DRAFT

JC-2

JC-1

1.2

1.1

1.0

0.9

0.8

0.7

0.6

Joseph Creek

0.5

Add Large Wood Throughout Reach For Instream Complexity

Remove or Breach Levee and Connect Floodplain. Riparian Vegetation Enhancment

0.4

0.3
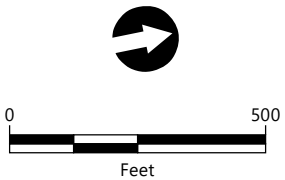
0.2

0.1

0.0

Grande Ronde

OREGON

LEGEND:

— Grande Ronde Project Areas

— Delineated Levees

— Roads/Encroachments

● Wood Addition

▨ Reconnect Floodplain
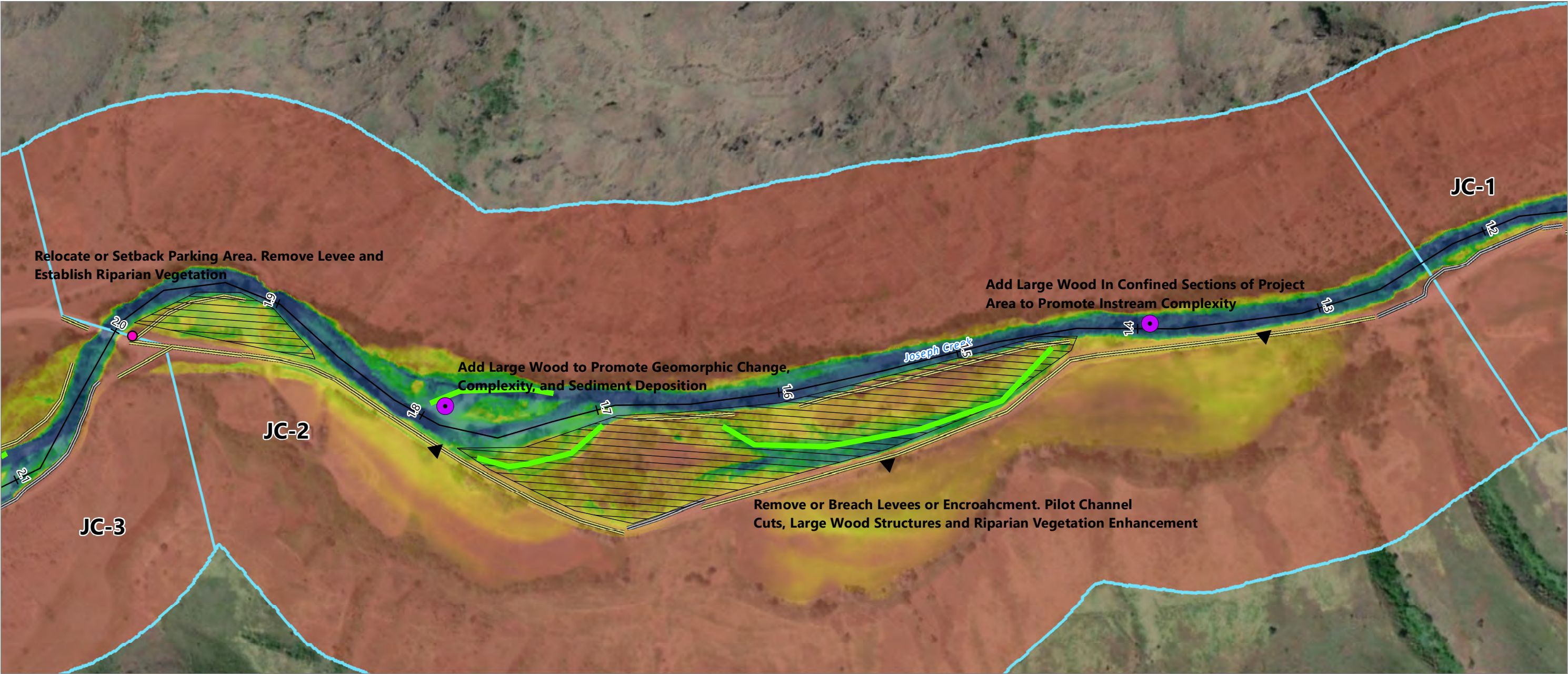
● Address Road or Ford Crossing

▦ Create Protected Inlet

Relative Elevation in Feet

0   500
Feet

ANCHOR QEA

JC-1
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

JC-1

Relocate or Setback Parking Area. Remove Levee and
Establish Riparian Vegetation

Add Large Wood In Confined Sections of Project
Area to Promote Instream Complexity

Add Large Wood to Promote Geomorphic Change,
Complexity, and Sediment Deposition

Joseph Creek

JC-2

Remove or Breach Levees or Encroahcment. Pilot Channel
Cuts, Large Wood Structures and Riparian Vegetation Enhancement

JC-3

LEGEND:

Grande Ronde Project Areas

Delineated Levees

Roads/Encroachments

● Wood Addition

▲ Long Term: Set Back Road

▨ Reconnect Floodplain

━ Reconnect Side Channels

● Address Road or Ford Crossing

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
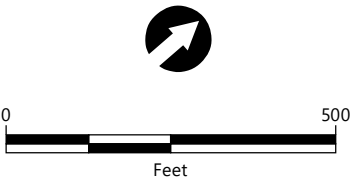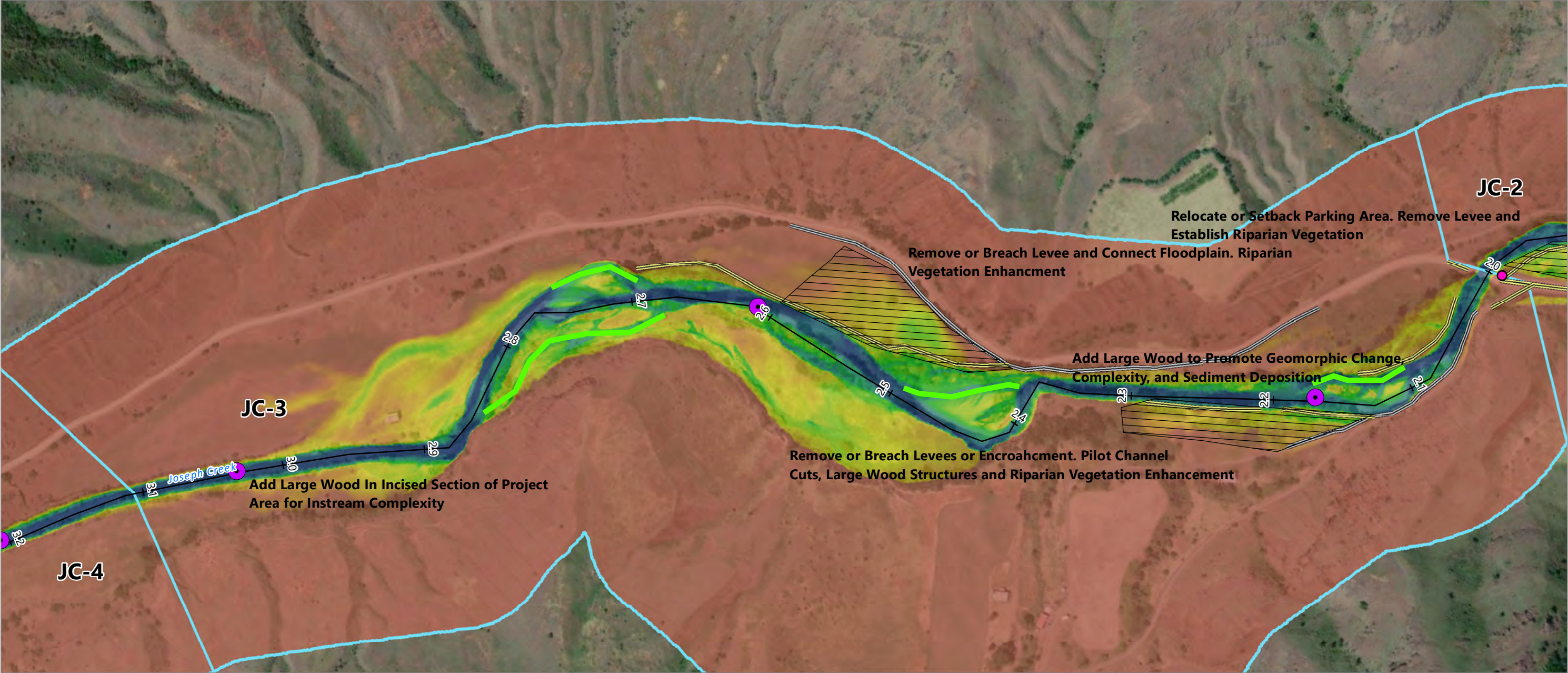4. LiDAR elevation data is WA DNR (2018).

OREGON

0   500
Feet

ANCHOR
QEA

JC-2
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

JC-2

JC-3

JC-4

Joseph Creek

Relocate or Setback Parking Area. Remove Levee and Establish Riparian Vegetation

Remove or Breach Levee and Connect Floodplain. Riparian Vegetation Enhancment

Add Large Wood to Promote Geomorphic Change, Complexity, and Sediment Deposition

Remove or Breach Levees or Encroahcment. Pilot Channel Cuts, Large Wood Structures and Riparian Vegetation Enhancement

Add Large Wood In Incised Section of Project Area for Instream Complexity

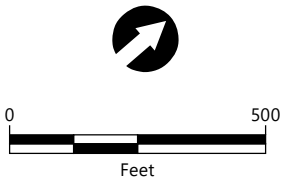2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 3.2
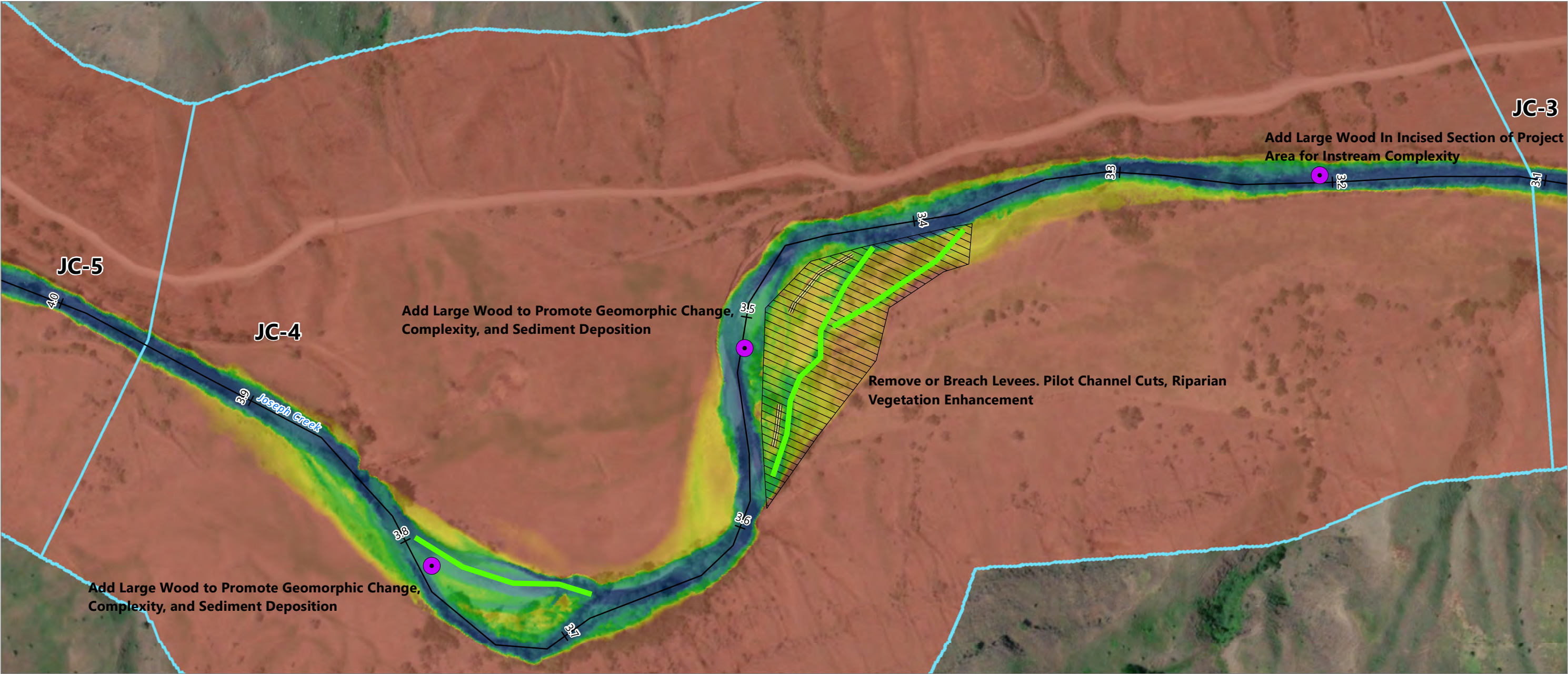
LEGEND:

━━ Grande Ronde Project Areas

━━ Delineated Levees

━━ Roads/Encroachments

● Wood Addition

▨ Reconnect Floodplain

━ Reconnect Side Channels

● Address Road or Ford Crossing

Relative Elevation in Feet

OREGON

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
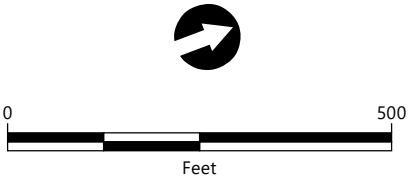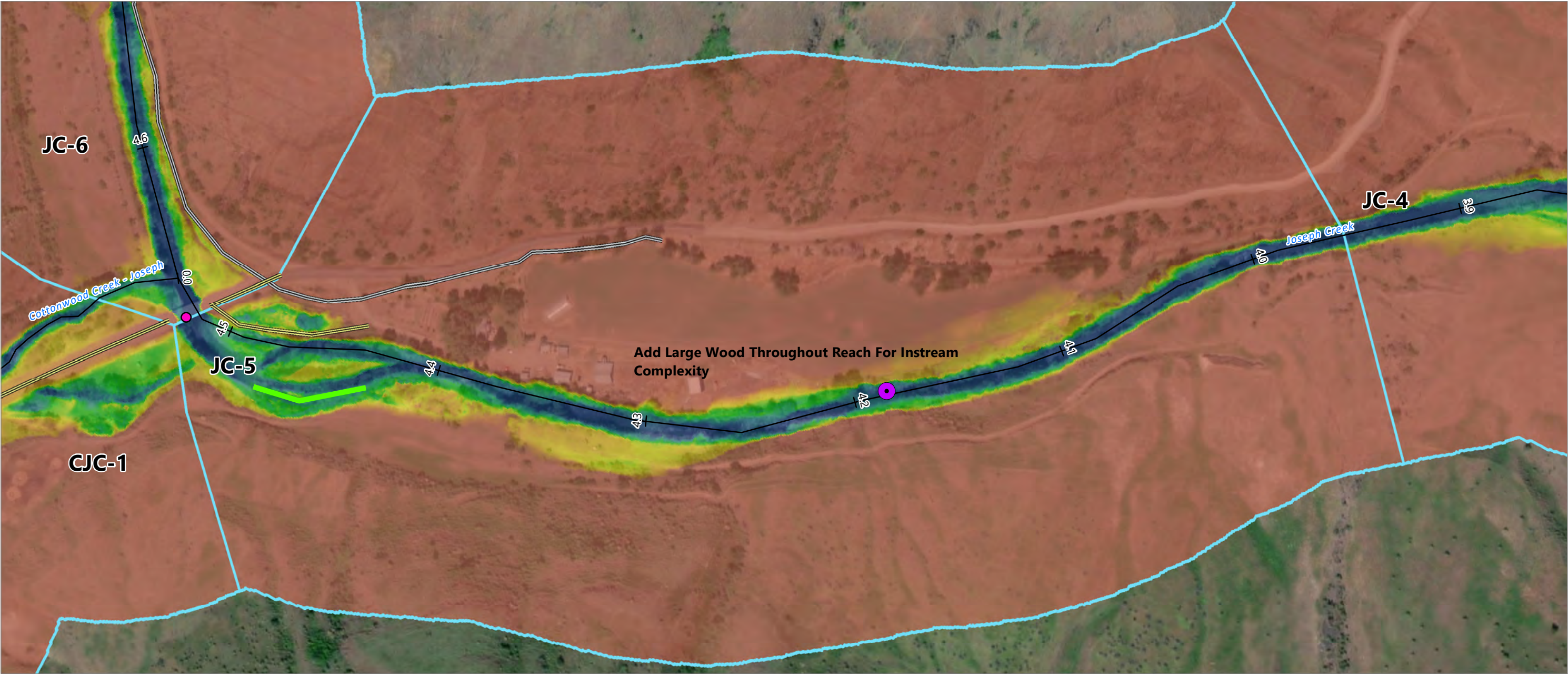4. LiDAR elevation data is WA DNR (2018).

0   500
Feet

ANCHOR QEA

JC-3
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

JC-3

JC-5

JC-4

Add Large Wood In Incised Section of Project Area for Instream Complexity

Add Large Wood to Promote Geomorphic Change, Complexity, and Sediment Deposition

Remove or Breach Levees. Pilot Channel Cuts, Riparian Vegetation Enhancement

Add Large Wood to Promote Geomorphic Change, Complexity, and Sediment Deposition

Joseph Creek

4.0
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1

OREGON

LEGEND:

☐ Grande Ronde Project Areas

▦ Delineated Levees

● Wood Addition

▨ Reconnect Floodplain

▬ Reconnect Side Channels

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
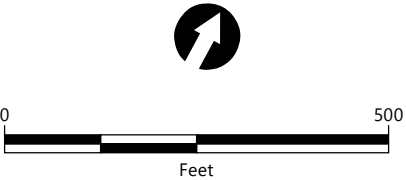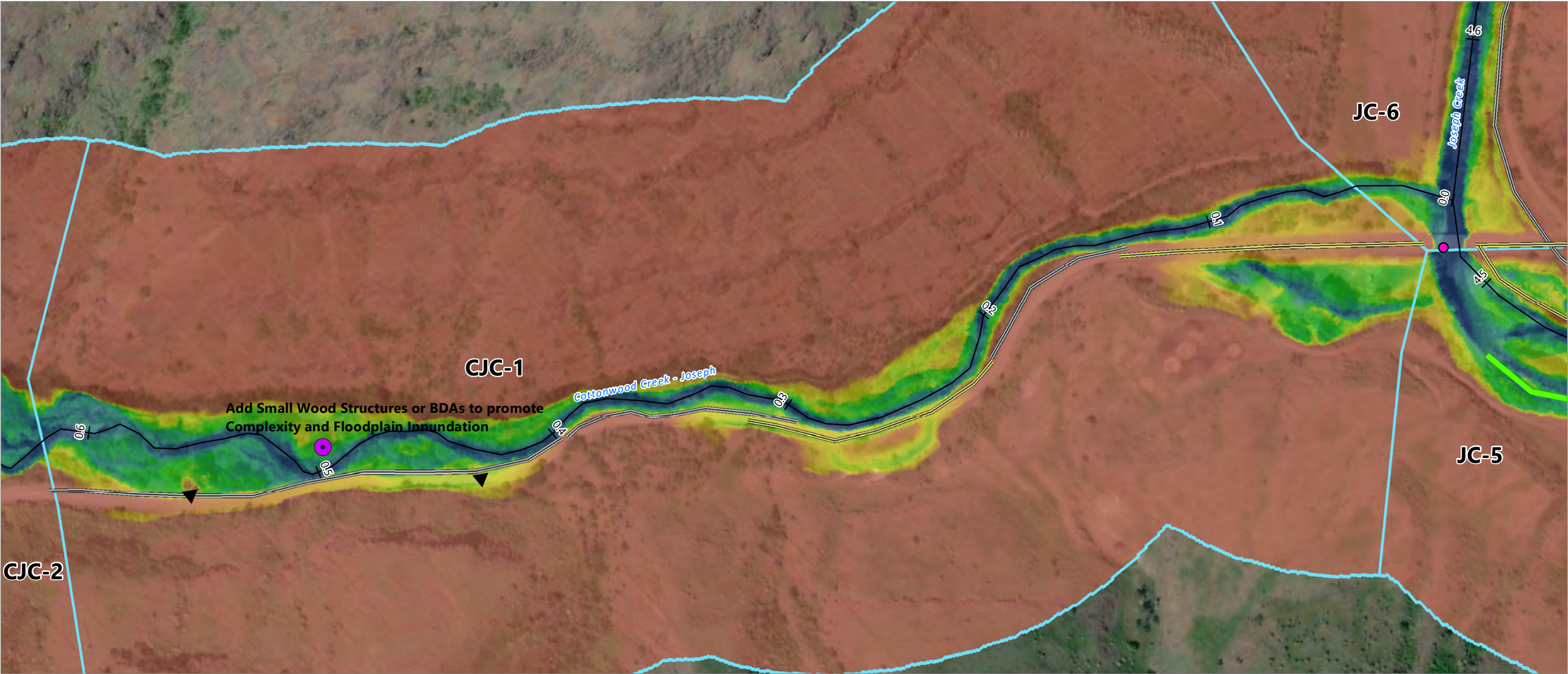4. LiDAR elevation data is WA DNR (2018).

0   500

Feet

ANCHOR
QEA

JC-4
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

JC-6

JC-4

JC-5

CJC-1

Cottonwood Creek – Joseph

Joseph Creek

Add Large Wood Throughout Reach For Instream Complexity

46
4.6
00
45
44
43
42
41
40
39

LEGEND:

⎯ Grande Ronde Project Areas
═══ Delineated Levees
━━━ Roads/Encroachments
● Wood Addition
━━━ Reconnect Side Channels
● Address Road or Ford Crossing

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
4. LiDAR elevation data is WA DNR (2018).

OREGON

0   500
Feet

ANCHOR QEA

JC-5

JC-5
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

CJC-1

CJC-2

JC-6

JC-5

Joseph Creek

Cottonwood Creek - Joseph

Add Small Wood Structures or BDAs to promote Complexity and Floodplain Innundation
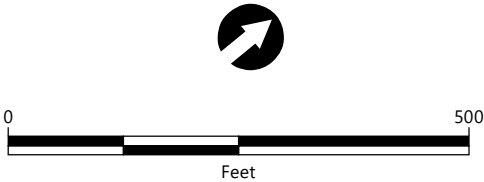
4.6
0.0
0.1
4.5
0.2
0.3
0.4
0.5
0.6

LEGEND:
— Grande Ronde Project Areas
— Delineated Levees
— Roads/Encroachments
● Wood Addition
▲ Long Term: Set Back Road
— Reconnect Side Channels
● Address Road or Ford Crossing

Relative Elevation in Feet

OREGON

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
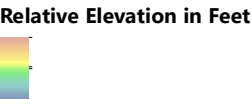4. LiDAR elevation data is WA DNR (2018).

0 — 500
Feet

Publish Date: 2020/06/15, 3:43 PM | User: thutchison
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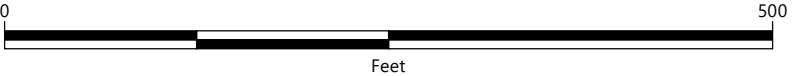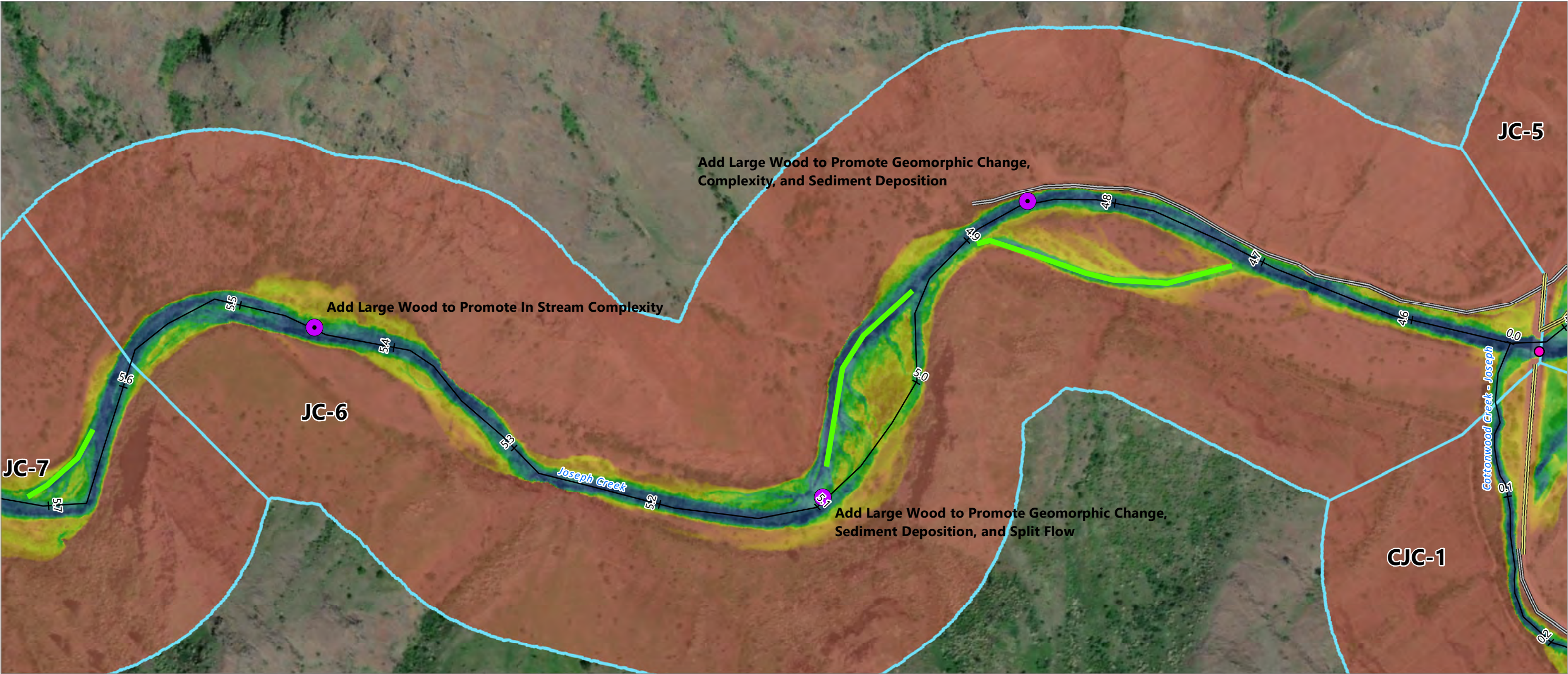
ANCHOR QEA

CJC-1
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

CJC-2

CJC-1

Cottonwood Creek - Joseph

**Project Area already has decent wood supply.
Supplement Small Wood Structures or BDAs as needed.**

LEGEND:

☐ Grande Ronde Project Areas

▰ Roads/Encroachments

⬤ Wood Addition

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
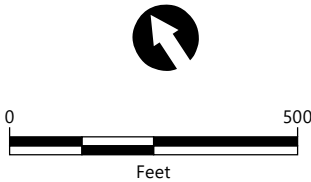4. LiDAR elevation data is WA DNR (2018).

0   500
Feet

ANCHOR QEA

CJC-2
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

Add Large Wood to Promote Geomorphic Change,
Complexity, and Sediment Deposition

Add Large Wood to Promote In Stream Complexity

Add Large Wood to Promote Geomorphic Change,
Sediment Deposition, and Split Flow

JC-5

JC-6

JC-7

CJC-1

Joseph Creek

Cottonwood Creek - Joseph

LEGEND:

Grande Ronde Project Areas

Delineated Levees

Roads/Encroachments

Wood Addition

Reconnect Side Channels

Address Road or Ford Crossing

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
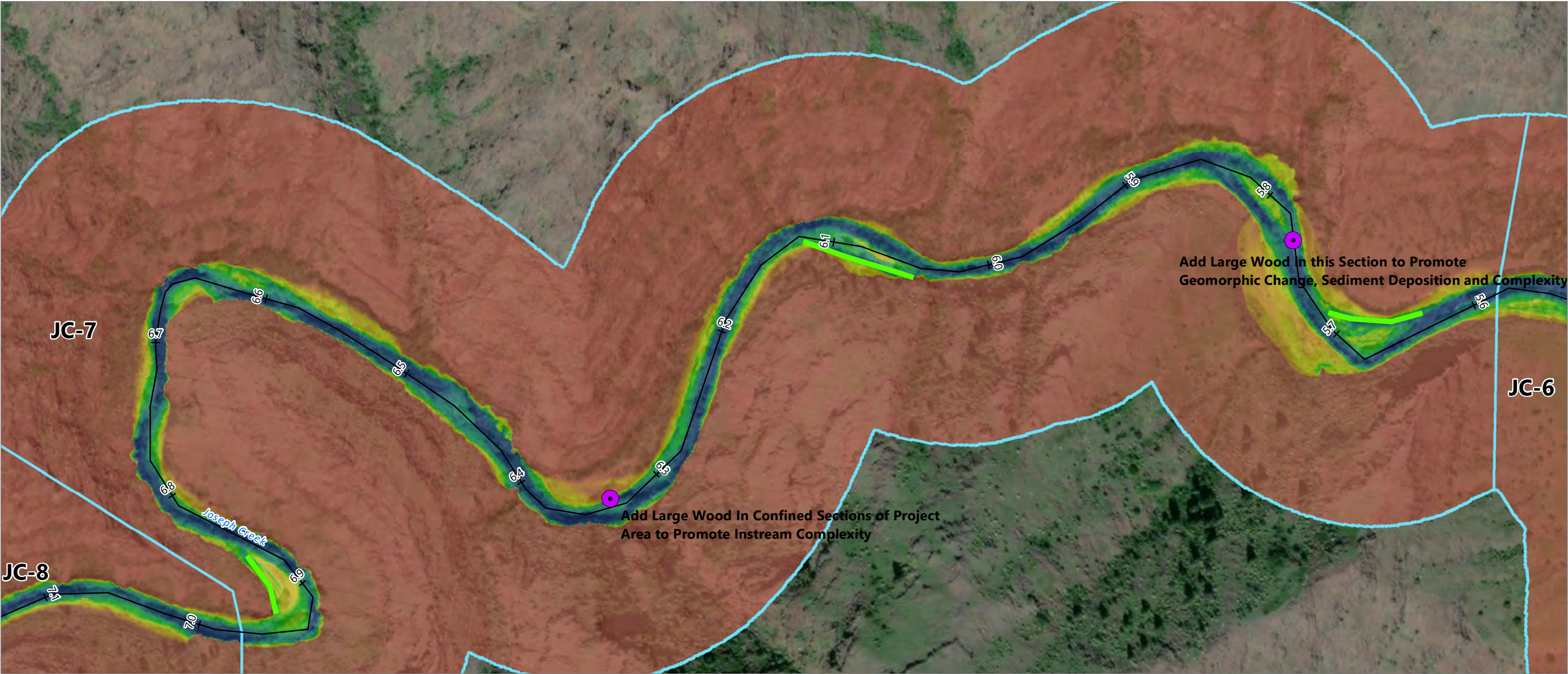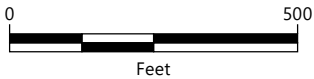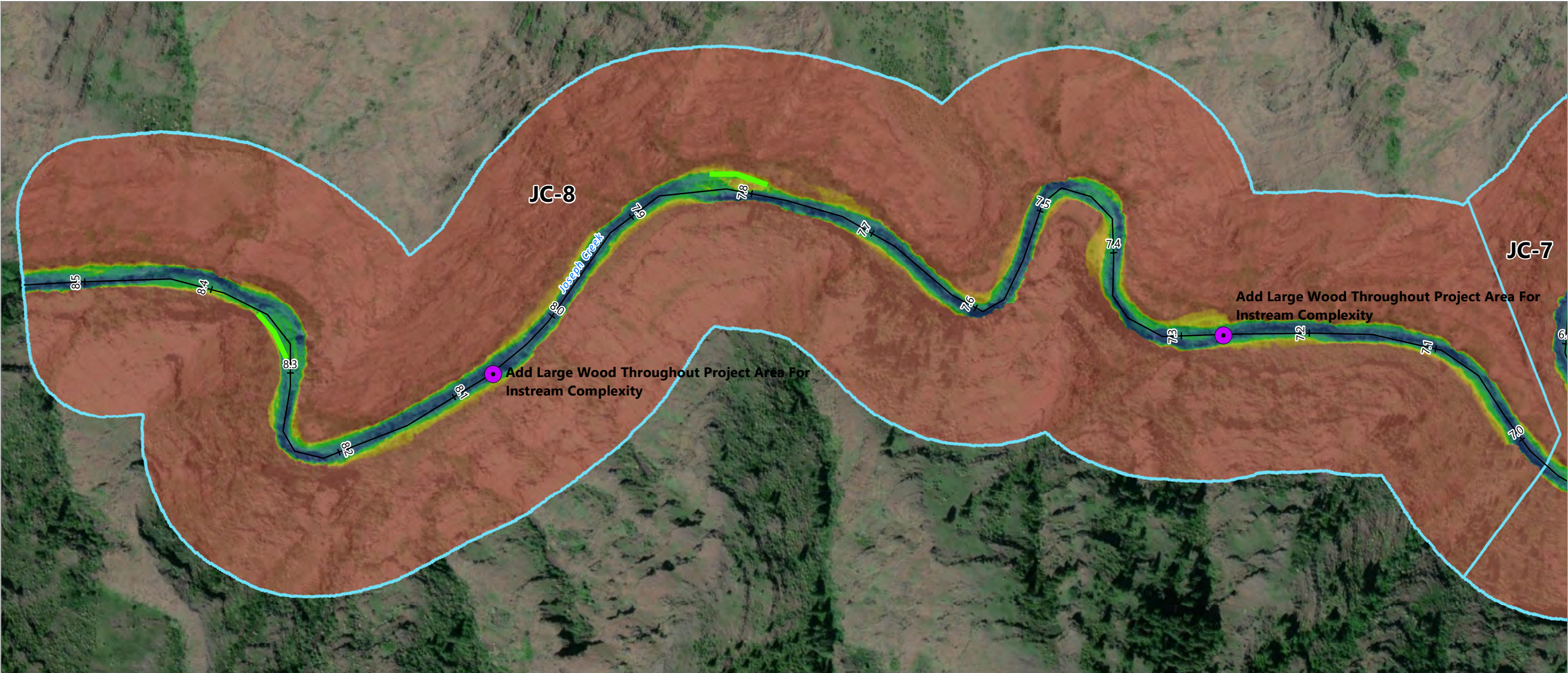4. LiDAR elevation data is WA DNR (2018).

0   500
Feet

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ANCHOR
QEA

JC-6
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

JC-7

JC-8

Joseph Creek

JC-6

Add Large Wood in this Section to Promote
Geomorphic Change, Sediment Deposition and Complexity

Add Large Wood In Confined Sections of Project
Area to Promote Instream Complexity

LEGEND:

☐ Grande Ronde Project Areas

● Wood Addition

━ Reconnect Side Channels

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA
State Plane South, NAD83,
U.S. Feet.
2. Vertical datum is North
American Vertical Datum of
1988, feet.
3. Aerial Imagery is ESRI
World Imagery (2020).
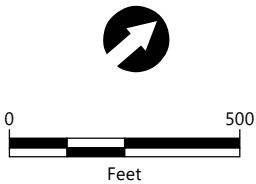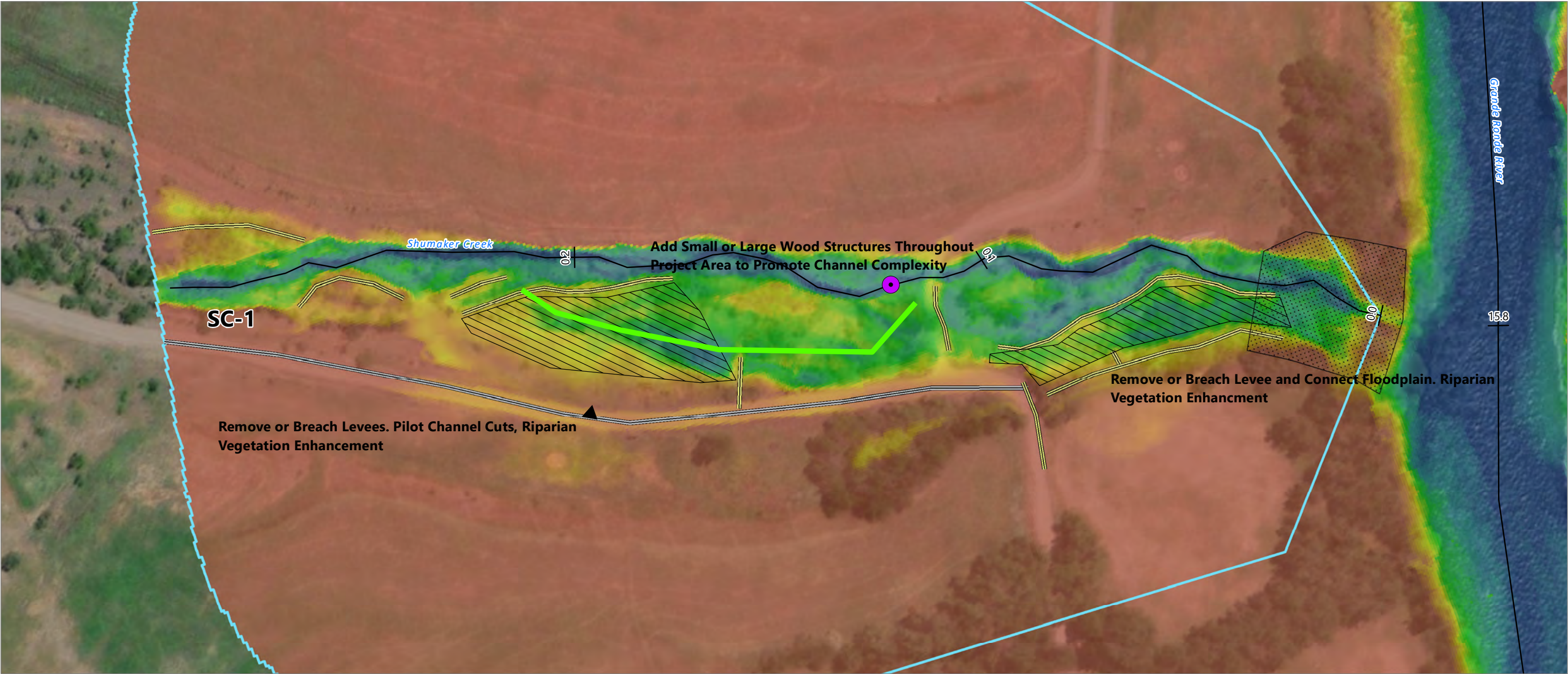4. LiDAR elevation data is
WA DNR (2018).

0   500
Feet

ANCHOR
QEA

JC-7
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

JC-8

JC-7

Add Large Wood Throughout Project Area For Instream Complexity

Add Large Wood Throughout Project Area For Instream Complexity

Joseph Creek

8.5 8.4 8.3 8.2 8.1 8.0 7.9 7.8 7.7 7.6 7.5 7.4 7.3 7.2 7.1 7.0

LEGEND:

☐ Grande Ronde Project Areas

● Wood Addition

▬ Reconnect Side Channels

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
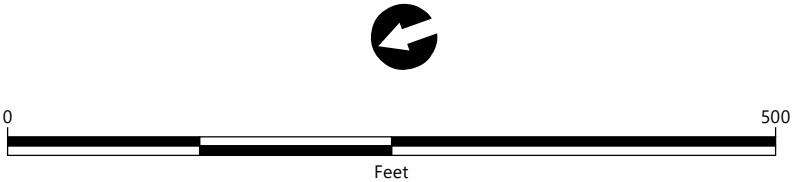4. LiDAR elevation data is WA DNR (2018).

OREGON

0   500
Feet

ANCHOR
QEA

JC-8
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

Grande Ronde River

Shumaker Creek

0.2

0.1

0.0

15.8

SC-1

Add Small or Large Wood Structures Throughout Project Area to Promote Channel Complexity

Remove or Breach Levees. Pilot Channel Cuts, Riparian Vegetation Enhancement

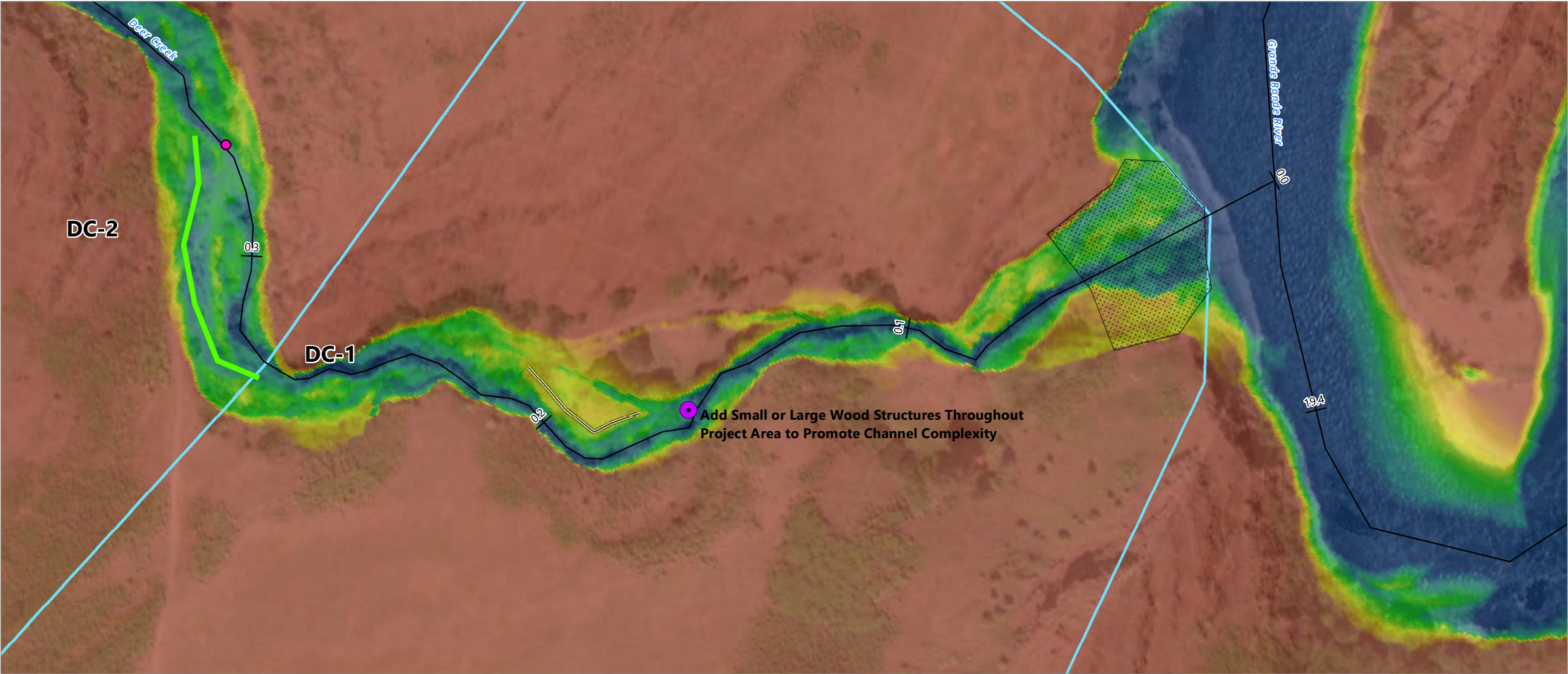**Remove or Breach Levee and Connect Floodplain. Riparian Vegetation Enhancment**

LEGEND:

☐ Grande Ronde Project Areas

▬ Delineated Levees

▬ Roads/Encroachments

● Wood Addition

▲ Long Term: Set Back Road

▨ Reconnect Floodplain

▬ Reconnect Side Channels

▦ Create Protected Inlet

Relative Elevation in Feet

OREGON

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
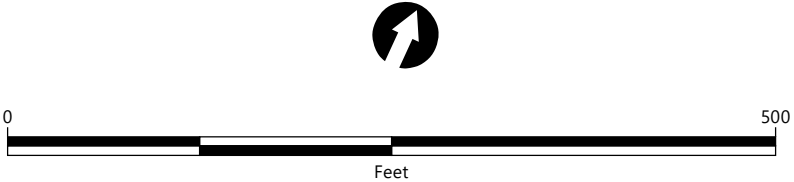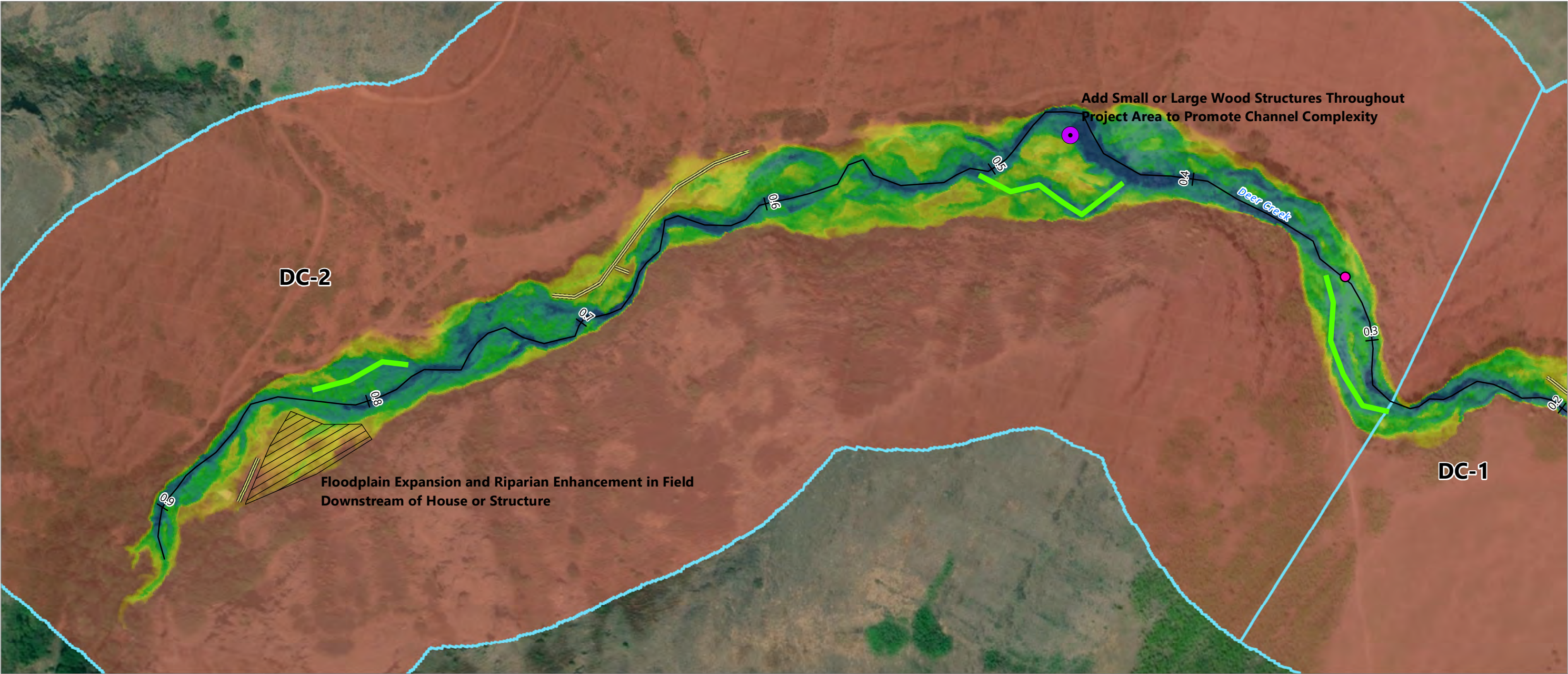4. LiDAR elevation data is WA DNR (2018).

0   500
Feet

ANCHOR QEA

SC-1
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

DC-2

Deer Creek

DC-1

0.3

0.2

0.1

0.0

19.4

Grande Ronde River

Add Small or Large Wood Structures Throughout
Project Area to Promote Channel Complexity

OREGON

LEGEND:

Grande Ronde Project Areas

Delineated Levees

● Wood Addition

Reconnect Side Channels

● Address Road or Ford Crossing

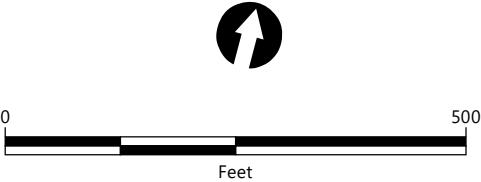Create Protected Inlet

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
4. LiDAR elevation data is WA DNR (2018).

0   500
Feet

ANCHOR
QEA

DC-1
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

DC-2

Add Small or Large Wood Structures Throughout
Project Area to Promote Channel Complexity

Deer Creek

0.4

0.5

0.6

0.7

0.8

0.9

0.3

0.2

DC-1

Floodplain Expansion and Riparian Enhancement in Field
Downstream of House or Structure

LEGEND:

Grande Ronde Project Areas

Delineated Levees

● Wood Addition

Reconnect Floodplain

Reconnect Side Channels

● Address Road or Ford Crossing

Relative Elevation in Feet

OREGON

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
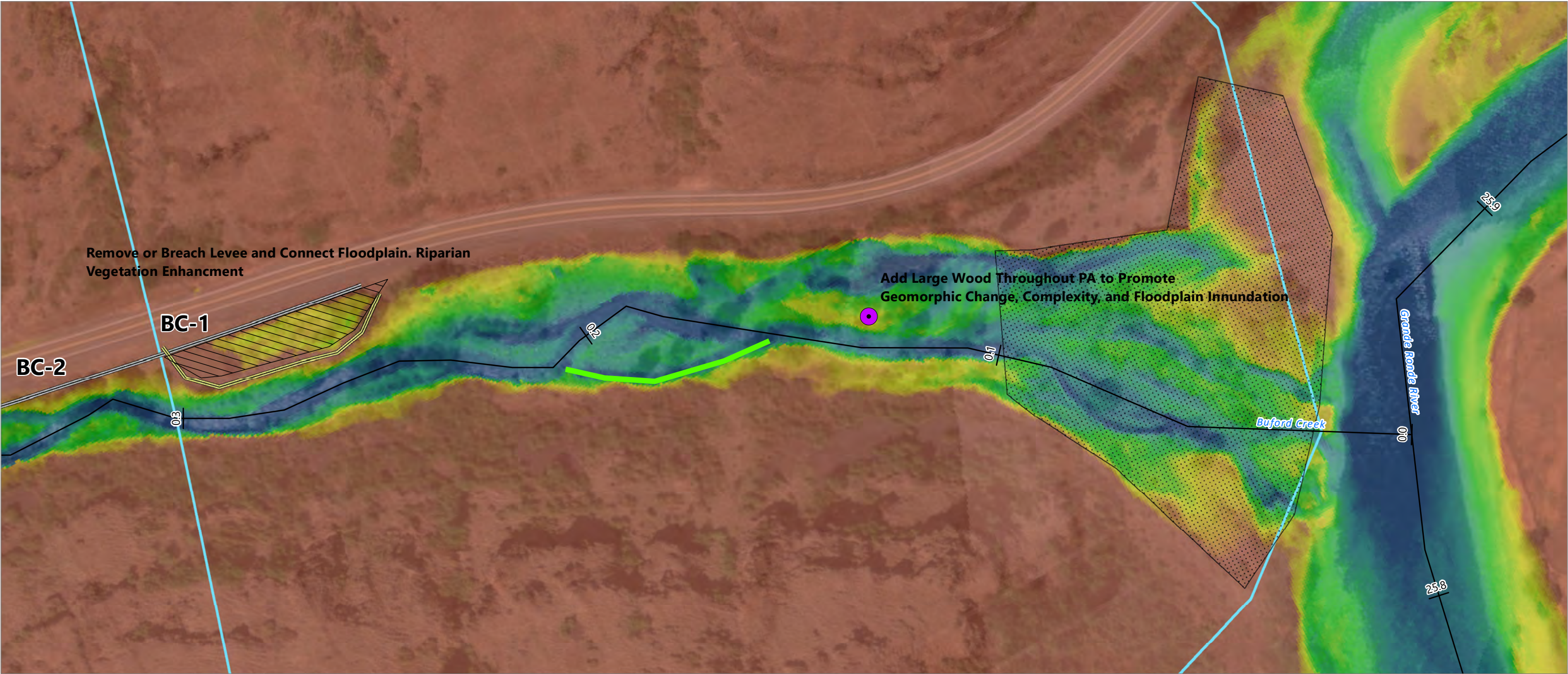4. LiDAR elevation data is WA DNR (2018).

0   500
Feet

ANCHOR
QEA

DC-2
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

Remove or Breach Levee and Connect Floodplain. Riparian
Vegetation Enhancment

BC-1

BC-2

Add Large Wood Throughout PA to Promote
Geomorphic Change, Complexity, and Floodplain Innundation

02
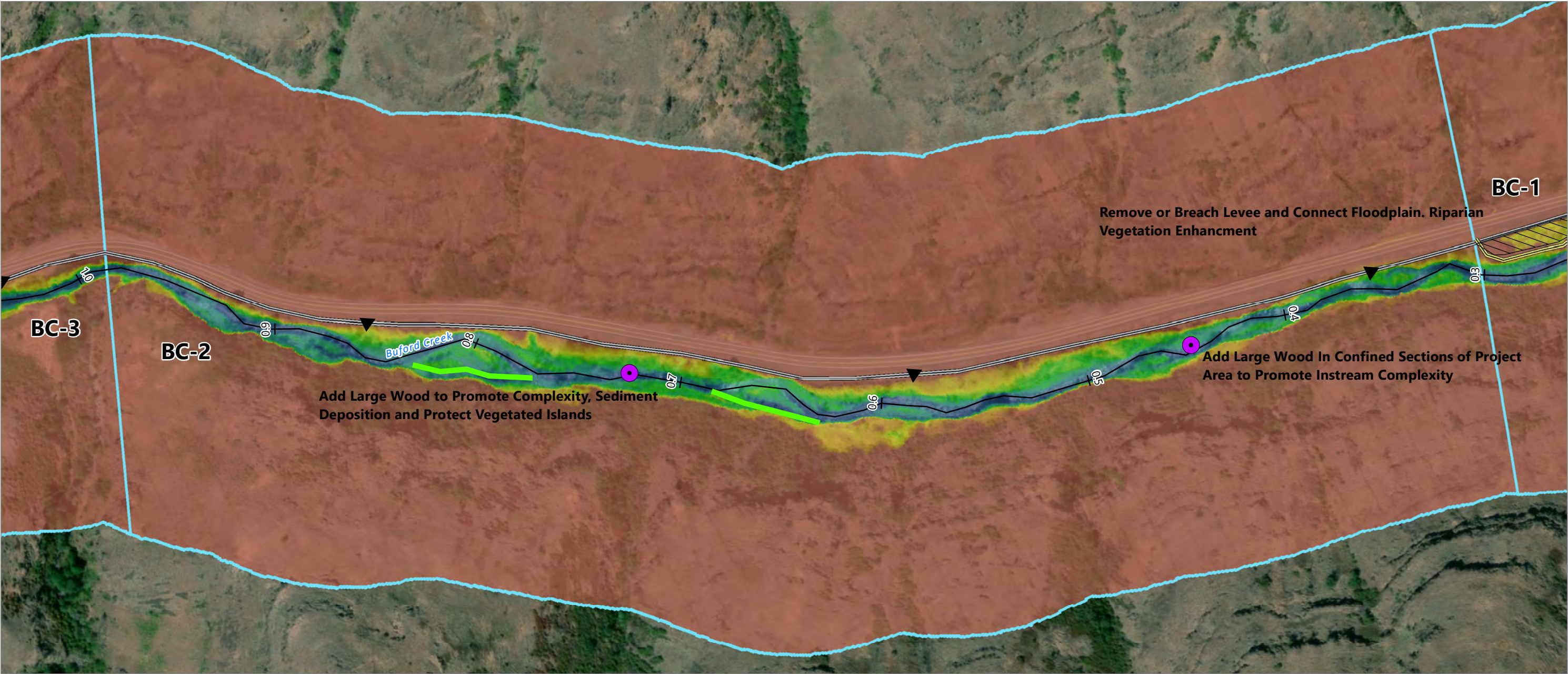
01

0.1

00

Grande Ronde River

Buford Creek

25.9

25.8

LEGEND:

Grande Ronde Project Areas

Delineated Levees

Roads/Encroachments

● Wood Addition

Reconnect Floodplain

Reconnect Side Channels

Create Protected Inlet

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA
State Plane South, NAD83,
U.S. Feet.
2. Vertical datum is North
American Vertical Datum of
1988, feet.
3. Aerial Imagery is ESRI
World Imagery (2020).
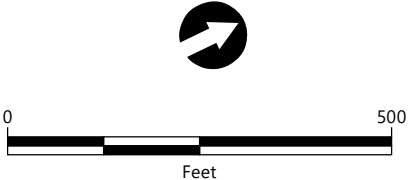4. LiDAR elevation data is
WA DNR (2018).

OREGON

0   500
Feet

ANCHOR
QEA

BC-1
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

BC-1

BC-3

BC-2

Remove or Breach Levee and Connect Floodplain. Riparian Vegetation Enhancment

Buford Creek

Add Large Wood to Promote Complexity, Sediment Deposition and Protect Vegetated Islands

Add Large Wood In Confined Sections of Project Area to Promote Instream Complexity

LEGEND:

- ▭ Grande Ronde Project Areas
- ▭ Delineated Levees
- ▭ Roads/Encroachments
- ⬤ Wood Addition
- ▲ Long Term: Set Back Road
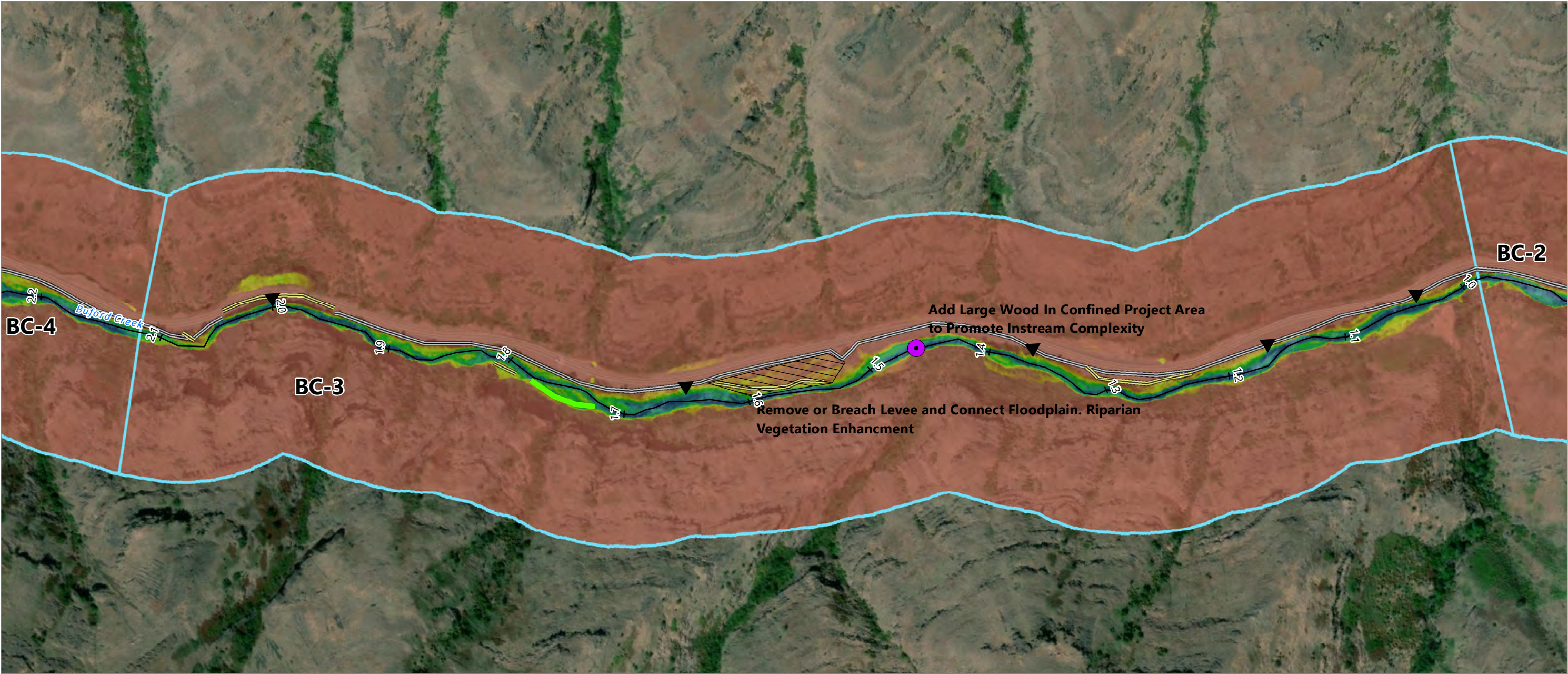- ▱ Reconnect Floodplain
- ▬ Reconnect Side Channels

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
4. LiDAR elevation data is WA DNR (2018).

OREGON

0   500
Feet

ANCHOR QEA

BC-2
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

BC-2

BC-4

Buford Creek

BC-3

2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0

Add Large Wood In Confined Project Area to Promote Instream Complexity

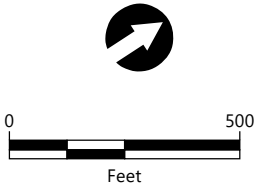**Remove or Breach Levee and Connect Floodplain. Riparian Vegetation Enhancment**
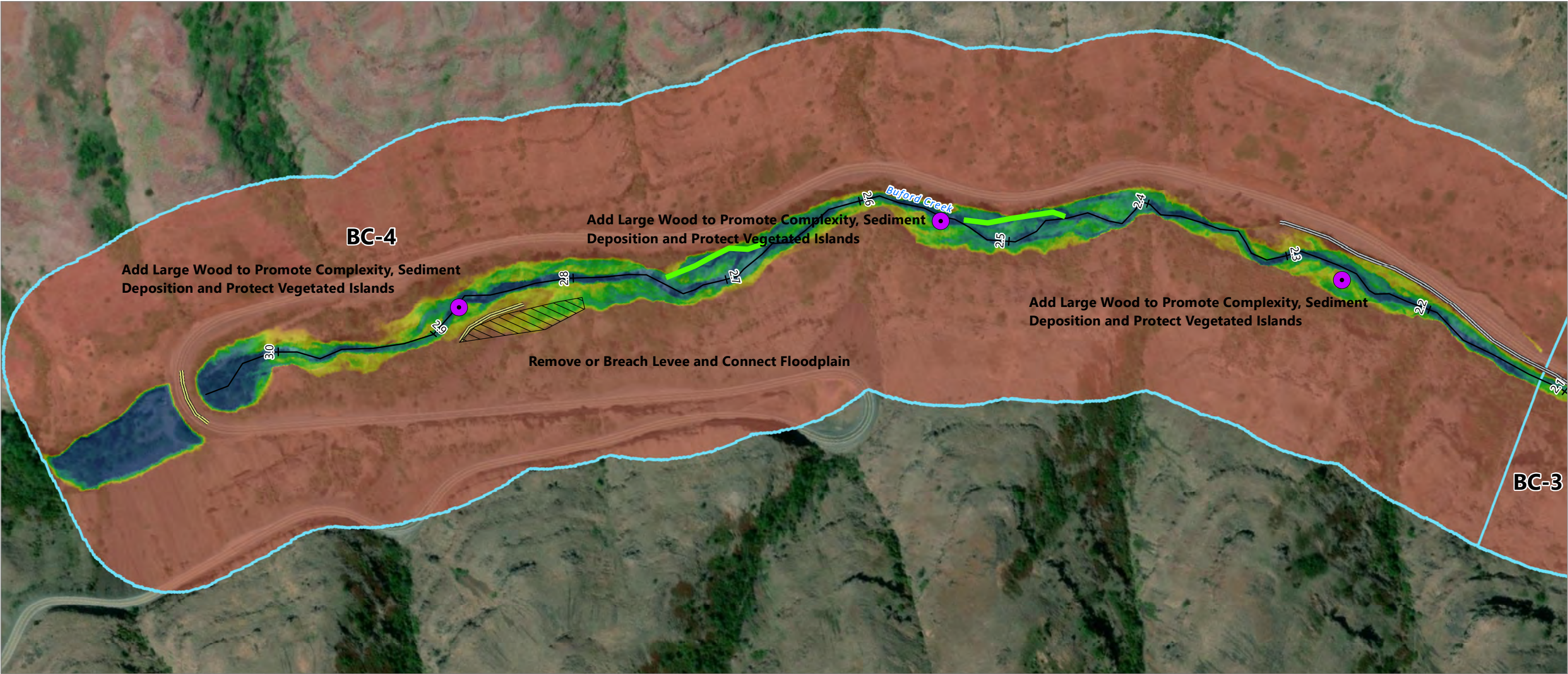
LEGEND:

☐ Grande Ronde Project Areas

═ Delineated Levees

─ Roads/Encroachments

● Wood Addition

▲ Long Term: Set Back Road

▨ Reconnect Floodplain

▬ Reconnect Side Channels

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
4. LiDAR elevation data is WA DNR (2018).

OREGON

0   500
Feet

ANCHOR QEA

BC-3
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

BC-4

Add Large Wood to Promote Complexity, Sediment Deposition and Protect Vegetated Islands

Add Large Wood to Promote Complexity, Sediment Deposition and Protect Vegetated Islands

Buford Creek

Add Large Wood to Promote Complexity, Sediment Deposition and Protect Vegetated Islands

Remove or Breach Levee and Connect Floodplain

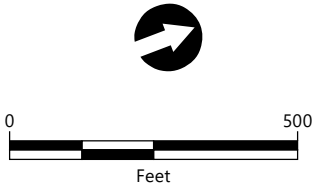BC-3

3.0 2.9 2.8 2.7 2.6 2.5 2.4 2.3 2.2 2.1

LEGEND:

- Grande Ronde Project Areas
- Delineated Levees
- Roads/Encroachments
- ● Wood Addition
- Reconnect Floodplain
- Reconnect Side Channels

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
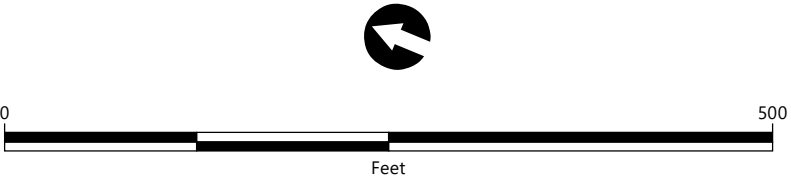4. LiDAR elevation data is WA DNR (2018).

OREGON

0   500
Feet

ANCHOR QEA

BC-4
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

WFRC-2

WFRC-1

LWD Along Riprap for Habitat Structure and
Erosion Protection

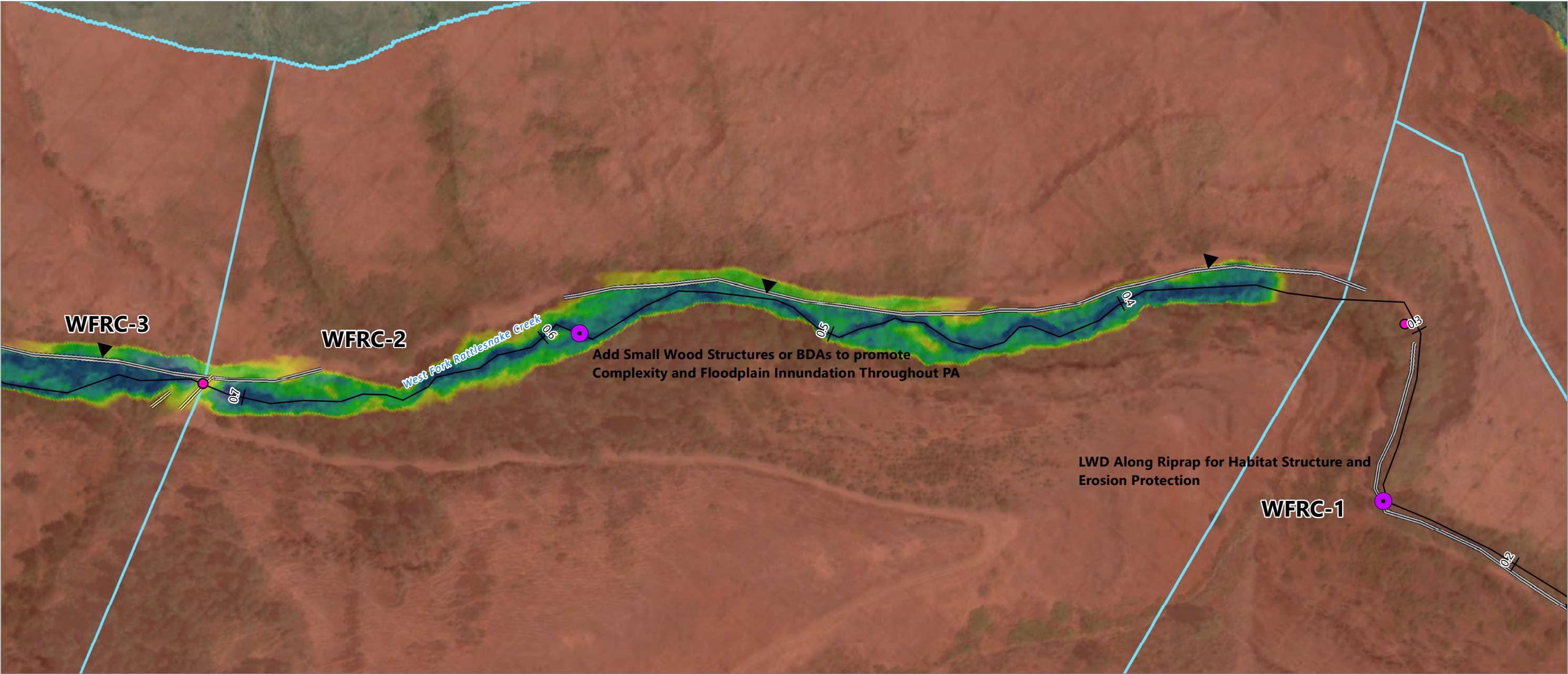West Fork Rattlesnake Creek

0.4

0.3

0.2

0.1

0.0

LEGEND:

☐ Grande Ronde Project Areas

━ Roads/Encroachments

● Wood Addition

▲ Long Term: Set Back Road

● Address Road or Ford Crossing

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
4. LiDAR elevation data is WA DNR (2018).

0   500
Feet

ANCHOR QEA

WFRC-1
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

OREGON

WFRC-3

WFRC-2

West Fork Rattlesnake Creek

Add Small Wood Structures or BDAs to promote Complexity and Floodplain Innundation Throughout PA

LWD Along Riprap for Habitat Structure and Erosion Protection
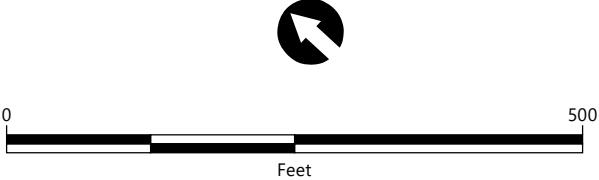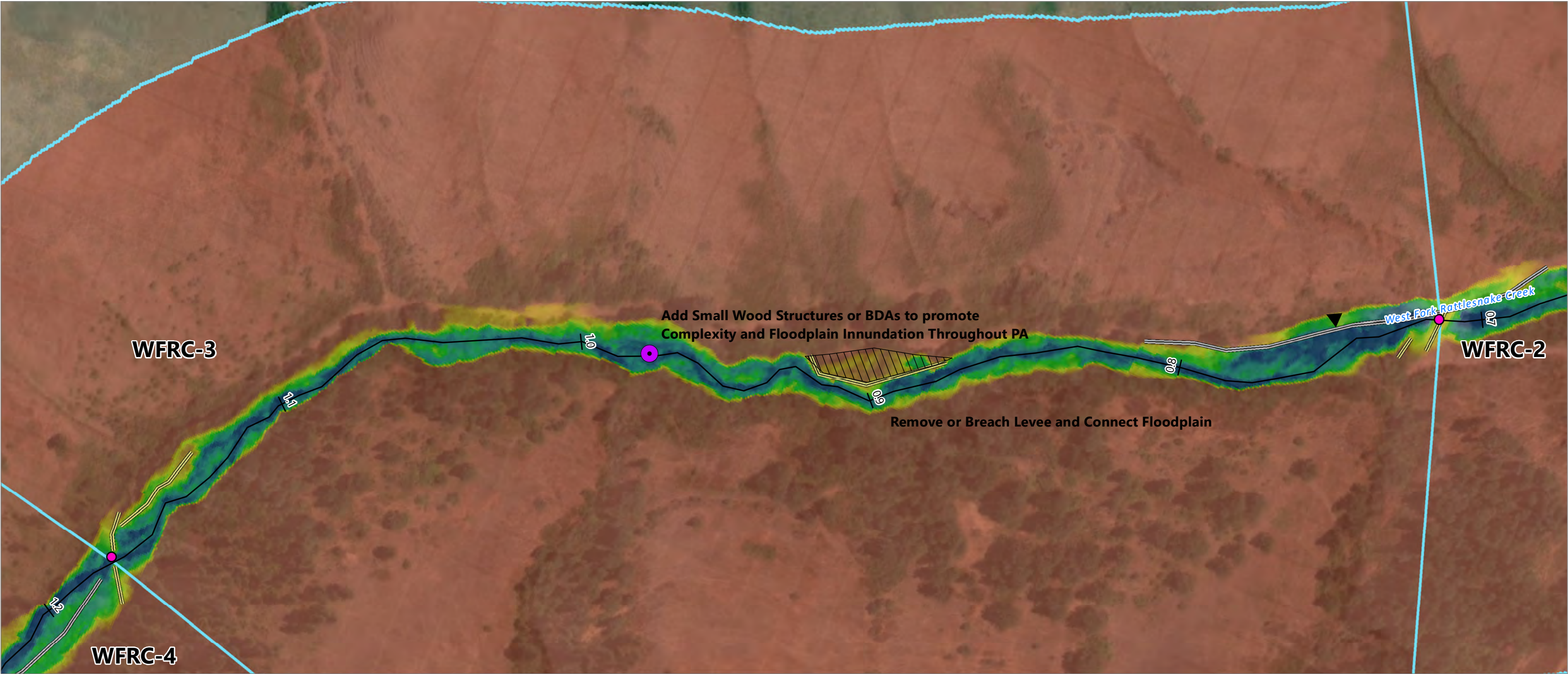
WFRC-1

LEGEND:

☐ Grande Ronde Project Areas

▬ Delineated Levees

▬ Roads/Encroachments

● Wood Addition

▲ Long Term: Set Back Road

● Address Road or Ford Crossing

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
4. LiDAR elevation data is WA DNR (2018).

OREGON

0 _____ 500
Feet

ANCHOR QEA

WFRC-2
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

WFRC-3

WFRC-2

WFRC-4

West Fork Rattlesnake Creek

Add Small Wood Structures or BDAs to promote Complexity and Floodplain Innundation Throughout PA

Remove or Breach Levee and Connect Floodplain

1.2
1.1
1.0
0.9
0.8
0.7

LEGEND:

Grande Ronde Project Areas

Delineated Levees

Roads/Encroachments

● Wood Addition

▲ Long Term: Set Back Road

▨ Reconnect Floodplain

● Address Road or Ford Crossing

Relative Elevation in Feet

OREGON

NOTES:
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4. LiDAR elevation data is WA DNR (2018).

0   500
Feet

ANCHOR
QEA

WFRC-3
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

West Fork Rattlesnake Creek

WFRC-5

WFRC-4

WFRC-3

Add Small Wood Structures or BDAs to promote Complexity and Floodplain Innundation Throughout PA

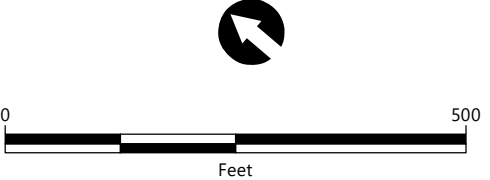**Remove or Breach Levee and Connect Floodplain**

1.1
1.2
1.3
1.4
1.5
1.6
1.7

LEGEND:

Grande Ronde Project Areas

Delineated Levees

Roads/Encroachments

Wood Addition

Long Term: Set Back Road

Reconnect Floodplain

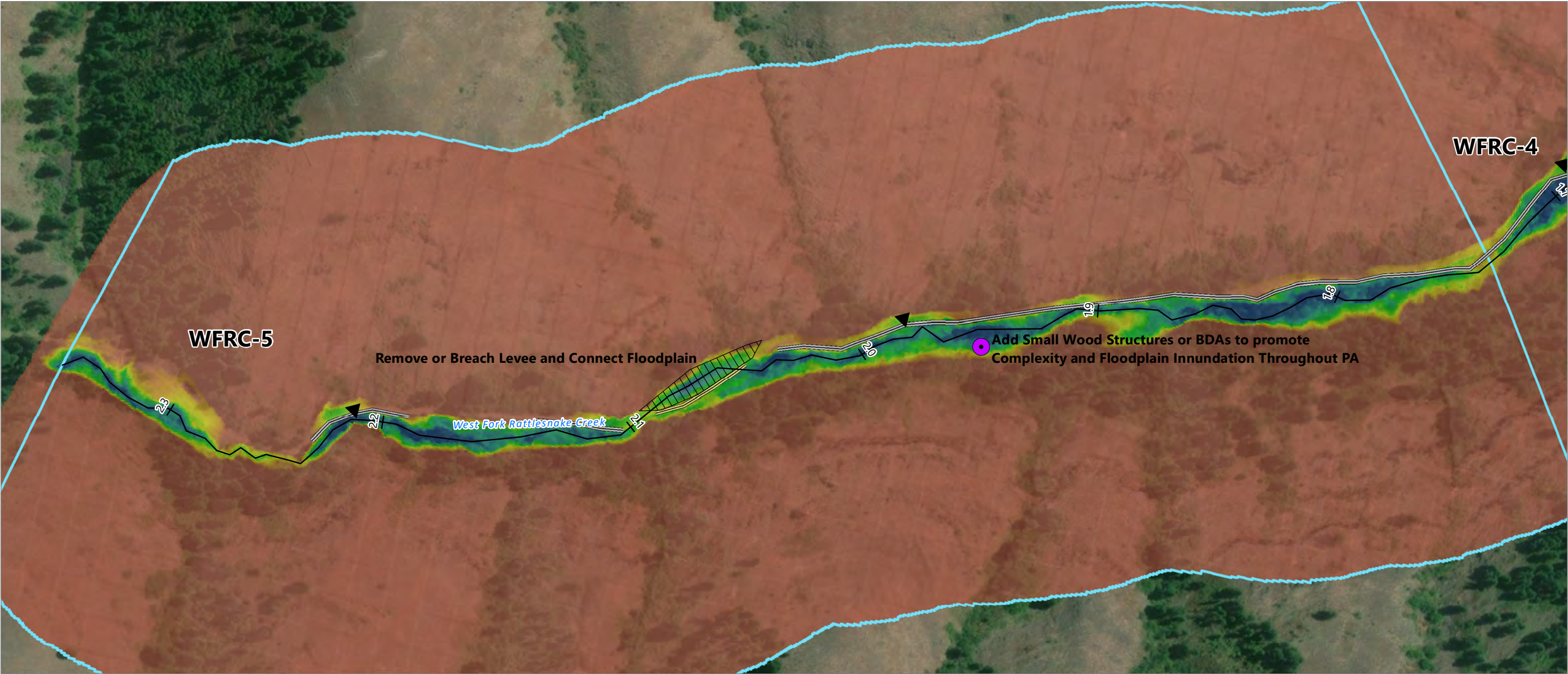Address Road or Ford Crossing

Relative Elevation in Feet

OREGON

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
4. LiDAR elevation data is WA DNR (2018).

0   500
Feet

ANCHOR QEA

WFRC-4
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

WFRC-4

WFRC-5

Remove or Breach Levee and Connect Floodplain

Add Small Wood Structures or BDAs to promote Complexity and Floodplain Innundation Throughout PA

West Fork Rattlesnake Creek
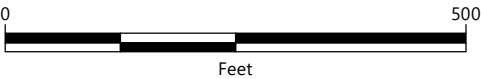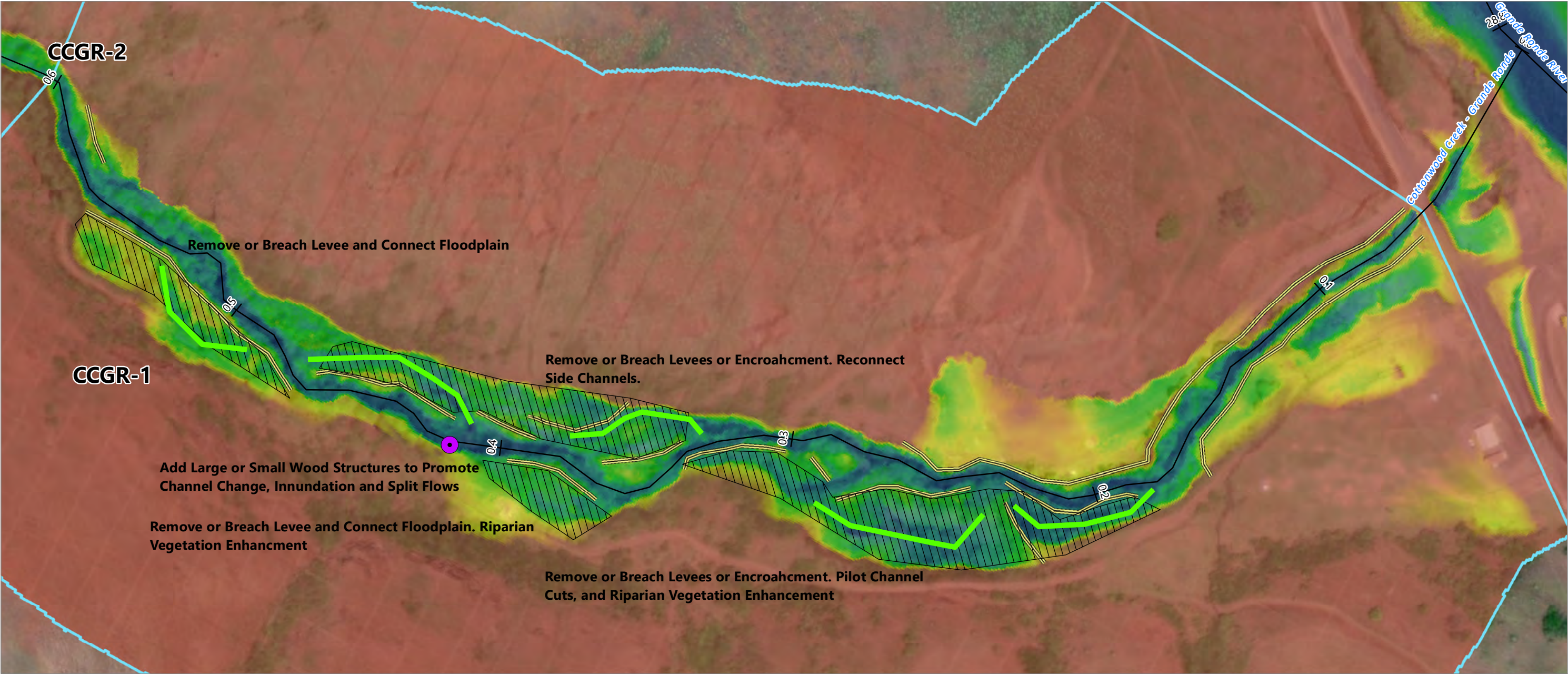
2.3

2.2

2.1

2.0

1.9

1.8

1.7

OREGON

LEGEND:

Grande Ronde Project Areas

Delineated Levees

Roads/Encroachments

● Wood Addition

▲ Long Term: Set Back Road

▨ Reconnect Floodplain

Relative Elevation in Feet

0 — 500 Feet

ANCHOR QEA

WFRC-5
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

CCGR-2

CCGR-1

Remove or Breach Levee and Connect Floodplain

Remove or Breach Levees or Encroahcment. Reconnect Side Channels.

Add Large or Small Wood Structures to Promote Channel Change, Innundation and Split Flows

Remove or Breach Levee and Connect Floodplain. Riparian Vegetation Enhancment

Remove or Breach Levees or Encroahcment. Pilot Channel Cuts, and Riparian Vegetation Enhancement

Cottonwood Creek - Grande Ronde

Grande Ronde River

OREGON

LEGEND:

▢ Grande Ronde Project Areas

▤ Delineated Levees

● Wood Addition

▨ Reconnect Floodplain

▬ Reconnect Side Channels

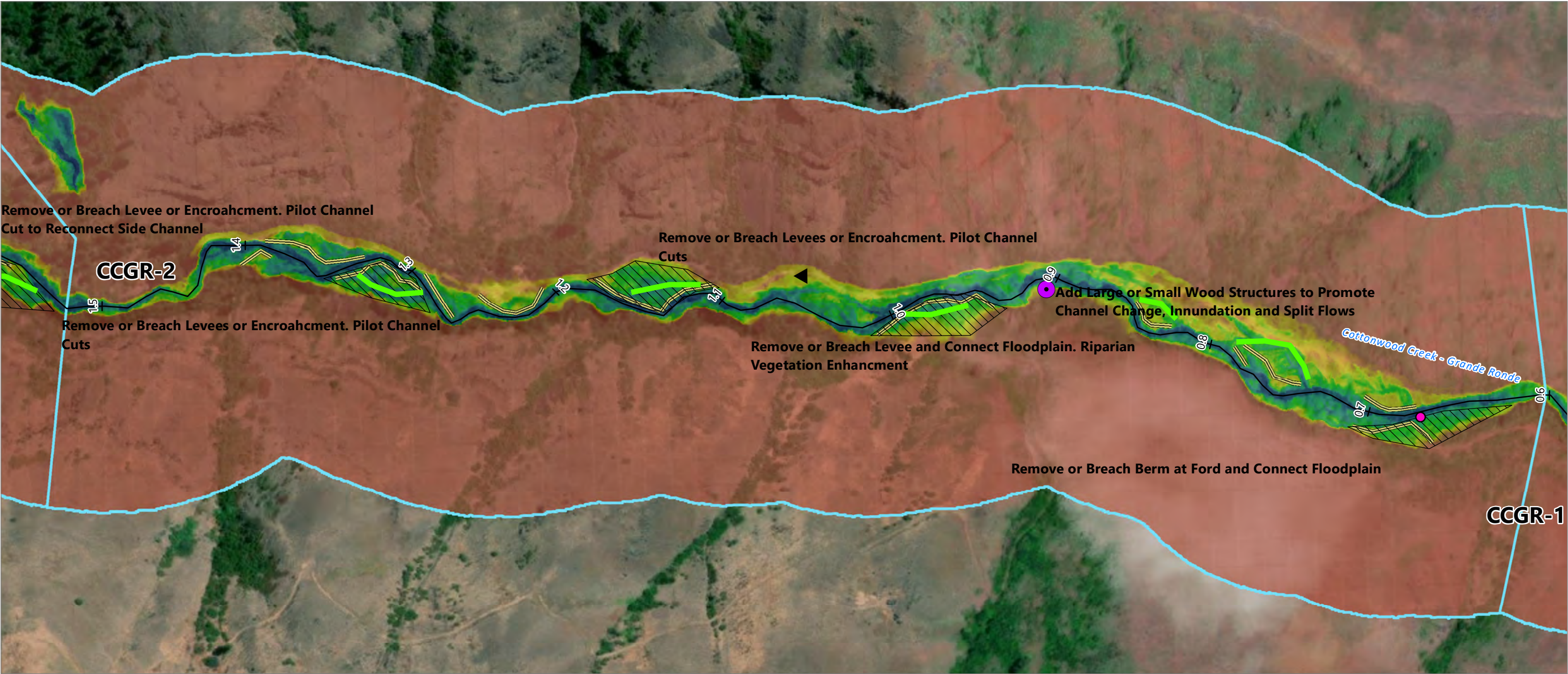**Relative Elevation in Feet**

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
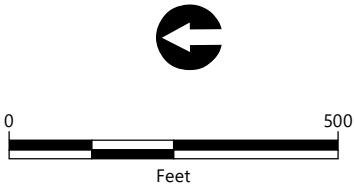4. LiDAR elevation data is WA DNR (2018).

0   500
Feet

Publish Date: 2020/06/15, 3:48 PM | User: thutchison
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ANCHOR QEA

CCGR-1
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

Remove or Breach Levee or Encroahcment. Pilot Channel
Cut to Reconnect Side Channel

CCGR-2

Remove or Breach Levees or Encroahcment. Pilot Channel
Cuts

1.4

1.3

1.5

Remove or Breach Levees or Encroahcment. Pilot Channel
Cuts

1.2

1.1

Remove or Breach Levees or Encroahcment. Pilot Channel
Cuts

Remove or Breach Levee and Connect Floodplain. Riparian
Vegetation Enhancment

1.0

0.9

Add Large or Small Wood Structures to Promote
Channel Change, Innundation and Split Flows

Cottonwood Creek - Grande Ronde

0.8

0.7

0.6

Remove or Breach Berm at Ford and Connect Floodplain

CCGR-1

LEGEND:

☐ Grande Ronde Project Areas

⬓ Delineated Levees

● Wood Addition

▲ Long Term: Set Back Road

▨ Reconnect Floodplain

▬ Reconnect Side Channels

● Address Road or Ford Crossing

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
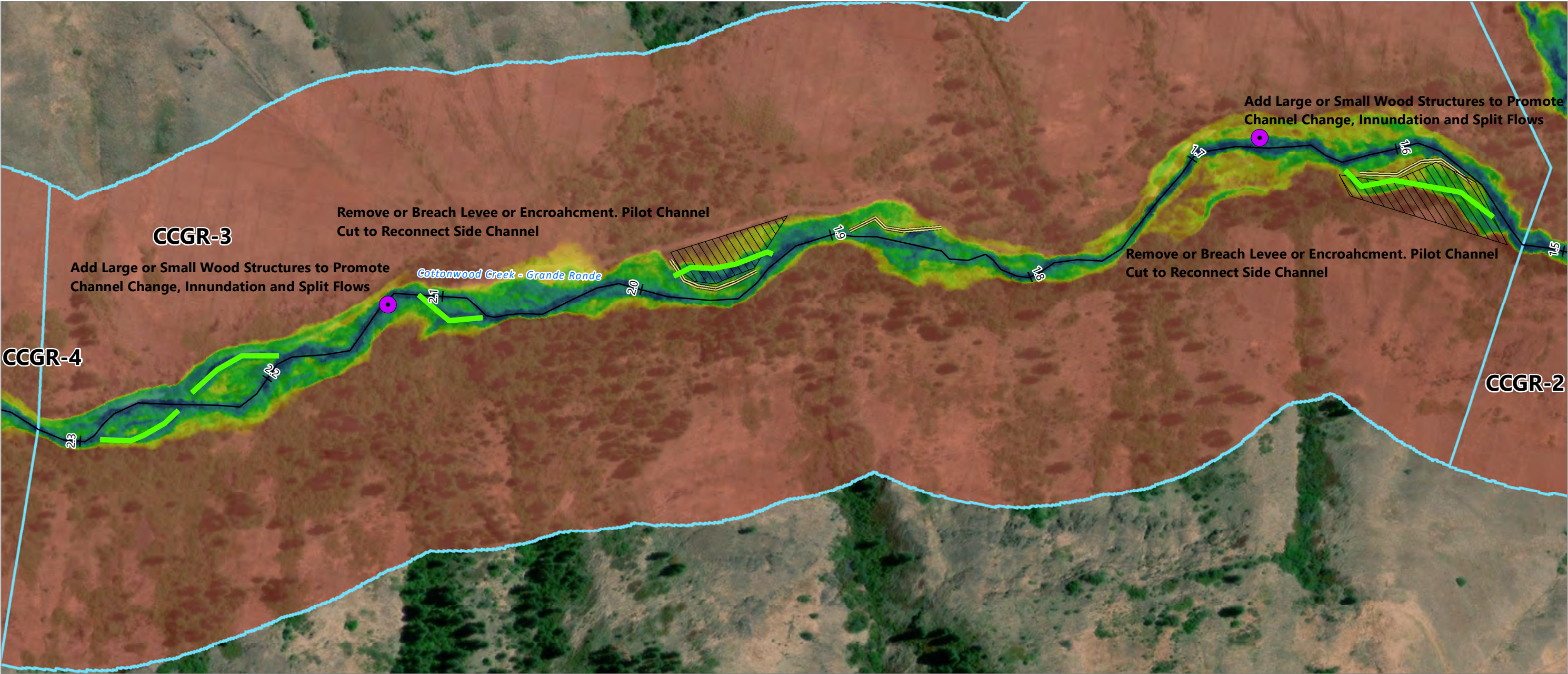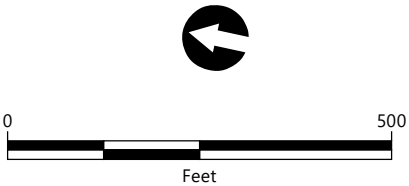4. LiDAR elevation data is WA DNR (2018).

OREGON

0   500
Feet

ANCHOR QEA

CCGR-2
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

Add Large or Small Wood Structures to Promote Channel Change, Innundation and Split Flows

CCGR-3

Remove or Breach Levee or Encroahcment. Pilot Channel Cut to Reconnect Side Channel

Add Large or Small Wood Structures to Promote Channel Change, Innundation and Split Flows

Cottonwood Creek - Grande Ronde

CCGR-4

Remove or Breach Levee or Encroahcment. Pilot Channel Cut to Reconnect Side Channel

CCGR-2

OREGON

LEGEND:
- ☐ Grande Ronde Project Areas
- ▦ Delineated Levees
- ● Wood Addition
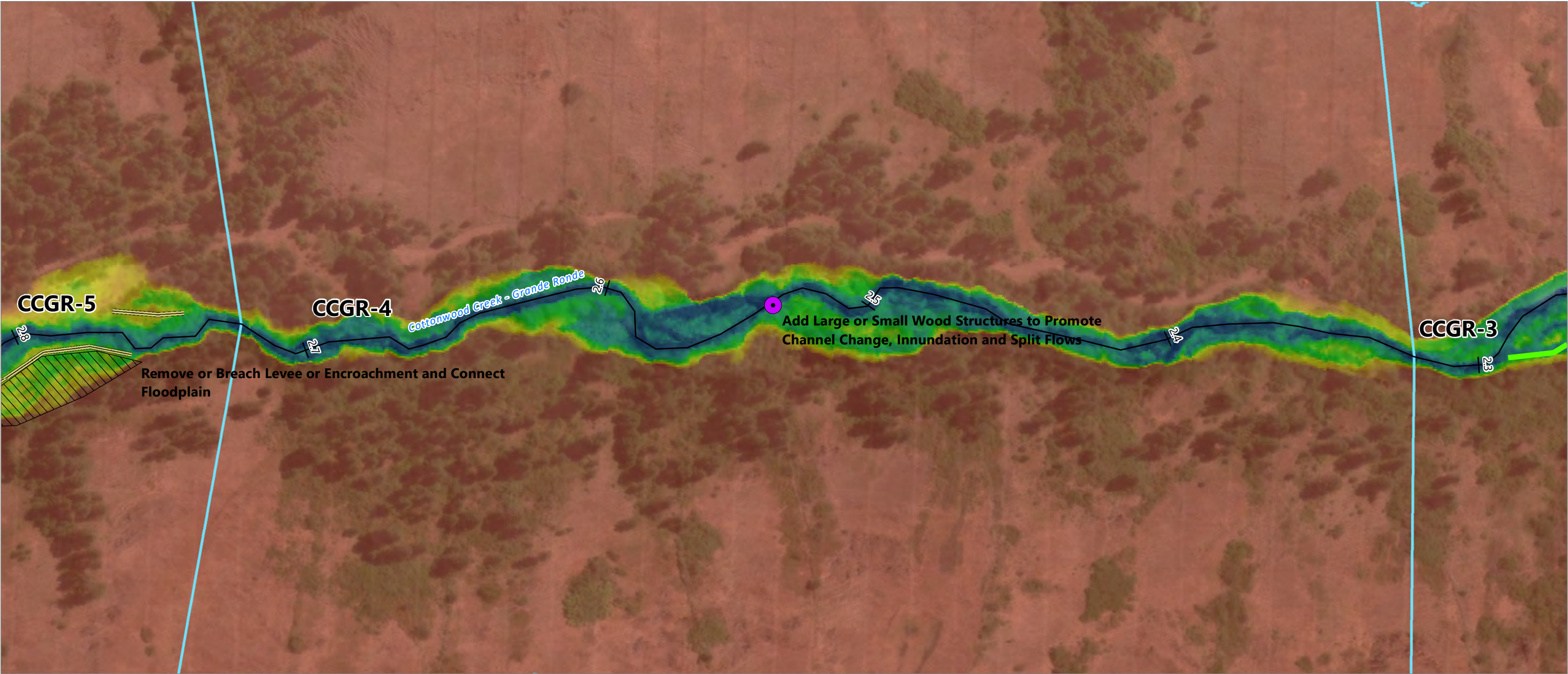- ▨ Reconnect Floodplain
- ▬ Reconnect Side Channels

Relative Elevation in Feet

NOTES:
1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
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3. Aerial Imagery is ESRI World Imagery (2020).
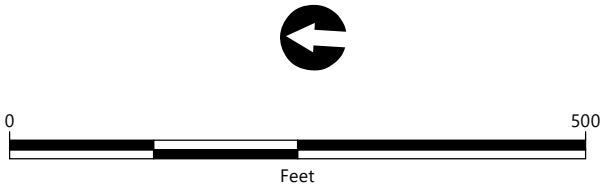4. LiDAR elevation data is WA DNR (2018).

0   500

Feet

Publish Date: 2020/06/15, 3:48 PM | User: thutchison
Filepath: Q:\Jobs\Asotin_Conservation_District_0847\Geomorphic Assessment\Working\TAH\CutSheets\Project Area Maps\GrandeRonde_PA_DDP_Maps_20200505.mxd
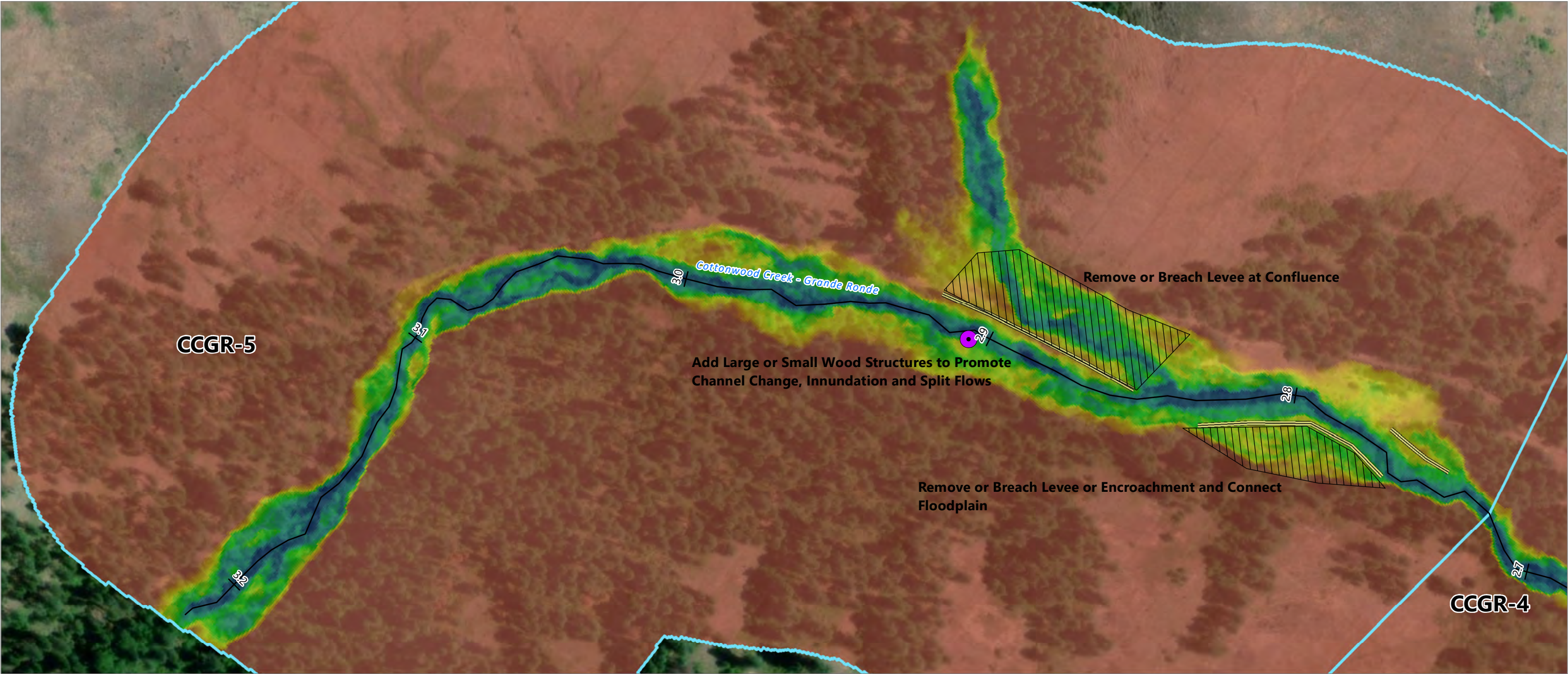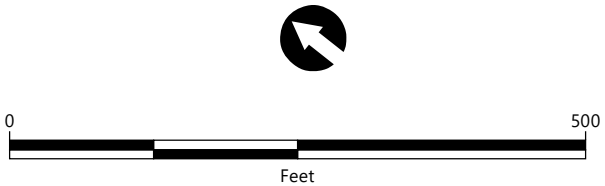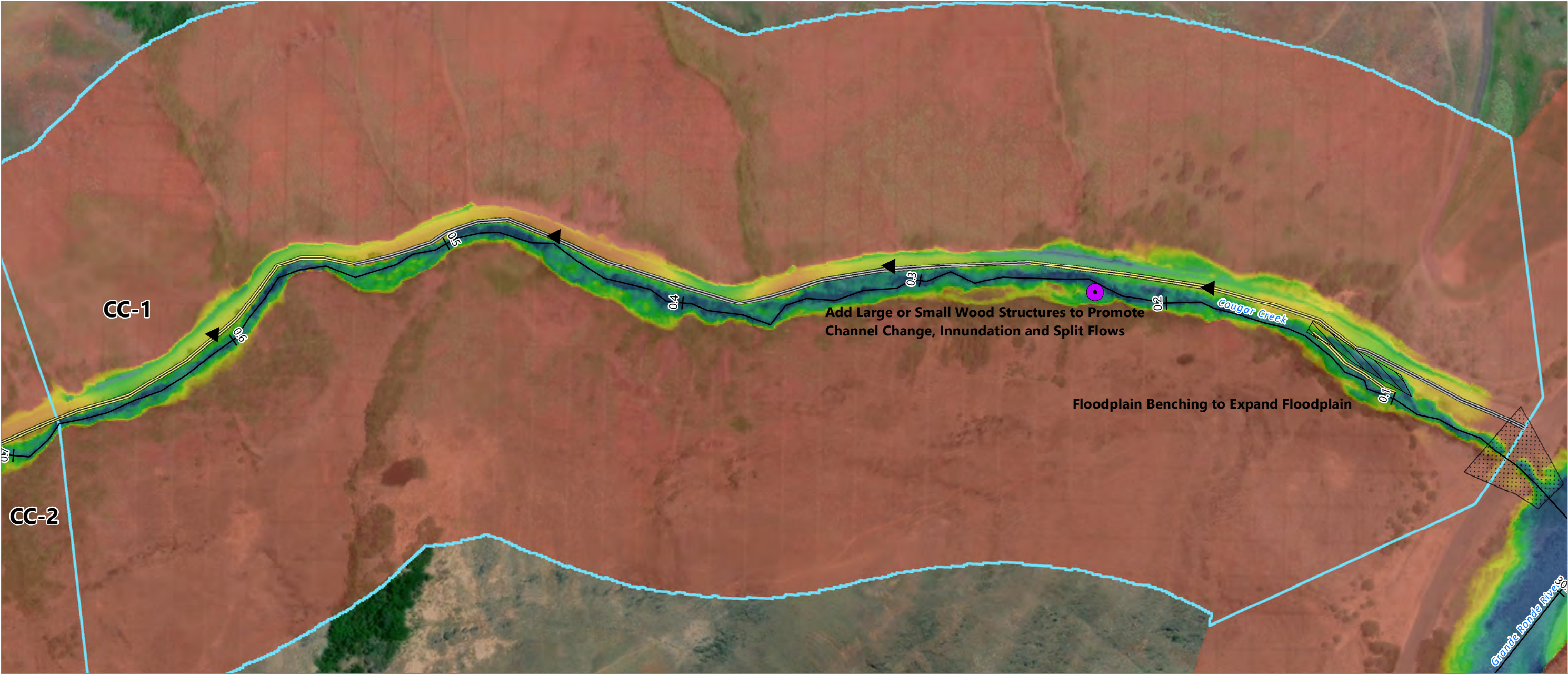
ANCHOR QEA

CCGR-3
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

CCGR-5

CCGR-4

Cottonwood Creek - Grande Ronde

CCGR-3

2.8

2.7

2.6

2.5

2.4

2.3

Remove or Breach Levee or Encroachment and Connect Floodplain

Add Large or Small Wood Structures to Promote Channel Change, Innundation and Split Flows

LEGEND:

☐ Grande Ronde Project Areas

═ Delineated Levees

● Wood Addition

▨ Reconnect Floodplain

▬ Reconnect Side Channels

Relative Elevation in Feet

NOTES:
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3. Aerial Imagery is ESRI World Imagery (2020).
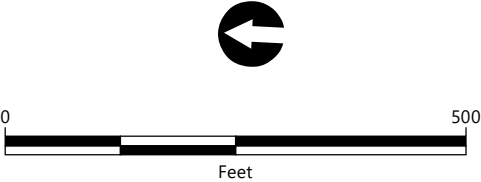4. LiDAR elevation data is WA DNR (2018).

OREGON

0   500
Feet

ANCHOR
QEA

CCGR-4
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

CCGR-5

Cottonwood Creek - Grande Ronde

3.0

3.1

3.2

2.9

2.8

2.7

Remove or Breach Levee at Confluence

Add Large or Small Wood Structures to Promote
Channel Change, Innundation and Split Flows

Remove or Breach Levee or Encroachment and Connect
Floodplain

CCGR-4

OREGON

LEGEND:

Grande Ronde Project Areas

Delineated Levees

● Wood Addition

Reconnect Floodplain

Relative Elevation in Feet

0   500

Feet

ANCHOR QEA

CCGR-5
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

CC-1

CC-2

0.5

0.4

0.6

0.7

0.3

0.2

0.7

Cougor Creek

Grande Ronde River

Add Large or Small Wood Structures to Promote
Channel Change, Innundation and Split Flows

Floodplain Benching to Expand Floodplain

LEGEND:

- Grande Ronde Project Areas
- Delineated Levees
- Roads/Encroachments
- ● Wood Addition
- ▲ Long Term: Set Back Road
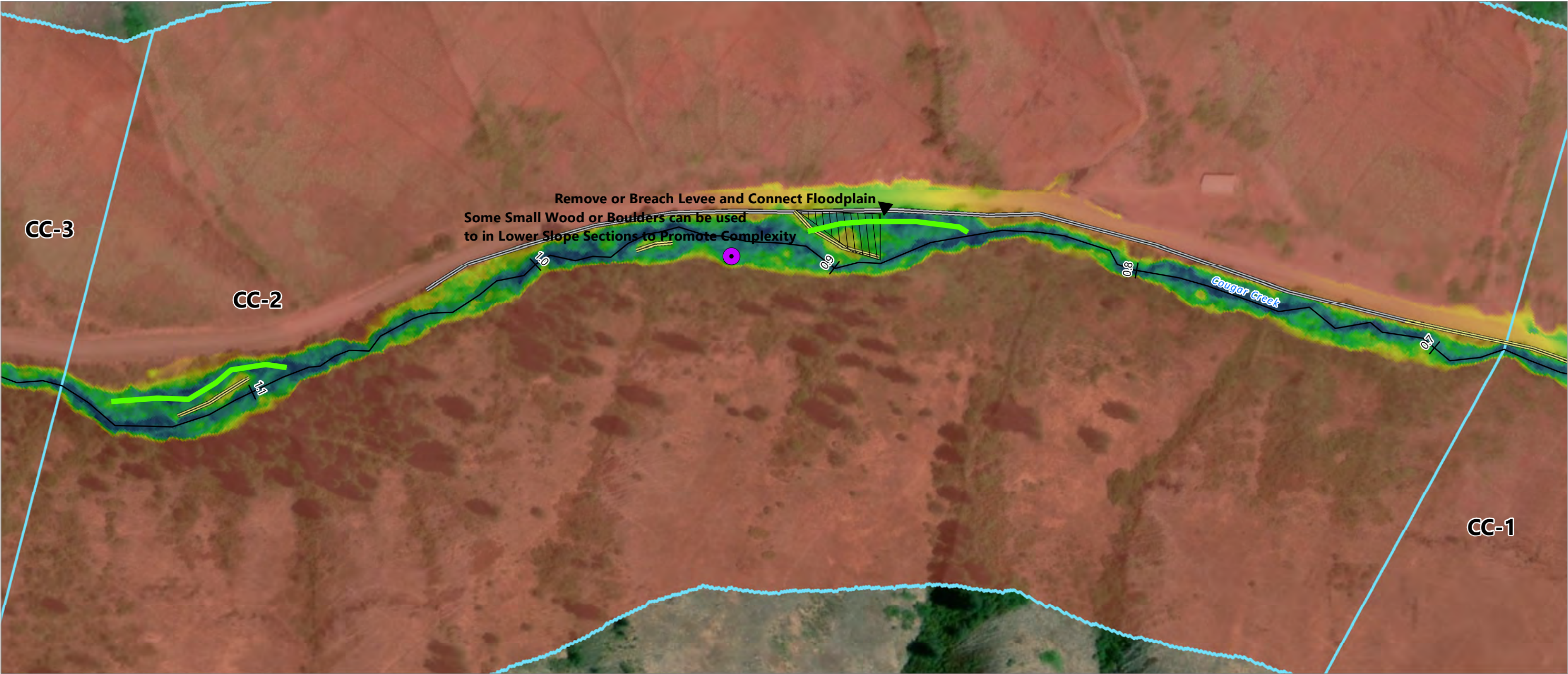- ▨ Reconnect Floodplain
- ▦ Create Protected Inlet

Relative Elevation in Feet

OREGON

NOTES:
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4. LiDAR elevation data is WA DNR (2018).

0   500
Feet

ANCHOR
QEA

CC-1
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

CC-3

CC-2

CC-1

Remove or Breach Levee and Connect Floodplain
Some Small Wood or Boulders can be used
to in Lower Slope Sections to Promote Complexity

Cougar Creek

1.0

0.9

0.8

0.7

1.1

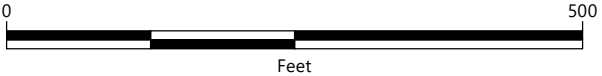**LEGEND:**

Grande Ronde Project Areas

Delineated Levees

Roads/Encroachments

● Wood Addition

▲ Long Term: Set Back Road

▨ Reconnect Floodplain

━ Reconnect Side Channels

Relative Elevation in Feet

NOTES:
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3. Aerial Imagery is ESRI World Imagery (2020).
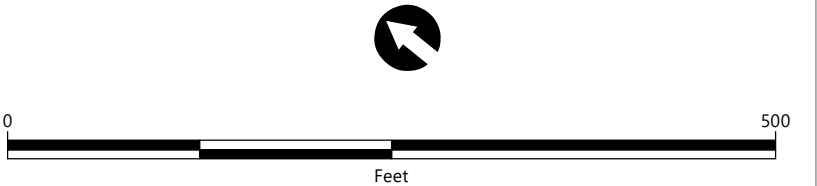4. LiDAR elevation data is WA DNR (2018).

OREGON

0   500
Feet

ANCHOR
QEA

CC-2
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

CC-3

Some Small Wood or Boulders can be used to in Lower Slope Sections to Promote Complexity

CC-2

Cougar Creek

1.4

1.3

1.2

LEGEND:

☐ Grande Ronde Project Areas

▦ Delineated Levees

● Wood Addition

━ Reconnect Side Channels

Relative Elevation in Feet

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0 — 500
Feet

ANCHOR QEA

CC-3
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

DRAFT

Remove or Breach Levees or Encroahcment. Pilot Channel Cuts, Large Wood Structures and Riparian Vegetation Enhancement

MC-2

MC-1

Menatchee Creek

Add Large Wood Throughout to Promote Complexity, Sediment Deposition, Innundation and Split Flows
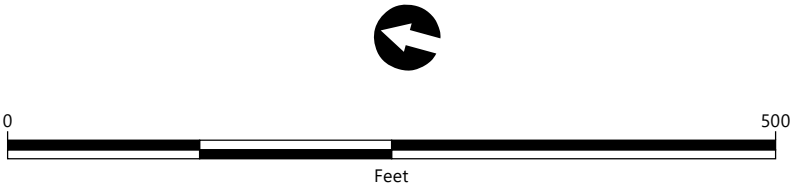
Grande Ronde River

OREGON

LEGEND:

Grande Ronde Project Areas

Delineated Levees

Wood Addition

Reconnect Floodplain

Reconnect Side Channels

Relative Elevation in Feet

0   500
Feet

ANCHOR QEA

MC-1
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment

Remove or Breach Levees or Encroahcment. Pilot Channel
Cuts, Large Wood Structures and Riparian Vegetation Enhancement

Remove or Breach Levee and Connect Floodplain

MC-2

Menatchee Creek

0.6

0.5

0.7

0.4

0.3

Add Large Wood Throughout to Promote Complexity,
Sediment Deposition, Innundation and Split Flows

MC-1

Remove or Breach Levees or Encroahcment. Pilot Channel
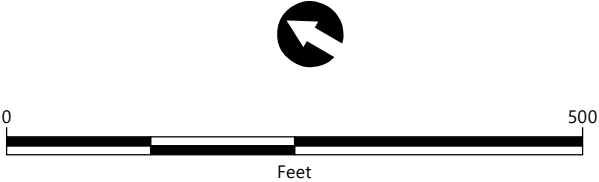Cuts, Large Wood Structures

LEGEND:

☐ Grande Ronde Project Areas

▬ Delineated Levees

● Wood Addition

▨ Reconnect Floodplain

▬ Reconnect Side Channels

Relative Elevation in Feet

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4. LiDAR elevation data is WA DNR (2018).

OREGON

0 ———————————— 500
Feet

ANCHOR QEA

MC-2
Project Area Map
June 2020 Habitat Prioritzation and Conceptual Restoration Plan
Grande Ronde Geomorphic Assessment