

Appendix H: Land Use and Environment Chapter Background

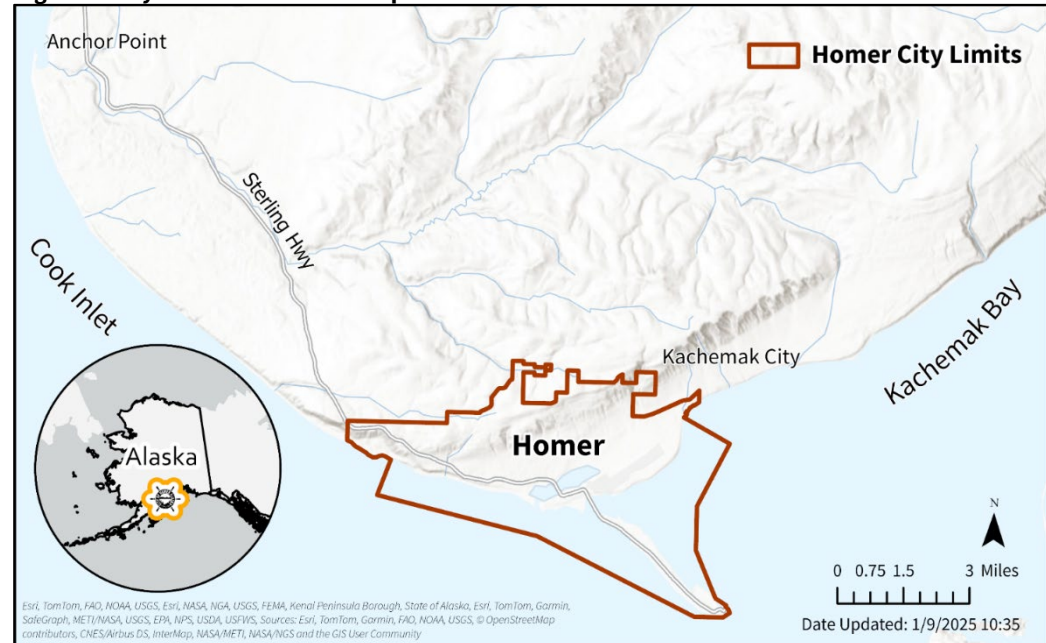
Supplemental Maps

This appendix provides a series of supplemental maps that informed development of the Future Land Use Map and corresponding policies in the Land Use and Environment chapter of the Core Plan. These figures present key background data on land ownership, existing land use patterns, current zoning, and environmental conditions within the City of Homer. Together, they offer geographic context and spatial analysis that supported the planning process.

Figures included in this appendix:

- **Figure 1:** City of Homer Location Map
- **Figure 2:** City of Homer Ownership Map
- **Figure 3:** City of Homer Current Land Uses Map
- **Figure 4:** City of Homer Zoning Map
- **Figure 5:** Environmental Constraints Overlay
- **Figure 6:** Environmental Constraints Overlay: Conditions
- **Figure 7:** Table of Descriptions in Environmental Constraints Overlay: Conditions
- **Figure 8:** Environmental Constraints Overlay: Designations

Figure 1: City of Homer Location Map



These maps represent the best available data at the time of plan drafting and were used to identify development opportunities and environmental limitations across the community.

Figure 2: City of Homer Ownership Map

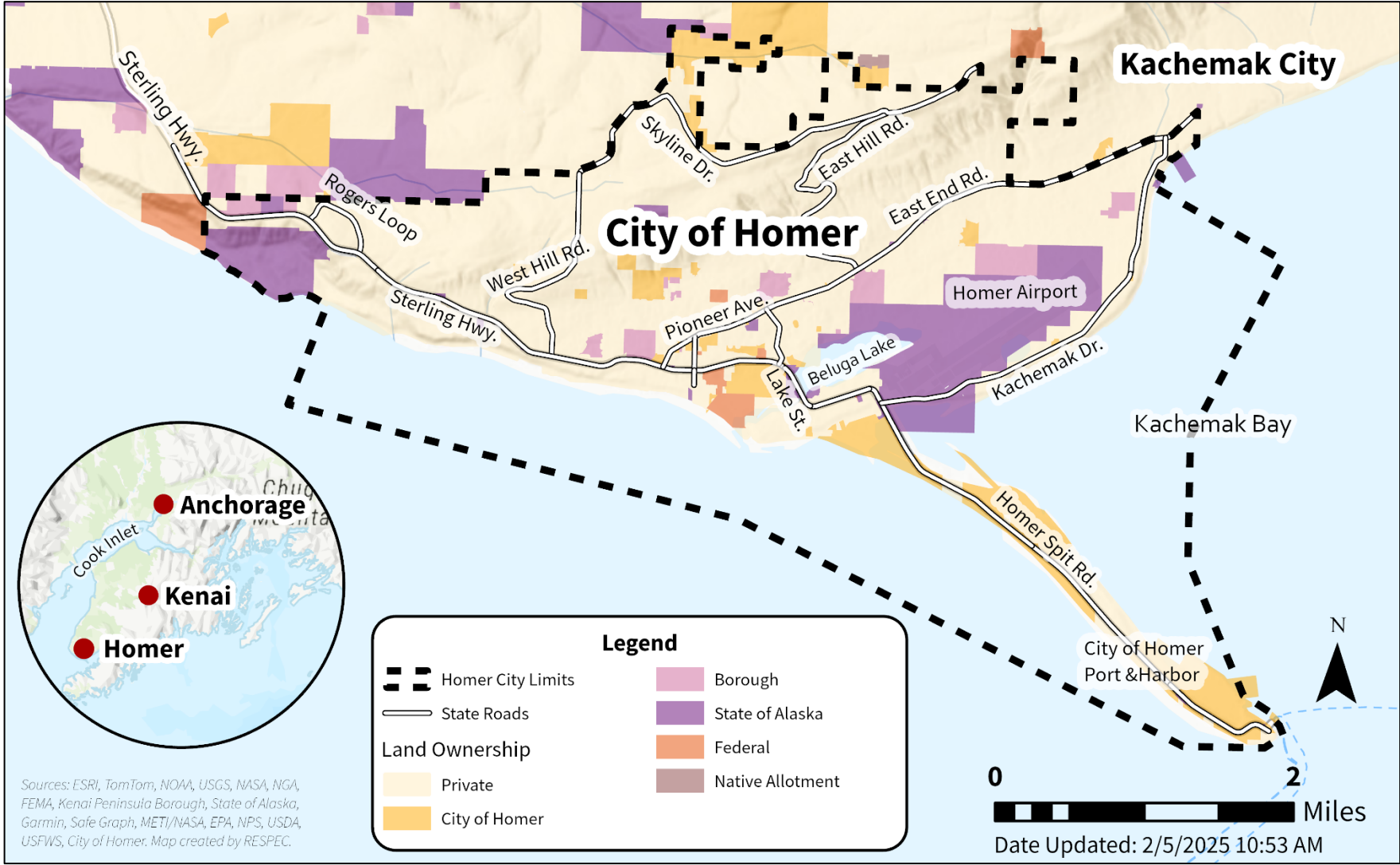


Figure 3: City of Homer Current Land Uses Map

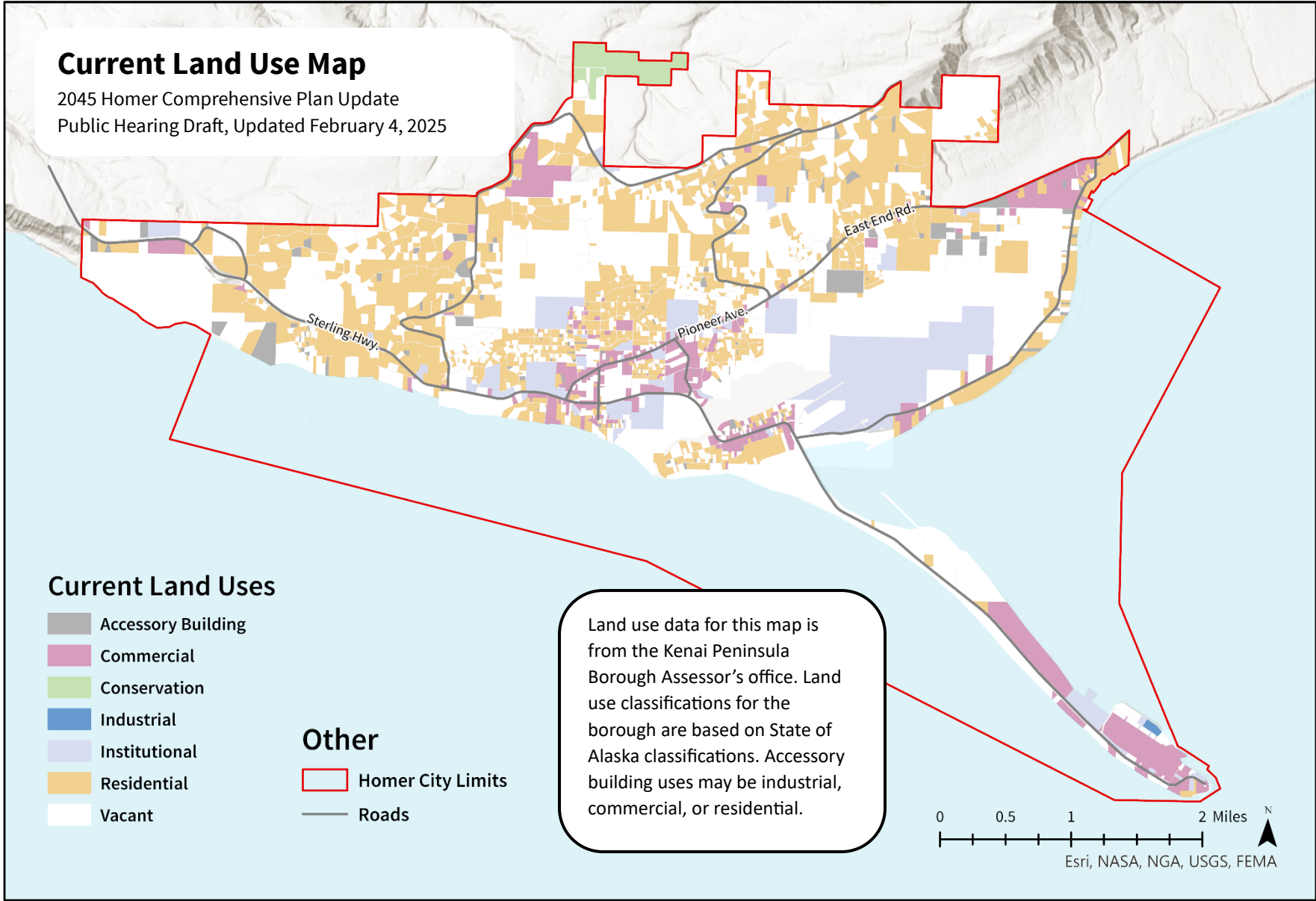
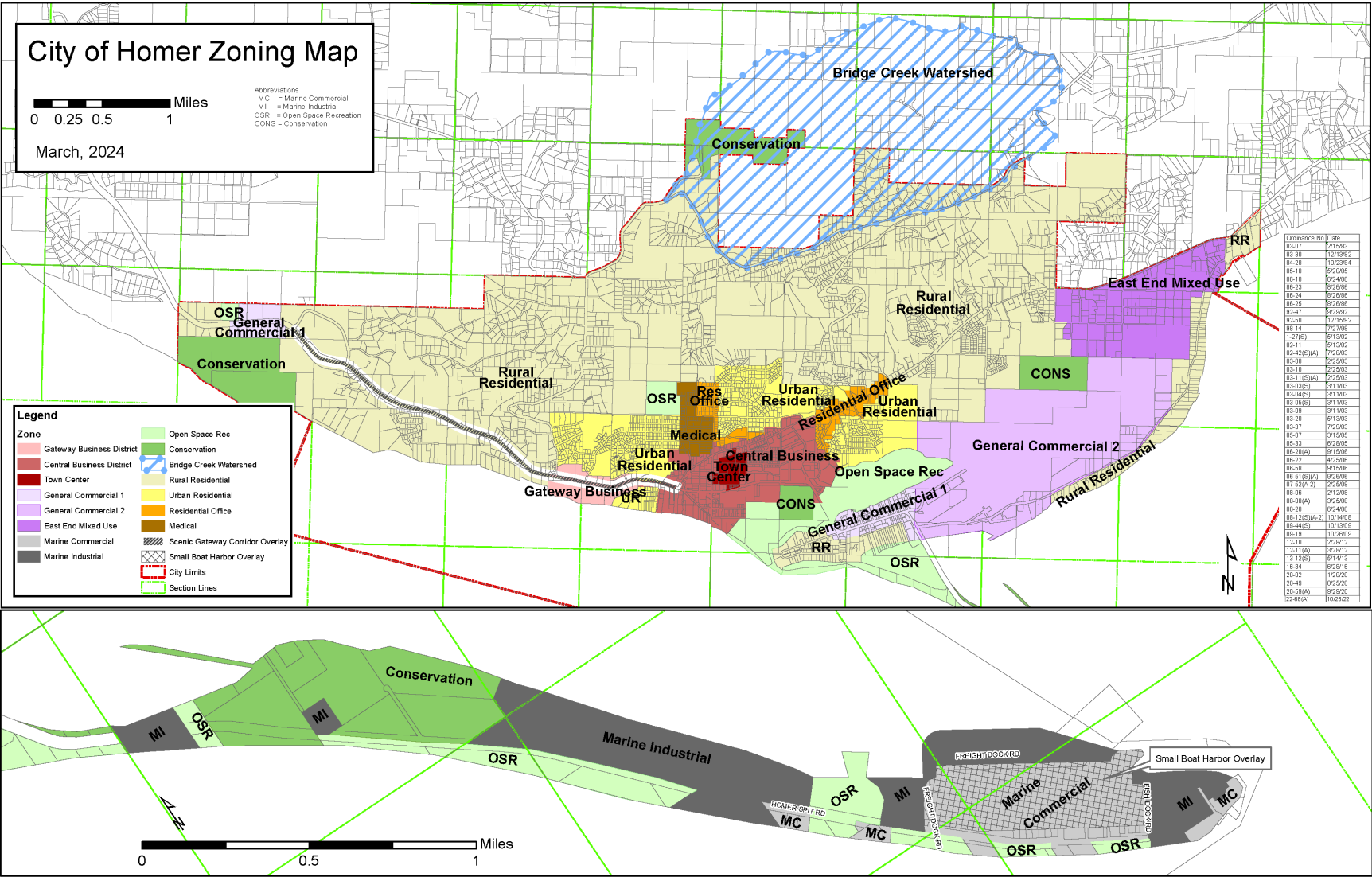


Figure 4: City of Homer Zoning Map



Environmental Constraints Overlay

The Environmental Constraints Overlay is a planning tool developed to support the Future Land Use Map and guide long-term land use policy decisions. It brings together a range of environmental data to illustrate where physical and ecological conditions may present limitations to development or require special consideration. The overlay is organized below into two maps:

- **Conditions** include physical characteristics of the landscape that may pose risks or limitations for development, such as watersheds, steep slopes, scarps, floodplains, hydric soils, and areas of high erosion potential.
- **Designations** include areas that are formally recognized by public entities for conservation or ecological value, such as the Homer Airport Critical Habitat Area.

The Environmental Constraints Overlay accompanies the Future Land Use Map's base designations for the Plan. It provides a general illustration of environmental constraints that may affect development, based on approximate data. **It is not intended to serve as a definitive guide for site-specific decisions.** Detailed technical analysis should be conducted as part of any proposed site development to fully assess conditions. Additionally, users are encouraged to consult the original source data for each mapped constraint; citations for these sources are provided below.

Figure 5: Environmental Constraints Overlay

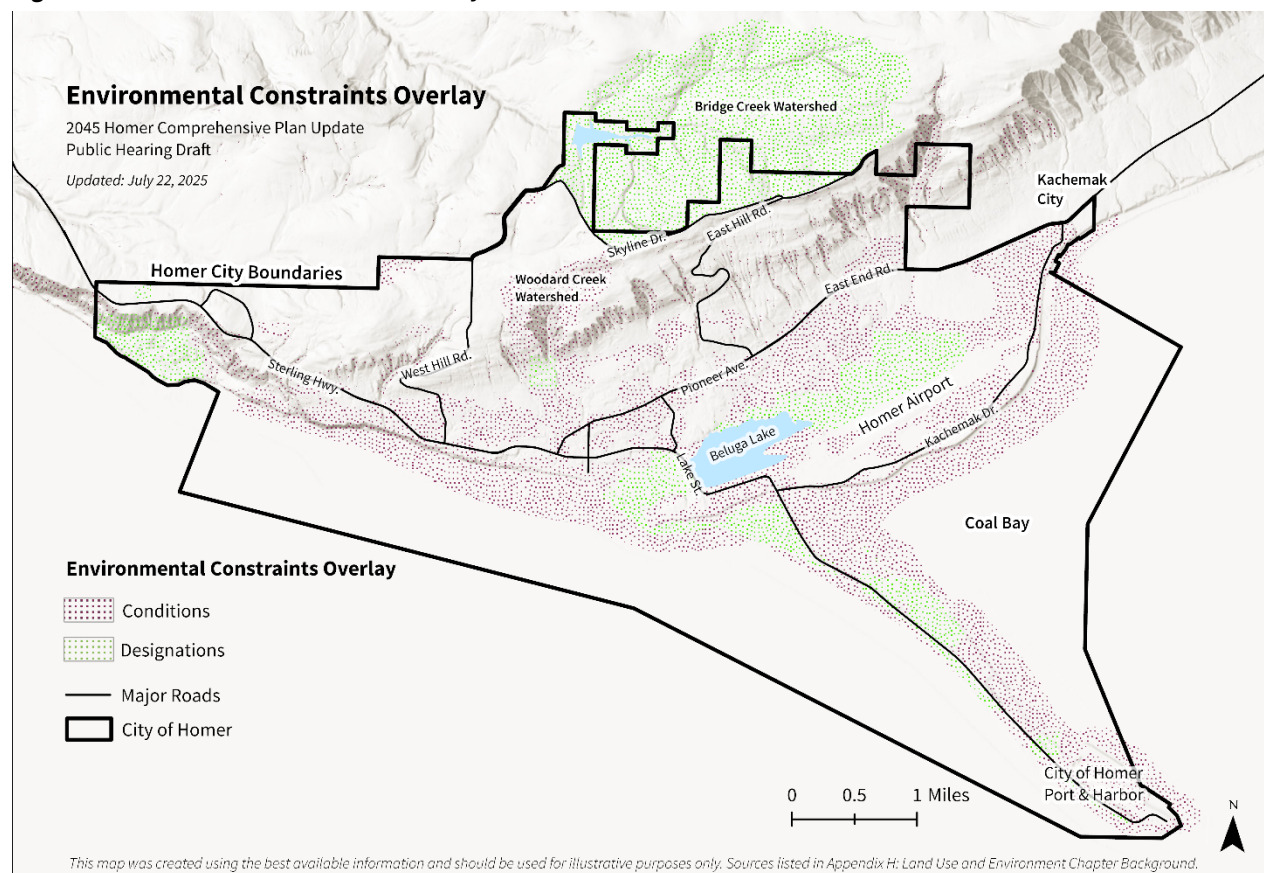


Figure 6: Environmental Constraints Overlay: Conditions

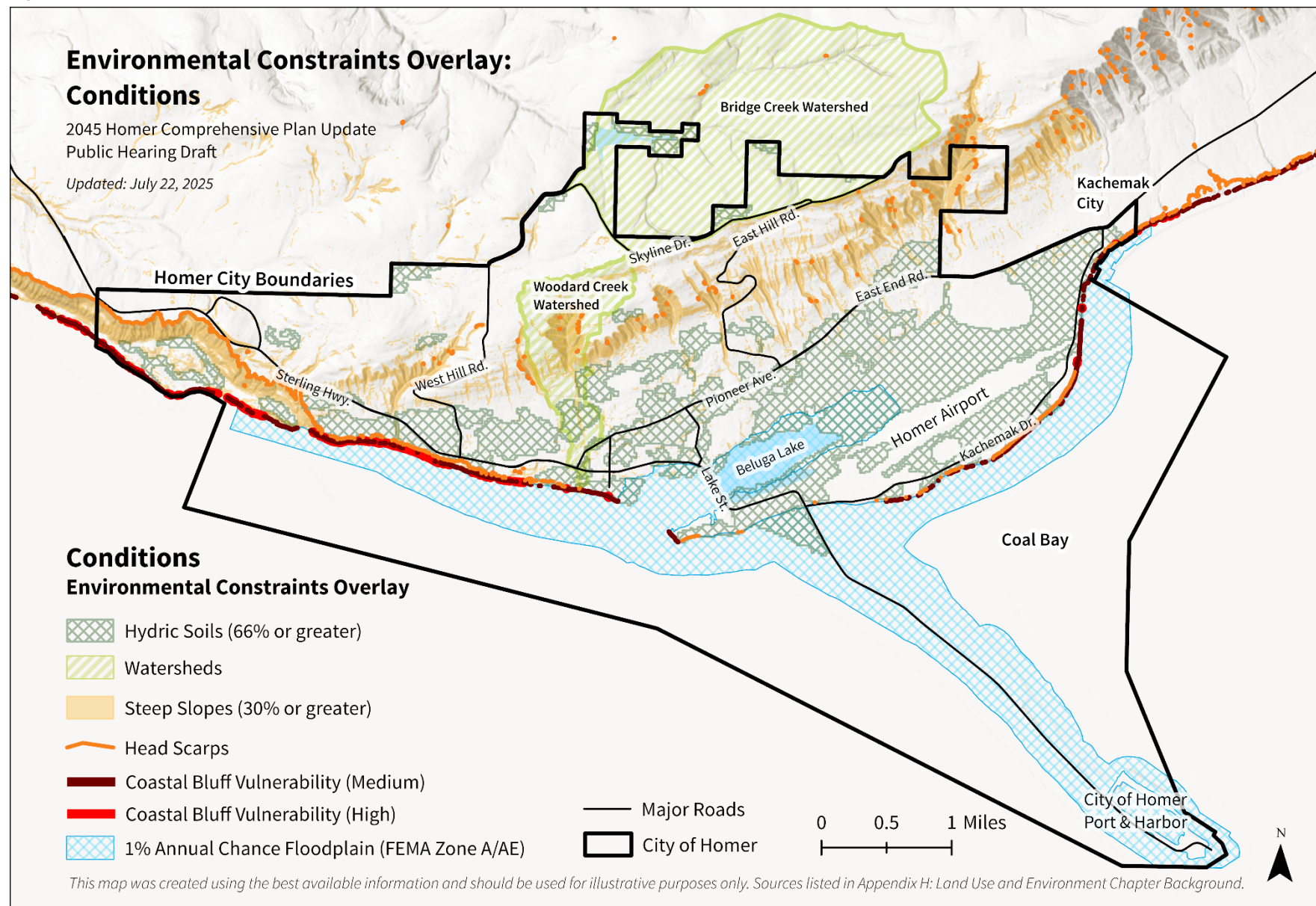
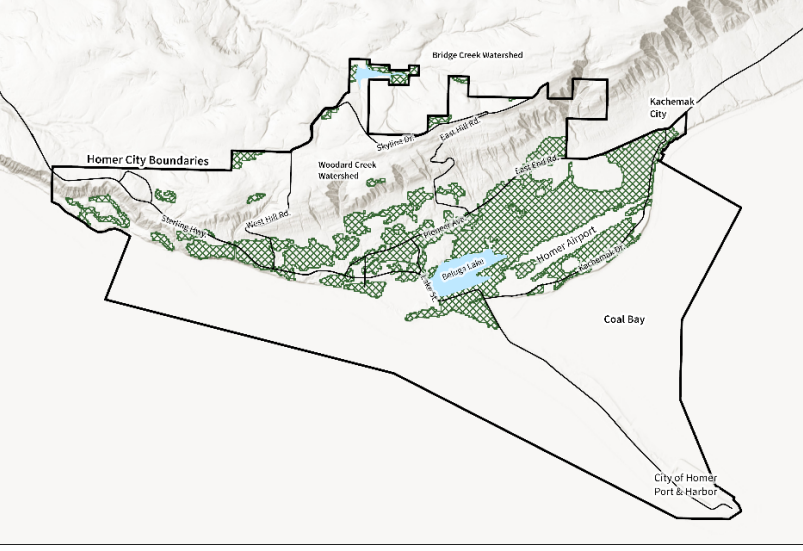
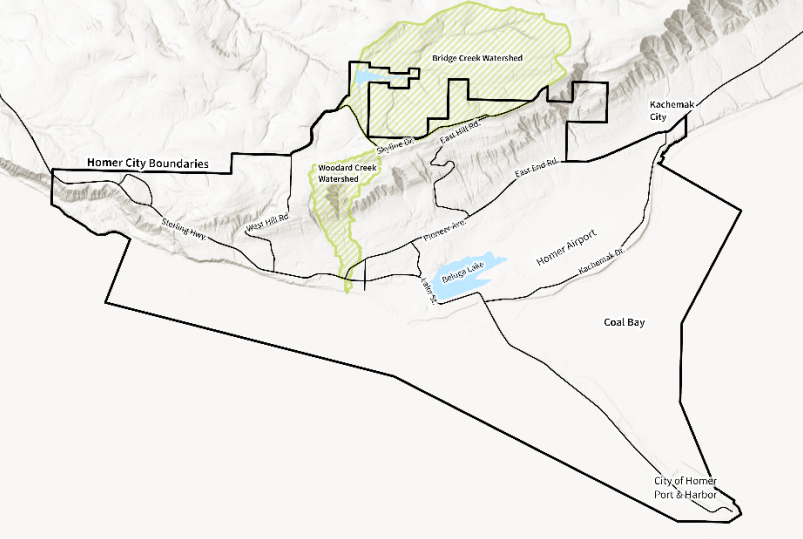
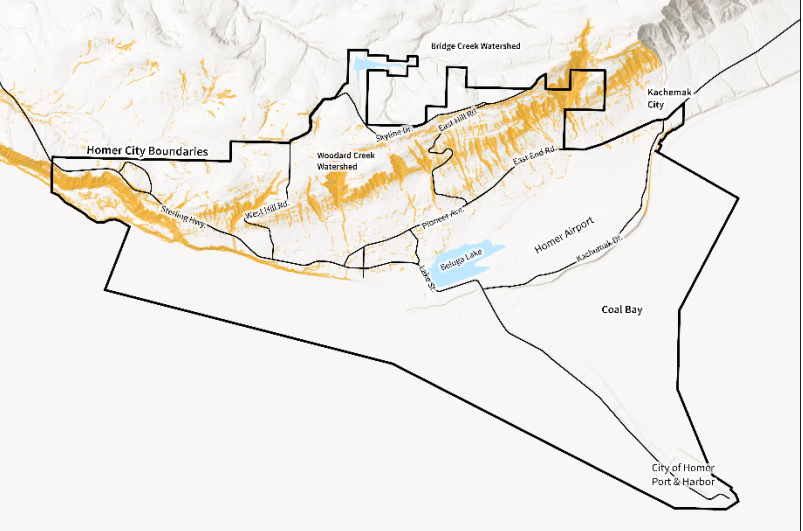
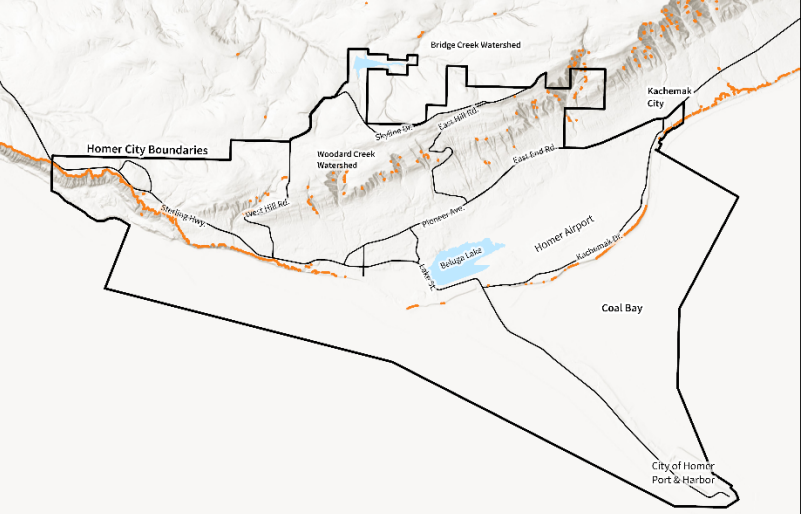


Figure 7: Table of Descriptions in Environmental Constraints Overlay: Conditions

Name, Description, and Source	Map Element
<p>Hydric Soils (66% or greater)</p> <p>The constraints map shows partially (66-90%) and predominantly (more than 90%) hydric soils. Hydric soils are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile. They often signal the presence of wetlands or other areas with limited development potential due to poor drainage, seasonal inundation, or regulatory protections. They also help identify important ecological areas that provide natural water filtration, habitat, and flood mitigation functions.</p> <p>Source: U.S. Department of Agriculture, Natural Resources Conservation Service. (2024). Soil Survey Geographic Database (SSURGO) [Data set]. https://sdmdataaccess.sc.egov.usda.gov</p>	
<p>Watersheds</p> <p>A watershed is an area of land where all the water – whether from rain, snowmelt, or streams – drains into a common outlet, such as a bay or river. In Homer, key watersheds include Bridge Creek, which supplies the city's drinking water, and Woodard Creek, which flows through downtown and into Kachemak Bay. These watersheds are vital for maintaining water quality, managing stormwater, and supporting fish habitats.</p> <p>Source: City of Homer. (2024). <i>Watershed Boundaries</i> [GIS data]. City of Homer GIS Department. Retrieved from https://www.cityofhomer-ak.gov</p>	

Name, Description, and Source	Map Element
<p>Steep Slopes (30% or greater)</p> <p>This layer highlights areas where the land surface rises sharply – slopes of 30 percent or more. Steep slopes can signal places where development may be more difficult due to poor soil stability, erosion potential, and increased costs. They can also indicate areas at higher risk of landslides. For more detailed landslide information in Homer – including mapped debris flows and slope failure zones – see the <i>2024 Landslide Hazard Susceptibility Mapping in Homer, Alaska</i> report. <i>Note that the study focuses on smaller-scale landslides and does not assess large landforms like the Bear Creek alluvial fan, which may also present risks.</i></p> <p>Source: Developed from: Esri. (n.d.). <i>Terrain - Slope Percent</i> [Data set]. ArcGIS Living Atlas. Retrieved [insert retrieval date], from https://www.arcgis.com/home/item.html?id=304e82c39ca14273b41c26f07e692e93</p>	
<p>Head Scarps</p> <p>This layer shows the mapped upper edges of past landslides – known as head scarps – identified through high-resolution lidar analysis by the Alaska Division of Geological & Geophysical Surveys. These features mark the original failure points of slope movements and may indicate areas of ongoing or future instability, even when no landslide deposits are visible on the surface. In Homer, head scarps are often found in steep upland areas and coastal bluffs, where they help identify terrain that may not be suitable for development without further geotechnical study.</p> <p>Source: Salisbury, J. B. (2024). <i>Landslide hazard susceptibility mapping in Homer, Alaska</i> (Report of Investigation 2024-3). Alaska Division of Geological & Geophysical Surveys. Retrieved from https://dggs.alaska.gov/pubs/id/31155</p>	

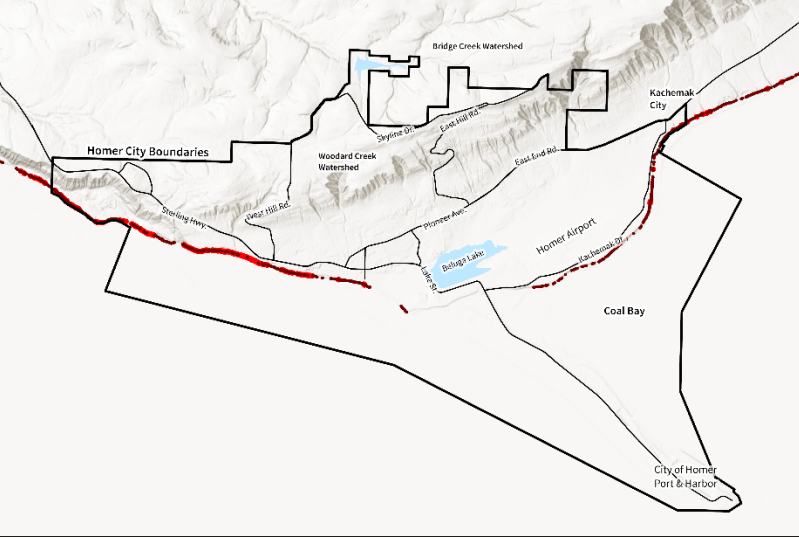
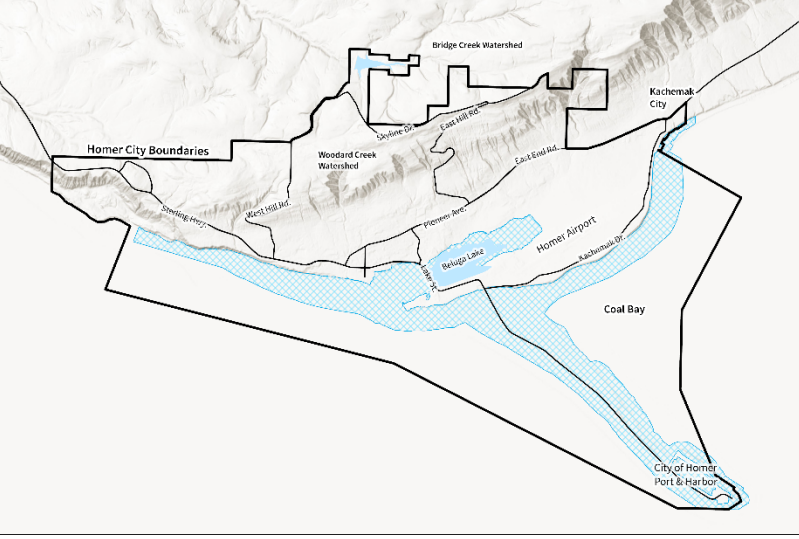
Name, Description, and Source	Map Element
<p>Coastal Bluff Vulnerability</p> <p>This layer shows areas along Homer’s coastline classified as having medium or high vulnerability to bluff instability, based on the 2022 <i>Coastal Bluff Stability Assessment for Homer, Alaska</i> by the Alaska Division of Geological & Geophysical Surveys. These classifications are based on historical erosion rates, bluff height, slope, and the likelihood of future retreat. High vulnerability zones indicate areas where coastal erosion and slope failure are more likely to occur and may pose risks to nearby infrastructure or development. Including these areas on the constraints map helps inform decisions about shoreline development, safe access points, and hazard mitigation.</p> <p>Source: Buzard, R.M., & Overbeck, J.R. (2022). <i>Coastal bluff stability assessment for Homer, Alaska</i>. https://dggs.alaska.gov/pubs/id/30908</p>	
<p>1% Annual Chance Floodplain (FEMA Zone A/AE)</p> <p>This layer identifies areas within Homer that have a 1% annual chance of flooding—commonly known as the “100-year floodplain”—as defined by FEMA’s Zone A and AE designations. These zones represent the highest flood risk areas mapped by FEMA and are often subject to stricter building and insurance requirements. Other FEMA flood zones, such as areas of minimal or undetermined flood risk, are not included here to maintain clarity and emphasize the most critical flood hazard zones for planning purposes.</p> <p>Source: Federal Emergency Management Agency. (n.d.). <i>Digital Flood Insurance Rate Map Database, City of Homer, Alaska, USA</i>. Retrieved from https://catalog.data.gov/dataset/digital-flood-insurance-rate-map-database-city-of-homer-alaska-usa</p>	

Figure 8: Environmental Constraints Overlay: Designations

