Foot passengers and a bicycle on the Seavey Ferry crossing the McKenzie River several miles east of the present-day I-5 bridge, 1914. Photo: Lane County Historical Museum.

Men binding flax near Canby, Oregon in 1939. Photo: Salem Public Library Historic Photograph Database, Salem Public Library, Salem, Oregon.

Southbound Oregon Electric Railway train on High St. between State St. and Court St. in Salem ca. 1930. Photo: Salem Public Library Historic Photograph Database, Salem Public Library, Salem, Oregon.

1910 view facing east of Willamette River and Riverbank Dr. with Kelly Butte to the left, Springfield, Oregon in the distance. Photo: Lane County Historical Museum.

This photograph is an aerial view of Oregon City, the Willamette Falls Lock, and the Willamette River in Clackamas County in 1932. The photograph shows residences and other buildings, and a paper mill with rafts of logs floating in the Willamette River. Photo: Oregon State Archives, Oregon Water Resources Department, OWRS0090.

Paving over street car tracks on Sandy Blvd., Portland 1938. Photo: Oregon State Archives, Oregon Department of Transportation, ORSD06A.

Similar view to the image at left taken in 2001 includes I-5 freeway and Knickerbocker bike bridge. Photo: Mieko Aoki.
The greater the number of people in a place and the greater our use of technology, the more likely that vegetative patterns will be a consequence of human activity. The term land cover is used for features such as forests, grasslands, rivers and streams. Land use refers specifically to human uses of the land. Distinguishing between land use and land cover may be difficult, depending on the source of information about a place. For example, in a heavily wooded residential area, satellite imagery may detect the dense canopy of trees (land cover) above, but not the homes (land use) beneath. In order to plan effectively, citizens need knowledge of both ways of thinking about land, as well as how the two interact in specific places over time. This chapter begins with information on three major factors that influence land use and land cover: roads, land use zoning, and land ownership. It ends by mapping land use and land cover circa 1990 over the entire Willamette Basin, using 65 different land use/land cover categories. These same categories are used in the next chapter to characterize the historical and alternative future landscapes in the basin. Thus, they form an important set of descriptors of the basin as it changes over time.

Roads are a signature of human occupancy of the land. They are also a major influence on where future land development will occur. As accessibility increases, land use changes to take advantage of the increased capacity. As of 1990, less than 1.5% of the basin, or about 110,000 acres, was more than a mile from roads mapped by the Oregon Department of Transportation. On average, there are 3.8 miles of road for every square mile of land in the basin.

Zoning maps show the types of activities (potential land uses) permitted in locations. Zoning designations are an integral part of Oregon’s statewide land use planning program. All communities are required to develop a local comprehensive plan consistent with 19 statewide planning goals. These goals call for the identification and conservation of agricultural lands, safeguarding forested lands for forest uses, identifying important natural resource areas, as well as designating urban growth boundaries and defining areas for future urban expansion. Large portions of the basin are zoned for exclusive forest use (64% of the total area in the basin) or farm use (25%), reflecting the emphasis on these land uses in the statewide goals and the remarkable productivity of basin lands for farm and forest uses. Only 6% of the basin falls within 1990 urban growth boundaries and an additional 3.5% is zoned as of 1990 for rural residential use.

Land ownership also has a significant influence on how land is used and managed. Different policies and regulations frequently apply to areas with different ownerships and uses. For example, the Northwest Forest Plan applies only to federally managed forest land. Sixty-one percent of the basin area outside urban growth boundaries is privately owned (19% in industrial forest), 38% federal, 1% state, and 0.2% owned by Native Americans.