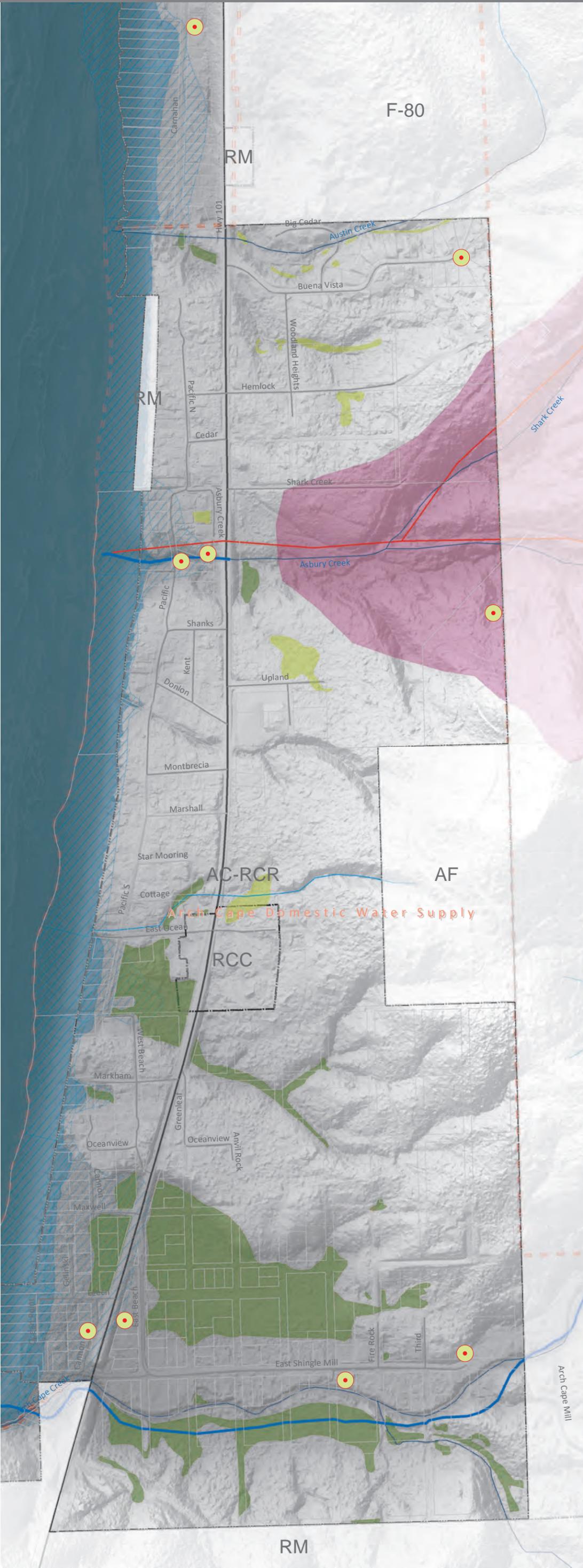


Arch Cape Area



- Significant Wetland - Arch Cape LWI
- Not significant wetland - Arch Cape LWI
- Probable wetland, not field verified - Arch Cape LWI

National Wetland Inventory not shown

LWI wetlands range in size from around 700 square feet to around 13 acres. The "significance" status of wetlands in the LWI does not mean that a wetland was field verified.

- Preliminary Coastal Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, V, VE)
- Current Effective Coastal Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, V, VE)
- Water Quality Limited Streams
--- Asbury Creek and Shark Creek are water quality limited (Category 5) for Turbidity but neither has a total maximum daily load.
- Streams
--- DSL Essential Sealmon Habitat
--- Fish Bearing
--- Not fish bearing (None in this area)

Removal-Fill Law {ORS 196.810 (1)(f)(B)}, ESH means the habitat that is necessary to prevent the depletion of indigenous anadromous salmonid species during their history stages of spawning and rearing. Pursuant to ORS 196.810 (1)(f)(C), indigenous anadromous salmonid " means chum, sockeye, Chinook and Coho salmon, steelhead and cutthroat trout that are members of the family Salmonid and are listed as sensitive, threatened or endangered by a state or federal authority

Wetlands are associated with multiple fish bearing creeks. LWDUO 3.065 requires a 25 ft. buffer of native vegetation along Arch Cape, Asbury, and Shark Creeks

- Zoning- With the exception of a small area zoned Rural Community Commercial (RCC), all of Arch Cape is zoned Arch Cape Rural Community Residential (AC-RCC).
- Surface drinking water source area for the Arch Cape Domestic Water Water District
- Arch Cape Domestic Water Supply District Boundary. Most of the area of interest is in a single water district. The Arch Cape sewer district, which is not shown on the map, covers the entire area. Presumably, there are developed parcels within these districts that are not actually connected to public water and sewer systems, because connecting to them is not always required
- Properties. Parcels with wetlands range in size from 5000 sq. ft. to nearly 1.5 acres. Wetland coverage of the properties varies, with some properties having small portions covered by wetland, and some properties mostly or entirely covered by wetlands. Most wetland areas are not developed.

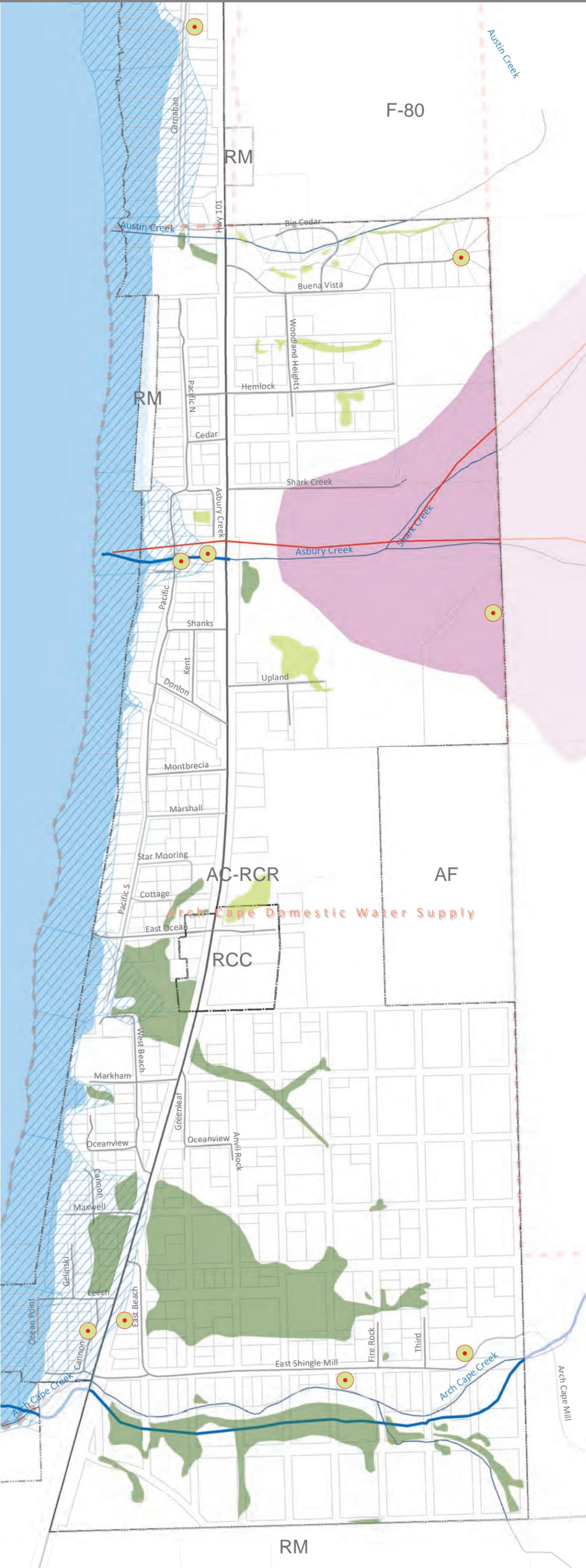


0 250 500 750 1,000 Feet

1:6,000

Date: 8/29/2016

Arch Cape Area



- Significant Wetland - Arch Cape LWI
- Not significant wetland - Arch Cape LWI
- Probable wetland, not field verified - Arch Cape LWI

National Wetland Inventory not shown

LWI wetlands range in size from around 700 square feet to around 13 acres. The "significance" status of wetlands in the LWI does not mean that a wetland was field verified.

- Preliminary Coastal Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, V, VE)

- Current Effective Coastal Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, V, VE)

- Water Quality Limited Streams
--- Asbury Creek and Shark Creek are water quality limited (Category 5) for Turbidity but neither has a total maximum daily load.

- Streams

 - DSL Essential Salmon Habitat
 - Fish Bearing
 - Not fish bearing (None in this area)

Removal-Fill Law {ORS 196.810 (1)(f)(B)}, ESH means the habitat that is necessary to prevent the depletion of indigenous anadromous salmonid species during their history stages of spawning and rearing. Pursuant to ORS 196.810 (1)(f)(C), indigenous anadromous salmonid " means chum, sockeye, Chinook and Coho salmon, steelhead and cutthroat trout that are members of the family Salmonid and are listed as sensitive, threatened or endangered by a state or federal authority

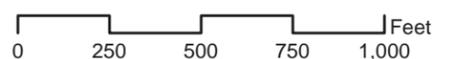
Wetlands are associated with multiple fish bearing creeks. LWDUO 3.065 requires a 25 ft. buffer of native vegetation along Arch Cape, Asbury, and Shark Creeks

- Zoning- With the exception of a small area zoned Rural Community Commercial (RCC), all of Arch Cape is zoned Arch Cape Rural Community Residential (AC-RCR).

- Surface drinking water source area for the Arch Cape Domestic Water Water District

- Arch Cape Domestic Water Supply District Boundary. Most of the area of interest is in a single water district. The Arch Cape sewer district, which is not shown on the map, covers the entire area. Presumably, there are developed parcels within these districts that are not actually connected to public water and sewer systems, because connecting to them is not always required

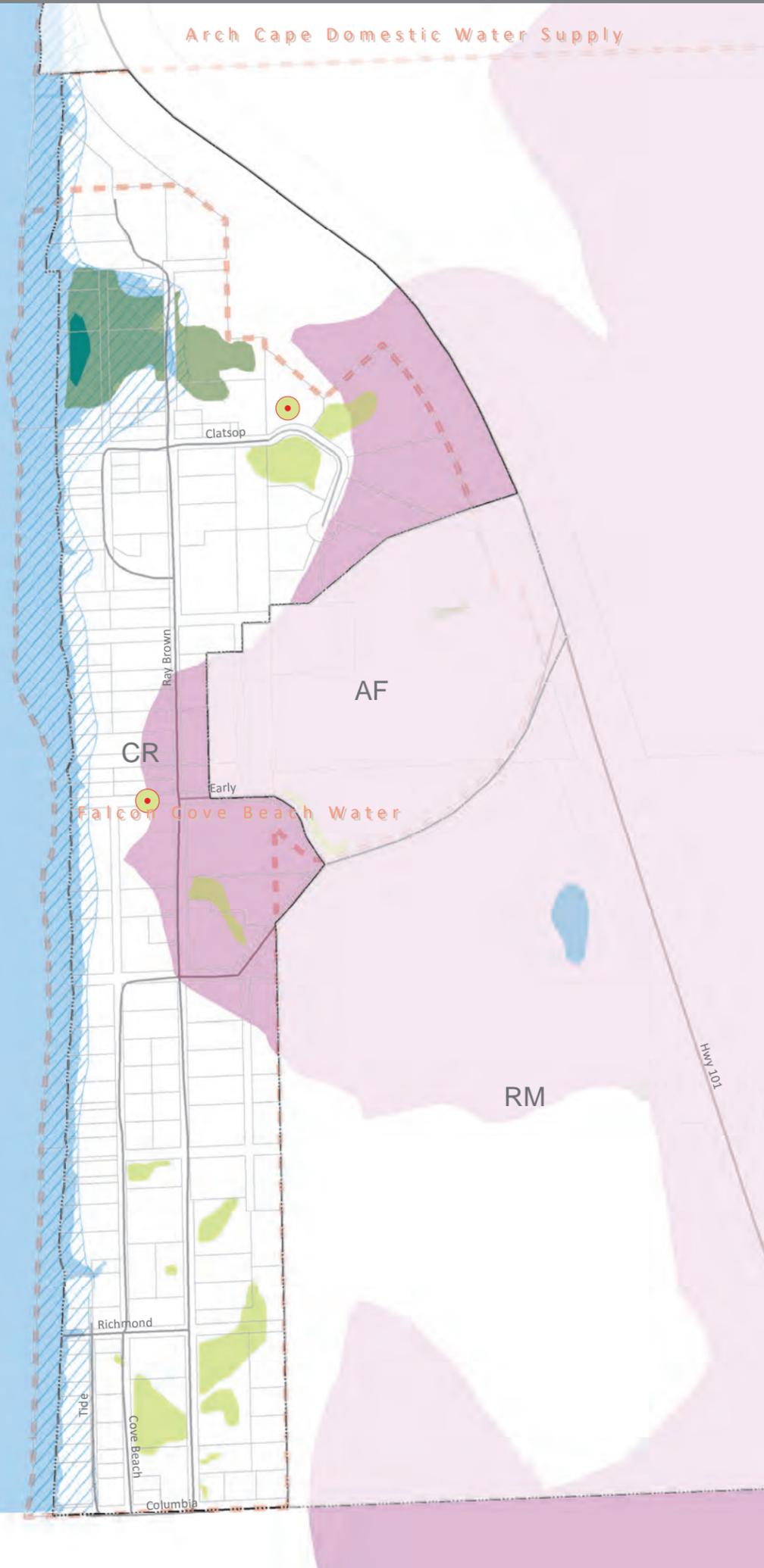
- Properties. Parcels with wetlands range in size from 5000 sq. ft. to nearly 1.5 acres. Wetland coverage of the properties varies, with some properties having small portions covered by wetland, and some properties mostly or entirely covered by wetlands. Most wetland areas are not developed.



1:6,000

Date: 8/29/2016

Falcon Cove Area



- Significant Wetland - Arch Cape LWI
- Not significant wetland - Arch Cape LWI
- Probable wetland, not field verified - Arch Cape LWI

National Wetland Inventory not shown

LWI wetlands range in size from a few hundred square feet to around 4 acres. The "significance" status of wetlands in the LWI does not mean that a wetland was field verified.

- Preliminary Coastal Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, V, VE)

- Current Effective Coastal Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, V, VE)

- Water Quality Limited Streams
--- There are no such streams in the Falcon Cove area

- Streams

 - DSL Essential Sealmon Habitat
 - Fish Bearing
 - Not fish bearing (None in this area)

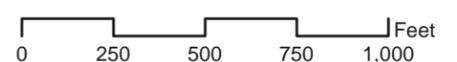
Date used for these maps indicates no streams in the Falcon Cove area, which may not be true.

- Zoning- The Coastal Residential (CR) zone allows development in the Falcon Cove area.

- Groundwater source areas for the Falcon Cove Beach Water District

- Falcon Cove Beach Water District Boundary. There is no sewer district for Falcon Cove.

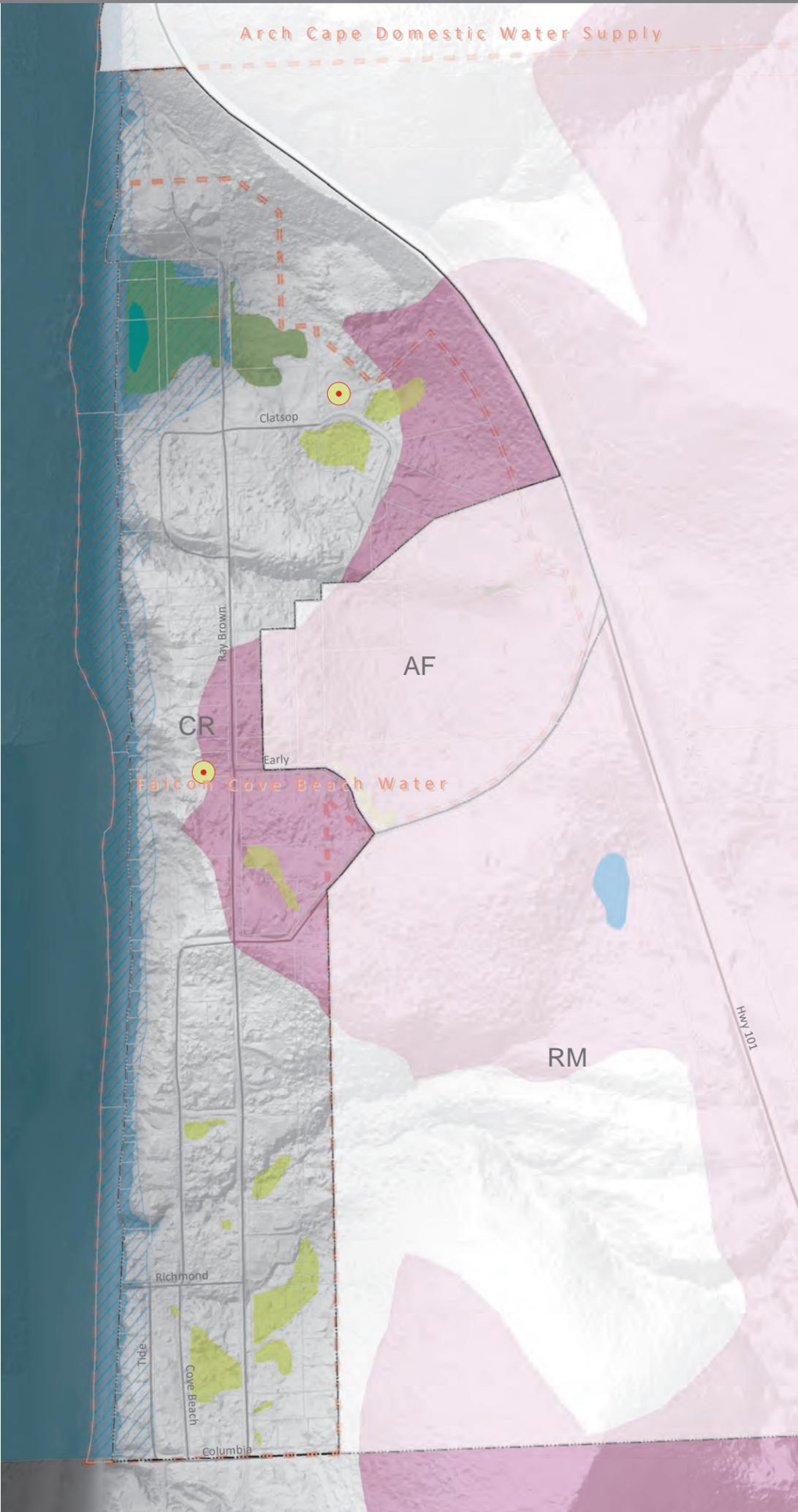
- Properties



1:6,000

Date: 8/29/2016

Falcon Cove Area



- Significant Wetland - Arch Cape LWI
- Not significant wetland - Arch Cape LWI
- Probable wetland, not field verified - Arch Cape LWI

National Wetland Inventory not shown

LWI wetlands range in size from a few hundred square feet to around 4 acres. The "significance" status of wetlands in the LWI does not mean that a wetland was field verified.

- Preliminary Coastal Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, V, VE)

- Current Effective Coastal Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, V, VE)

- Water Quality Limited Streams
--- There are no such streams in the Falcon Cove area

- Streams

 - DSL Essential Sealmon Habitat
 - Fish Bearing
 - Not fish bearing (None in this area)

Date used for these maps indicates no streams in the Falcon Cove area, which may not be true.

- Zoning- The Coastal Residential (CR) zone allows development in the Falcon Cove area.

- Groundwater source areas for the Falcon Cove Beach Water District

- Falcon Cove Beach Water District Boundary. There is no sewer district for Falcon Cove.

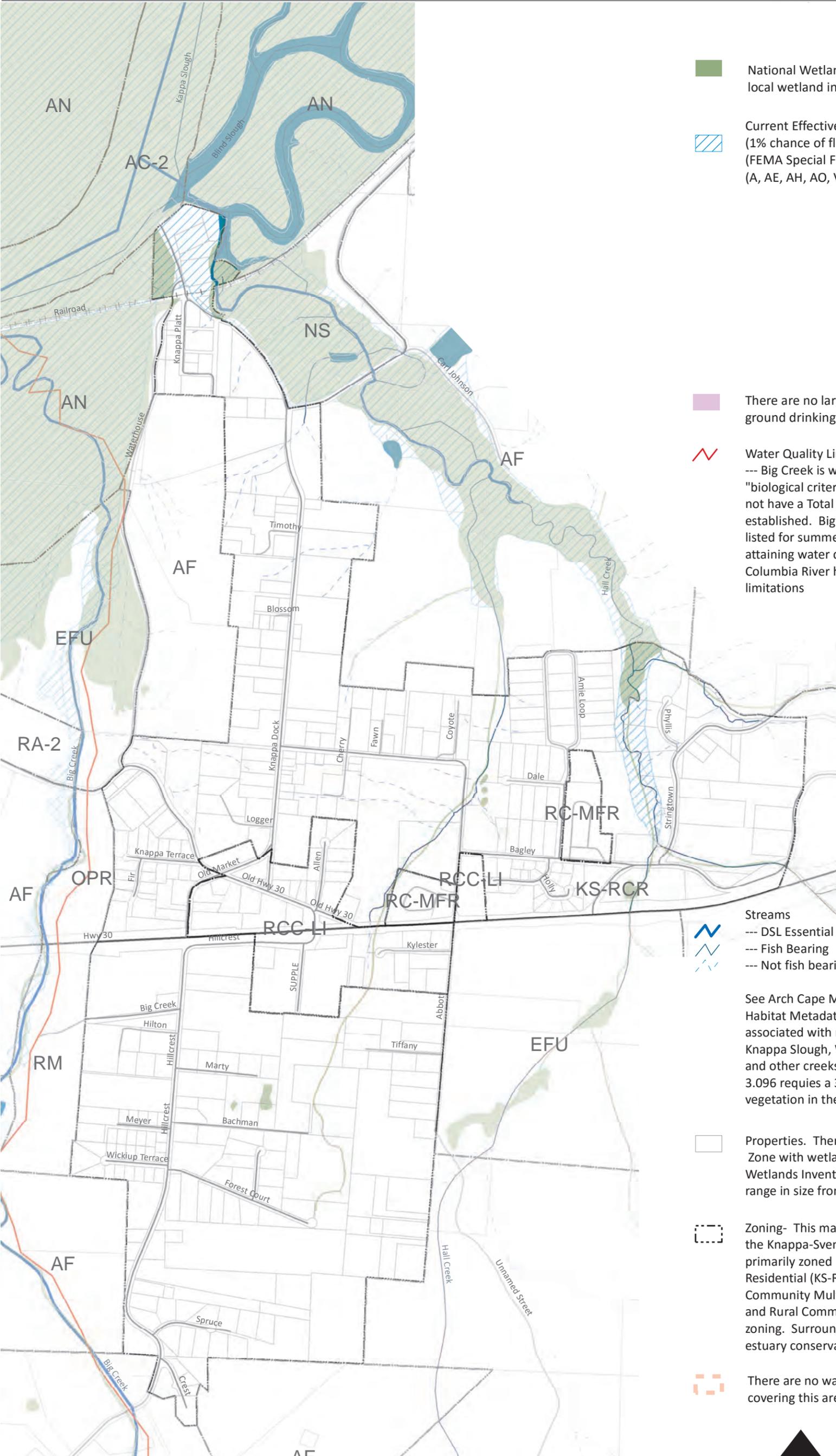
- Properties



1:6,000

Date: 8/29/2016

Knappa Area



 National Wetland Inventory. (There is no local wetland inventory for this area)

 Current Effective Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, AO, VE)

 There are no large public surface or ground drinking water sources in the area

 Water Quality Limited Streams
 --- Big Creek is water quality limited for "biological criteria" (Category 5), but does not have a Total Maximum Daily Load established. Big Creek was also previously listed for summer temperature, but is now attaining water quality standards. The Columbia River has several water quality limitations

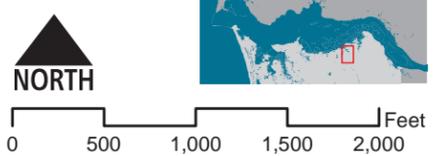
Streams
 --- DSL Essential Salmon Habitat
 --- Fish Bearing
 --- Not fish bearing or unknown

See Arch Cape Map for DSL Essential Salmon Habitat Metadata. Potentially affected wetlands are associated with multiple fish bearing waters, including Knappa Slough, Warren Slough, Big Creek, Hall Creek, and other creeks not named on the map. LWDUO 3.096 requires a 35 ft. structure setback from aquatic vegetation in the KS-RCR Zone.

 Properties. There are few parcels in the KS-RCR Zone with wetlands indicated by the National Wetlands Inventory. Parcels with NWI wetlands range in size from around 1 to 10 acres.

 Zoning- This map focuses on the Knappa portion of the Knappa-Svensen Rural Community area. It is primarily zoned Knappa Svensen Rural Community Residential (KS-RCR), but also includes Rural Community Multi Family Residential (RC-MFR) zoning, and Rural Community Commercial Light Industrial (RCC-LI) zoning. Surrounding areas are zoned for resource uses, estuary conservation, and residential-agriculture.

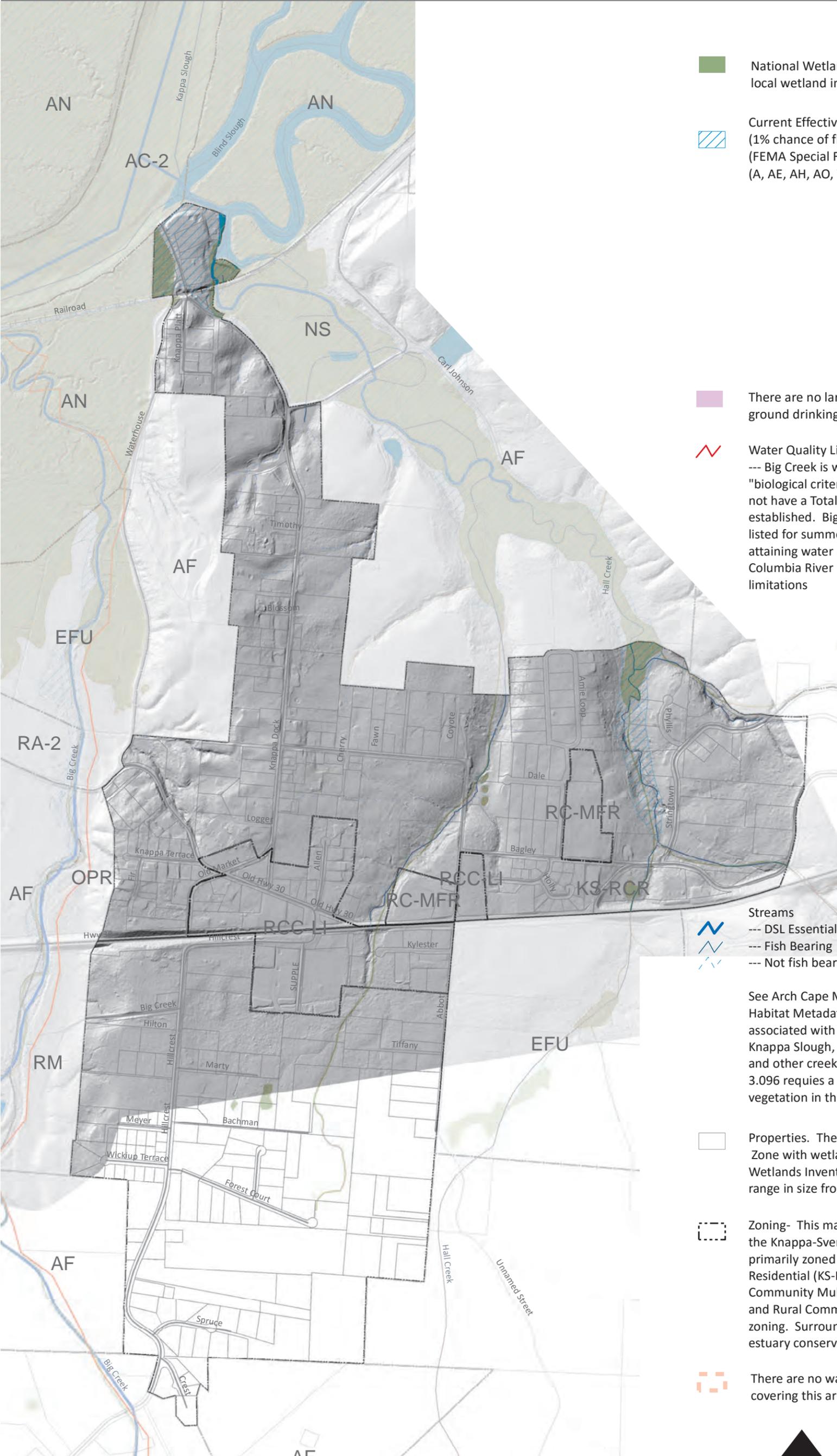
 There are no water or sewer districts covering this area



1:12,000

Date: 8/26/2016

Knappa Area



 National Wetland Inventory. (There is no local wetland inventory for this area)

 Current Effective Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, AO, VE)

 There are no large public surface or ground drinking water sources in the area

 Water Quality Limited Streams
 --- Big Creek is water quality limited for "biological criteria" (Category 5), but does not have a Total Maximum Daily Load established. Big Creek was also previously listed for summer temperature, but is now attaining water quality standards. The Columbia River has several water quality limitations

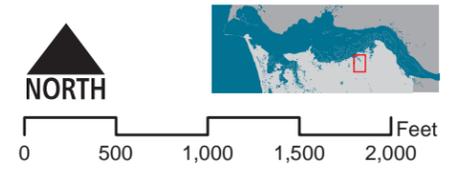
Streams
 --- DSL Essential Salmon Habitat
 --- Fish Bearing
 --- Not fish bearing or unknown

See Arch Cape Map for DSL Essential Salmon Habitat Metadata. Potentially affected wetlands are associated with multiple fish bearing waters, including Knappa Slough, Warren Slough, Big Creek, Hall Creek, and other creeks not named on the map. LWDUO 3.096 requires a 35 ft. structure setback from aquatic vegetation in the KS-RCR Zone.

 Properties. There are few parcels in the KS-RCR Zone with wetlands indicated by the National Wetlands Inventory. Parcels with NWI wetlands range in size from around 1 to 10 acres.

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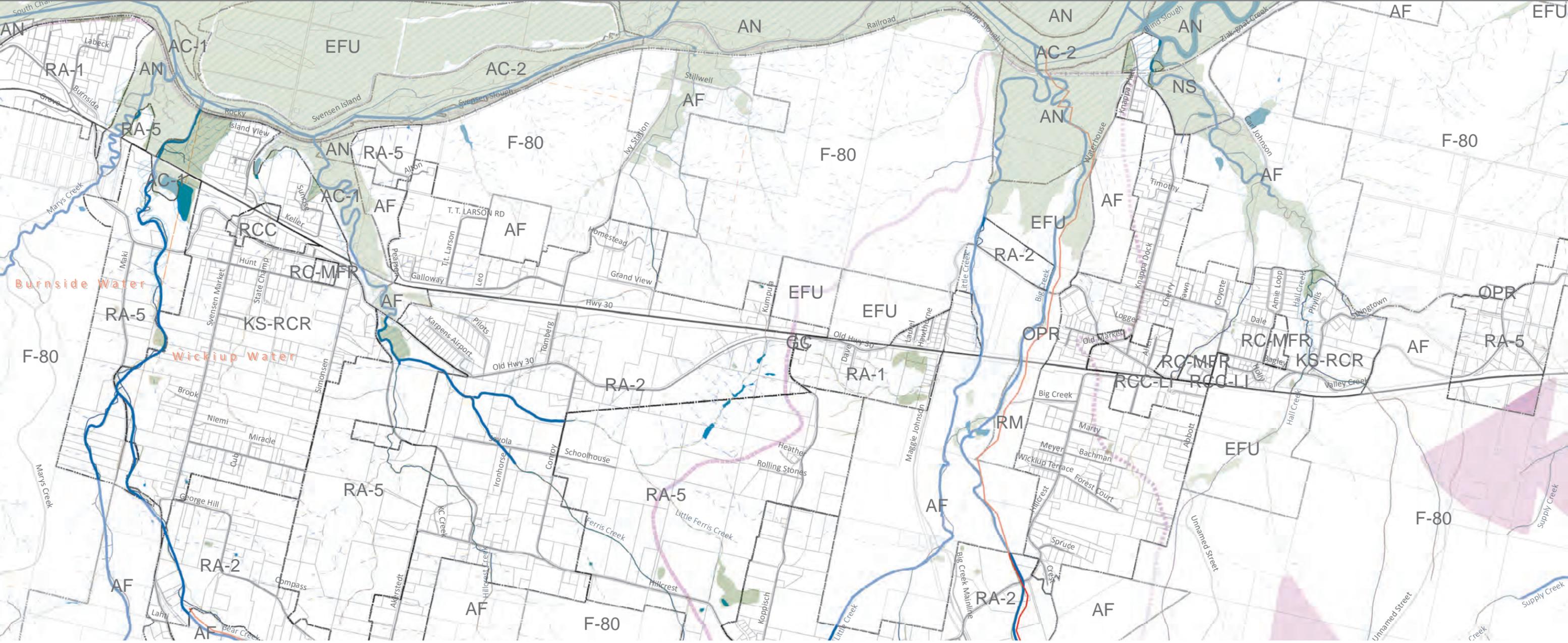
 There are no water or sewer districts covering this area



1:12,000

Date: 8/26/2016

Knappa-Svensen Area

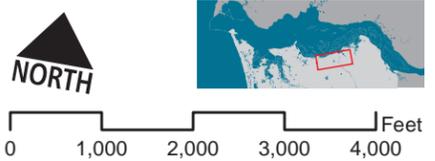


- National Wetland Inventory. (There is no local wetland inventory for this area)
- Current Effective Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, AO, VE)
- There are no large public surface drinking water sources in the area. There is a public groundwater source downstream of an area zoned Rural-Agriculture 5 (RA-5) east of Knappa.

- Water Quality Limited Streams
--- Big Creek and the Columbia River are the only water quality limited streams affected by this area
- Streams
--- DSL Essential Salmon Habitat
--- Fish Bearing
--- Not fish bearing or unknown

- Properties
- Zoning- This map focuses on the Knappa-Svensen Rural Community area, and surrounding areas zoned RA-1, RA-2, and RA-5 (the Rural-Agriculture zones). Additional neighboring areas not shown on the map, extending through the John Day River area to the west and Brownsmead to the east are also zoned RA-1, RA-2, and RA-5.
- The Burnside and Wickiup Water Districts cover most of Svensen and areas surrounding Svensen. There are no sanitary sewer districts.

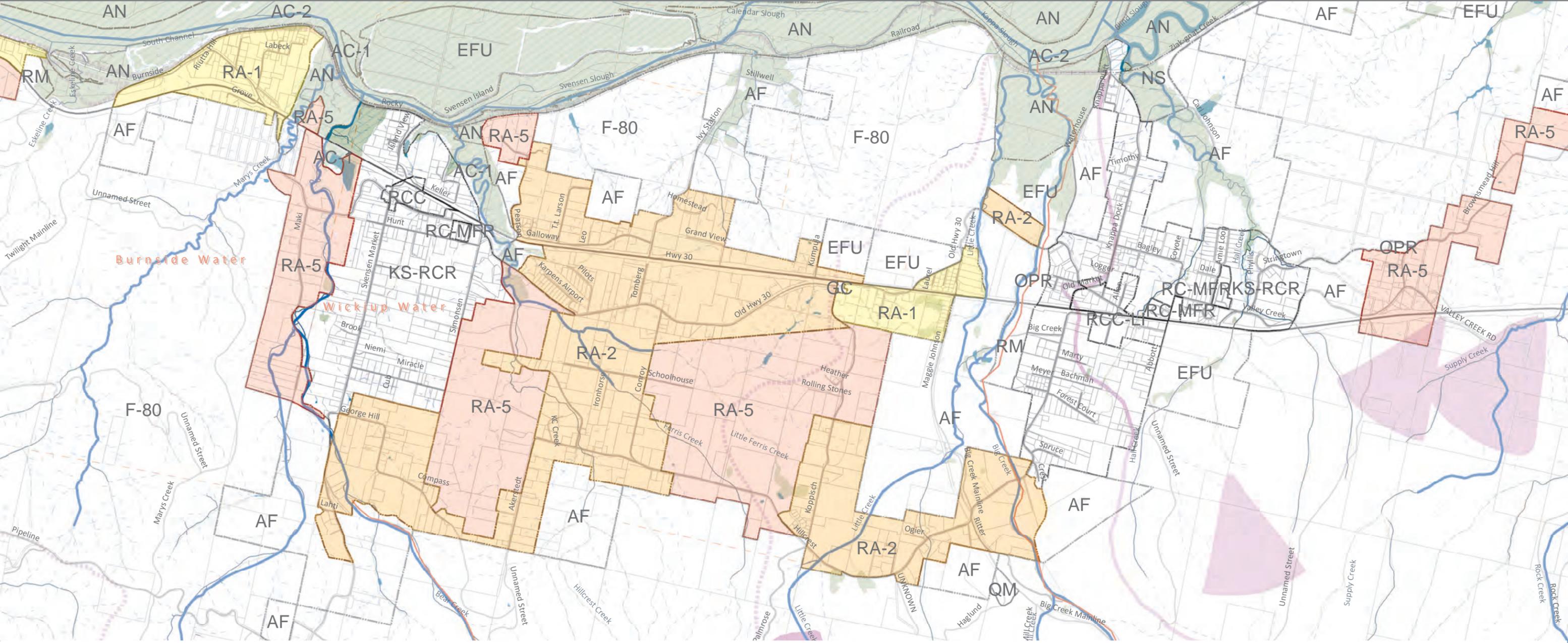
Watershed Boundaries - 12th Order
The primary watersheds from West to East drain to Bear Creek, Big Creek, and Gnat Creek.



1:24,000

Date: 8/29/2016

Knappa-Svensen Area



-  National Wetland Inventory. (There is no local wetland inventory for this area)
-  Current Effective Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, AO, VE)
-  There are no large public surface drinking water sources in the area. There is a public groundwater source downstream of an area zoned Rural-Agriculture 5 (RA-5) east of Knappa.

-  Water Quality Limited Streams
--- Big Creek and the Columbia River are the only water quality limited streams affected by this area
-  Streams
--- DSL Essential Salmon Habitat
--- Fish Bearing
--- Not fish bearing or unknown

-  Properties
-  Zoning- This map focuses on the Knappa-Svensen Rural Community area, and surrounding areas zoned RA-1, RA-2, and RA-5 (the Rural-Agriculture zones). Additional neighboring areas not shown on the map, extending through the John Day River area to the west and Brownsmead to the east are also zoned RA-1, RA-2, and RA-5.
-  The Burnside and Wickiup Water Districts cover most of Svensen and areas surrounding Svensen. There are no sanitary sewer districts.

 Watershed Boundaries - 12th Order
The primary watersheds from West to East drain to Bear Creek, Big Creek, and Gnat Creek.

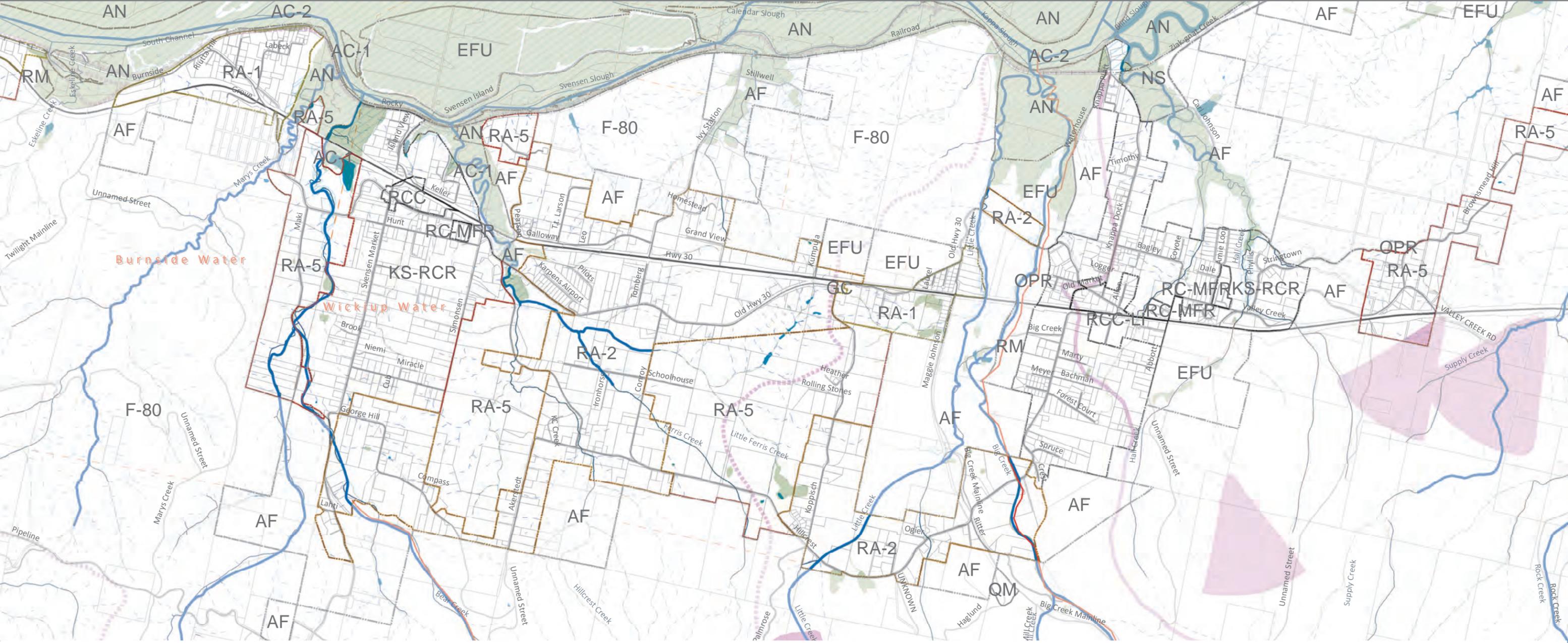
 NORTH

 0 1,250 2,500 3,750 5,000 Feet

1:30,000

Date: 9/1/2016

Knappa-Svensen Area



- National Wetland Inventory. (There is no local wetland inventory for this area)
- Current Effective Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, AO, VE)
- There are no large public surface drinking water sources in the area. There is a public groundwater source downstream of an area zoned Rural-Agriculture 5 (RA-5) east of Knappa.

- Water Quality Limited Streams
--- Big Creek and the Columbia River are the only water quality limited streams affected by this area
- Streams
--- DSL Essential Sealmon Habitat
--- Fish Bearing
--- Not fish bearing or unknown

- Properties
- Zoning- This map focuses on the Knappa-Svensen Rural Community area, and surrounding areas zoned RA-1, RA-2, and RA-5 (the Rural-Agriculture zones). Additional neighboring areas not shown on the map, extending through the John Day River area to the west and Brownsmead to the east are also zoned RA-1, RA-2, and RA-5.
- The Burnside and Wickiup Water Districts cover most of Svensen and areas surrounding Svensen. There are no sanitary sewer districts.

Watershed Boundaries - 12th Order
The primary watersheds from West to East drain to Bear Creek, Big Creek, and Gnat Creek.

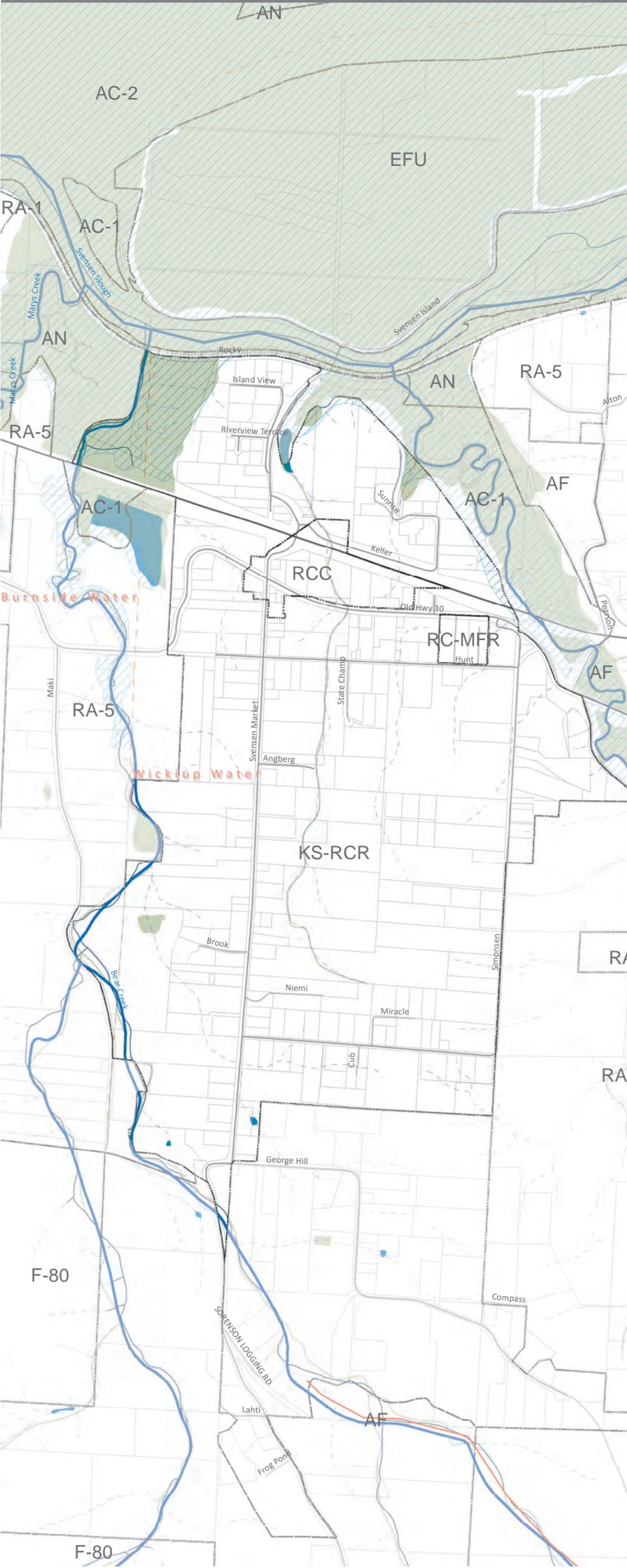
NORTH

0 1,250 2,500 3,750 5,000 Feet

1:30,000

Date: 9/1/2016

Svensen Area



 National Wetland Inventory. (There is no local wetland inventory for this area)

 Current Effective Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, AO, VE)

 There are no large public surface or ground drinking water sources in the area

 Water Quality Limited Streams
 --- There are no water quality limited streams in this area except for the Columbia River

 Streams
 --- DSL Essential Sealmon Habitat
 --- Fish Bearing
 --- Not fish bearing or unknown

See Arch Cape Map for DSL Essential Salmon Habitat Metadata. Fish bearing waters associated with wetlands in this area include Bear Creek and Hillcrest Creek. LWDUO 3.096 requires a 35 ft. structure setback from aquatic vegetation in the KS-RCR Zone.

 Properties. There are few parcels in the KS-RCR Zone with wetlands indicated by the National Wetlands Inventory. Parcels with NWI wetlands range in size from around 1 to 10 acres.

 Zoning- This map focuses on the Svensen portion of the Knappa-Svensen Rural Community area. It is primarily zoned Knappa Svensen Rural Community Residential (KS-RCR), but also includes Rural Community Multi Family Residential (RC-MFR) zoning, and Rural Community Commercial Light Industrial (RCC-LI) zoning. Surrounding areas are zoned for resource uses, estuary conservation, and residential-agriculture.

 Most of this area is in the Wickiup Water District, although a small area near Bear Creek on the west side is in the Burnside Water District. There are no sanitary sewer districts.

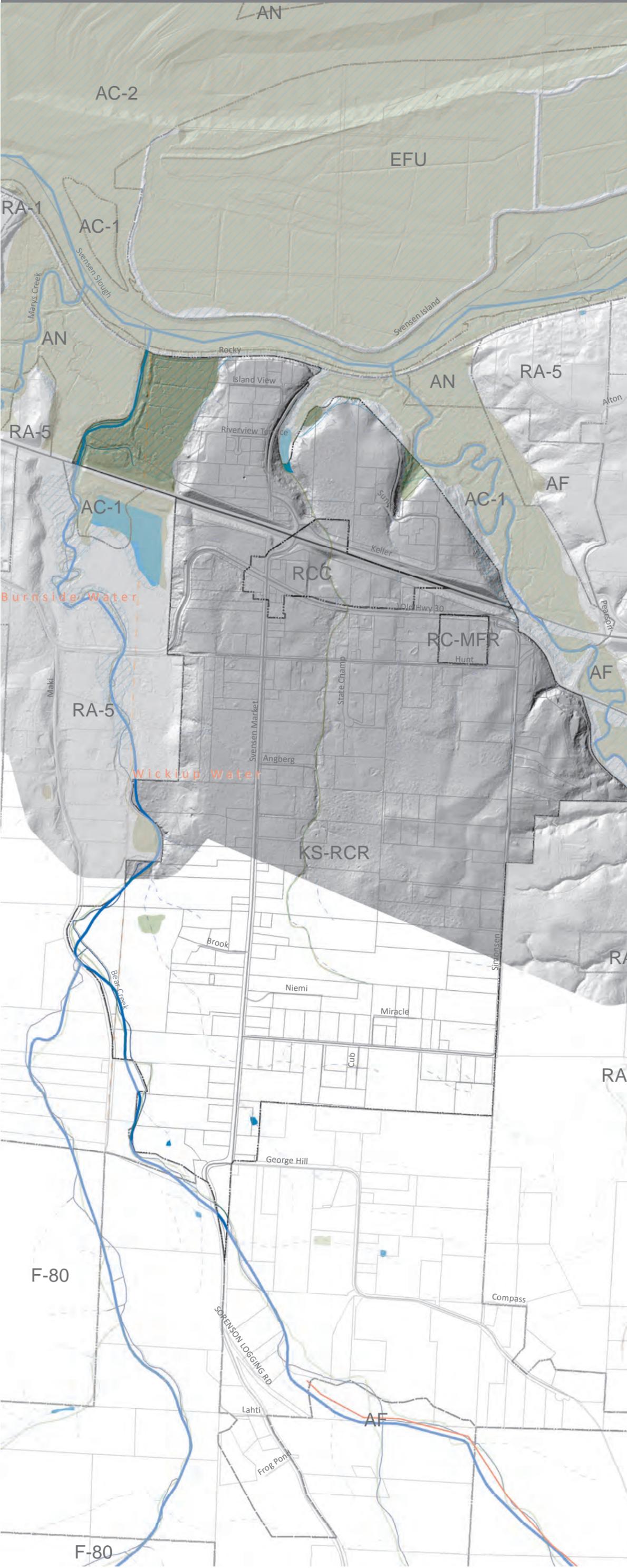


0 500 1,000 1,500 2,000 Feet

1:12,000

Date: 8/29/2016

Svensen Area



 National Wetland Inventory. (There is no local wetland inventory for this area)

 Current Effective Flood Zone (1% chance of flooding in a given year) (FEMA Special Flood Hazard Area) (A, AE, AH, AO, VE)

 There are no large public surface or ground drinking water sources in the area

 Water Quality Limited Streams
 --- There are no water quality limited streams in this area except for the Columbia River

Streams

 --- DSL Essential Salmon Habitat
 --- Fish Bearing
 --- Not fish bearing or unknown

See Arch Cape Map for DSL Essential Salmon Habitat Metadata. Fish bearing waters associated with wetlands in this area include Bear Creek and Hillcrest Creek. LWDUO 3.096 requires a 35 ft. structure setback from aquatic vegetation in the KS-RCR Zone.

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0 500 1,000 1,500 2,000 Feet

1:12,000

Date: 8/29/2016