



# Maps

Appendices

Maps

Chapter 5  
Human  
Environment

Chapter 4  
Biological  
Environment

Chapter 3  
Physical  
Environment

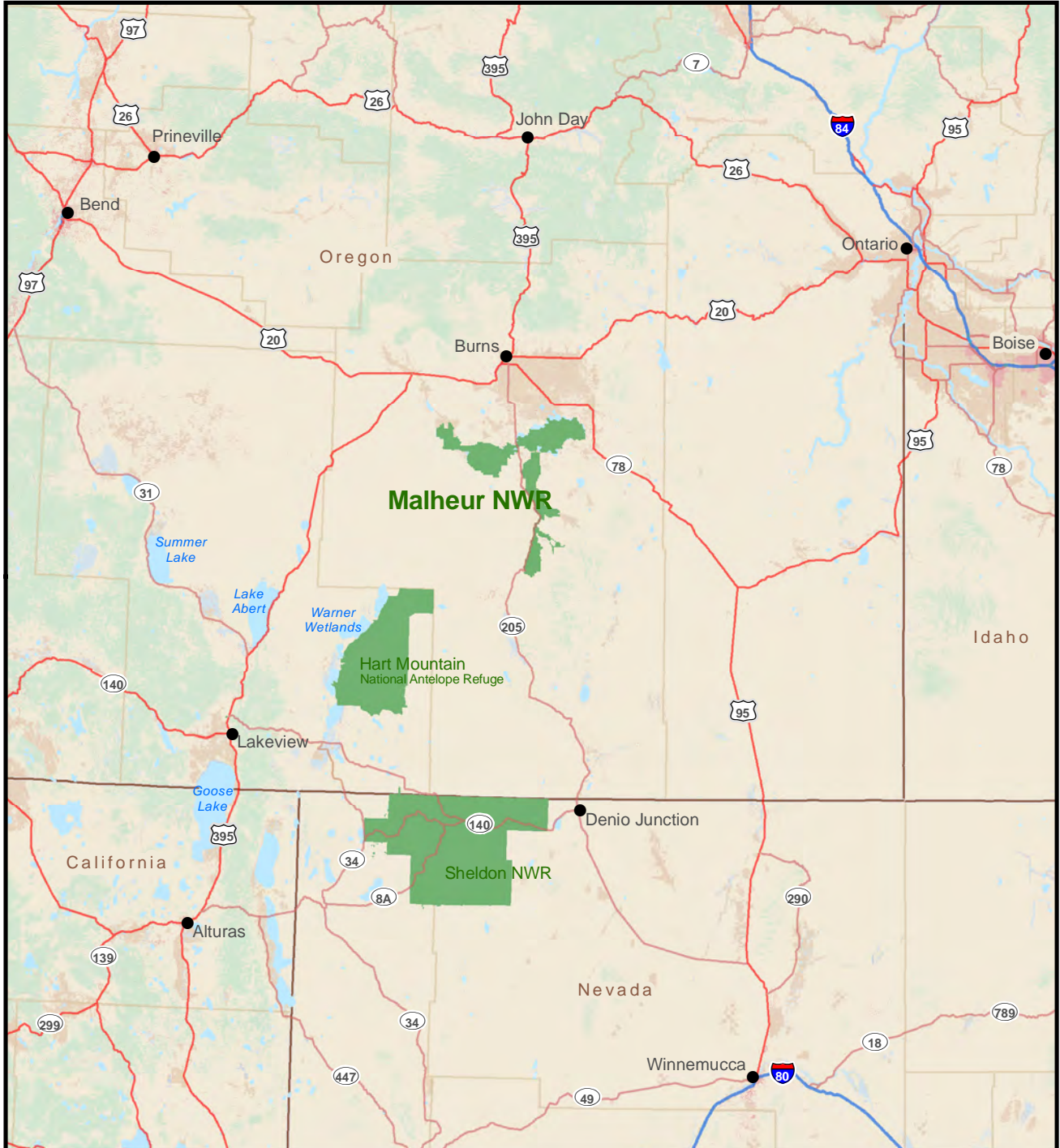
Chapter 2  
Management  
Direction





Chapter 1  
Introduction and  
Background

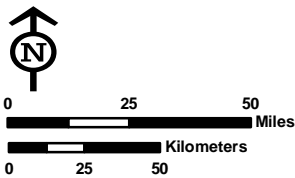


Map 1

Location of Refuge and Regional Land Cover



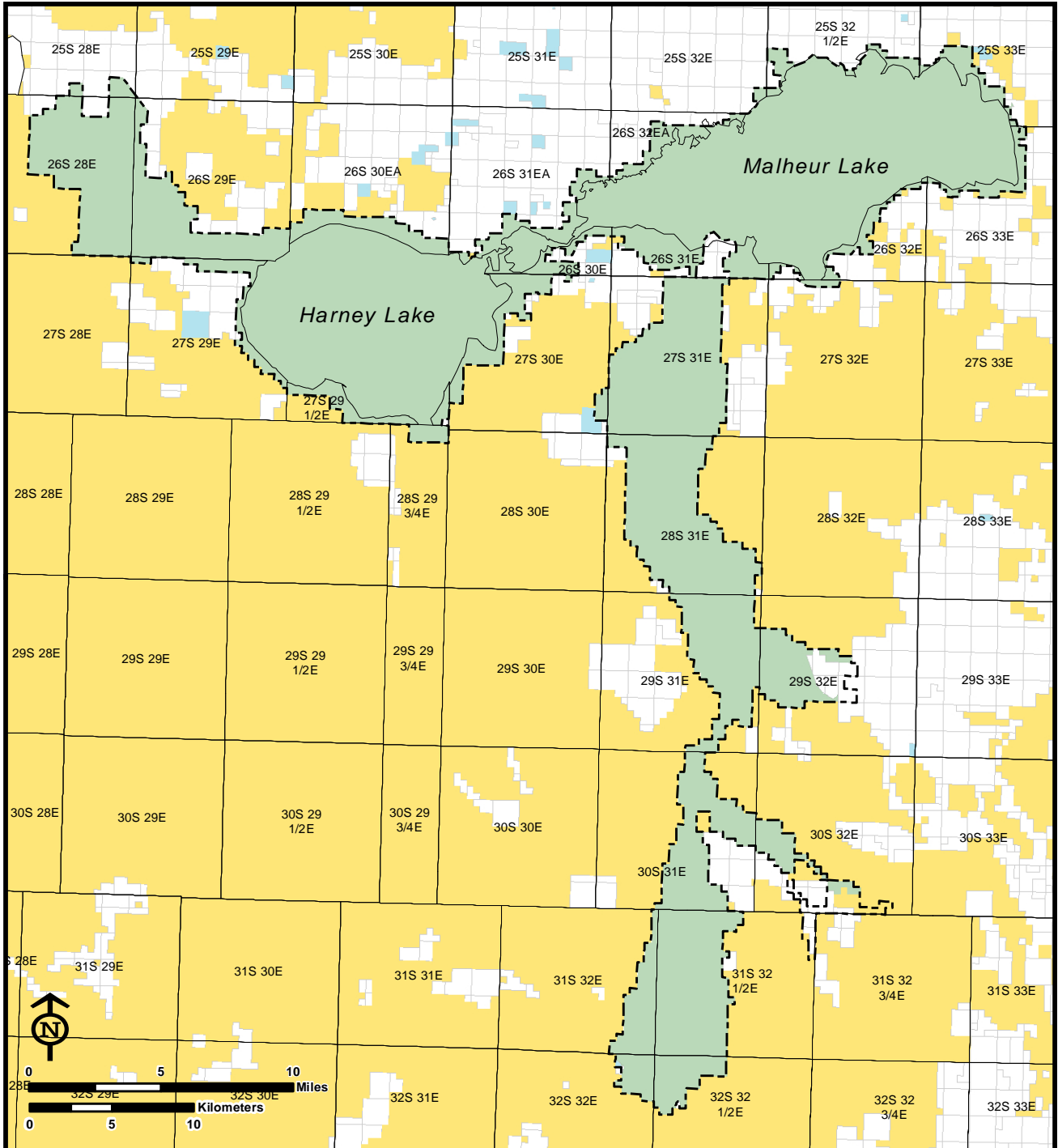
-  National Wildlife Refuges
-  Forest
-  Shrub/Grassland/Barren
-  Cultivated Crops / Pasture



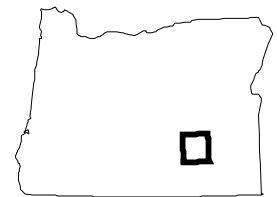
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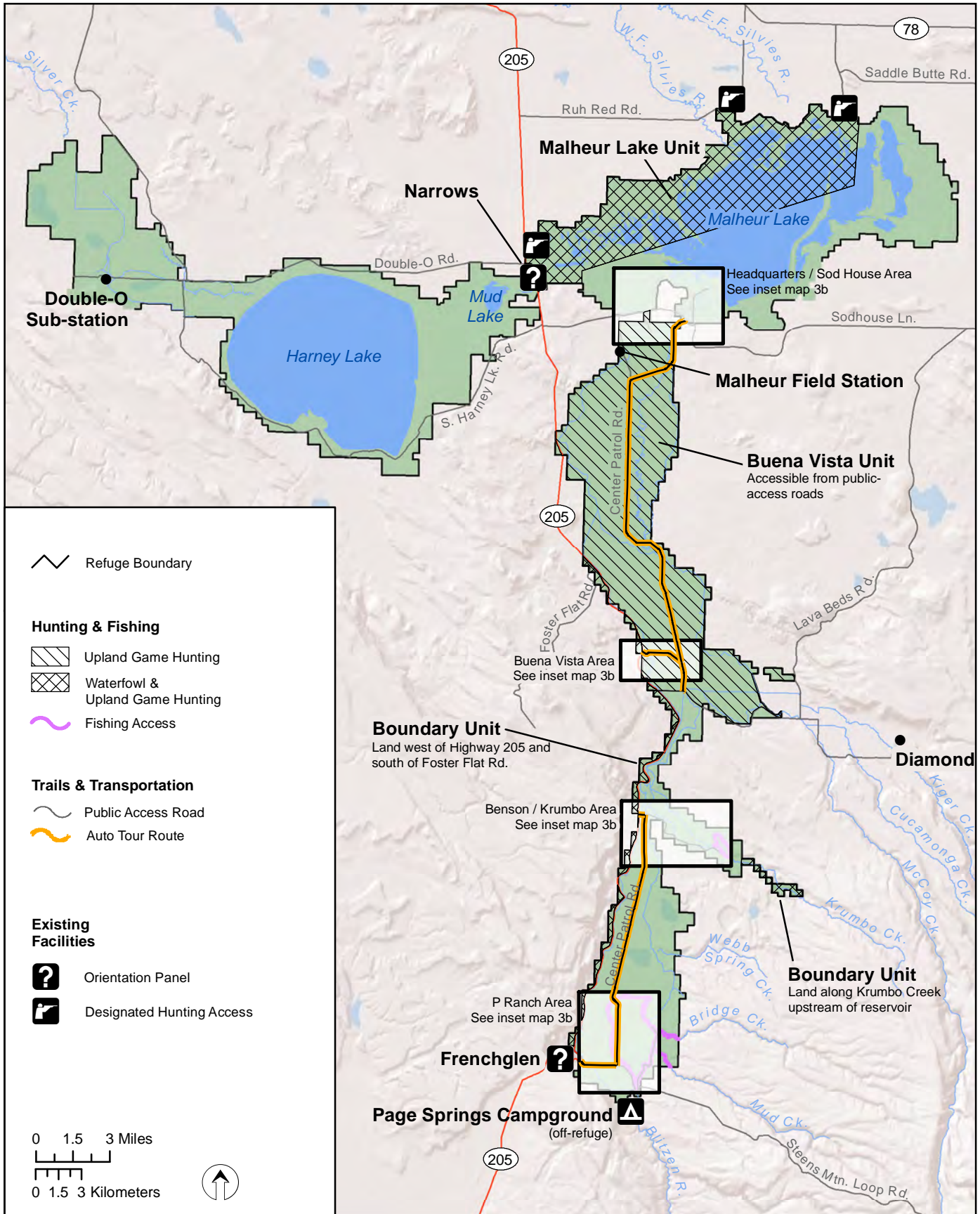


-  PLSS Township Lines
-  USFWS Fee Ownership
-  USFWS Approved Acquisition Boundary
-  Private
-  Bureau of Land Management
-  State of Oregon



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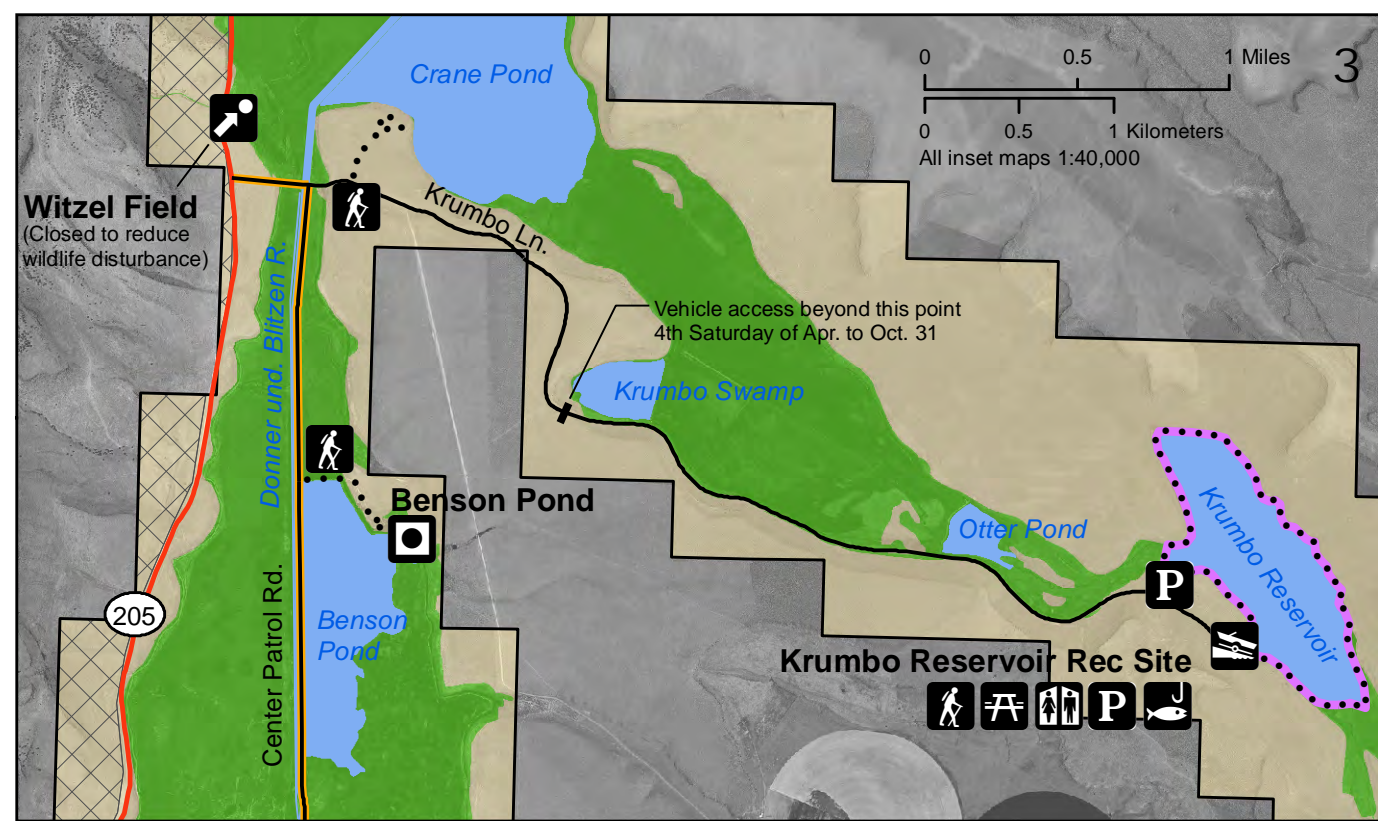
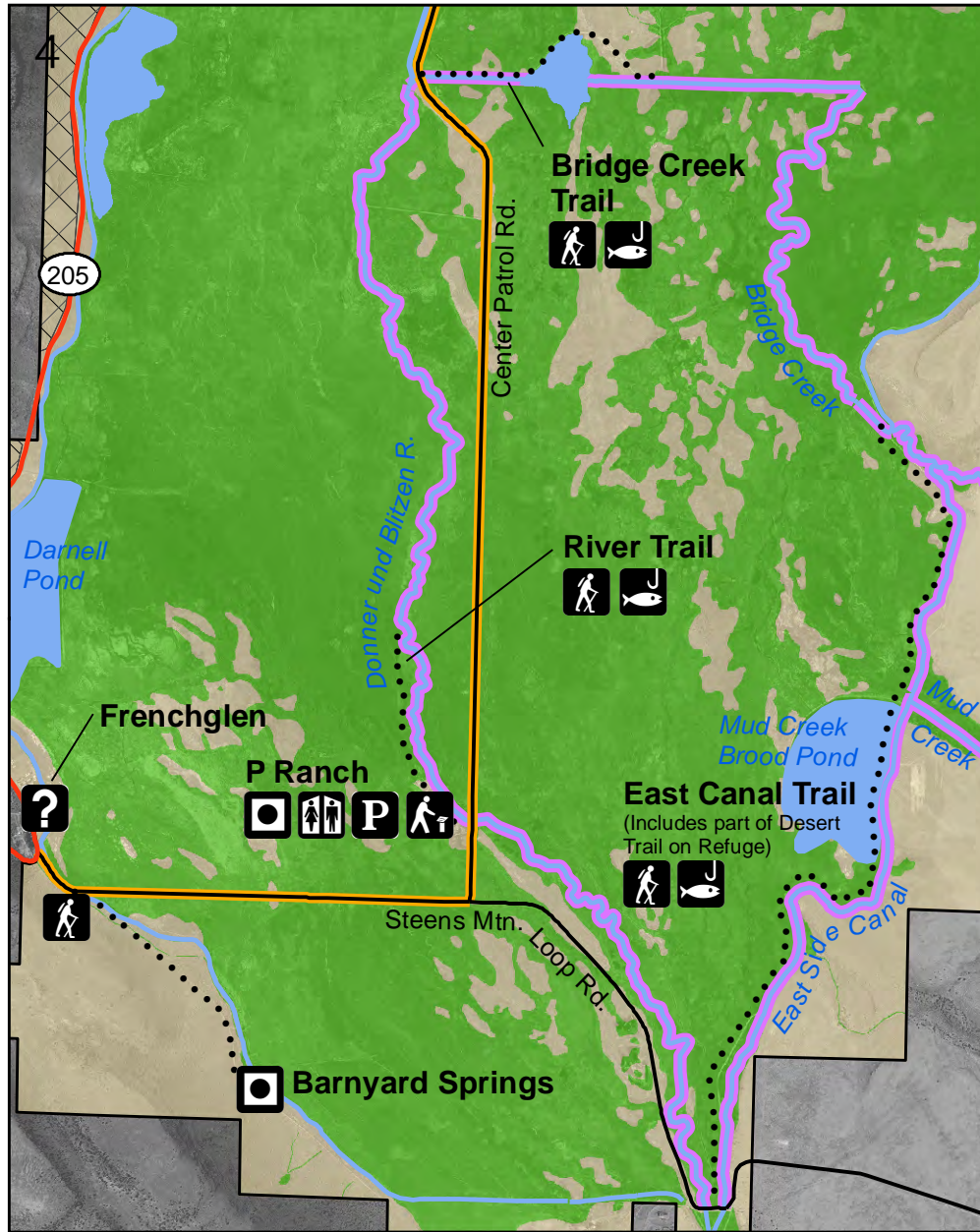
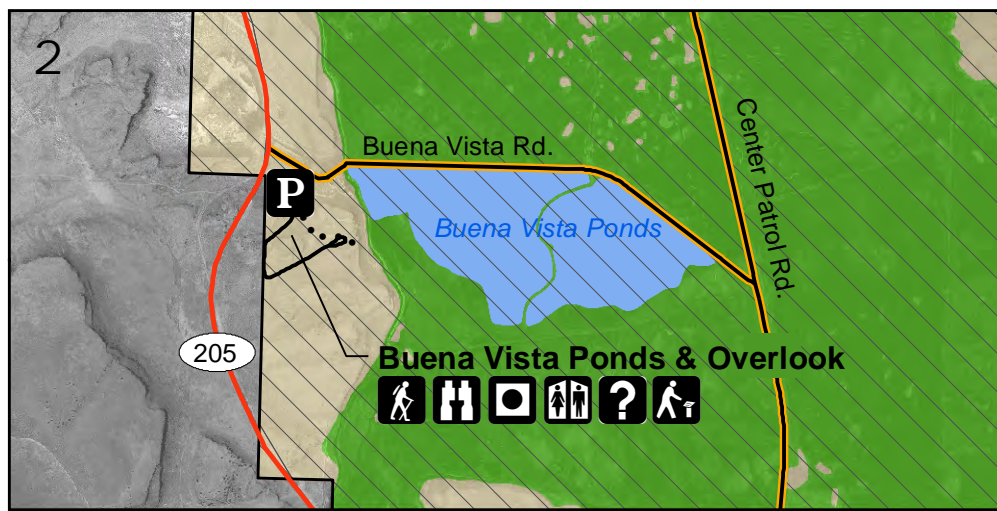
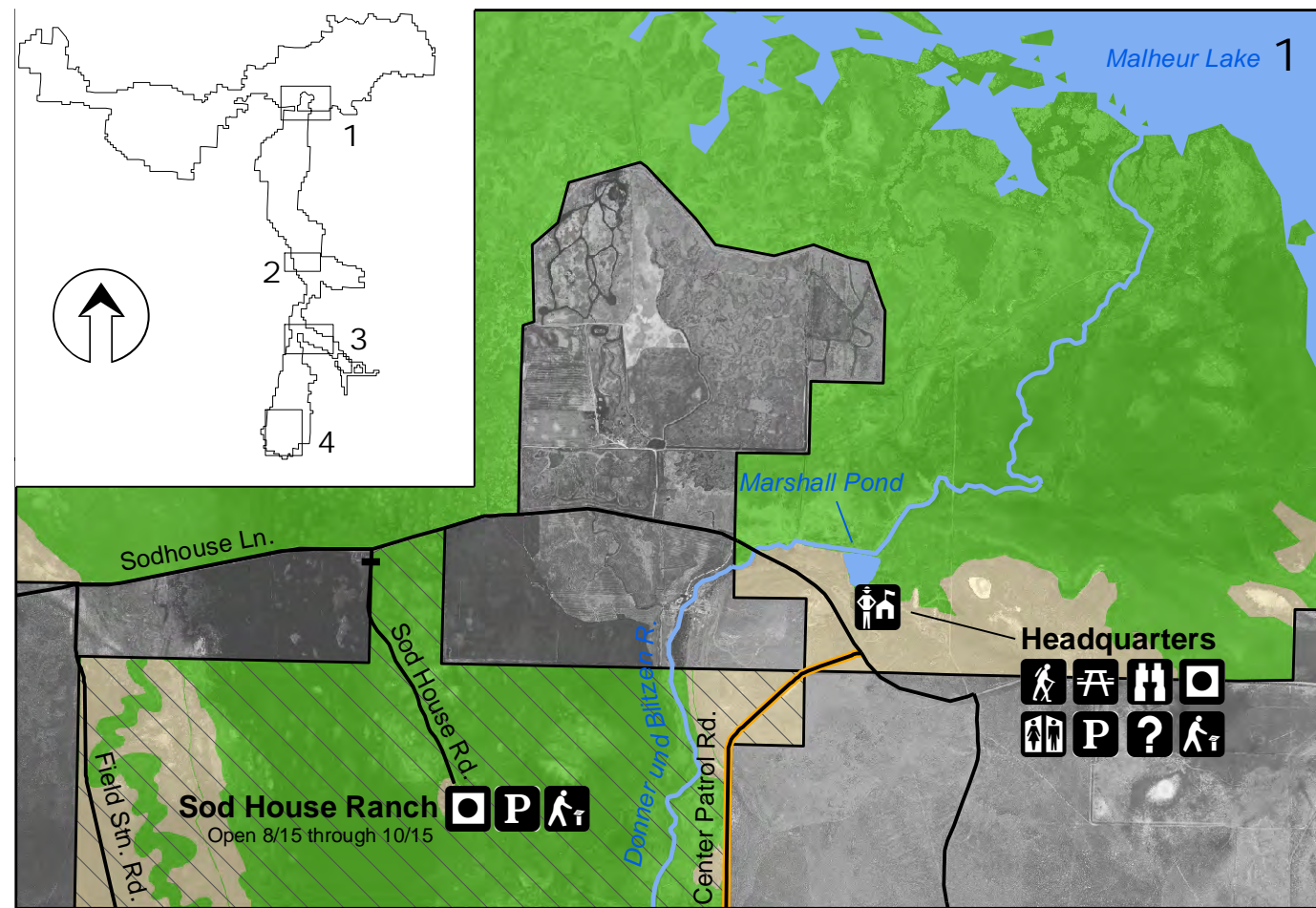


**Map 3b  
Public Use Facilities (Insets)  
Current Management**

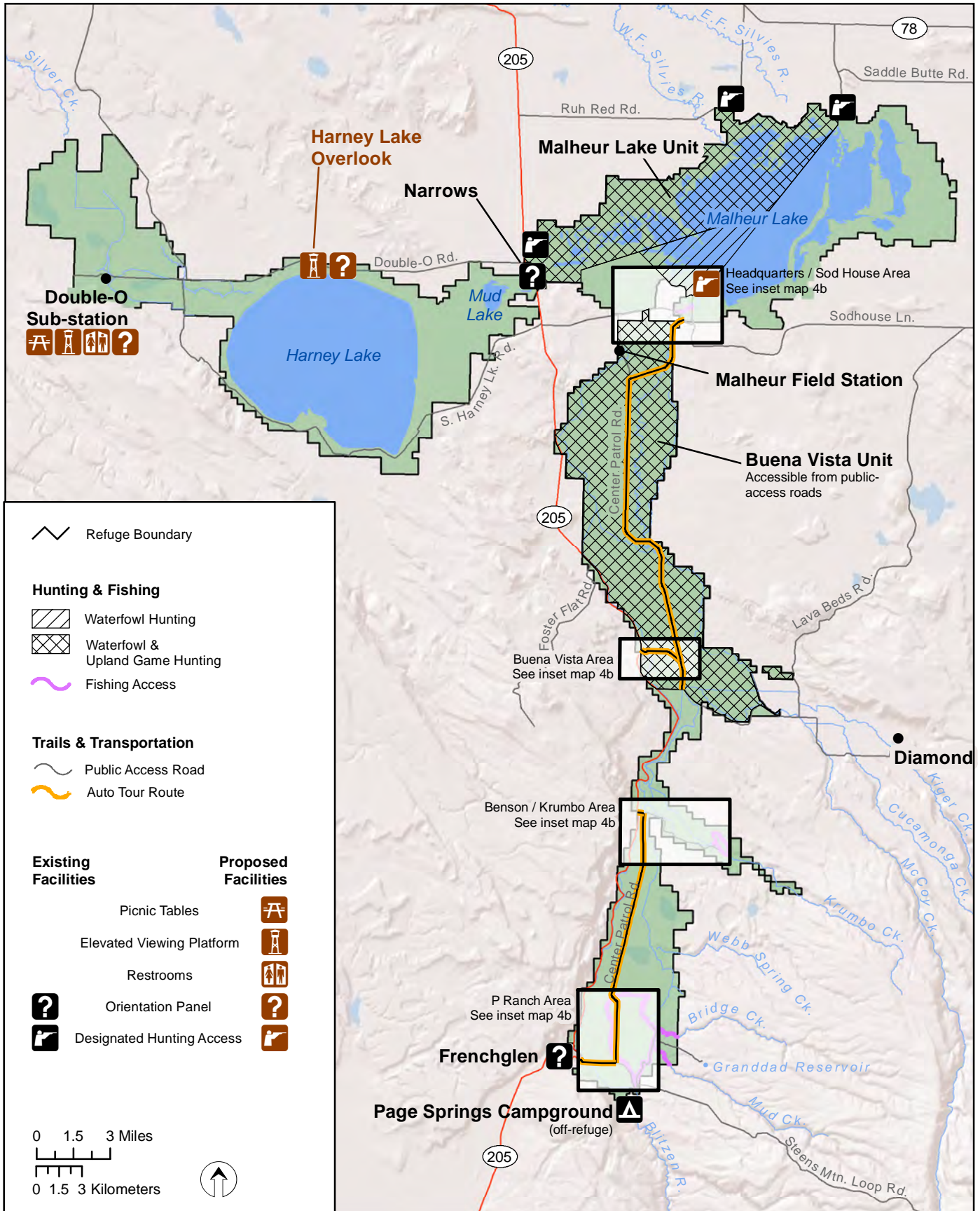
- Refuge Boundary
- Irrigated Habitat
- Upland Habitat
- Canal or Stream
- Select Ponds
- Gate - Seasonal Closure
- Upland Game Hunting
- Waterfowl & Upland Game Hunting

**Existing Facilities**

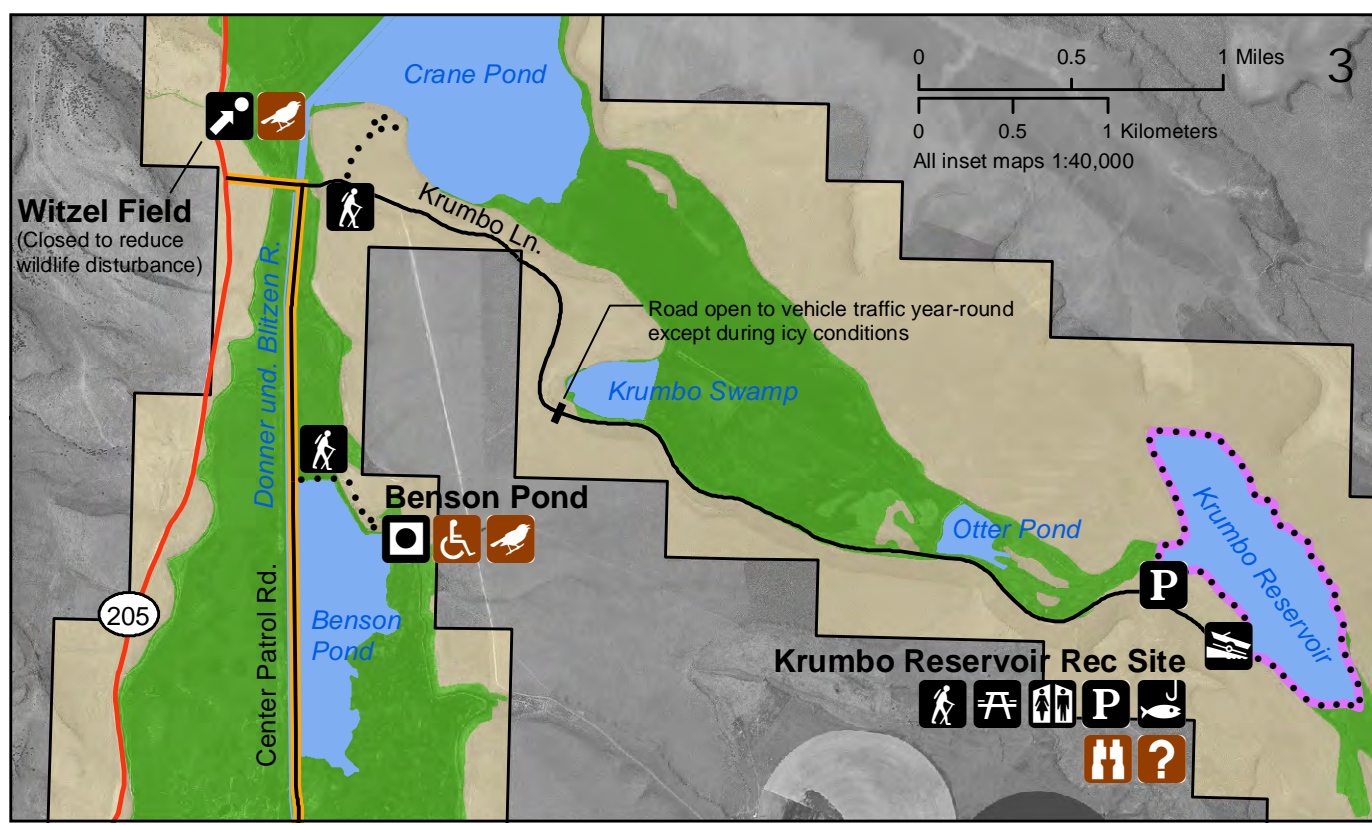
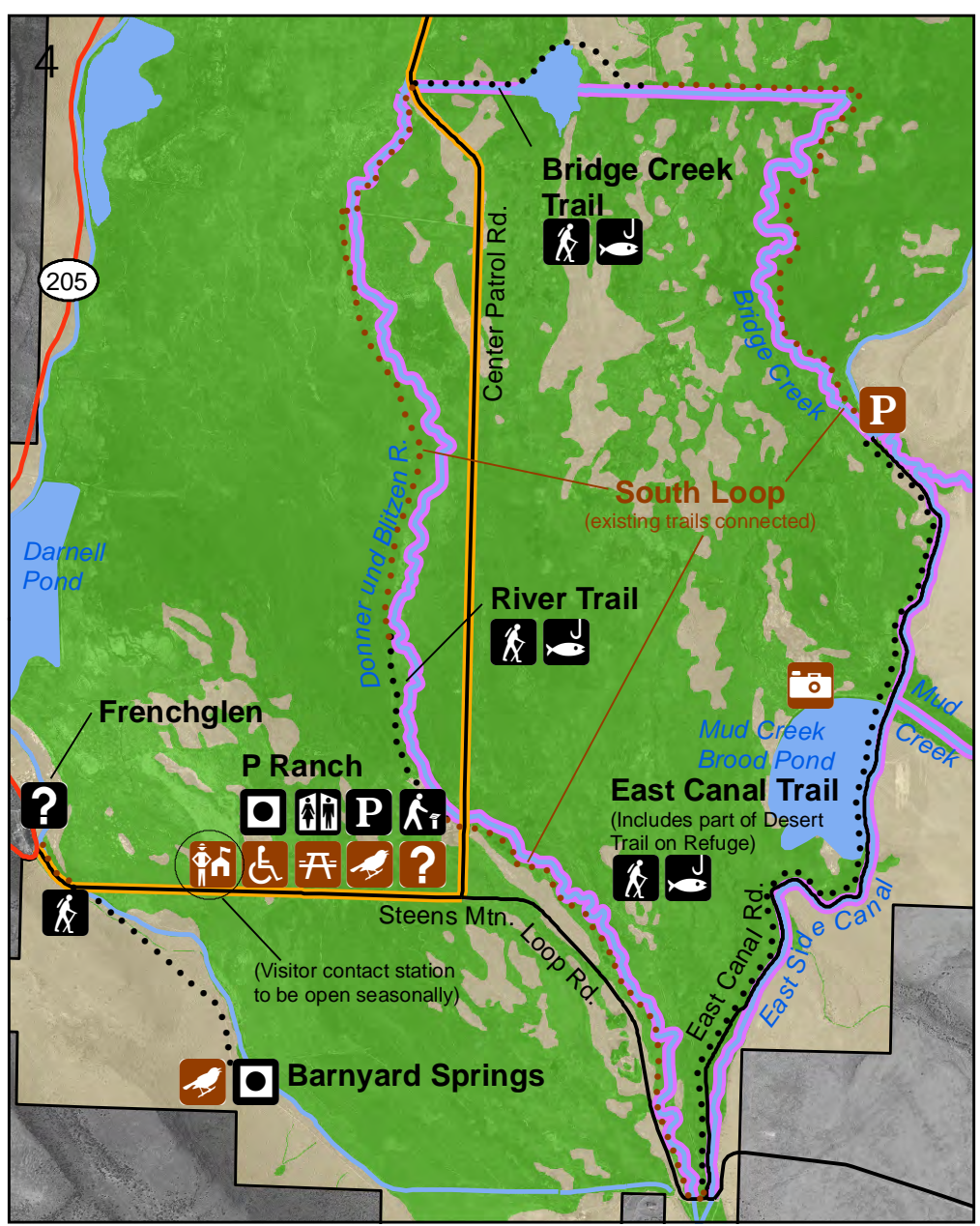
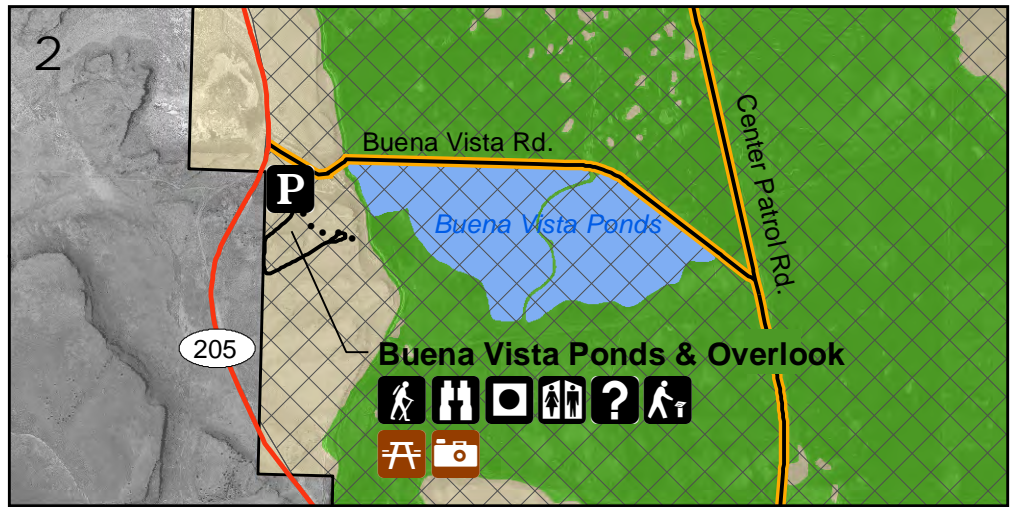
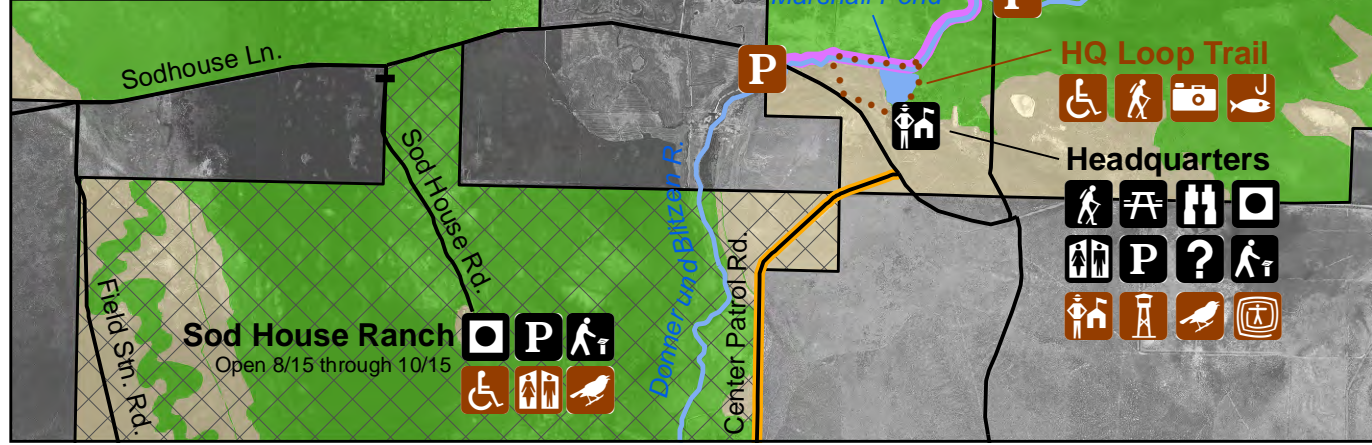
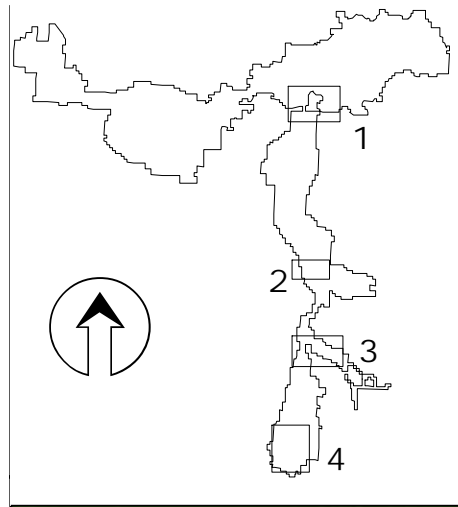
- Visitor Contact
- Trailhead
- Picnic Tables
- Viewing Overlook
- Historic Site
- Point of Interest
- Boat Ramp
- Restrooms
- Parking
- Orientation Information
- Interpretive Information
- Fishing
- Hiking Trail
- Fishing Access
- Public Access Road
- Auto Tour Route



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**Map 4b  
Public Use Facilities (Insets)  
Management Direction**

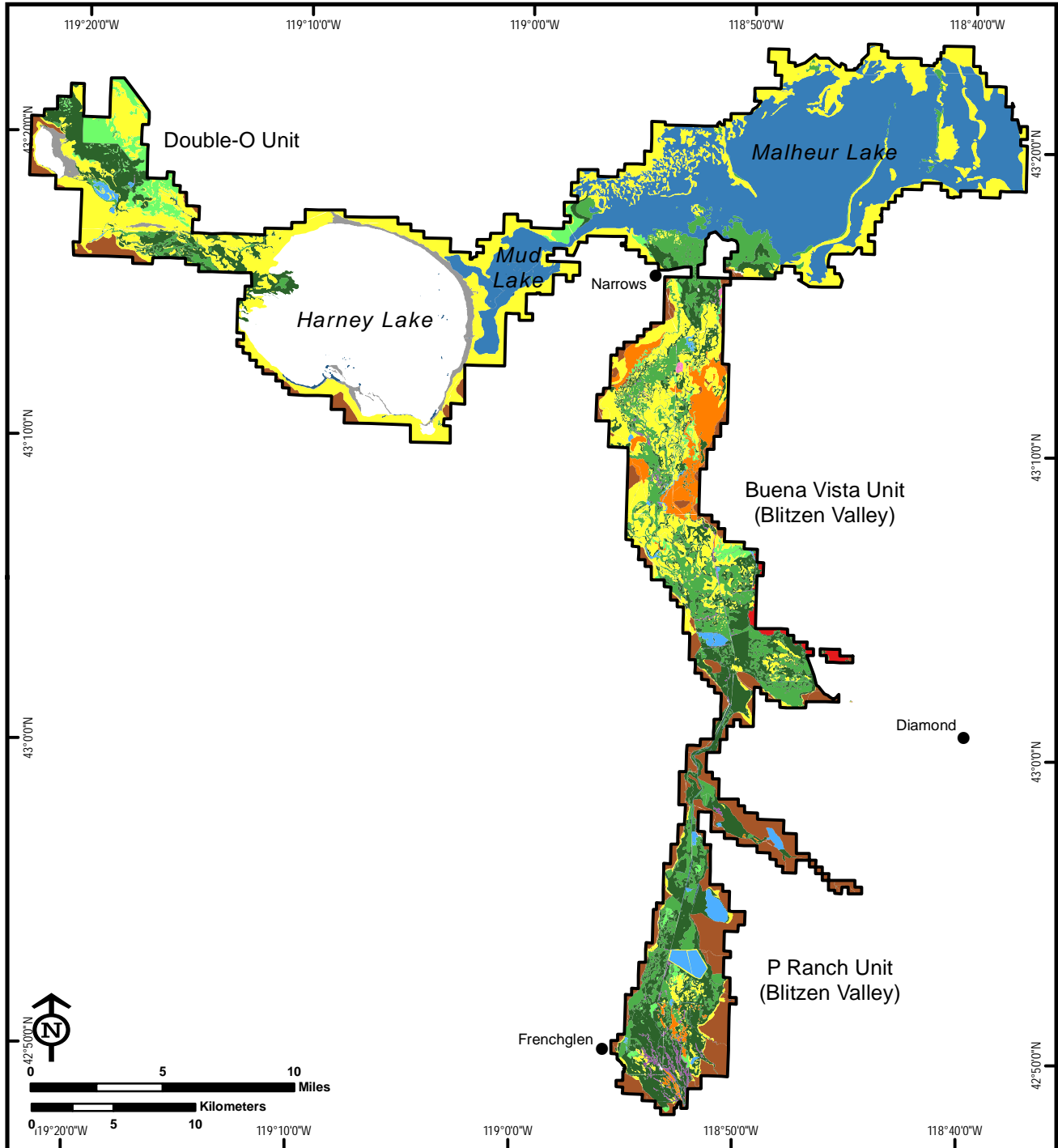
- Refuge Boundary
- Irrigated Habitat
- Upland Habitat
- Canal or Stream
- Select Ponds
- Gate - Seasonal Closure
- Waterfowl Hunting
- Waterfowl & Upland Game Hunting

- | Existing Facilities | Proposed Facilities |
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Map 5

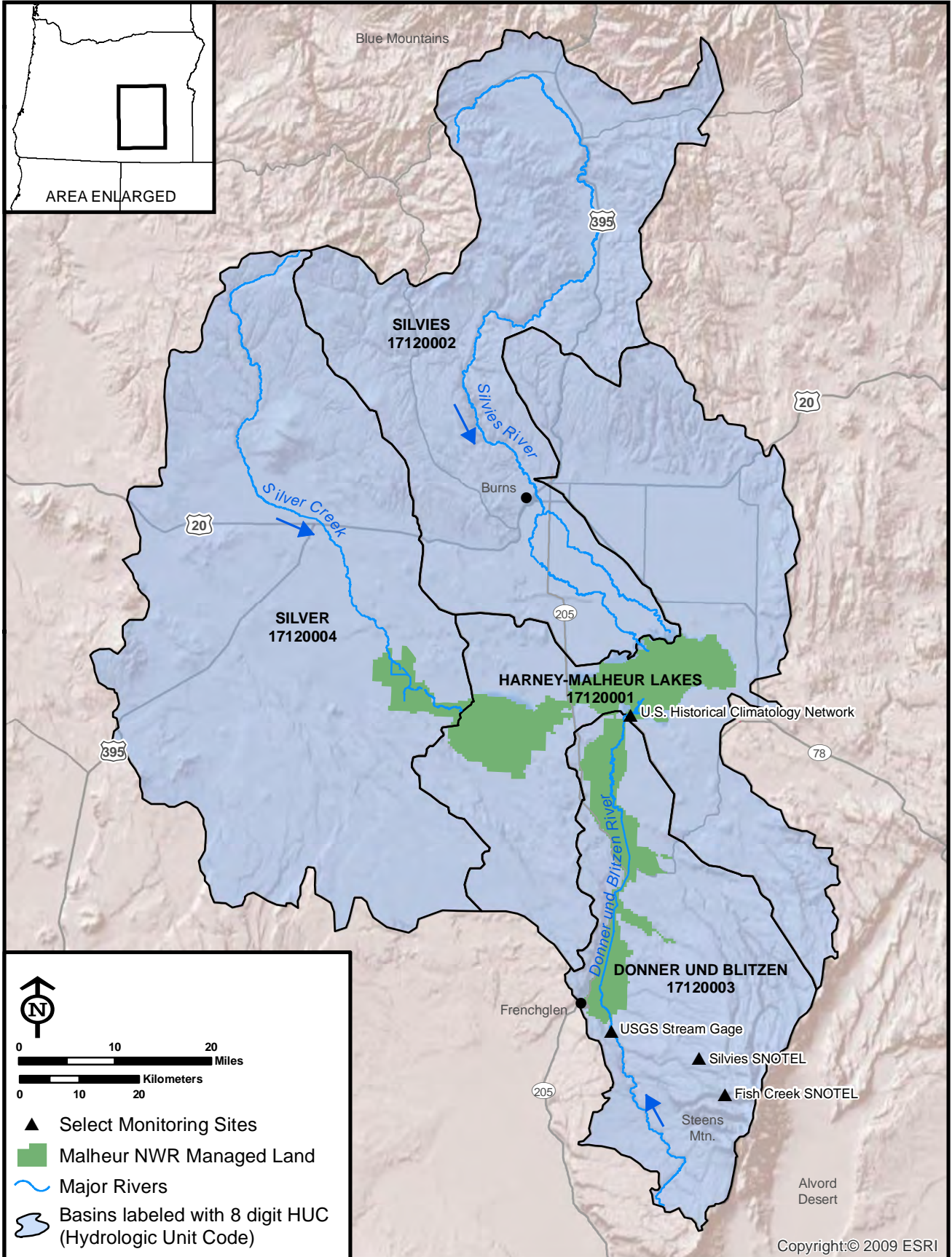
Land Cover / Habitat



- |   |   |  |
|---|---|--|
|  Riverine                                  |  Dry Meadow        |  Sagebrush Steppe                 |
|  Lacustrine (Lake)                         |  Cropland          |  Dune                             |
|  Palustrine Open Water/Emergent            |  Woody Riparian    |  Playa                            |
|  Palustrine Emergent (Temporarily Flooded) |  Salt Desert Scrub |  Cliffs, Rimrock, and Outcropping |
|  Palustrine Emergent (Seasonally Flooded)  |  Sagebrush Lowland |  Cold and Hot Springs             |

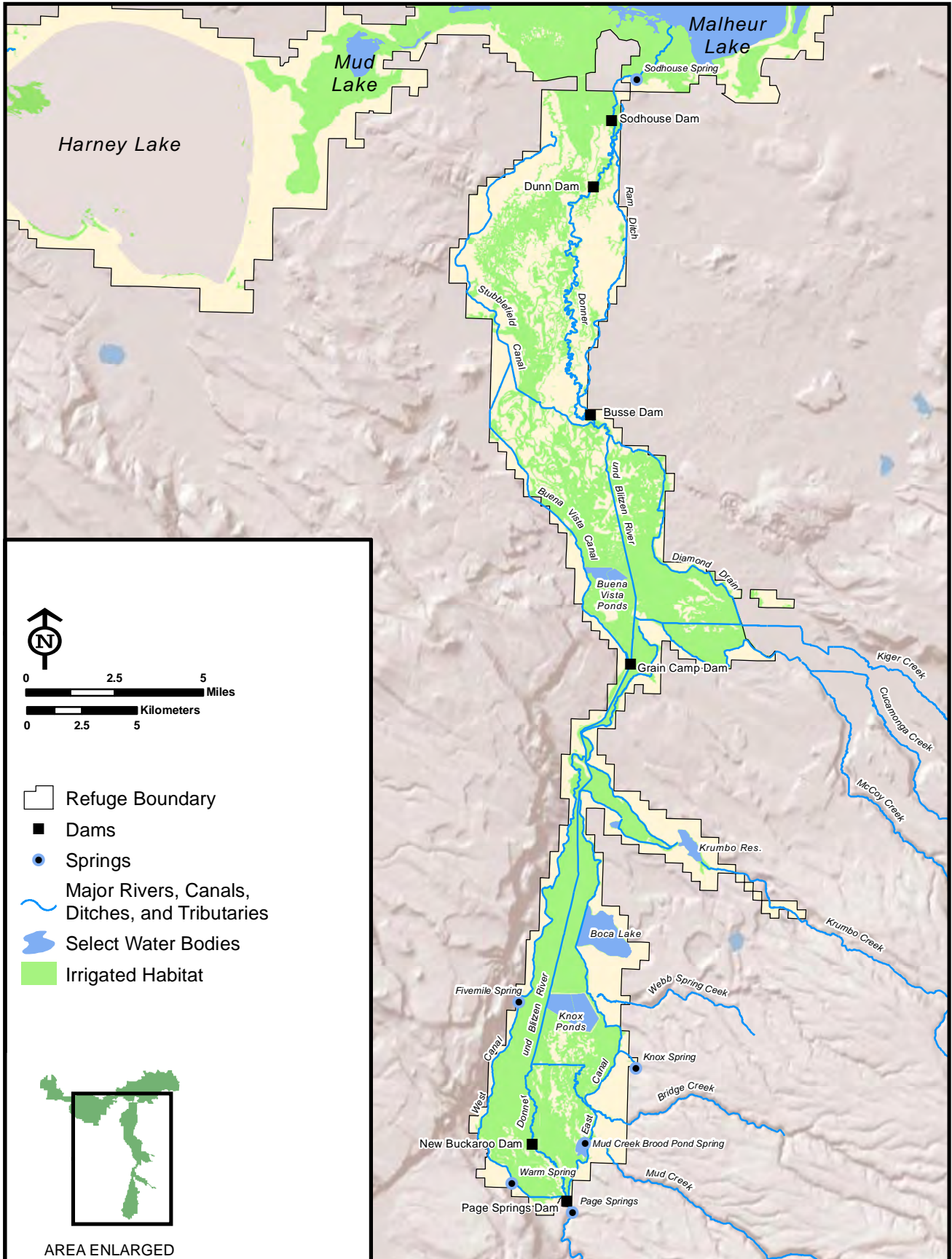
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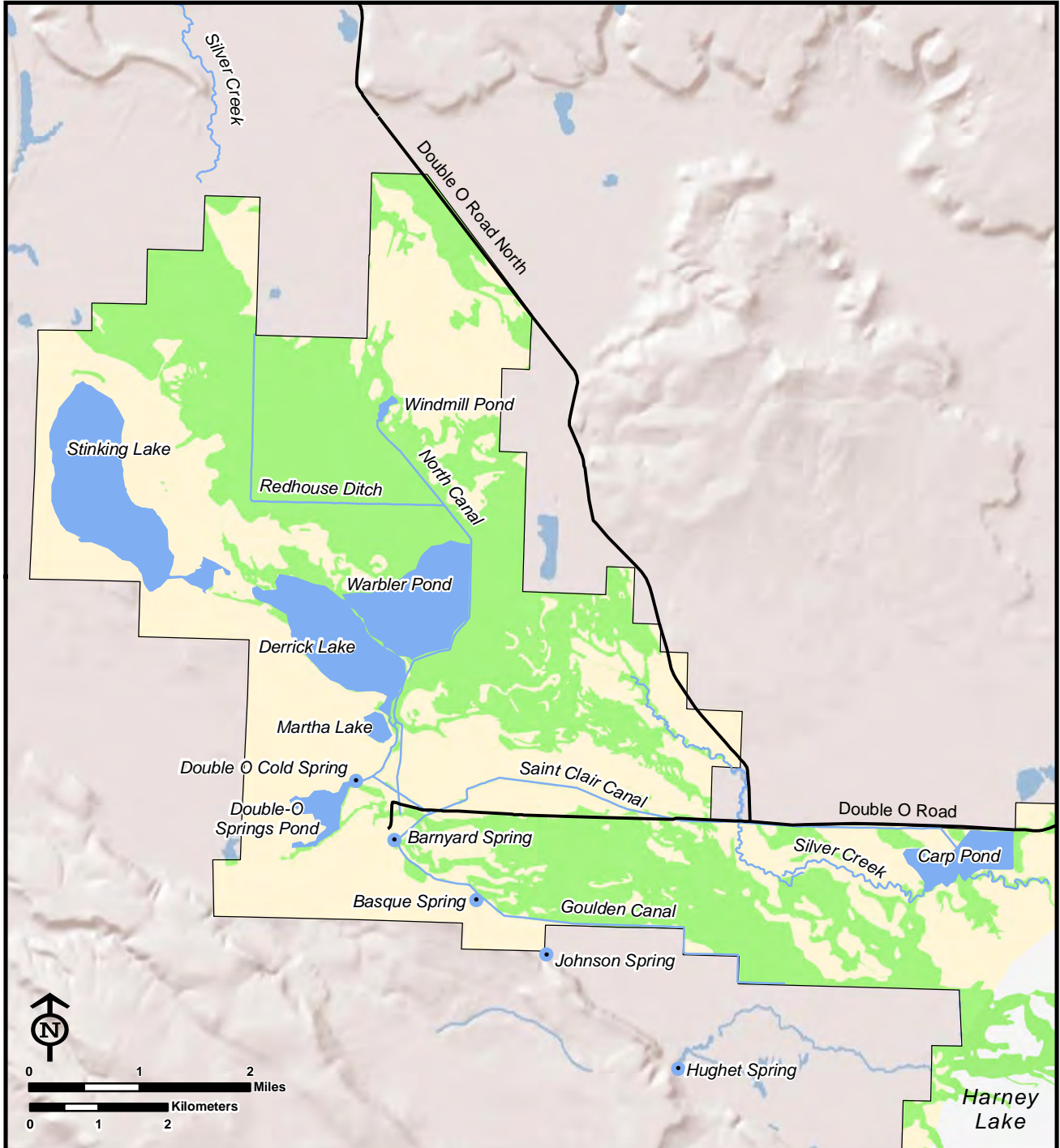


Map Date: 9/6/2012 File: 11-053-7.mxd  
Data Source: USGS HUC, NHD, ESRI\_ShadedRelief\_World\_2D

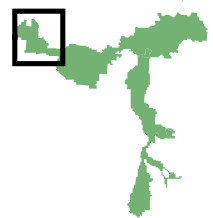
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- Refuge Boundary
- Springs
- Major Rivers, Canals, Ditches, and Tributaries
- Select Water Bodies
- Irrigated Habitat

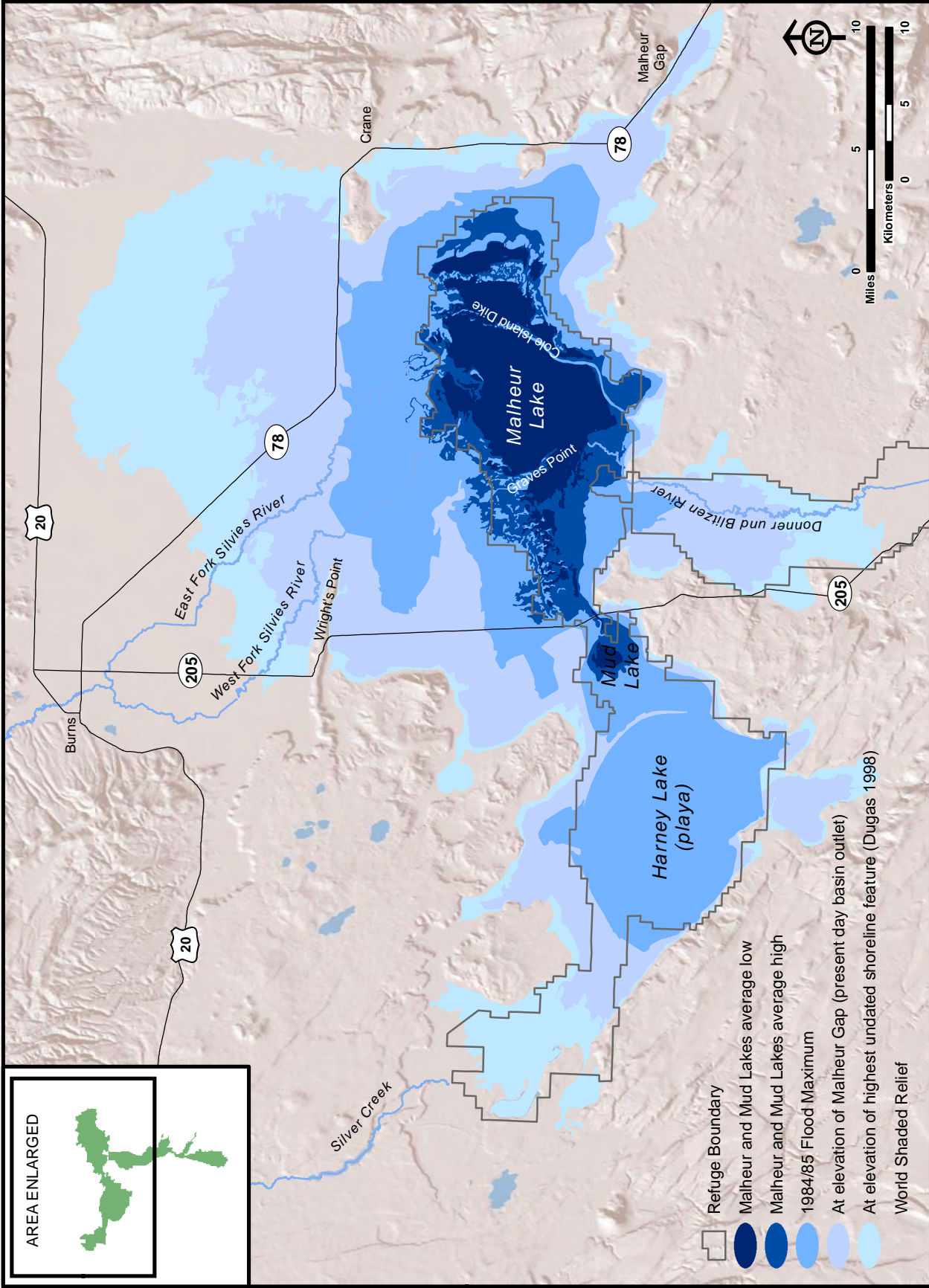


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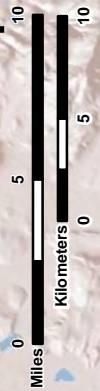
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Map 9

Malheur, Mud, and Harney Lakes



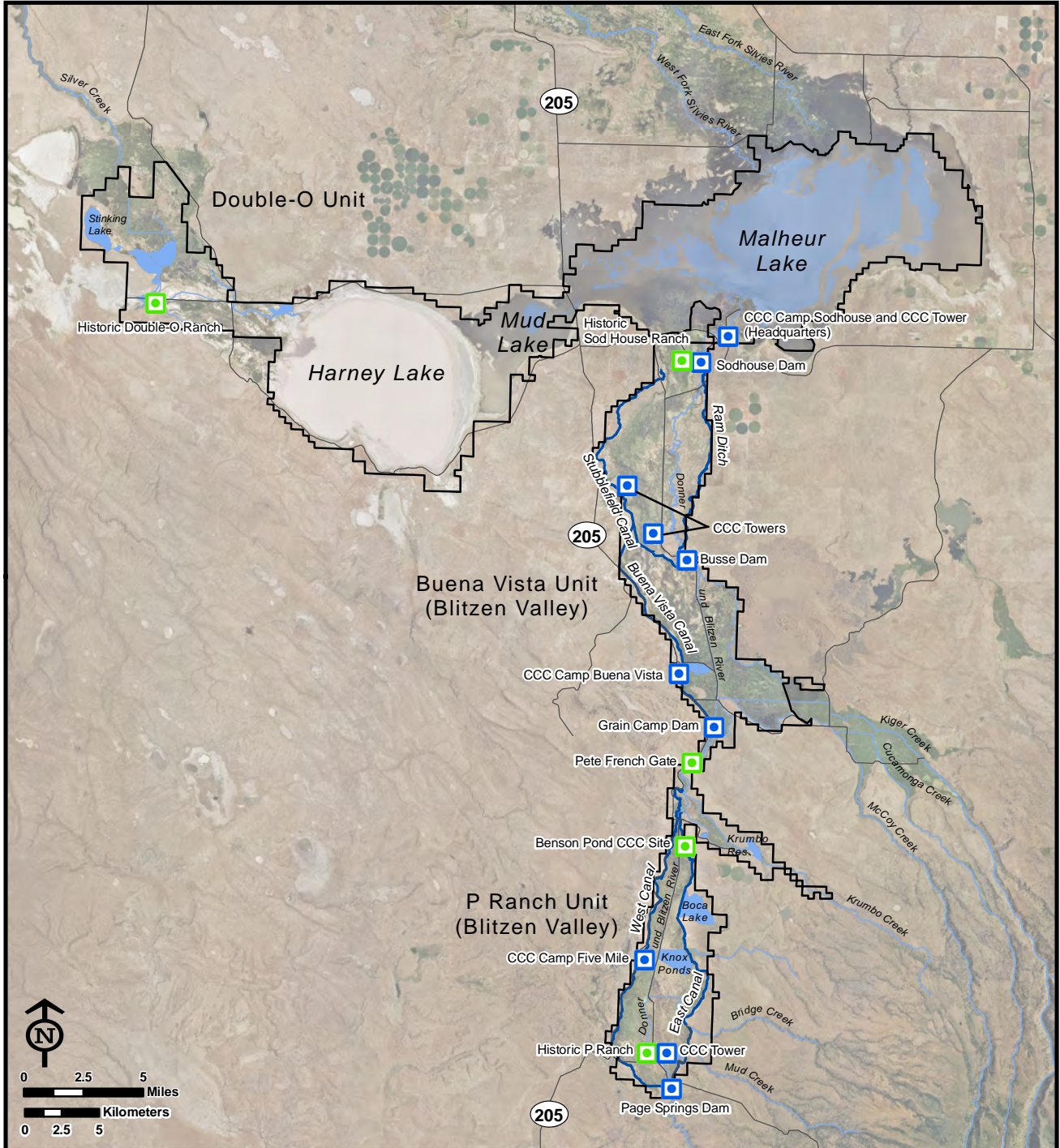
- Refuge Boundary
- Malheur and Mud Lakes average low
- Malheur and Mud Lakes average high
- 1984/85 Flood Maximum
- At elevation of Malheur Gap (present day basin outlet)
- At elevation of highest undated shoreline feature (Dugas 1998)
- World Shaded Relief



Map Date: 9/7/2012 File: 11-053-10.mxd  
 Data Source: ESRI\_ShadedRelief\_World\_2D  
 Average low and high Malheur Lake elevations based on staff gage records 1938-2008; Malheur NWR. Contours (NGVD29 feet) derived from USGS National Elevation Dataset 30M DEM.  
 Source: Dugas, D.P. 1998. Late Quaternary Variations in the Level of Paleo-Lake Malheur, Eastern Oregon. Quaternary Research, 50, 276-282.

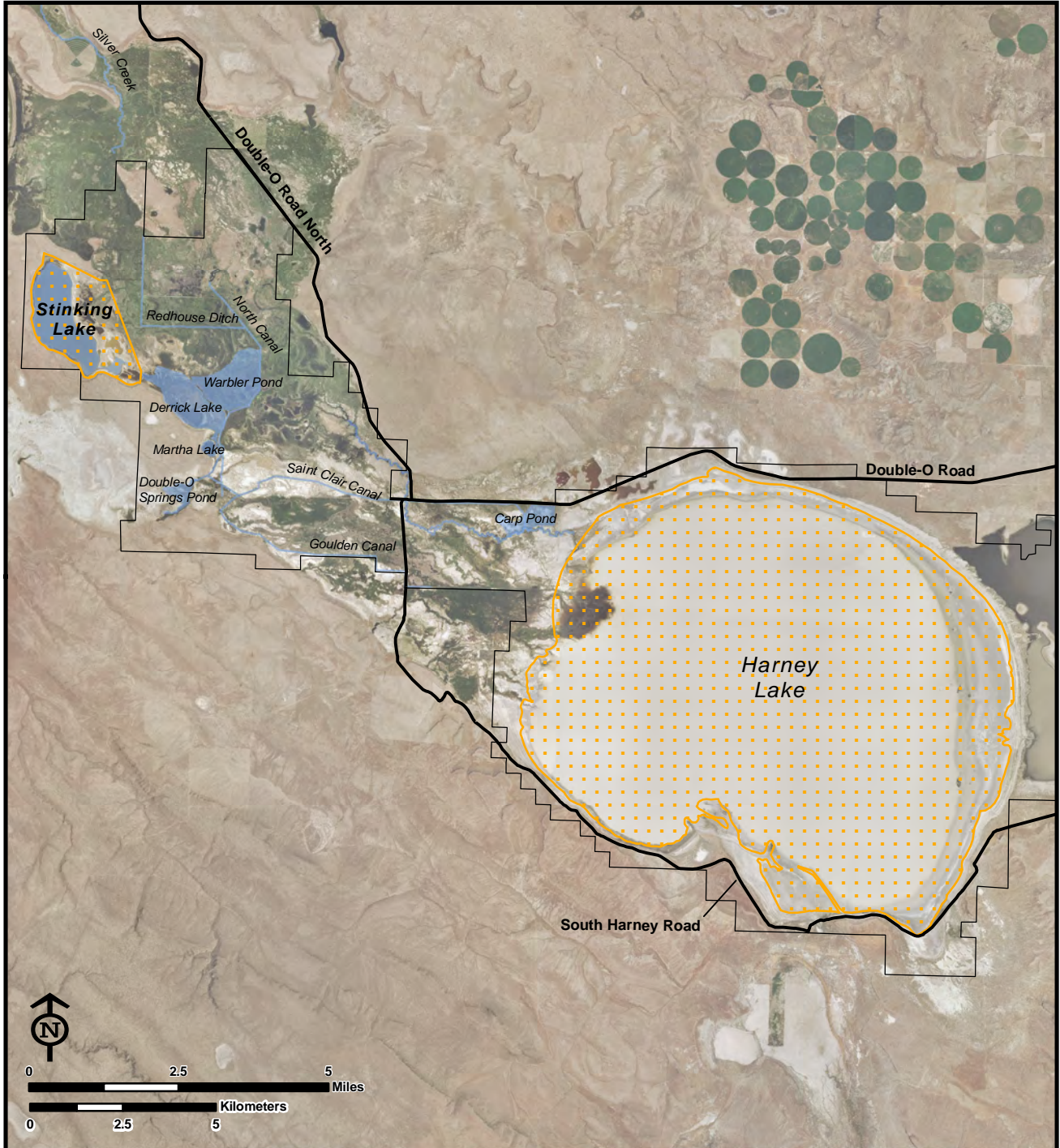
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





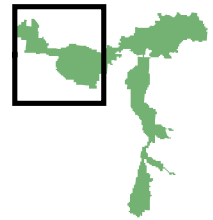


- Ranch-era Sites
- Civilian Conservation Corps (CCC) Sites
- ~ CCC Constructed Canals and Ditches
- Refuge Boundary
- ~ Select Hydrography
- Select Water Bodies

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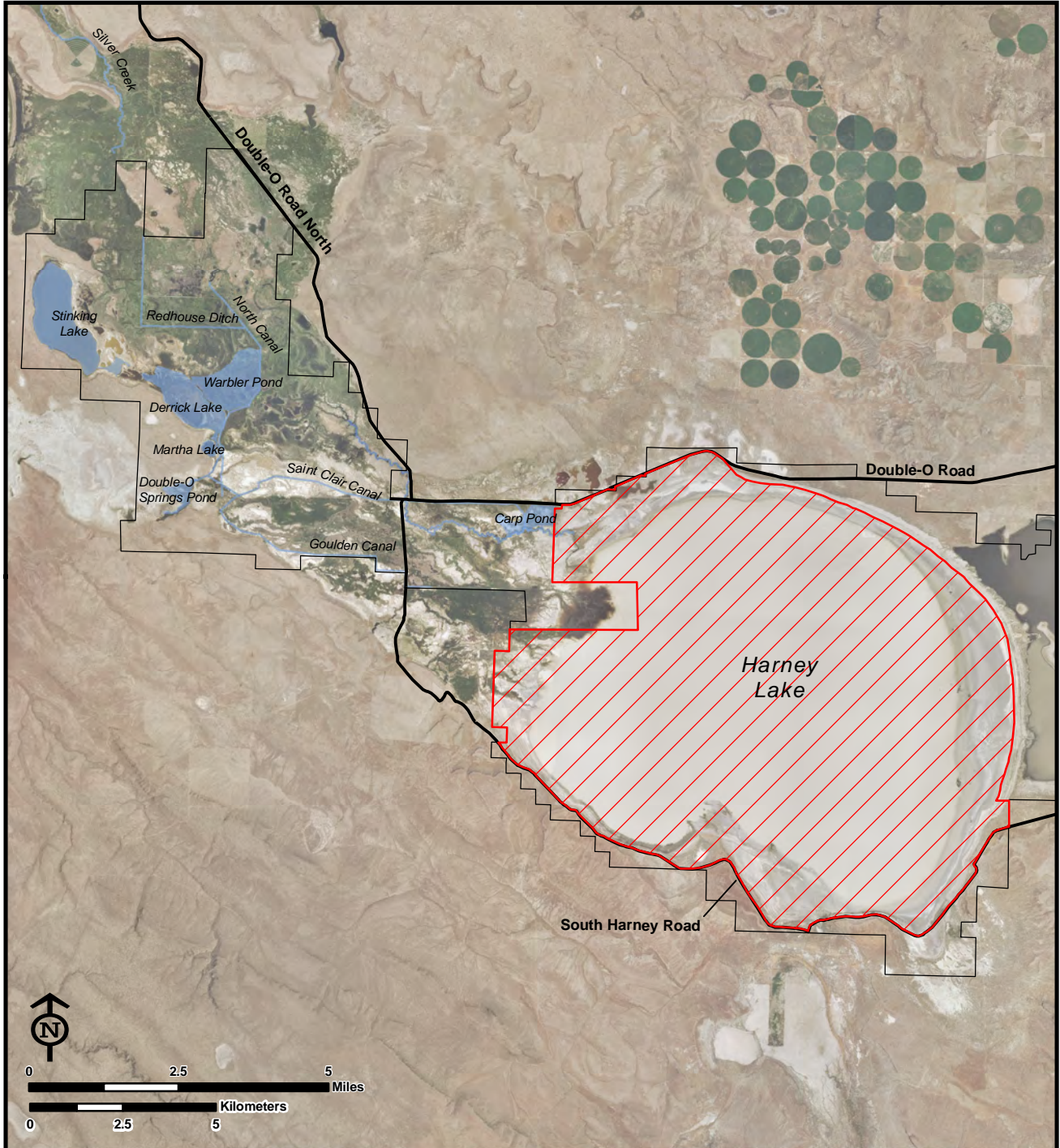


-  Refuge Boundary
-  Research Natural Area
-  Major Rivers, Canals, Ditches, and Tributaries
-  Select Water Bodies

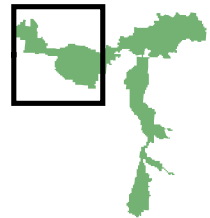


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- Refuge Boundary
- Wilderness Study Area
- Major Rivers, Canals, Ditches, and Tributaries
- Select Water Bodies



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