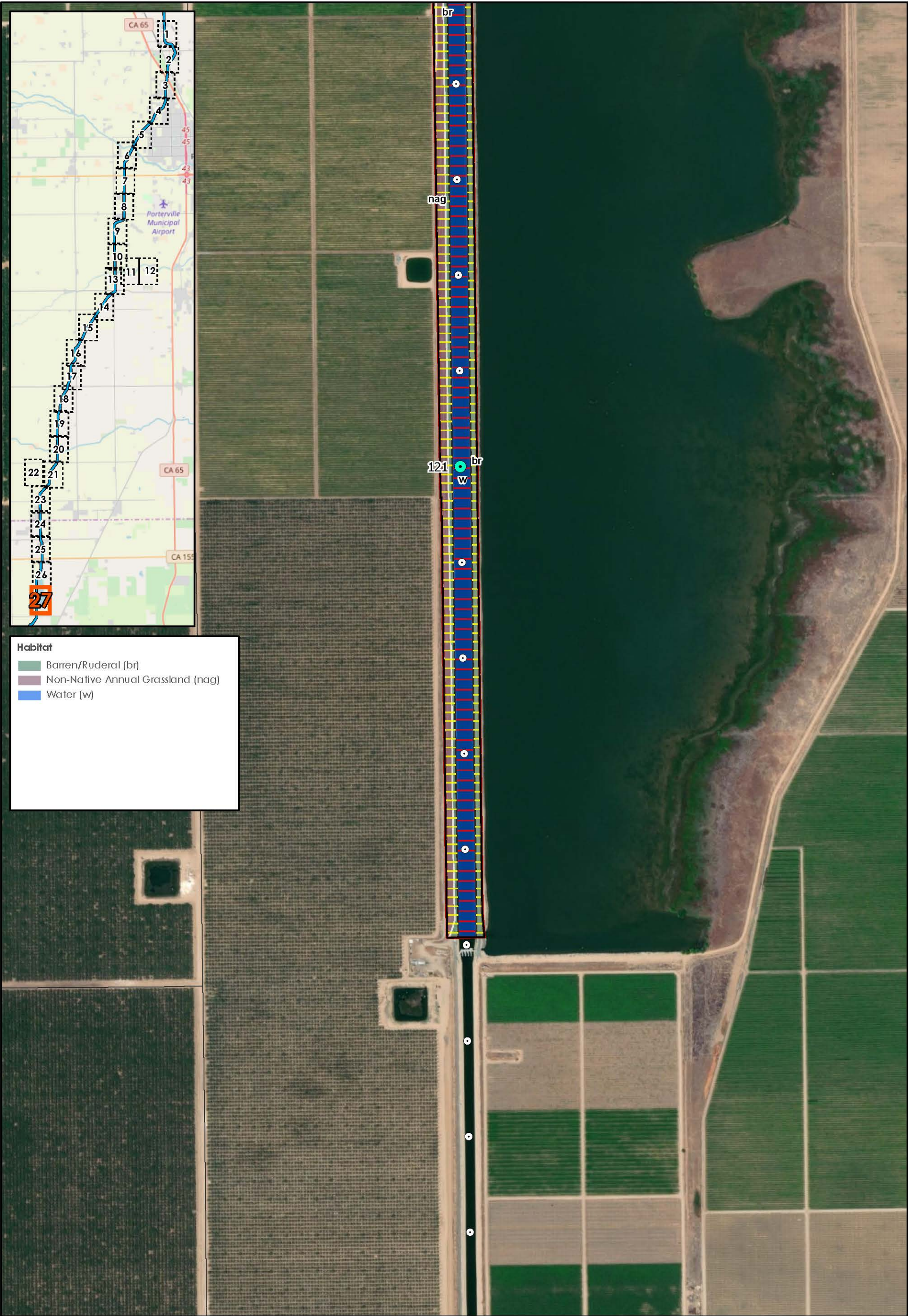


Habitat

Barren/Ruderal (br)

Non-Native Annual Grassland (nag)

Water (w)



FRIANT-KERN CANAL MIDDLE REACH CAPACITY CORRECTION PROJECT  
Canal Enlargement and Re-alignment Alternative

- Project Area
- Proposed Canal Re-alignment Centerline
- Potential Impacts
- No Impact
- Permanent
- Temporary
- Mile Post
- Tenth-of-Mile

Figure No.  
**5A1**

Date:  
**Mar 04, 2020**

Title  
**Impacts by Habitat**

**Project Location**  
Tulare and Kern Counties, CA  
**7.5' USGS Quadrangles**  
Porterville, California (1971)  
Sausalito School, California (1971)  
Ducor, California (1972)

184031016  
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0

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Feet

1:6,000 (At original document size of 11x17)

Client/Project  
Friant Water Authority  
Friant-Kern Canal Middle Reach Capacity Correction Project