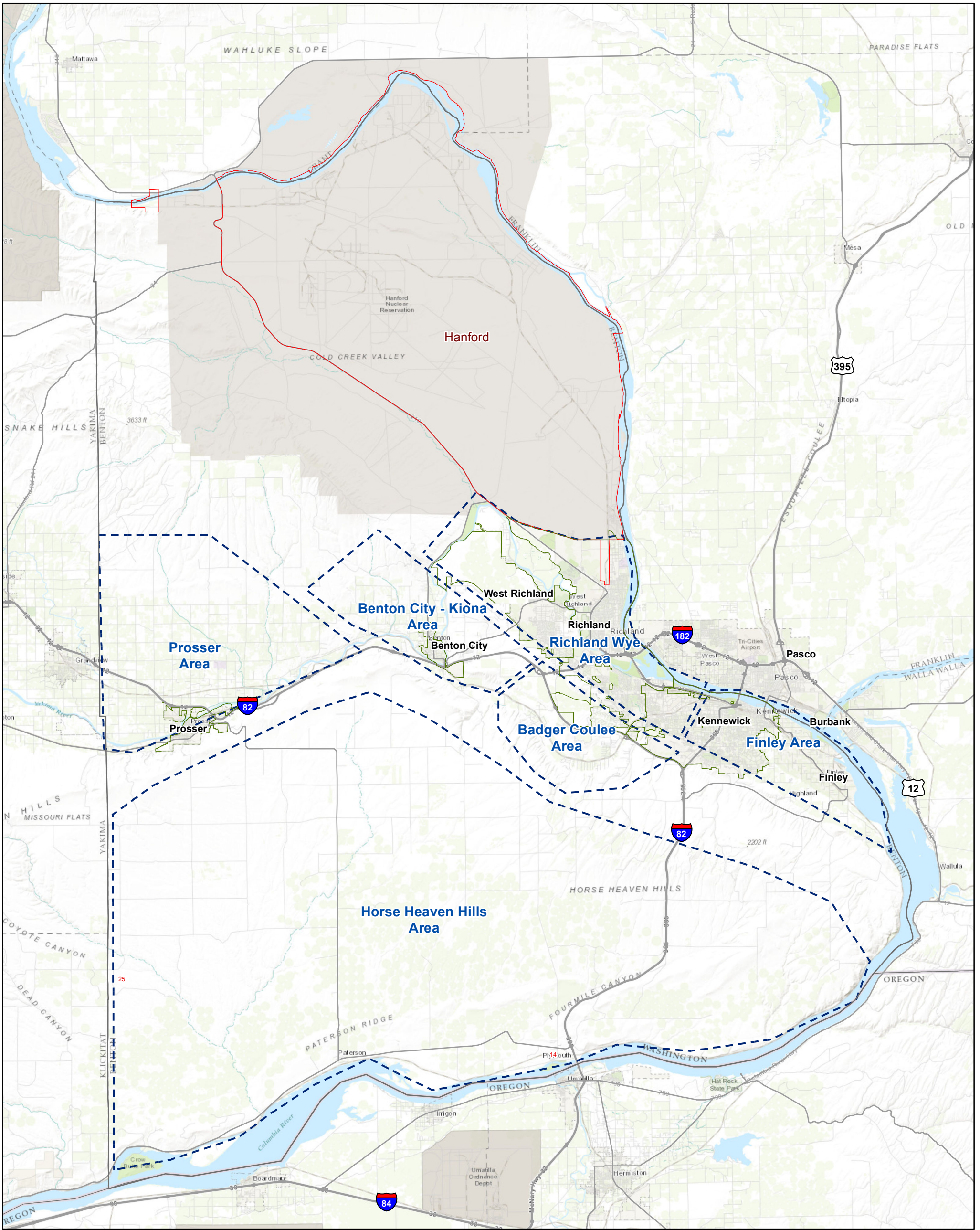


FIGURES



Legend





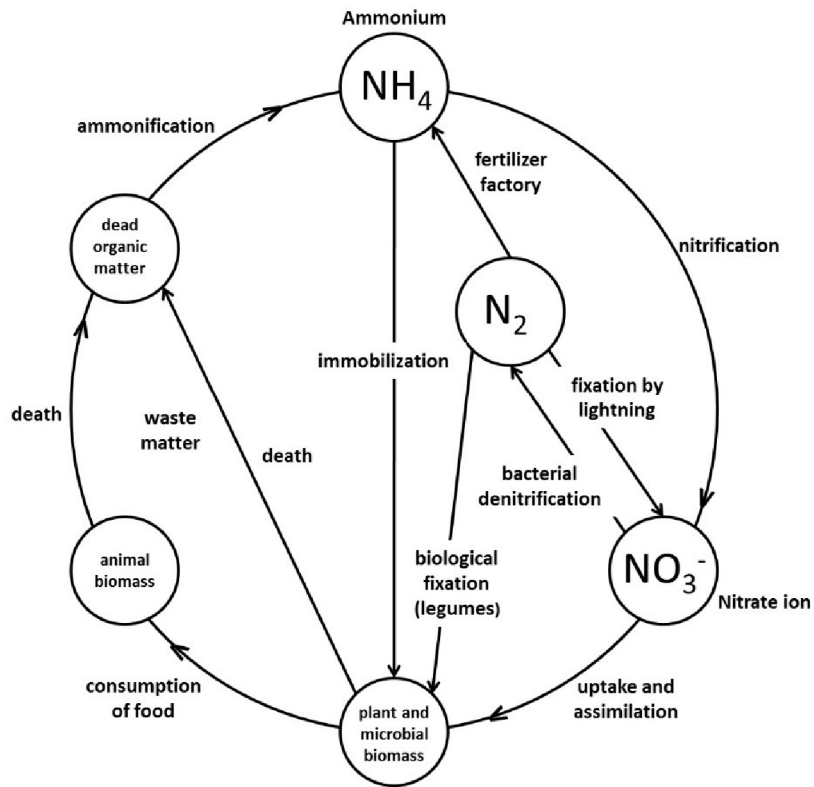
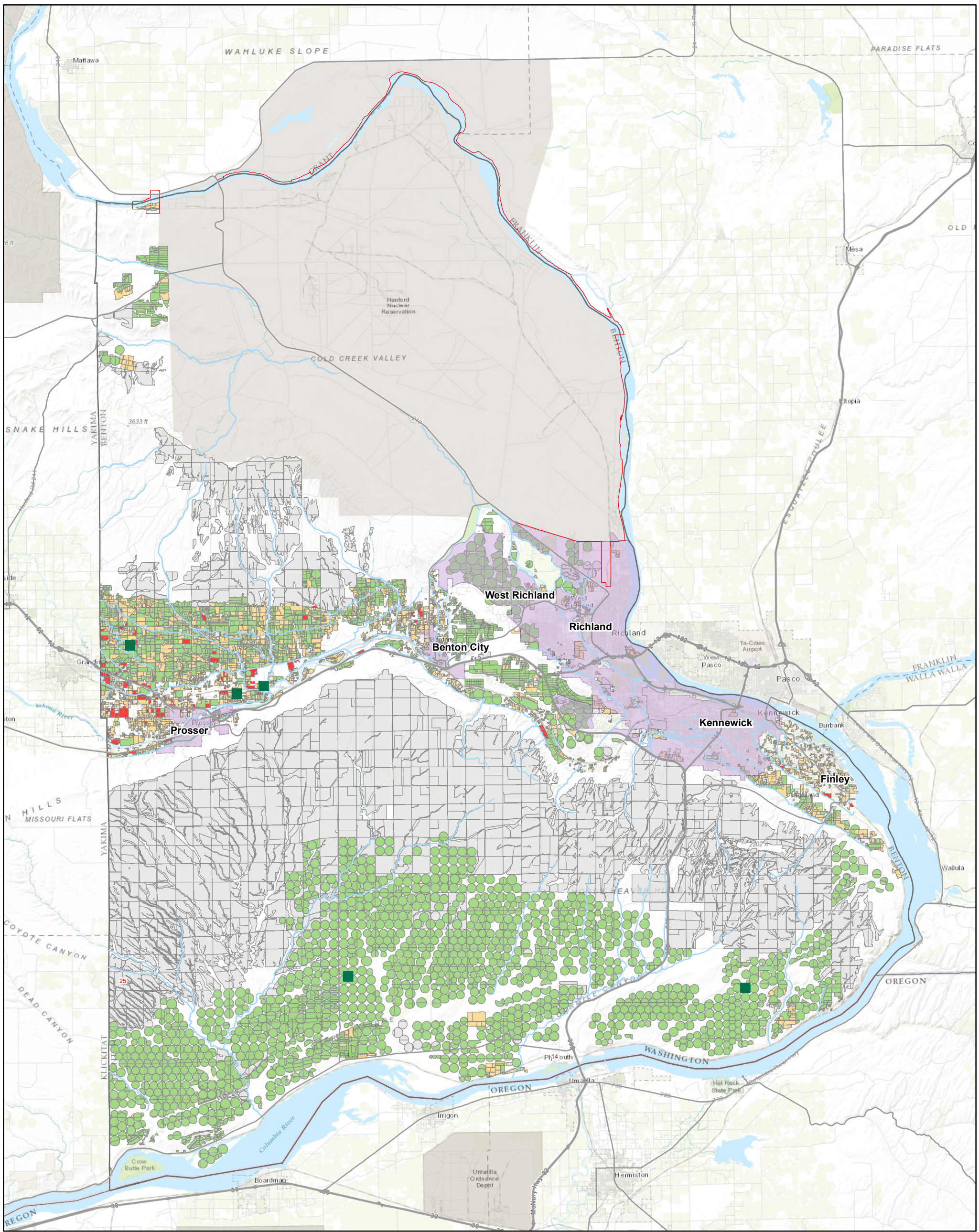
-  City Limits
-  Hanford
-  General Area Boundary
-  Highways

Figure 1.
Location Map
Benton County, WA



Figure 2.
Dominant Pathways of the Nitrogen Cycle
(adapted from Stonecypher, 2010)
(Center for Watershed Sciences UC, Davis, 2012 - 2.2)
Benton County, WA





Legend

- Livestock: Dairy or Feedlot
- Benton County Boundary
- None (Dryland)
- Highways
- Irrigated Agriculture**
- Canals, Creeks, Canyons
- High Efficiency
- Moderate Efficiency
- Low Efficiency
- Urban Areas / City Limits
- Hanford

Figure 3.
Land Use
Benton County, WA

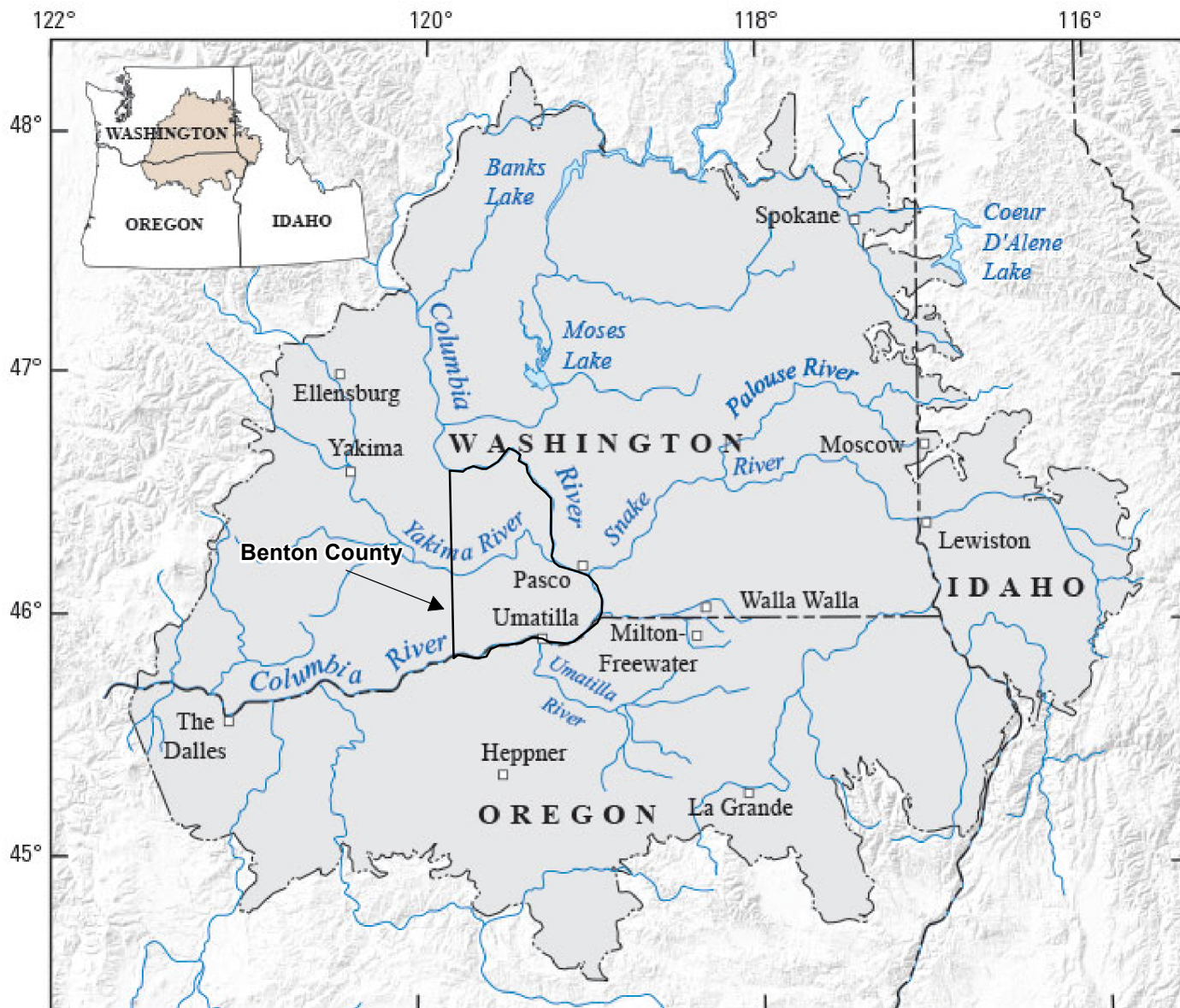
0 2 4 8
 Miles

Note:
 - Agriculture data from the
 Washington State Department
 of Agriculture, 2015 Crop Data

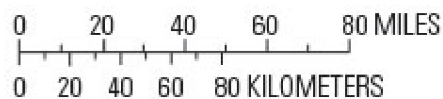


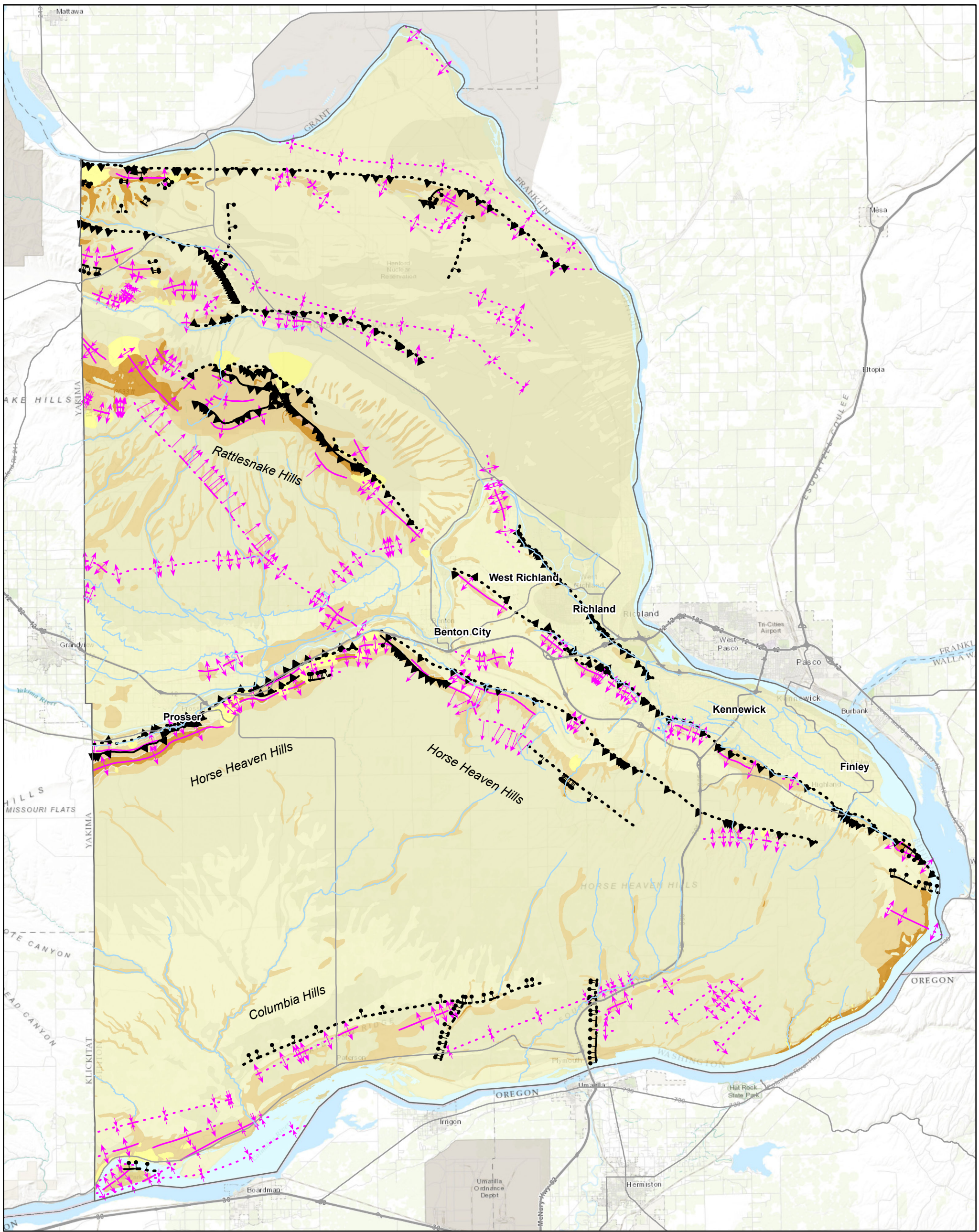
Figure 4.

**Columbia Basin Province
Benton County, WA**



Base modified from U.S. Geological Survey digital data, various scales.
Coordinate system: State Plane, Washington South, FIPS 4602; Projection:
Lambert Conformal Conic. Horizontal datum: North American Datum 1983,
Vertical datum: North American Vertical Datum of 1988.





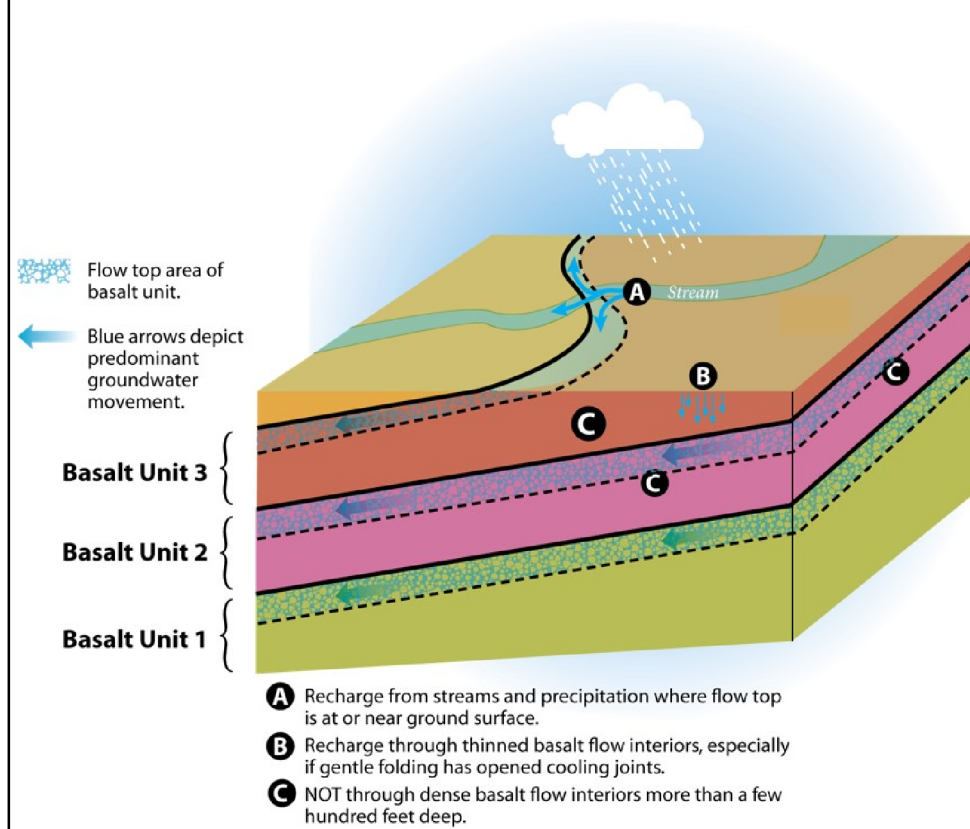
Legend

<p>Unconsolidated Sediments</p> <ul style="list-style-type: none"> Quaternary alluvium, dune sand, loess, and artificial fill Quaternary alluvial fans, beach deposits, undifferentiated sedimentary deposits, lacustrine deposits, landslides, peat, terraced deposits, and talus Pleistocene continental glacial, glaciolacustrine, and outburst flood deposits, Fraser-age <p>Sedimentary Rocks and Deposits</p> <ul style="list-style-type: none"> Quaternary-Oligocene continental sedimentary rocks 	<p>Pliocene-Miocene continental sedimentary rocks</p> <p>Volcanic Rocks and Deposits</p> <ul style="list-style-type: none"> Miocene Columbia River Basalt Group, Saddle Mountains Basalt Miocene Columbia River Basalt Group, Wanapum Basalt Miocene Columbia River Basalt Group, Grande Ronde Basalt <p>Other Features</p> <ul style="list-style-type: none"> Water Highways 	<p>Canals, Creeks, Canyons</p> <p>Faults</p> <p>Dip-Slip Movement</p> <ul style="list-style-type: none"> Normal fault - Identity and existence certain, location accurate. Bar and ball on downthrown block Normal fault - Identity and existence certain, location concealed. Bar and ball on downthrown block Thrust fault - Identity and existence certain, location accurate. Sawteeth on upper plate 	<p>Folds</p> <ul style="list-style-type: none"> Anticline - Identity and existence certain, location accurate Anticline - Identity and existence certain, location approximate Anticline - Identity and existence certain, location concealed 	<ul style="list-style-type: none"> Thrust fault - Identity and existence certain, location approximate. Sawteeth on upper plate Thrust fault - Identity and existence certain, location concealed. Sawteeth on upper plate <p>Folds</p> <ul style="list-style-type: none"> Anticline - Identity and existence certain, location accurate Anticline - Identity and existence certain, location approximate Anticline - Identity and existence certain, location concealed 	<ul style="list-style-type: none"> Syncline - Identity and existence certain, location accurate Syncline - Identity and existence certain, location concealed Monocline, anticlinal bend - Identity and existence certain, location accurate Monocline, anticlinal bend - Identity and existence certain, location concealed Monocline, synclinal bend - Identity and existence certain, location accurate
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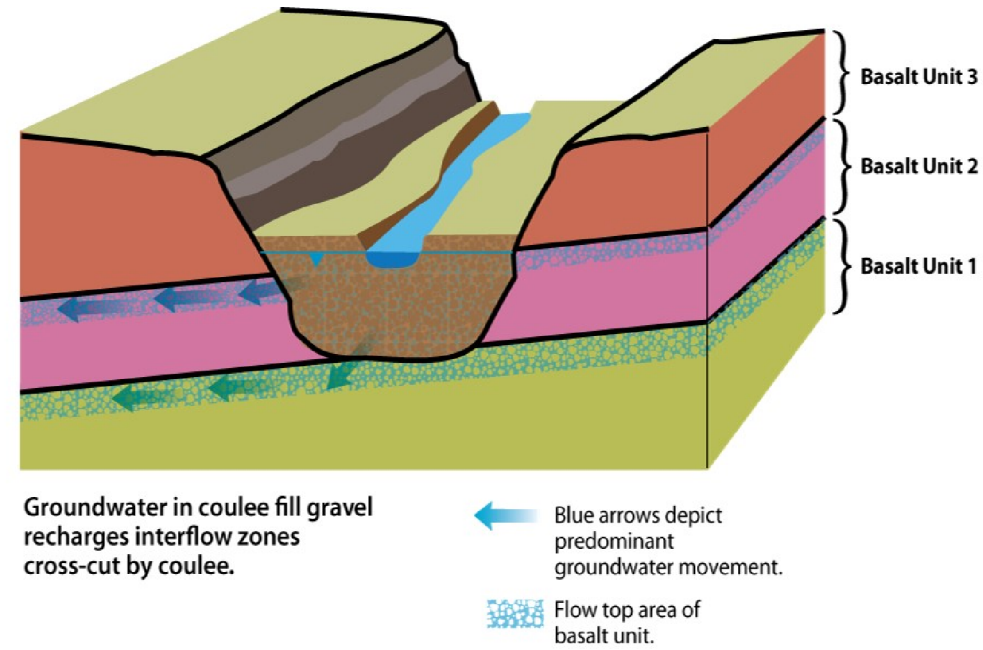
Figure 5.
Surface Geology
Benton County, WA

0 2 4 8
Miles

(a) Infiltration via Precipitation and Seepage.



(b) Coulee Recharge to Shallow Basalt.



(c) Basalt Aquifer Recharge via Surface Exposure and Structure.

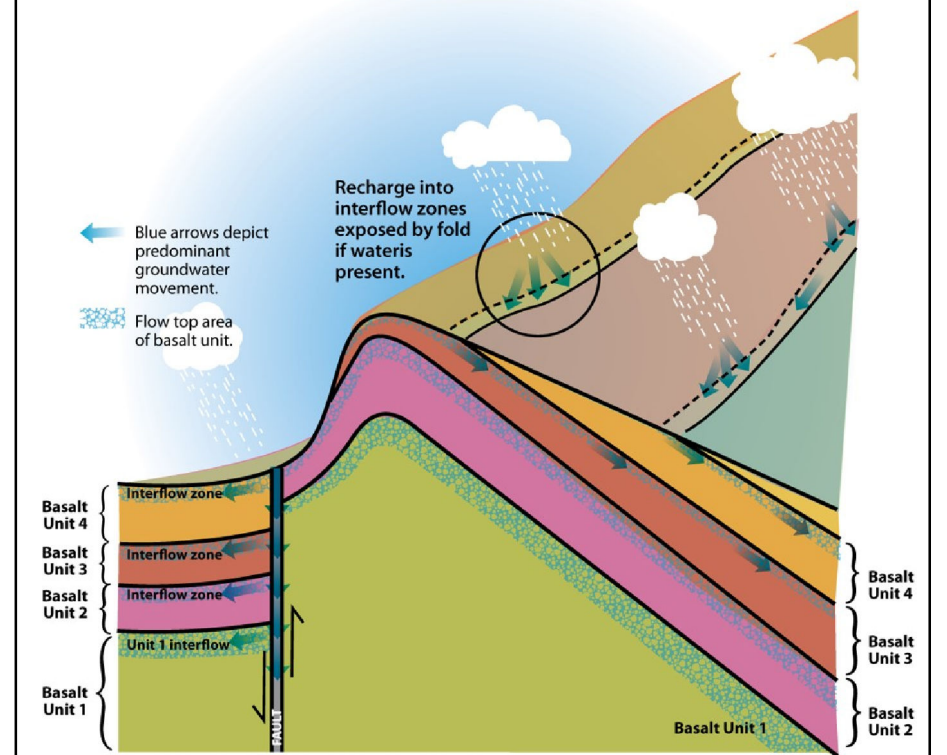


Figure 6.
Illustrations of Potential Groundwater Recharge Pathways to the Columbia River Basalt Benton County, WA