

# Chapter 4: Supplemental Material for NRI Data Collection Instructions

2017



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## 4.1 Glossary of Key Terms

### National Resources Inventory: 2017 Annual NRI

**1997 PSU Support Map:** Acetate map; seldom scaled, not rectified; no permanent photo background; original photobase or 35mm slide may not be available; 97 data collection conditions cannot be reconstructed.

**Actual scale.** The ratio that describes the linear size relationship between an aerial photograph or map and the ground distance that the photograph or map represents. [NRI–2000]

**Aerial photograph.** Analog imagery taken from an airplane. Sometimes called aerial photo or air photography. [IDRS]

**All other land.** A cover/use category used to classify rural land that does not meet the specifications for any of the other specific cover/use categories. [NRI–92]

**Analog.** Film-based source data and procedures for collecting information from film-based products. [NRI–2000]

**Aquaculture in a crop rotation.** A land cover/use category that includes aquaculture in rotation with crop production. Includes rotations, such as crayfish farming after rice production or soybeans rotated after catfish (planted in drained catfish ponds). [NRI–92]

**Barren land.** A land cover/use category used to classify lands with limited capacity to support life and having less than 5 percent vegetative cover. Vegetation, if present, is widely spaced. [NRI–87] The minimum size requirement for barren land types (with the exception of riverwash and beaches) is an area 1 acre or greater and at least 100 feet wide. Riverwash and beaches must be at least 1 acre in size, but have no minimum width. [NRI-2006]

- Typically, the surface of barren land is sand, rock, exposed subsoil, or salt-affected soils. Subcategories include salt flats, sand dunes, mud flats, beaches, bare exposed rock, quarries, strip mines, gravel pits, borrow pits, river wash, oil wasteland, mixed barren lands, and other barren land. [NRI–92]

**Barrier (WEQ).** A continuous strip or row that will stop saltation. It has sufficient height to reduce downwind velocity at the soil surface for a distance of 10 times the barrier height (10H). A barrier may be vegetative or non-vegetative, such as a field windbreak (trees), a row of tall grass, or a snow fence. A continuous stand of tall grass or trees in a pasture is also a barrier. [NRI–2001]

**Bay.** A recess in the shore or an inlet of a sea between two capes or headlands, not as large as a gulf, but larger than a cove. [USACE, 1984]

**Beach.** A barren land category. Includes the area adjacent to the shore of an ocean, sea, large river, or lake that is washed by the tide or waves. [NRI–92]

**Berries.** A land cover/use category under horticultural cropland. Includes cranberries (grown in bogs) and strawberries. [NRI–92]

**Borrow pit.** A use category under the land cover category of barren. [NRI–92]

**Braided channels.** In streams having highly variable discharge and easily eroded banks, sediment gets deposited to form bars and islands that are exposed during periods of low discharge. In such a stream the water flows in a braided pattern around the islands and bars, dividing and reuniting as it flows downstream. Such a channel is termed a braided channel. During periods of high discharge, the entire stream channel may contain water with the islands covered to become submerged bars. During such high discharge, some of the islands could erode, but the sediment would be re-deposited as the discharge decreases, forming new islands or submerged bars. Islands may become resistant to erosion if they become inhabited by vegetation. [From - River Systems and Causes of Flooding, Professor Stephen A. Nelson, Tulane University <http://www.tulane.edu/~sanelson/geol204/riversystems.htm>]

**Buffer.** A row or area of plants that is capable of trapping soil particles moving, by the force of the wind, along the land surface. [NRI-97]

**Bush fruit.** A use category under the land cover category horticultural cropland. [NRI-92]

**Canal.** An artificial waterway used for irrigation. [NRI-97]

**Close grown crops.** Crops that are generally drill-seeded or broadcast, such as wheat, oats, rice, barley, and flax. [BS-1982]

**Commercial Solar Arrays:** Any ground mounted solar panel installation, whether a fixed angle system or a single or double axis tracking system, associated with a commercial/industrial enterprise. Excluded are arrays that, via photointerpretation, are clearly associated with agricultural operations.

**Conservation Practice.** A specific treatment, such as a structural or vegetative measure, or management technique commonly used to meet specific needs in planning and implementing conservation, for which standards and specifications have been developed. Conservation practices are in the Natural Resources Conservation Service's Field Office Technical Guide, Section IV, which is based on the National Handbook of Conservation Practices. [NPPH-98] The practices recorded for NRI have been applied to the area of land in which the NRI point falls or the portion of the field that would be used in conservation planning. The point need not fall on a specific practice. [NRI-97] Each state determines which national practice standards will be adapted for use in their state and issues them as state conservation practice standards in Section IV of the Field Office Technical Guide. The state adds technical details and minimum standards for practice application. This guide should be referenced for state-specific practice information. Practices reported as applied for the point must meet the minimum standards established in the published state practice standards.

**Conservation Reserve Program (CRP).** A voluntary program that offers annual rental payments and cost-share assistance to establish long-term resource-conserving covers on eligible land. [FSA]

**Conservation Reserve Program land.** A land cover/use category that includes land under a general CRP contract. [NRI-97]

**Conservation Treatment Unit (CTU).** A field, group of fields, or other land parcels of the same land use and having similar treatment needs and planned management. A CTU has definite boundaries, such as fence, drainage, vegetation, topography, or soil lines. [NRI\_05]

**Continuous resources inventory.** An Annualized data collection effort in which a portion of the national (foundation) set of PSUs are inventoried to examine current and emerging natural resource concerns and issues. The sample consists of a group of core PSUs that are inventoried every year and a second group of PSU's that are inventoried on a rotational basis (rotation sample) [NRI-2003]

**Core PSU.** A PSU that is part of the panel sample of PSUs that are designed to be observed every survey year. [NRI-2003]

**County or Parish.** See Ownership

**Cover and management factor (C factor - USLE).** The ratio of soil loss from an area with specific cover and management to that from an identical area in tilled continuous fallow. [AH-537]

**Critical wind erosion period (WEQ).** Period of the year when most of the erosion from unprotected fields can be expected to occur. [NAM]

**Cropland.** A land cover/use category that includes areas used for the production of adapted crops for harvest. Two subcategories of cropland are recognized: cultivated and noncultivated. Cultivated land comprises land in row crops or close-grown crops and also other cultivated cropland; for example, hayland or pastureland that is in a rotation with row or close-grown crops. Noncultivated cropland includes permanent hayland and horticultural cropland. [NRI-97]

**CRP.** See Conservation reserve program.

**CTU.** See Conservation treatment unit.

**Current survey year sample.** The group of core and rotation PSUs selected for observation for the present NRI survey year. [NRI-2003]

**DataView** refers to a virtual worksheet of historic data

**Deepwater habitats.** Permanently flooded lands lying below the deepwater boundary of wetlands. These habitats include environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the predominant organisms live, whether or not they are attached to the substrate. [Cowardin et al. 1979]

**Digital orthophoto quadrangle (DOQ).** USGS digital product derived from high altitude aerial photography. These digital images are rectified and registered to locations on the earth and cover approximately one quarter of a 7.5-minute quadrangle. Also called digital orthophoto quarter quadrangle, DOQQ, and 3.75-minute DOQ. [USGS]

**Digital raster graphic (DRG).** A scanned image of a U.S. Geological Survey (USGS) standard series topographic map, including all map collar information. The image inside the map neatline is georeferenced to the surface of the Earth and fit to the Universal Transverse Mercator projection. The horizontal positional accuracy and datum of the DRG matches the accuracy and datum of the source map. The map is scanned at a minimum resolution of 250 dots per inch. [USGS]

<http://remotesensing.org/geotiff/geotiff.html>

**Digital.** Source and information extraction processes based on the use of digital data. [NRI–2000]

**Ditch.** A long, narrow trench or furrow dug in the ground, as for irrigation. [NRI–97]

**Double cropping.** The farming practice where more than one crop is grown for harvest in the same year on the same land. Double cropping requires that a second crop is planted and harvested the same calendar year. Usually the succeeding crop is planted at or near harvest time of the earlier crop. This includes the growing of grain or row crops under or between orchard or vineyard rows. [NRI–97]

**Eligible areas:** Areas that include (but not limited to) airports; apartment buildings, row houses, and adjacent parking areas; cemeteries; dams, spillways, and levees; gas stations; golf courses; institutional sites; industrial/commercial sites; parking facilities; playground areas and parks; public administration sites; sanitary landfills; and sewage treatment plants. [NRI-05]

**Eligible Area types include (but are not limited to) the following:**

**Airports:** Include the runways, taxiways, hangars, terminals, parking lots, and other buildings associated with the airport as an eligible area. For an airport to be an eligible area, the runway must be composed of *impermeable material*. Also include areas that are maintained and adjacent to the previously named airport features. For airports under construction, include areas where foundations and/or paved runways can be identified as part of the eligible area. *Airplane landing strips composed of permeable material are not eligible areas.* [NRI-05]

**Apartment buildings, row houses, and adjacent parking areas:** In addition to including the structures and associated parking lots and parking garages, include adjacent maintained areas (typically mowed or landscaped) in the eligible area. Where construction is underway, include areas where one or more foundations can be observed and distinguished from eligible structures. [NRI-05]

**Cemeteries:** Include the areas with headstones or mausoleums and other maintained areas adjacent to the areas being actively used for or reserved for burial. There is no minimum size.

**Dams, spillways and levees:** Dams, spillways, and levees that are hard-surfaced (not earthen) are considered eligible areas. However, some earthen structures are considered eligible areas too. Include all earthen dams associated with large waterbodies (40 acres or greater) and large streams (660 feet or greater in width) as eligible areas. Also include other dams greater than 300 feet in length as eligible areas. However, never include earthen dams as eligible areas when the waterbody is less than 40 acres. That part of an earthen levee that borders an eligible area is considered part of the eligible area. Earthen levees, not classified as eligible areas, covered by public roads are classified as transportation. All other levees that are earthen are given land cover/use of the vegetation covering the levee. [NRI-07]

**Gas stations:** Include the store, if present, repair garage, gas pumps, and associated hardened surfaces as eligible areas. Also include associated maintained areas (typically mowed or landscaped) in the eligible area. [NRI-05]

**Golf courses:** Include the fairways, greens, bunkers, traps, buildings and associated maintained areas as eligible areas. [NRI-05]

**Institutional sites:** Include churches, schools (including playgrounds), hospital, museums, civic centers, and other public service areas as eligible areas. Also include associated maintained areas (typically mowed or landscaped). Where construction is underway, include areas where one or more foundations can be observed and distinguished from eligible structures. [NRI-05]

**Industrial/commercial sites:** Include downtown areas, shopping malls and centers, strip shops/businesses, lodging facilities, resorts, marinas (excluding areas over permanent water), manufacturing buildings and plants, warehouses, docks and port facilities, truck terminals, railway yards and tank farms as eligible areas. Also include adjacent parking facilities and maintained areas (typically mowed or landscaped). Where construction is underway, include areas where one or more foundations can be observed and distinguished from eligible structures. [NRI-05]

**Parking facilities:** Include parking garages and both paved and unpaved parking lots as eligible areas when not associated with other eligible areas. [NRI-05]

**Playground areas and parks:** Playgrounds with permanent structures are eligible areas. Include portions of parks that are developed to allow access and use. Include parking facilities, picnic areas, swimming areas, offices, toilets, and sports areas. Also include associated maintained areas (typically mowed or landscaped). [NRI-05]

**Public administration sites:** Include buildings devoted to the support of federal, state, city, or other local government business as eligible areas. Areas to include are courthouses, city halls, police and fire stations, public highway administration buildings, highway machinery areas, and state and federal fish hatcheries. Post offices and federal administrative buildings in urban areas are included as eligible areas. Also include associated maintained areas (typically mowed or landscaped). [NRI-05]

**Sanitary landfills:** Include the area of the landfill that is actively being used in operations as an eligible area. Also include associated maintained areas (typically mowed or landscaped). If the landfill has been partially reclaimed, assign the reclaimed area to the appropriate non-eligible area land cover/use. Include the disturbed areas when digitizing the eligible area. [NRI-05]

**Sewage treatment plants:** Include the hard-surface areas as eligible areas. Also include associated maintained areas (typically mowed or landscaped). Lagoons that appear to be only storing solids and not actively involved in treatment are also included as part of the eligible area. [NRI-05]

**Eligible structures:** Single-family, duplex, triplex, and 4-plex residences, foundations of residences under construction, and pads used to site house trailers. [NRI-05]

**Estuary.** A perennial tidally influenced body of water existing where a river meets the sea. Ocean water is at least occasionally diluted by freshwater. [NRI-97]

**Emergency Wetland Reserve Program (EWRP).** A USDA program initiated following the Midwestern floods of 1993 to purchase easements on severely flood-damaged lands that are re-established as wetlands. [NFSAM-96]

**Ephemeral stream.** Generally a small stream, or upper reach of a stream, that flows only in direct response to precipitation. It receives no protracted water supply from melting snow or other sources and its channel is above the water table at all times.[SSM]

**Exclusion areas:** Areas completely surrounded by eligible areas within the segment boundary, but not meeting the definition for eligible areas. The exclusion areas within eligible areas are typically non-maintained areas of forest land, scrub shrub land, or grasslands. Other types of area data (e.g., waterbodies, streams, islands, public roads, and eligible structures) are delineated using their corresponding protocols.

**Fallow.** Cropland which has been left idle, either tilled or untilled, during the whole or greater portion of the growing season. [SCSA]

**Farmsteads and ranch headquarters.** A land cover/use category (code 400) that includes dwellings, outbuildings, barns, pens, corrals and feedlots next to buildings, farmstead or feedlot windbreaks, and family gardens, lawns, driveways, and parking areas associated with operating farms and ranches. (Areas not considered a part of farmsteads and ranch headquarters include overnight pastures for livestock, field windbreaks, and commercial areas including feedlots, greenhouses, and poultry and other confined livestock facilities.) [NRI–2003]

**Federal.** See Ownership

**Field.** A cultivated expanse of land that is marked out for a particular crop or cropping sequence. [NRI–97]

**Forest land.** A land cover/use category that is at least 10 percent stocked by single-stemmed woody species of any size that will be at least 4 meters (13 feet) tall at maturity. Also included is land bearing evidence of natural regeneration of tree cover (cutover forest or abandoned farmland) and not currently developed for non-forest use. Ten percent stocked, when viewed from a vertical direction is a canopy cover of leaves and branches of 25 percent or greater. The minimum area for classification of forest land is 1 acre, and the area must be at least 100 feet wide. [NRI–92]

**Forest land, grazed.** A category under forest land cover/use that includes forest land that is being grazed by livestock and managed using range or pasture management principles and practices adapted to the forest ecosystem. [NRI–97]

**Forest land, not grazed.** A land cover/use category that includes areas meeting the definition of forest land (at least 10 percent stocked by single-stemmed woody species of any size that will be at least 4 meters [13 feet] tall at maturity) that is not visibly grazed or otherwise disturbed by domestic livestock. [NRI–97]

**Forest plantation.** Land used for the production of trees for commercial purposes where the vegetative community has been planted by human activity or is even-aged because of clear cutting. Forest plantations will typically be characterized by uniform stands of trees usually site prepared and planted in rows or blocks and with uniform crown heights. The plantations usually will consist of an even-aged stand of single species, or the plants will all be about the same size and general shape. Forest plantations are considered a separate category from fruit and nut orchards, bush fruits, vineyards, or other tree or shrub stands used to grow edible produce. These types would be classified under

Cropland, Hayland, or CRP (LCU code 0). Agro-forestry and tree plantations planted to specialty uses and provided a high level of management, such as Christmas trees, oils, fiber, flower, specialty woods, and bio-fuel are classified as "404 Other land in farms". \*\*\*"04 is now "Xmas trees, agro-forestry" [NRI-2005]

**Forest type.** A classification of forest land based on the species presently forming a plurality of the live tree stocking. [FRUS-97] For NRI forest types are grouped into two major forest type groups (Eastern and Western). [NRI-97]

### **FSA Wetland Categories**

- **Wetland (W).** Includes areas that have a predominance of hydric soils and that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Included in this category are Wetlands farmed under natural conditions: The production of an agricultural commodity on a wetland when allowed by natural conditions, such as drought, without destroying the natural wetland characteristics. For NRI purposes, these are included under the Wetland (W) category for FSA wetland classification. [NFSAM-96].
- **Artificial wetland (AW).** An area that was formerly nonwetland or prior converted cropland, but now exhibits wetland characteristics because of human activities (NFSAM-96). For NRI purposes, this includes irrigation-induced wetland (IW). [NFSAM-96]
- **Farmed wetland (FW).** Wetlands that were manipulated and used to produce an agricultural commodity prior to December 23, 1985, but had not been converted prior to that date and, therefore, are not prior converted croplands. These areas include potholes, playas, and pocosins that still meet specific wetland hydrology criteria, and other wetlands that are seasonally ponded or flooded for an extended period of time during the growing season. [NFSAM-96]
- **Prior converted cropland (PC).** Wetlands that before December 23, 1985, were drained, dredged, filled, leveled, or otherwise manipulated for the purpose of, or to have the effect of, making the production of an agricultural commodity possible. [NFSAM-96]
- **Converted wetland (CW).** A wetland that has been drained, dredged, filled, leveled, or otherwise manipulated, including any activity that results in impairing or reducing the flow, circulation, or reach of water, that makes possible the production of an agricultural commodity without further application of the manipulations described herein if: (1) such production would not have been possible but for such action, and (2) before such action such land was wetland and was neither highly erodible land nor highly erodible cropland. For the NRI, this also includes Commenced Conversions (CC), Third Party Conversions (TP), Minimal effect Conversions (MW), and Converted Wetland to Non-Agriculture (CWNA). [NFSAM-96]
- **Non-wetland (NW).** Land that under natural conditions does not meet wetland criteria (sometimes called upland). Also includes wetlands that were converted to the extent that wetland criteria were not present as of 12/23/85, but were not cropped. [NFSAM-96]

**Grassland.** An area that has at least 50% aerial coverage of grasses, grass-like plants and or forbs. When viewed from a vertical direction there must be less than 30% canopy cover of woody plants that grow to a height of less than 4 meters at maturity and less than 25 % canopy cover of leaves and branches of trees that grow to a height of 4 meters or taller at maturity. The total area coverage of shrubs and trees must be less than 50 %. The minimum area for classification of grassland is 1 acre, and the area must be at least 100 feet wide. [NRI-2005]

**Grassland, defined as Rangeland.** A land cover/use category on which the vegetation is predominately grasses, grass-like plants, and or forbs and defined as rangeland. Includes lands revegetated naturally or artificially when routine management of that vegetation is accomplished mainly through manipulation of grazing. [NRI-2005]

**Grassland, not defined as Rangeland.** A land cover/use category on which the vegetation is dominated by grasses, grass-like plants, and or forbs not defined as rangeland used primarily for the production of introduced or domesticated native forage plants for livestock grazing, erosion control, wildlife habitat or recreation areas. Cultural practices may include periodic tillage, fertilization, mowing weed control and irrigation. This category does not include intensely managed turfgrass areas around home and businesses. [NRI-2005]

**Gravel pit.** A barren land - land cover/use category. An area from which gravel is extracted. [NRI-92]

**Ground cover.** Vegetation, both living and dead, in contact with and covering the soil surface. It is usually expressed as percent of soil surface covered, but sometimes expressed as pounds of biomass. [NRI-97]

**Gulf.** A relatively large portion of sea partially enclosed by land. [ASCE]

**Hayland.** A subcategory of cropland managed for the production of forage crops that are machine harvested. These crops may be grasses, legumes, or a combination. Hayland also includes land in set-aside or other short-term agricultural programs. [NRI-92]

**High Resolution Imagery.** Uncompressed, unrectified reference imagery that includes both the NRI analog photograph (prior to survey year 2015) and the high resolution digital image (survey year 2015 onward).

**Horticultural cropland.** A subcategory of cropland used for growing fruit, nut, berry, vineyard, and other bush fruit and similar crops. Commercial flower operations including bulb and seed production, ornamental cutting, and sales are included. [NRI-92]

**Hydric soil.** A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. [NFSAM-96] See also: <http://www.statlab.iastate.edu/soils/hydric/>

**Hydrophyte.** Any plant growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content [Cowardin et al. 1979]. See National List of Plant Species that Occur in Wetlands: <http://www.nwi.fws.gov/atx/atx/html>

**Imagery.** Visible representation of object and (or) phenomena as sensed or detected by cameras, infrared and multispectral scanners, radar, and photometers. Recording may be on photographic emulsion or on magnetic tape for subsequent conversion and display on a cathode ray tube. [USGS]

**Indian tribal and individual Indian trust lands.** See Ownership

**Intermittent stream.** A stream, or reach of a stream, that does not flow year-round (commonly dry for 3 or more months out of 12); it flows only when it receives a) base flow (i.e. solely during wet periods), or

b) ground-water discharge or protracted contributions from melting snow or other erratic surface and shallow subsurface sources.[SSM]

**Irrigated land.** Land that shows evidence of being irrigated during the year of the inventory or having been irrigated during 2 or more of the last 4 years. Water is supplied to crops by ditches, pipes, or other conduits. Water spreading is not considered irrigation for this inventory. [NRI-92]

**Irrigation delivery system.** The method of delivery of irrigation water to a field from the water source, including (1) canal or ditch, or (2) pipeline. [NRI-97]

- **Canal.** An artificial waterway used for irrigation. [NRI-97]
- **Ditch.** A long, narrow trench or furrow dug in the ground, as for irrigation. [NRI-97]
- **Pipeline.** A conduit of pipe used for the conveyance of water. [NRI-97]

**Irrigation systems, type.** Systems operated by gravity, pressure, or a combination designed to deliver water to a farm or field. Systems recognized are: [NRI-2000]

- **Gravity irrigated.** Water is delivered to the farm and/or field by canals or pipelines open to the atmosphere; and, water is distributed by the force of gravity down the field by: [NRI-92] {Surface irrigation system (border, basin, furrow, corrugation, wild flooding, etc.) or {Subsurface irrigation pipelines or ditches.
- **Pressure irrigated.** Water is delivered to the farm and/or field in pump or elevation induced pressure pipelines; and water is distributed across the field by: [NRI-92] { Sprinkle irrigation (center pivot, linear move, traveling gun, sideroll, handmove, big gun, or fixed set sprinklers) { Micro-irrigation (drip emitters, continuous tube bubblers, microspray or microsprinklers).
- **Gravity and pressure irrigated.** Farm delivery and field distribution of irrigation water are a combination of gravity and pressure facilities. For example, a valve is used to reduce pressurized water delivered to a farm or field for subsequent distribution by a gravity surface irrigation system. [NRI-92]

**Knoll erodibility (WEQ).** The increased potential for erosion by wind on windward-facing slopes that are less than 500 feet long and the increase in slope gradient from the adjacent landscape is 3 percent or greater. [NAM]

**Lagoon-waste treatment.** An impoundment made by excavation or earthfill for biological treatment of animal or other agricultural waste. [NHCP]

**Lake.** A natural inland body of water, fresh or salt, of 40 acres or larger occupying a basin or hollow on the Earth's surface, and which may or may not have a current or single direction of flow. [NRI-97]

**Land Cover/Use** is a term that includes categories of land use and land cover. Land cover is the vegetation or other kind of material that covers the land surface. Land use is the purpose of human activity on the land; it is usually but not always related to the land cover. The NRI uses the term Land Cover/Use to identify the categories that account for all the surface area of the United States. Cropland, for example, is basically a land use category that includes a variety of land covers (grass, trees, shrubs, bare soil, small grains, etc.); it is classified primarily by its use and secondarily by its cover. In contrast, forest land is basically a land cover category that includes a variety of uses or multiple concurrent uses; it is classified primarily by its cover and secondarily by its use. The term Land Cover/Use permits land with both crops and trees to be properly assigned to a single, non-overlapping category.

**Large streams.** Perennial streams at least 1/8 mile wide. [NRI-97]

**Large urban and built-up areas.** A land cover/use category (code 700) composed of developed tracts of at least 10 acres - meeting the definition of urban and built-up areas. [NRI-92]

**Large waterbodies.** Waterbodies of at least 40 acres. [NRI-92]

**Legume-grass.** A land cover/use category under hayland, and is composed of a mixture of legumes and grasses. [NRI-92]

**Location Certification Worksheet** is a hardcopy page of notes maintained in folders of certified segments. Its main purpose is to report location certification problems and solutions. It was introduced for the 2005 NRI.

**Map Unit Symbol (MUSYM).** The symbol used to uniquely identify the soil map unit in the soil survey. [NASIS].

**Mean Water Level** – The average elevation of the water surface

**Management period method (WEQ).** A procedure for estimating wind erosion that involves assigning factor values to represent field conditions expected to occur during specified time periods. [NAM]

**Marshland.** A subcategory of the land cover/use Other Rural Land described as a non-forested area of land partially or intermittently covered with water characterized by the presence of monocotyledons, such as sedges and rushes. These areas are usually in a wetland class and are not placed in another NRI land cover/use category, such as rangeland or pastureland. [NRI-92]

**Most recent prior survey year.** The preceding survey year that data were collected for a PSU prior to the current survey year. [NRI-2003]

**Mud flat.** A land/cover use subcategory under barren land. A mud area with less than 5 percent vegetative cover. [NRI-92]

**Municipal.** See Ownership

**National Soil Information System (NASIS).** The National Soil Information System integrates soil survey information, operations, and management. It divides soil survey data into four major categories: 1) map unit records, 2) geographic area records, 3) point characteristics, and 4) standards, criteria, and guidelines. The system also includes ancillary tools, functions, and records to assure the security, integrity, and utility of the soil survey data [NSSH]

**Native pasture.** Pastureland where the climax vegetation is forest, but is used and managed primarily for the production of native plants and forage. Native pasture includes cutover forest land cleared and now managed for native or naturalized forage plants. Native pasture inhibits the natural plant succession to woody plants by mechanical, chemical, or biological methods. [NRI-97]

**Nominal scale.** The designated scale of an aerial photograph that may vary from the actual scale. [NRI-2000]

**Non-standard case** was introduced in the 2005 NRI to distinguish instances of variance from what is expected by protocols. Non-standard cases require advice from RSL Technical Specialists or the Help Desk.

**Normal pool.** The average elevation of the surface of a perennial waterbody. [NRI-97]

**NRI spatial database.** A digital database containing the geospatial locations of PSU boundaries and points compiled and digitized manually from USGS 7.5 minute quad sheets or other source base map materials. The USGS 7.5 minute quad meets a National Map Accuracy Standard of (+ or - 40 feet) at a scale of 1:24,000. [NRI-2003]

**Nurseries.** Nursery production areas

**Nut.** A category under the land cover/use data element of cropland, horticultural crops. [NRI-92]

**Oil wasteland.** A category under the land cover category of barren land. [NRI-92]

**Other cropland not planted.** A category under the land cover category of "Other land". It may include cropland in USDA set-aside or similar short-term programs. [NRI-92]

**Other land in farms.** A land cover/use category that includes land used for field windbreaks, commercial feedlots, greenhouses, nurseries, poultry facilities, and airplane landing strips that are not associated with farmsteads. These areas are not classified as part of cropland, pastureland, rangeland, forest land, barren land, farmsteads and ranch headquarters, or rural transportation. [NRI-92]

**Other rural land.** A land cover/use heading under which are the categories of permanent snow and ice fields, and marshland. [NRI-92]

**Ownership.** The separation of Federal and non-Federal lands and the distinction between administrative units of land; water areas are not classified according to ownership. [NRI-97] The six categories of ownership are:

- **Private (code 1).** A type of ownership pertaining to land belonging to an individual person or persons; e.g., a partnership or corporation (all of which are persons in the legal sense), as opposed to the public or the government; private property. [NRI-97]
- **Municipal (code 2).** A type of ownership pertaining to land belonging to the local government of a town or city. [NRI-92]
- **County or Parish (code 3).** A type of ownership pertaining to land belonging to an administrative subdivision in a State in the United States, which is identified as a county or an equivalent administrative unit in areas where counties do not exist. Examples are parishes in Louisiana and boroughs in Alaska. [NRI-97]
- **State (code 4).** A type of ownership pertaining to land belonging to one of the states, commonwealths, or territories of the United States of America. [NRI-97]
- **Federal (code 5).** A land ownership category designating land that is owned by the Federal Government. It does not include, for example, trust lands administered by the Bureau of Indian Affairs (BIA) nor the Tennessee Valley Authority (TVA). No data are collected for any year that land is in this ownership. [NRI-92]

- **Indian tribal and individual Indian trust lands (code 6).** A type of ownership of land administered by officially constituted Indian tribal or individual Indian trust entities. [NRI-97]
- **Water unspecified (code 7).** Point occurs on perennial open water within a valid PSU; excluded is small water (land cover/use codes 901-912) surrounded by Federal land. Also excluded are small water areas of less than 10 acres that are surrounded by built-up areas and included in urban and built-up areas (land cover/use codes 700 and 730). [NRI-2000]

**Pastureland.** A land cover/use category of land managed primarily for the production of introduced forage plants for livestock grazing. Pastureland cover may consist of a single species in a pure stand, a grass mixture, or a grass-legume mixture. Management usually consists of cultural treatments: fertilization, weed control, reseeding, renovation, and control of grazing. For the NRI, includes land that has a vegetative cover of grasses, legumes, and/or forbs, regardless of whether or not it is being grazed by livestock. [NRI-92]

**Paved road:** Road with a hard surface such as asphalt or concrete. [NRI-05]

**Perennial stream.** A stream or reach of a stream that normally flows continuously throughout the year. [NSSH-96] A natural or artificial watercourse, which continuously contains water and normally flows. [NRI-97]

**Permanent Island.** An area within a waterbody or stream that appears as an island on the image and on the DRG/NHD, or has woody vegetation, or has a stable boundary at mean water level. [NRI-05]

**Permanent open water.** Permanent water includes streams that flow continuously throughout the year and waterbodies where water is normally present for all seasons during the year. Designation as perennial on 7.5-minute quadrangle map or the National Hydrography Dataset (NHD) is evidence of permanence if the PSU Support Map is not definitive. [NRI-05] Historical photography may also be used with local knowledge as evidence of permanence.

**Permanent snow and ice fields:** areas where year-long surface cover of snow and/or ice comprise >25% of the total cover in a 1-acre circle surrounding the NRI point. To be considered as a permanent ice and/or snow field, (1) a 1-acre circle surrounding the NRI point must contain >25% snow and/or ice cover, and (2) the NRI point must meet one of the following permanence requirements: (a) the point must intersect a glacial polygon on a 7.5-minute quadrangle map or in the National Hydrography Dataset (NHD), or (b) the point is in an area where historical photography and local knowledge strongly indicate evidence of permanence [NRI-15].

**Photo feature characteristic.** Several important fundamental characteristics are used for identification of features within a photograph. [RS&II] They include the following:

**Size**—Object size should be considered in the context of the photo scale.

**Shape**—Refers to the general form, configuration, or outline of individual objects.

**Texture**—Frequency of tonal change on the photographic image.

**Tone (or hue)**—Refers to the relative brightness or color of objects on photographs.

**Pattern**—Relates to the spatial arrangement of objects.

**Site association**—Refers to the occurrence of certain feature

**Shadows**—Important to interpreters in two opposing respects:

- The shape or outline of a shadow affords an impression of the profile view of objects, which aids interpretation.

- Objects within shadows reflect little light and are difficult to discern on photographs, which hinders interpretations in relation to others.

**Physical feature.** A landscape or vegetation characteristic that can be detected through remote sensing/photo interpretation and characterized by consistent photo features that indicates a potential for a particular resource concern. [RS&II]

**Pipeline.** See Irrigation Delivery System

**Pond.** A water impoundment made by constructing a dam or an embankment or by excavating a pit or dugout. [NHCP]

**Practice factor (P factor - USLE).** The ratio of soil loss with a support practice like contouring, stripcropping, or terracing, to soil loss with straight-row farming up and down the slope. [AH-537]

**Preliminary PSU and point site map.** A map depicting a representation of geospatial locations of the PSU boundary and points plotted on a DRG or DOQQ background. The source data for this map are the NRI spatial database and USGS DRGs or DOQQs. The scale of the Preliminary PSU and point site map is usually 1:7920 or 1 inch equals 660 feet. [NRI-2003] (See example in Section 4.8 Supporting Materials.)

**Note:** PSU boundaries and points plotted on the Preliminary PSU and point site map do not represent actual data collection locations. Location protocols and procedures must be followed to identify exact data collection locations on this map. This map is used to modify the Preliminary PSU support map to produce the current year PSU support map.

**Preliminary PSU support map.** A map depicting a representation of geospatial locations of the PSU boundary and points plotted on clear mylar. The source data for this map is the NRI spatial database. The scale of the Preliminary PSU support map is usually 1:7920 or 1 inch equals 660 feet. [NRI-2003] (See example in Section 4.8 Supporting Materials)

**Note:** PSU boundaries and points plotted on the Preliminary PSU support map do not represent actual data collection locations. Location protocols and procedures must be followed to identify exact data collection location on this map. This map is used to produce the current year PSU support map.

**Primary sampling unit (PSU).** An area of land, typically square to rectangular in shape, which is approximately 40, 100, 160, or 640 acres in size. Within the PSU, sample points are assigned. Certain data elements are collected for the entire PSU; while others are collected at the PSU points. [NRI-92] The size of the PSU is based on the shape, size, and complexity of the resources being inventoried. In 34 states, PSUs are often 160-acre square parcels measuring 0.5 mile on each side. In the Western United States, PSUs are often 40 or 640 acre square areas; the 40-acre units are used in most irrigated areas, and the larger PSUs are used in relatively homogeneous areas containing large tracts of rangeland, forest land, or barren land. In the 13 Northeastern States, PSUs are defined to be 20 seconds of latitude by 30 seconds of longitude, ranging from 97 acres in Maine to 114 acres in southern Virginia. In Louisiana and portions of northwestern Maine, PSUs are 0.5 kilometer squares (61.8 acres) [NRI-92]

**Note:** The term **Segment** replaced the term **PSU** beginning with the 2005 NRI.

**Private roads.** A category of rural transportation areas that includes logging roads, private roads to farmsteads, and private roads to farm or ranch headquarters. Farm field lanes are not included in rural transportation. [NRI-97]

**Private.** See Ownership

**PSU.** See Primary sampling unit.

**PSU and point site map.** A representative geospatial location of the PSU boundaries and point locations on a DRG background. The map has been verified or corrected to represent the 1997 data collection locations. The map meets national map accuracy standards (+ or – 40 feet) and is usually at a scale of 1:7920 or 1 inch equals 660 feet. This map is used to aid in verifying or correcting the PSU support map and to aid in locating the PSU on the current year photography and is not used as the source for data collection. The source data layers for this map are the USGS DRG or DOQQ and the NRI spatial database. [NRI–2003]

**PSU file folder.** A hardcopy folder and electronic files that include historical PSU location maps (base maps with PSU location information plotted on soil survey maps, field sheets, aerial photographs, and USGS quadrangle sheets), PSU aerial photography, PSU support maps, and other PSU area maps, spatial data, and materials used for resources inventories. [NRI–2003]

**PSU support map.** A map used as a permanent record to document the extent and location of where data elements were collected. A separate PSU support map is created for each PSU. A different PSU support map is created for each new data collection activity for which the PSU is included in the inventory sample. [NRI–92]

**Public road:** Includes Federal highways, state highways, county roads of all types, and the associated roadbed, road shoulder, drainage improvements, rest areas, and remaining rights-of-way. Includes the center median and interchange areas for divided highways. Abandoned public roads that are still in usable condition are included in the public road category. Logging roads and private roads to farmsteads, farm headquarters, or ranch headquarters are not public roads. [NRI-05]

**Railroads.** A category of rural transportation areas that includes all operational rail systems and their right-of-way areas. Abandoned railroad beds are not included as railroad areas. [NRI–97]

**Rangeland.** A land cover/use category that includes land on which the climax or potential plant cover is composed principally of native grasses, grass-like plants, forbs or shrubs suitable for grazing and browsing, and introduced forage species that are managed like rangeland. This would include areas where introduced hardy and persistent grasses, such as crested wheatgrass, are planted and practices, such as deferred grazing, burning, chaining, and rotational grazing, are used with little or no chemicals or fertilizer being applied. Grassland, savannas, many wetlands, some deserts, and tundra are considered to be rangeland. Certain low forb and shrub communities, such as mesquite, chaparral, mountain shrub, and pinyon-juniper, are also included as rangeland. [NRI–97]

**Rectification.** The process by which an image or grid is converted from image coordinates to real-world coordinates. Rectification typically involves rotation and scaling of grid cells, and thus requires resampling of values. [ESRI]

**Reservoir.** A pond, lake, basin, or other space created in whole or in part by the building of engineering structures that is used for storage, regulation, and control of water. [NRI–97]

**Resource concern.** An identified conservation problem used to set quality criteria and treatment needs for a resource management system. NRCS has historically divided major resource concerns into the general resource categories of Soil, Water, Air, Plant and Animal (SWAPA). [NRI-2000]

**Revert** means to nullify a status of a segment in the NRI database. RSL Technical Specialists have password permission to revert in NRI\_Status.

**Revisited rotation PSU.** A rotation PSU that has been selected for observation more than once since the 1997 NRI. [NRI-2003]

**Ridge roughness (K factor - WEQ).** A measure of the effect of ridges made by tillage and planting implements. It is expressed as a decimal from 0.5 to 1.0. [NAM]

**River wash.** A land cover/use subcategory under barren land. Barren alluvial area, usually coarse-textured, exposed along streams at low water and subject to shifting during normal high water. [NRI-2000]

**Rotation length.** The length of time required to grow a complete crop sequence pattern in which crops are grown in recurring succession on the same land. [SCSA]

**Rotation PSU.** PSUs that are not surveyed each year. [NRI-2003]

**Row crops.** A subset of the land cover/use category Cropland (subcategory, cultivated) comprising land in row crops, such as corn, soybeans, peanuts, potatoes, sorghum, sugar beets, sunflowers, tobacco, vegetables, and cotton. [NRI-97]

**Rural transportation land.** A land cover/use category (codes 810-870) which consists of all highways, roads, railroads, and associated rights-of-way outside urban and built-up areas; also includes private roads to farmsteads or ranch headquarters, logging roads, and other private roads (field lanes are not included). [NRI-92]

**Saline deposits.** Precipitated salt crusts or crystals found in or on the soil surface that result in reduced vegetative production or in the elimination of crops and grass on agricultural lands. [NRI-97]

**Saltation.** Soil movement in wind where particles skip or bounce along the soil surface in response to wind forces. Particles ranging in size from 0.1 to 0.5 mm (0.0004 to 0.02 in) usually move in this manner. [NAM]

**Sand dunes.** A land/cover use subcategory under barren land. A sand area with less than 5 percent vegetative cover. An accumulation of loose sand heaped by the wind, commonly found along low-lying seashores above high-tide level, more rarely on the border of large lakes or river valleys, as well as in various desert regions, where there is abundant dry surface sand during some part of the year. (Glossary of Geology, American Geological Institute) [NRI-92]

**Scrub shrub.** Scrub shrub areas must have at least 30% canopy cover of woody plants that grow to a height of less than 4 meters at maturity and less than 25 % canopy cover of trees that grow to a height of more than 4 meters at maturity. The minimum area for classification of scrub shrub land rangeland is 1 acre, and the area must be at least 100 feet wide. [NRI-2005]

**Scrub shrub, defined as Rangeland:** A land cover/use category with significant numbers of woody plants that grow to a height of less than 4 meters at maturity defined as rangeland. [NRI-2005]

**Scrub shrub, not defined as Rangeland:** A land cover/use category with significant numbers of woody plants that grow to a height of less than 4 meters at maturity not defined as rangeland and used for livestock grazing, erosion control, wildlife habitat or recreation areas. This category may include abandoned cropland. [NRI-2005]

**Scrub shrub subcategories (Alaska only) [NRI-2005]**

**Scrub shrub grazed by domestic livestock:**

- Tall Scrub shrub
- Low Mid Shrub
- Alpine Tundra Dwarf Shrub
- Moist Tundra Dwarf Shrub
- Bog Fen Dwarf Shrub

**Scrub shrub not grazed by domestic livestock:**

- Tall Scrub shrub
- Low Mid Shrub
- Alpine Tundra Dwarf Shrub
- Moist Tundra Dwarf Shrub
- Bog Fen Dwarf Shrub

**Segment** (formerly called **Primary sampling unit (PSU)**). An area of land, typically square to rectangular in shape, which is approximately 40, 100, 160, or 640 acres in size. Within the segment, sample points are assigned. Certain data elements are collected for the entire segment; while others are collected at the segment points. The size of the segment is based on the shape, size, and complexity of the resources being inventoried. In 34 states, segments are often 160-acre square parcels measuring 0.5 mile on each side. In the Western United States, segments are often 40 or 640 acre square areas; the 40-acre units are used in most irrigated areas, and the larger segments are used in relatively homogeneous areas containing large tracts of rangeland, forest land, or barren land. In the 13 Northeastern States, segments are defined to be 20 seconds of latitude by 30 seconds of longitude, ranging from 97 acres in Maine to 114 acres in southern Virginia. In Louisiana and portions of northwestern Maine, segments are 0.5 kilometer squares (61.8 acres) [NRI-92] [The term **PSU** was replaced by **Segment** in NRI-2005]

**Segment geometry** refers to the shape of a segment displayed on an image background in NRI\_Collect and NRI\_Certify. Geometry includes the segment boundary and internal sample points; it also includes delineations made in and displayed by NRI\_Collect.

**Slope.** The inclination of the soil surface from the horizontal. [AH-537]

**Slope length.** The distance from the point of origin of overland flow to the point where either the slope gradient decreases enough that deposition begins, or the runoff water enters a well-defined channel that may be part of a drainage network or a constructed channel. For the NRI, length of slope is taken through the sample point. [AH-537]

**Slope percent.** The vertical distance divided by the horizontal distance, than multiplied by 100. [AH-537]

**Small built-up areas.** A land cover/use category (code 730) consisting of developed land units of 0.25 to 10 acres, which meet the definition of urban and built-up areas. [NRI-92]

**Small grain equivalent (SGe).** The wind erosion control equivalent of vegetative cover, compared to a small grain standard. The standard (reference condition) is defined as small grain stalk 10 inches long lying flat on the soil surface in 10-inch rows that are perpendicular to the wind direction, with stalks oriented parallel to the wind direction. The small grain equivalent value is a function of kind, amount, and orientation of growing plants or plant residue on the soil surface. [NAM]

**Small streams.** Perennial streams less than 1/8 mile (660 feet) wide. [NRI-97]

**Soil map unit.** A collection of soil areas or miscellaneous areas delineated in a soil survey (combined individual delineations that are identified by a unique symbol in a survey area represent one soil map unit). [NSSH]

**Soil survey.** The systematic examination, description, classification, and mapping of soils in an area. The USDA-NRCS Soil Survey Program produces Soil Survey Reports, which generally consist of four principal parts: (1) maps, (2) a map legend, (3) a description of soils in the survey area, and (4) a use and management report. The survey area commonly is a single county but may comprise parts of counties, physiographic regions, or other management areas. [NRI-97]

**Source of irrigation water.** The initial source of irrigation water delivered to a field, including (1) well; (2) pond, lake, or reservoir; (3) stream, ditch, or canal; (4) lagoon or wastewater; or (5) combination of sources. [NRI-97]

**State.** See Ownership

**State Soil Survey Area ID (STSSAID).** A concatenation of State alpha FIPS code and the Soil Survey Area ID (SSAID) number. Example: CO017 [NASIS]

**Stream segment.** Within a PSU, a continuous part of a stream that can be described with an average width statement. A stream segment may begin at a PSU boundary or at the confluence of two or more streams. [NRI-97]

**Stream.** A flow of water in a channel or bed, as a brook, rivulet, or small river. [NRI-97]

**Stream type:** Streams are divided into two categories, large or small, for area data collection.

- **Large:** Stream that is at least 660 feet wide. [NRI-05]
- **Small:** Stream that is less than 660 feet wide. [NRI-05]

**Tickets** are units tracked by software external to NRI applications. For the 2005 NRI, all questions about non-standard cases sent to the Help Desk were entered in a ticket and circulated among subject matter experts. For the current NRI a Data Collector will be able to create a ticket in tracking software.

**Universal soil loss equation (USLE).** An erosion model designed to predict the longtime average soil losses in runoff from specific field areas in specified cropping and management systems. [AH537] Location-specific data for the field in which the NRI point falls or that portion of the field surrounding the point that would be considered in conservation planning are used in the NRI calculations. The equation is:  $A=RKLSCP$ , where:

A = Computed soil loss per unit area

R = Rainfall factor

K = Soil erodibility factor

L = Slope length factor

S = Slope percent factor

C = Cover and management factor

P = Support practice factor

**Unpaved road:** Road without a hard surface such as asphalt or concrete. [NRI-05]

**Unsheltered distance (L factor - WEQ).** The unsheltered distance along the prevailing wind erosion direction across the field or area to be evaluated. [NAM] For NRI, the unsheltered distance is expressed in feet, measured through the sample point, parallel to the prevailing wind direction during the critical wind erosion period. [NRI-97]

**Urban and built-up areas.** A land cover/use category consisting of residential, industrial, commercial, and institutional land; construction sites; public administrative sites; railroad yards; cemeteries; airports; golf courses; sanitary landfills; sewage treatment plants; water control structures and spillways; other land used for such purposes; small parks (less than 10 acres) within urban and built-up areas; and highways, railroads, and other transportation facilities if they are surrounded by urban areas. Also included are tracts of less than 10 acres that do not meet the above definition, but are completely surrounded by urban and built-up land. Two size categories are recognized in the NRI: areas 0.25 to 10 acres and areas of at least 10 acres. [NRI-92] **USLE.** See Universal soil loss equation.

**Use of the land:** The specific kind of activity that takes place on the land. Most areas have more than one associated use. [NRI-97]

- **Agricultural business:** Includes granaries, farmer cooperatives, farm machinery dealers, sale barns, and other agribusinesses. Landscape and other ornamental operations, such as sod farms, nurseries, and Christmas tree farms are included.
- **Agricultural facilities:** Includes farmstead and ranch headquarters, livestock facilities, feedlots, confinement operations (poultry, hogs), pens, corrals, grain bins, and other buildings and structures associated with agricultural production.
- **Agricultural waste:** Includes animal waste lagoons, settling ponds, poultry disposal pits, and other waste storage or treatment facilities associated with agricultural operations.
- **Aquaculture:** The production of fish, shellfish, and aquatic plants in a controlled environment and includes fish farming, fish hatcheries, and aquaculture in rotation with farming and crawfish farming.
- **Concentrated development:** Includes closely spaced urban and suburban houses, apartments, condominiums, and strip and cluster residential development in rural areas.
- **Biomass:** Includes land reserved for production of energy-producing herbaceous or woody crops.

- **Commercial:** Includes downtown areas, industrial shopping malls/centers, strip shopping/businesses, lodging facilities, resorts, marinas, manufacturing buildings or plants, warehouses, docks or port facilities, truck terminals, and tank farms.
- **Institutions:** Includes churches, cemeteries, schools, hospitals, museums, civic centers, and other public service facilities.
- **Food, feed, fiber, and seed:** Includes production and harvest of crops for human consumption, animal feed, seed, and fiber other than wood (cotton). Cover crops grown to increase organic matter, or improve soils tilth, fallow conditions on land used for crop production, and hay in rotation are also included.
- **Hay:** Includes permanent hay fields with either annual or perennial forage species, as well as hay mechanically harvested from pastureland and rangeland.
- **Land based recreation:** Includes such facilities as golf courses, stadiums, athletic fields, parks, zoos, forts, entertainment parks, campgrounds, and racetracks. Also includes land used for fish and game lands, upland and big game hunting, backpacking, climbing, hiking, biking, and nature study.
- **Reserved agriculture:** Includes land in the Conservation Reserve Program (CRP), and land in other USDA set-aside programs, and long-term agricultural easement protection programs.
- **Reserved environmental:** Includes permanent vegetative or structural soil and water conservation measures for the protection or enhancement of the environment for erosion and sediment control, water quality improvement, flood prevention, constructed wetlands, drainage, water filtration, watershed protection, ground water recharge, or other land and water uses reserved for environmental purposes.
- **Reserved research and military:** Includes research and experiment stations, military installations, and associated facilities.
- **Reserved forestry:** Includes areas in state and local forest reserve programs and similar applications.
- **Reserved wildlife:** Includes areas designated and managed for wildlife habitat. May include game reserves, wildlife parks, or wildlife food, and cover.
- **Livestock grazing:** Includes post-harvest gleaning of cropland fields, and grazing pastures, rangeland, woodland, and marshlands.
- **Mineral Extraction:** Includes surface strip mines, gravel pits, borrow areas, quarries, placer mines, extraction wells, injection wells, tailings, piles, salt mines, and oil wasteland.
- **Nonagricultural waste:** Includes waste collection and treatment sites and facilities, such as wastewater treatment ponds, recycling facilities, filtration facilities, nuclear and other hazardous waste sites, settling ponds, sewage treatment lagoons, and other waste handling systems not associated with agricultural operations.
- **Rural estates:** Includes rural residences that are 1.5 to 10 acres, are not part of an operating farm, and have no intensive agricultural enterprises. They may include small pastures for grazing and may have structures, such as garages or barns, with no special use buildings, such as poultry or hog houses or mink ranches.
- **Undeveloped rural sites:** Includes housing or other planned developments where the streets have been laid out. Some utilities may have been installed, but few if any structures have been constructed. The land appears idle with no management for livestock grazing, or harvesting of wood products or cultivated crops.
- **Wood, harvested:** Includes land showing evidence of partial-cut, clear-cut, or other timber management practices within the last 5 years.

**Vegetative cover (V factor - WEQ).** The effect of vegetative cover in the *Wind erosion equation* is expressed by relating the kind, amount, and orientation of vegetative material to its equivalent in pounds per acre of small grain residue in reference condition (small grain equivalent). [NAM]

**Vegetation description (life form):**

- **None.** Areas including shallow water with rock or unconsolidated bottom, unconsolidated shores, reefs, rocky shore, or streambeds. This may include farmed wetlands.
- **Other, aquatic bed.** Wetland and deepwater habitats dominated by plants (e.g., kelp *Laminaria* spp., eelgrass *Zostera marina*, stoneworts *Chara* and *Nitella* spp., and water hyacinth *Eichhornia crassipes*) that grow principally on or below the surface of the water for most of the growing season in most years. Water regimes include subtidal, irregularly exposed, regularly flooded, permanently flooded, intermittently exposed, semi-permanently flooded, and seasonally flooded. [Cowardin et al. 1979]
- **Moss/lichen.** A wetland class where mosses or lichens (e.g., sphagnum moss *Sphagnum* spp., reindeer moss *Cladina* spp.) cover substrates other than rock, and where emergents, shrubs, or trees make up less than 30 percent of the aerial cover. The only water regime is saturated. [Cowardin et al. 1979]
- **Emergent (includes persistent and nonpersistent).** The emergent wetland class is characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants. All water regimes are included except subtidal and irregularly exposed. [Cowardin et al. 1979]
- **Persistent.** Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine Systems. Examples include: cattails (*Typha* spp.), cordgrass (*Spartina* spp.), bulrushes (*Scirpus* spp.), sedges (*Carex* spp.), common pickleweed (*Salicornia virginica*), and common reed (*Phragmites australis*). [Cowardin et al. 1979]
- **Nonpersistent.** Areas dominated by plants that fall to the surface of the substrate or below the surface of the water at the end of the growing season so that, at certain seasons of the year, there is no obvious sign of emergent vegetation. Examples include: wild rice (*Zizania aquatica*), arrow arum (*Peltandra virginica*), pickerelweed (*Pontederia cordata*), and arrowheads (*Sagittaria* spp.). Movement of ice in Estuarine, Riverine, or Lacustrine Systems often removes all traces of emergent vegetation during the winter. Where this occurs, the area should be classified as Nonpersistent Emergent Wetland [Cowardin et al. 1979]
- **Scrub-shrub.** A wetland class dominated by woody vegetation less than 6 meters (20 feet) tall including young or stunted trees and shrubs. Examples include: alder (*Alnus* spp.), willows (*Salix* spp.), coastal sweetbells (*Leucothoe axillaris*), and Atlantic white cedar (*Chamaecyparis thyoides*). [Cowardin et al. 1979]
- **Forested.** A wetland class characterized by woody vegetation at least 6 meters (20 feet) tall. Examples include: red maple (*Acer rubrum*), baldcypress (*Taxodium distichum*), black spruce (*Picea mariana*), sweetbay (*Magnolia virginiana*), mangroves (*Avicennia* spp. and *Languncularia racemosa*), northern white cedar (*Thuja occidentalis*), and black spruce (*Picea mariana*). [Cowardin et al. 1979]
- **Pioneer plants.** Herbaceous annual and seedling perennial plants that colonize bare areas as a first stage in secondary succession. [Cowardin et al. 1979]

**Note on classifying vegetation life forms:** If vegetation (except pioneer species) covers at least 30 percent of the substrate, classes are distinguished on the basis of the life form of the plants

constituting the uppermost layer of vegetation and possessing an aerial coverage of at least 30 percent.

**Wastewater.** Water that carries wastes from homes, agricultural businesses, and industries. A mixture of water and dissolved or suspended solids. [SCSA]

**Water spreading.** Diverting or collecting runoff from natural channels, gullies, or streams with a system of dams, dikes, ditches, or other means, and spreading it over a relatively flat area. [NHCP]

**Water unspecified.** See Ownership

**Waterbody.** A type of (permanent open) water area that includes ponds, lakes, reservoirs, bays or gulfs, and estuaries. There are two size categories: less than 40 acres, and at least 40 acres.

**Well.** A hole drilled or bored into the earth providing access to water. [NRI-97]

**WEQ.** See Wind erosion equation.

**Wetland Reserve Program (WRP)** A voluntary USDA program that provides technical and financial assistance to landowners to address wetland, wildlife habitat, soil, water, and related natural resource concerns. [NFSAM-96]

**Wetlands.** Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following attributes: [Cowardin et al, 1979]

- Periodically, the land supports predominantly hydrophytes.
- The substrate is predominantly undrained hydric soil.
- The substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year.

**Wetland gain** - a change from not a wetland to one of the Cowardin wetland classifications or a change from Lacustrine greater than 2 meter depth to Lacustrine less than 2 meter depth.

Reasons for gains in wetlands are:

- **Intentional creation** - restoration, mitigation or construction of a wetland.
- **Unintentional** - byproduct of other construction, agricultural (e.g., aquaculture, rice, cranberry production, etc.), or irrigation activities.
- **Natural change**- permanent change due to natural causes, (e.g. earth quakes, floods, volcanoes, hurricanes).
- **Other**- all other reasons for gain.

**Wetland loss** - a change from a Cowardin wetland class to not a wetland or a change from lacustrine less than 2 meter depth to Lacustrine greater than 2 meter depth.

Reasons for losses in wetlands are:

- **Agriculture** - drained, land-leveled, or filled to allow agricultural or horticultural production.

- **Development** - drained, land-leveled, or filled to allow construction of buildings, roads, parking lots, facilities, or other such structures for non-farm purposes.
- **Deepwater construction** - conversion to deepwater habitat because of pond or reservoir construction.
- **Natural change** - permanent change due to natural causes, (e.g. earth quakes, floods, volcanoes, hurricanes).
- **Silviculture** - drained, land-leveled, or altered to allow for forestry purposes, such as production of timber, fiber, pulp, or other wood products.
- **Other** - all other reasons for loss.

**Wind erosion equation (WEQ).** An erosion model designed to predict long-term average annual soil losses from a field having specific characteristics. [NAM] Wind Erosion Equation (WEQ)  $E = f(IKCLV)$ , where:

E = Estimated average annual soil loss expressed in tons per acre per year

I = Soil erodibility index

K = Soil ridge roughness factor

C = Climatic factor

L = Equivalent unsheltered distance across the field along the prevailing wind erosion direction

V = Equivalent vegetative cover

**Wind erosion.** The process of detachment, transport, and deposition of soil by wind. [NAM]

AH 537	Predicting Rainfall Erosion Losses. A Guide to Conservation Planning. USDA SEA/ Purdue Agricultural Experiment Station, Agriculture Handbook Number 537, December 1978.
ASCE	American Society of Civil Engineers — Nomenclature of Hydraulics.
BS-1982	Basic Statistics—1982 National Resources Inventory. USDA SCS/ISU Statistical Laboratory, Bulletin Number 756, September 1987.
Cowardin et al. 1997	Classification of Wetlands and Deepwater Habitats of the United States, USDI USFWS/OBS-79/31, December 1997.
ESRI	Environmental Systems Research Institute (ESRI), Glossary of GIS Terms
FRUS	Forest Resources of the United States, 1997, USDA Forest Service, General Technical Report RM-234.
FSA	Farm Services Agency, USDA.
IDRS	Introduction to digital remote sensing, Michigan State University, Center for Remote Sensing & GIS, Glossary for Basic Photo Interpretation course.
NAM	National Agronomy Manual, USDA SCS, (NRCS), March 1988.
NASIS	National Soil Information System, Static Metadata, National Soil Survey Center, Lincoln, NE, NRCS
NFSAM-96	National Food Security Act Manual, USDA NRCS, 180-V, November 1996.
NHCP	National Handbook of Conservation Practices. USDA NRCS.
NPPH-98	National Planning Procedures Handbook, USDA NRCS, 180-vi, April 1998.
NRI-92	Instructions for Collecting 1992 National Resources Inventory Sample Data, September 1991.
NRI-97	Instructions for Collecting 1997 National Resources Inventory Sample Data June 1998.
NRI-2000	2000 National Resources Inventory Handbook of Instructions for Remote Data Collection, August 2000.
NRI-2001	2001 National Resources Inventory Handbook of Instructions for Remote Data Collection, May 2001
NRI-2003	National Resources Inventory Handbook of Instructions for Remote Data Collection, June 2003.
NSSH	National Soil Survey Handbook, USDA NRCS, Glossary of Landform and Geologic Terms, Part 629, 1996.
RS&II	Remote Sensing and Image Interpretation, Lillesand/Kiefer, 1979.
SCSA	Resource Conservation Glossary, SCSA, 3rd edition, 1982
USACE 1984	U.S. Army Corps of Engineers, 1984.
USGS	United States Department of the Interior, Geological Survey, Glossary, 3rd Edition, Maps for Cartographic Products of the USGS and others.

## 4.2 Ancillary Materials

**Ancillary Materials** --This is a dynamic list of sources that can be used in making data collection determinations. Be aware that none of these sources are perfectly accurate as errors and omissions have been discovered in all of them. Use these sources to identify a preponderance of evidence for defending a data collection decision. Document the sources used in segment notes when one or more of these ancillary materials were used in making a determination.

- PSU support maps for a previous inventory (e.g., 2002, 2001, 2000, 1997), if available
- DRGs (or 7.5-minute USGS Quads)
- DOQ images
- County Road maps from state DOTs.
- Plat Books (Ownership and right-of-way boundary verification) or county assessor parcel data. (assessor web site)
- In the absence of state or county road maps, publicly available imagery (Google, Bing, etc.) is a potential resource including street view where available
- NOTES: Historical notes in the NRI database
- National Hydrography Data (NHD)
  - Website <http://viewer.nationalmap.gov/viewer/nhd.html?p=nhd>
  - WMS from USGS (Arc Project)
- Web Soil Survey
  - Website <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>
  - Soil Web (UC-Davis) KML file in Google
- National Wetland Inventory
  - Website <http://www.fws.gov/wetlands/index.html>
  - WMS from USFWS
  - KML file in Google

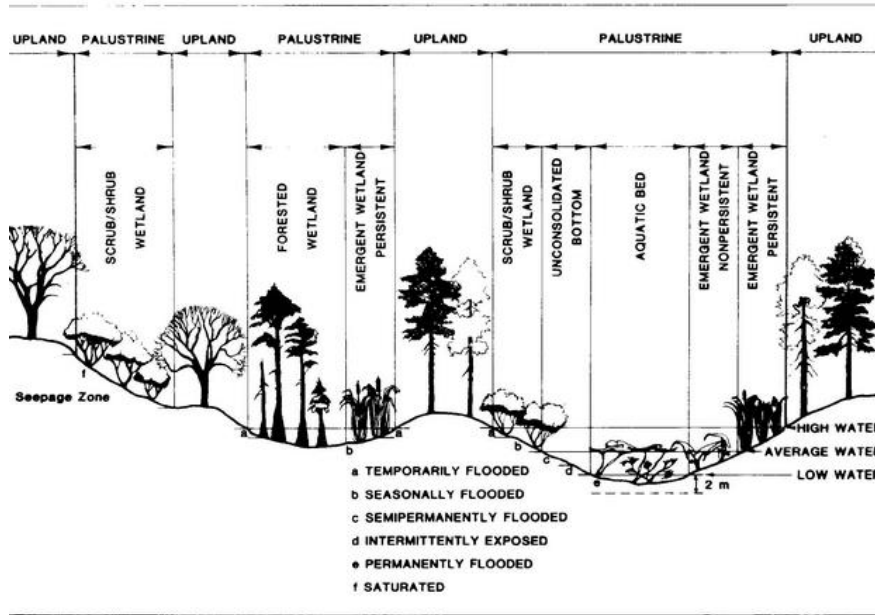
## 4.3 Cowardin Wetland Descriptions and Photos

### Palustrine System Photo Examples

#### Palustrine System: Cowardin et al. 1979

The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 parts per thousand. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2 meters (6.6 feet) at low water; and (4) salinity due to ocean-derived salts less than 0.5 parts per thousand.

[COWARDIN ET AL. 1979]



**Figure 5** Distinguishing features and examples of habitats in the Palustrine System [Cowardin, et al. 1979]

The following photographs represent Palustrine Systems from Classification of Wetlands and Deepwater Habitats (Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. U.S. Fish and Wildlife Service, FWS/OBS-79/31, 131 p.). They provide examples of the classification system. The appropriate NRI code has been added to each photograph.

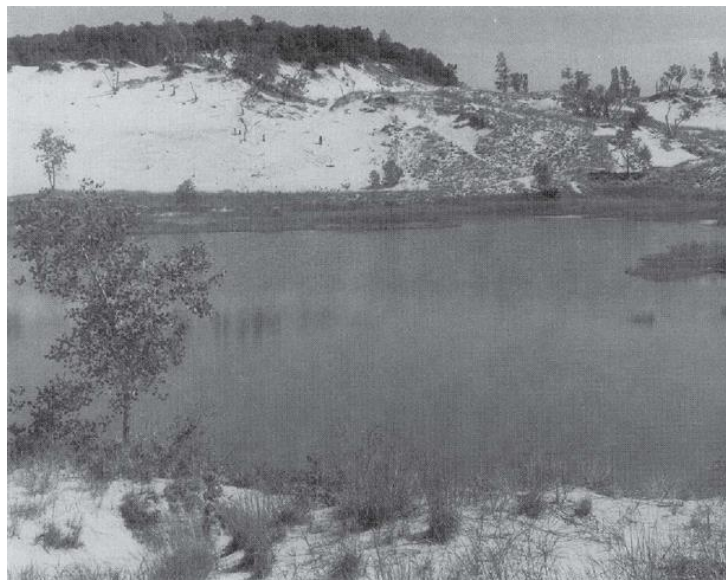


Plate 50. Kind of system: Palustrine. Vegetation: None or Other. Code 50. Rushes (*Juncus* spp.), spike rush (*Eleocharis* spp.), and smartweed (*Polygonum* spp.) grow in shallow water along the shore of this 0.4-ha (1-acre) pond which occupies a depression amidst sand dunes on the southern shore of Lake Michigan. (Indiana Dunes National Lakeshore, Porter County, Indiana; May 1985; Photo by F. C. Golet)



Plate 51. Kind of system: Palustrine. Vegetation: None, or Other. Code 50. This beaver pond is situated in the San Juan Mountains. (Gunnison County, Colorado; Photo by R.M. Hopper)



Plate 52. Kind of System: Palustrine. Vegetation: None or Other. Code 50. This photo was taken during drought condition; the bottom is being invaded by pioneer species including summer cypress (*Kochia scoparia*), golden dock (*Rumex maritimus*), and goosefoot (*Chenopodium glaucum*). (Stutsman County, North Dakota; August 1960; Photo by R.E. Stewart)



Plate 53. Kind of System: Palustrine. Vegetation: None or Other. Code 50. A sparse stand of water plantain (*Alisma plantago-aquatica*) appears along the edge of the impoundment. (Billings County, North Dakota; July 1970; Photo by J.T. Lokemoen).



Plate 54. Kind of System: Palustrine. Vegetation: None or Other. Code 50. Dominance type: White water crowfoot (*Ranunculus trichophyllus*). (Stutsman County, North Dakota; August 1966; Photo by R.E. Stewart).



Plate 55. Kind of System: Palustrine. Vegetation: None or Other. Code 50. The dominant plant is peat moss (*Sphagnum* spp.). Subordinate plants include reindeer moss (*Cladina* spp.), leatherleaf (*Chamaedaphne calyculata*), crowberry (*Empetrum nigrum*), and cottongrass (*Eriophorum* spp.). (Campobello Island International Park, Maine – Canada; June 1976; Photo by V. Carter)

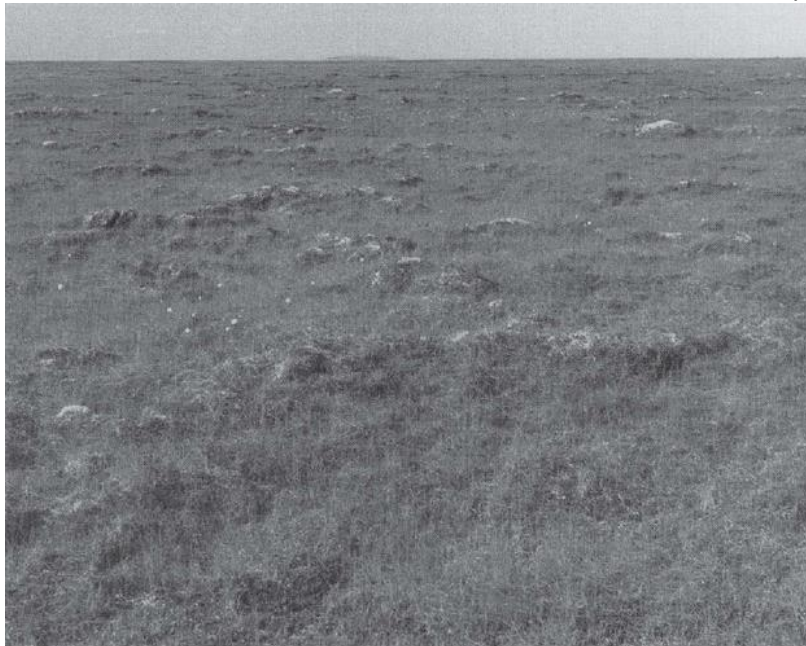


Plate 56. Kind of System: Palustrine. Vegetation: None or Other. Code 50. Peat moss (*Sphagnum* spp.) is the dominant plant. Subordinate plants include sedges (*Carex rariflora*, *C. aquatilis*), cottongrass (*Eriophorum russeolum*), and reindeer moss (*Cladina* spp.). While sedges are present, their combined cover is less than 30%. Mosses cover 100% of the area. (Narokachik –Azun Rivers area, Yukon—Kuskokwim Delta, Alaska; July 1985; Photo by F.C. Golet)



Plate 57. Kind of System: Palustrine. Vegetation: Emergent. Code 51. Dominance type: Cattail. Persistent emergents such as these cattails remain standing at least until the beginning of the next growing season. Note that the adjacent lake is ice-covered at the time of photography. (Knox County, Maine; April 1978; Photo by P.B. Reed).



Plate 58. Kind of System: Palustrine. Vegetation: Emergent. Code 51. Dominance type:— Hardstem bulrush. (Stutsman County, North Dakota; August 1962; Photo by R.E. Stewart)



Plate 59. Kind of system: Palustrine. Vegetation: Emergent. Code 51. Dominance type: Saw grass. This photo was taken in the Florida Everglades. (Dade County, Florida; December 1975; Photo by V. Carter).



Plate 60. Kind of system: Palustrine. Vegetation: Emergent. Code 51. Dominance type: Sedge. Subordinate plants include sedges, water smartweed, bladderwort, bluejoint, and pondweed. (Chippewa National Forest, Beltrami County, Minnesota; June 1972; Photo by J.H. Richmann)



Plate 61. Kind of system: Palustrine. Vegetation: Emergent. Code 51. Dominance type: Spike rush. Subordinate plants include water smartweed, slough sedge, and foxtail. (Stutsman County, North Dakota; August 1962; Photo by R.E. Stewart).



Plate 62. Kind of system: Palustrine. Vegetation: Emergent. Code 51. The principal plants are sedges, bulrushes, rushes, and foxtail. This wetland is typical of irrigated hay in the West. Water may be diverted from rivers or may come from artesian wells as in this photo. (Saguache County, Colorado; Photo by R. M. Hopper)



Plate 63. Kind of system: Palustrine. Vegetation: Emergent. Code 51. Dominance type: Sedge– Cotton grasses. Subordinate plants include marsh cinquefoil, bluejoint, Alaska bog willow, crowberry, dwarf birch, and peat moss. This type of patterned wetland is commonly referred to as “string bog” or “strangmoor.” Seasonally flooded troughs alternate with elongated bog-like ridges or “strings.” Strings here rise only 30-45 cm (12-18 in) above the troughs. (Manokinak River area, Yukon-Kuskokwim Delta, Alaska; July 1985; Photo by F.C. Golet)



Plate: 64. Kind of system: Palustrine. Vegetation: Emergent. Code 51. Dominance type: Taro. This photo illustrates a Hawaiian taro field. (Kauai County, Hawaii; September 1972; Photo by E. Krider)



Plate 65. Kind of system: Palustrine. Vegetation: Emergent. Code 51. Dominance type: Three awn. Subordinate plants include beak rushes, longleaf pine, orchids, Yellow-eyed grasses, grass pinks, and foxtail clubmoss. (Brunswick County, North Carolina; December 1975; Photo by V. Carter)



Plate 66. Kind of system: Palustrine. Vegetation: Emergent. Code 51. The dominant plants in the montane meadows are sedges. (Lassen County, California; August 1975; Photo by V. Carter)



Plate 67. Kind of system: Palustrine. Vegetation: Emergent. Code 51. Dominance type: Cotton grasses. Subordinate plants include: netleaf willow, diamondleaf willow, dryas, bistort, lousewort, chickweed, and lapland cassiope. This type of wetland, referred to by Walker (1983) as “moist tussock sedge dwarf shrub tundra,” covers much of the North Slope of Alaska. At this site, permafrost lies within 15 cm (6 in) of the surface. All of the land in this photo is wetland. (Franklin Bluffs, North Slope Borough, Alaska; July 1985; Photo by F.C. Golet)



Plate 68. Kind of system: Palustrine. Vegetation: Emergent. Code 51. Dominance type: Sedge. Subordinate plants include: narrowleaf Labrador tea, dwarf birch, small cranberry, crowberry, peat moss, and foliose lichens. (Narokachik River area, Yukon-Kuskokwim Delta, Alaska; July 1985; Photo by F.C. Golet)



Plate 69. Kind of system: Palustrine. Vegetation: Emergent. Code 51. All natural vegetation in this wetland has been removed and water stands in stubble from the previous year's wheat crop. (Stutsman County, North Dakota; March 1967; Photo by H.A. Kantrud)



Plate 70. Kind of system: Palustrine. Vegetation: Emergent. Code 51. Principal plants include nut sedge, arrow arum, and barnyard grass. (Dade County, Florida; January 1978; Photo by P.B. Reed)



Plate 71. Kind of system: Palustrine. Vegetation: emergent. Code 51. Dominance type: Dominance type: Pendent grass. Marsh marigold is also present in the seasonally flooded zone. This wet land lies on coastal tundra within 2 km (1.2 mi) of the Arctic Ocean. (Between Canning and Kavik Rivers, North Slope Borough, Alaska; July 1985; Photo by F. C. Golet)



Plate 72. Kind of system: Palustrine. Vegetation: Emergent. Code 51. Dominance type: Mare's tail. A semi-permanently flooded persistent-emergent wetland dominated by sedge surrounds the Hippuris marsh. Burreed grows in shallow water between the Hippuris and the edges. (Narokachik River area, Yukon- Kuskokwim Delta, Alaska; July 1985; Photo by F.C. Golet)



Plate 73. Kind of system: Palustrine. Vegetation: Emergent. Code 51. Dominance type: Yellow water lily. The principal subordinate plant is common duckweed. (Cass County, Michigan; May 1985; Photo by F.C. Golet)



Plate 74. Kind of system: Palustrine. Vegetation: scrub-shrub. Code 52. The dominant plants are willows. Subordinate species include Sitka spruce and lodgepole pine. (Coos County, Oregon; May 1977; Photo by D.D. Peters)



Plate 75. Kind of system: Palustrine. Vegetation: Scrub-shrub. Code 52. Dominance type: Dwarf birch. Subordinate plants include cotton grass, peat moss, cloudberry, mountain cranberry, and narrowleaf Labrador tea. Shrubs here are less than 20 cm (8 in) tall. This area of moist tundra is underlain by permafrost at a depth of 45 cm (18 in). (Vicinity of Toolik Lake, North Slope Borough, Alaska; July 1985; Photo by F.C. Golet)



Plate 76. Kind of system: Palustrine. Vegetation: Scrub-shrub. Code 52. Dominance type: Thinleaf alder. Subordinate plants include feltleaf willow and balsam poplar. Shrubs are nearly 6 m (20 ft) tall, the height that separates Scrub-Shrub from Forested Wetland. This site is flooded only for brief periods after snowmelt and during times of most rapid melting of nearby glaciers. (Tanana River, Fairbanks North Star Borough, Alaska; July 1985; Photo by F.C. Golet)



Plate 77. Kind of system: Palustrine. Vegetation: Scrub-shrub. Code 52. Dominance type: Tamarack. The tamarack saplings are 2-3 m (6.6-10 feet) tall and cover 40-50% of the site. Subordinate plants include: dwarf birch, bluejoint, black spruce, leatherleaf, diamondleaf willow, narrowleaf Labrador tea, cotton grass, bog blueberry, marsh cinquefoil, and shrubby cinquefoil. (Vicinity of Big Delta, Alaska; July 1985; Photo by F. C. Golet)



Plate 78. Kind of system: Palustrine. Vegetation: Scrub-shrub. Code 52. Dominance type: Labrador tea– Sheep laurel– Leatherleaf. Subordinate plants include peat moss, crowberry, cloudberry, and black spruce. (Washington County, Maine; June 1976; Photo by V. Carter)



Plate 79. Kind of system: Palustrine. Vegetation: Scrub-shrub. Code 52. Dominance type: Narrowleaf Labrador tea. Subordinate species include: cloudberry, mountain cranberry, crowberry, dwarf birch, reindeer moss, sedge, bluejoint, and Alaska spiraea. Shrubs are less than 20 cm (8 feet) tall. Although this site looks like a dry heath, permafrost at a depth of only 15-20 cm (6-8 in) keeps the soil saturated near the surface throughout the growing season. (Talik River area, Yukon-Kuskokwim Delta, Alaska; July 1985; Photo by F.C. Golet)



Plate 80. Kind of system: Palustrine. Vegetation: Scrub-shrub. Code 52. Dominance type: Black ti-ti. Subordinate plants include: honeycup, leatherleaf, peat moss, highbush blueberry, loblolly bay, and pond pine. Locally, these wetlands are referred to as evergreen shrub bogs or “pocosins.” (Brunswick County, North Carolina; December 1975; Photo by V. Carter)



Plate 81. Kind of system: Palustrine. Vegetation: Scrub-shrub. Code 52. Dominance type: Black spruce. Subordinate plants include: dwarf birch, cotton grass, bog blueberry, Labrador tea, and peat moss. This wetland type, commonly known as “muskeg,” is abundant in the forested regions of Alaska; it also occurs in northern New England and in the Great Lakes States. (Vicinity of Coldfoot, Alaska; July 1985; Photo by F.C. Golet)



Plate 82. Kind of system: Palustrine. Vegetation: Forested. Code 53. Dominance type: Red maple. Subordinate plants in this red maple swamp include black gum, highbush blueberry, great laurel, and winterberry. (Washington County, Rhode Island; June 1977; Photo by F.C. Golet)



Plate 83. Kind of system: Palustrine. Vegetation: Forested. Code 53. Dominance type in forested area: Bald cypress. Dominance type in open are: Water lettuce. Emergent plants growing in the bed of water lettuce are arrowheads. (Corkscrew Swamp Sanctuary, Collier County, Florida; January 1978; Photo by E.T. LaRoe)



Plate 84. Kind of system: Palustrine. Vegetation: Forested. Code 53. Dominance type: Atlantic white cedar. Subordinate plants in this Atlantic white cedar swamp include: highbush blueberry, winterberry, red maple, and peat moss. Low vegetation in the foreground includes leatherleaf and Virginia chain-fern. (Washington County, Rhode Island; July 1977; Photo by F.C. Golet)



Plate 85. Kind of system: Palustrine. Vegetation: Forested. Code 53. Dominance type: Black spruce. Subordinate plants in this black spruce forest include Labrador tea, mountain cranberry, crowberry, and peat moss. Permafrost is present within 45 cm (18 in) of the surface. (Vicinity of Glenn Allen, Alaska; July 1985; Photo by F.C. Golet)



Plate 86. Kind of system: Palustrine. Vegetation: Forested. Code 53. Dead trees in permanently flooded, impounded wetland. (Humphreys County, Tennessee, September 1975; Photo by V. Carter).

## Lacustrine System Photo Examples

Cowardin et al. 1979

### Lacustrine System

The Lacustrine System (fig. 4) includes wetlands and deepwater habitats with all of the three following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30 percent areal coverage; and (3) total area exceeds 8 ha (20 acres). Similar wetland and deepwater habitats totaling less than 8 ha are also included in the Lacustrine System if an active wave formed or bedrock shoreline feature makes up all or part of the boundary or if the water depth in the deepest part of the basin exceeds 2 meters (6.6 feet) at low water. Lacustrine waters may be tidal or nontidal, but ocean-derived salinity is always less than 0.5 parts per thousand. The boundary between wetland and deepwater habitats lies at a depth of 2 meters (6.6 feet) below water; however, if emergents, shrubs, or trees grow beyond this depth, their deepwater edge is the boundary. [Cowardin et al. 1979] Lacustrine limnetic habitats are classified as deepwater, while Lacustrine littoral habitats are wetlands.

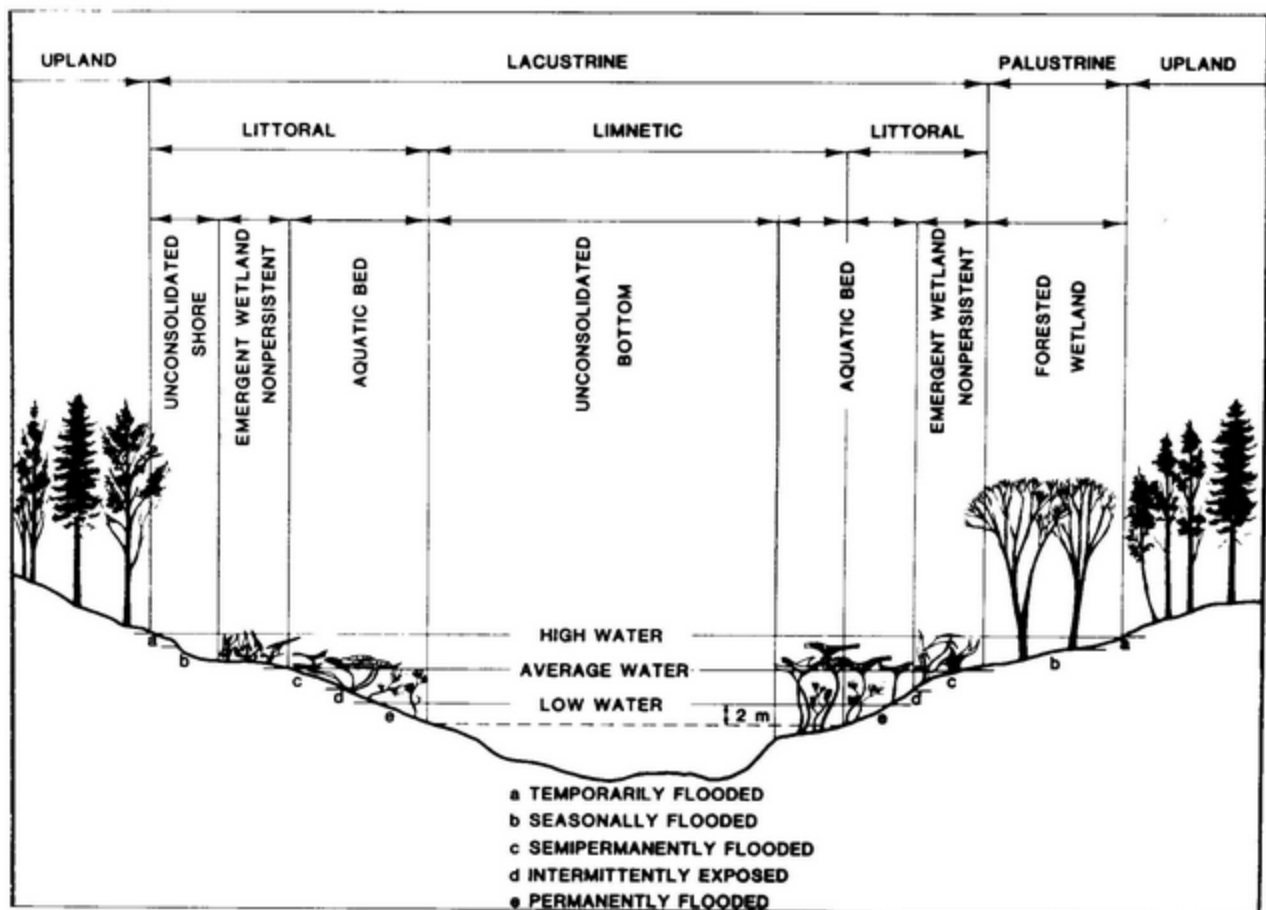


Figure 4 Distinguishing features and examples of habitats in the Lacustrine System [Cowardin, et al. 1979]

The following photographs represent Lacustrine Systems from Classification of Wetlands and Deepwater Habitats (Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. U.S. Fish and Wildlife Service, FWS/OBS-79/31, 131 p.). They provide examples of the classification system. The appropriate NRI code has been added to each photograph.



Plate 40. Kind of system: Lacustrine. Vegetation: None, or Other. Code 40. In the narrow Littoral zone of Yellowstone Lake, where water is less than 2m (6.6 feet) deep, the bottom consists primarily of gravel and sand. (Yellowstone National Park, Teton County, Wyoming; May 1985; Photo by F.C. Golet).



Plate 41. Kind of system: Lacustrine Vegetation: None, or Other Code 40 Dominance type: Water lily. Subordinate plants in the Aquatic Bed include bladderworts. Yellow-eyed grass grows on floating mats of peat along the shore (foreground). Water depth in this 0.8-ha (w-acre) bog lake exceeds 3m (10 feet). (Washington County, Rhode Island; July 1977; Photo by F.C. Golet)



Plate 42. Kind of system: Lacustrine. Vegetation: None, or Other. Code 42. At the time of photography, the level of Yellowstone Lake was near its seasonal low point. Due to snowmelt, the level of the lake rises to a peak in early July and then slowly declines until the following spring. This entire beach is inundated each summer. (Yellowstone National Park, Teton County, Wyoming; May 1985; Photo by F.C. Golet)



Plate 43. Kind of system: Lacustrine. Vegetation: None, or Other. Code 40. Water levels in the Great Lakes generally fluctuate little during a single year, but they may rise and fall considerably over a period of several years. The water level in Lake Michigan was at an all-time high when this photo was taken. As a result of long-term changes in lake levels and seiches produced by storms, lake waters inundate part or all of this beach on an irregular basis. (Indiana Dunes National Lakeshore, Porter County, Indiana; May 1985; Photo by F. C. Golet)



Plate 44. Kind of system: Lacustrine. Vegetation: None, or Other. Code 40. The flats exposed along the shore of this reservoir are temporarily flooded; the seasonally flooded zone is still inundated at the time of this spring photograph. (Park County, Wyoming; May 1985; Photo by F.C. Golet)



Plate 45. Kind of system: Lacustrine. Vegetation: None, or Other. Code 40. (Salt Lake County, Utah; June 1973; Photo by V. Carter)



Plate 46. Kind of system: Lacustrine. Vegetation: None, or Other. Code 40. Greasewood, salt grass, and rushes are scattered across the flats. Because annual precipitation averages only about 18 cm (7 in) here, these wetlands are heavily dependent upon snowpack in the surrounding mountains as a source of water. (Saguache County, Colorado; Photo by R.M. Hopper)



Plate 46. Kind of system: Lacustrine. Vegetation: None, or Other. Code 40. This beach is only 15 m (50 feet) long and 2 m (6-7 feet) wide. Such organic shores are common in certain areas of the Yukon Kuskokwim Delta, and many are considerably larger than the one shown here. Evidence of the decline in lake levels over the summer can be seen in the series of low ridges in the peat. Surrounding vegetation includes sedge, bluejoint, and willow. (Taluk River area, Yukon-Kuskokwim Delta, Alaska; July 1985; Photo by F. C. Golet)



Plate 48. Kind of system: Lacustrine. Vegetation: Emergent – non-persistent. Code 41. Dominance type: American lotus. Subordinate plant is bald cypress. (Obion County, Tennessee; September 1975; Photo by V. Carter)



Plate 49. Kind of system: Lacustrine. Vegetation: Emergent – non-persistent. Code 41. Dominance type: Bayonet rush. Subordinate plants include common threesquare and pickerelweed. During the spring, emergent vegetation is not evident at this site, and waves break on the gravel shore visible in the foreground. (Washington County, Rhode Island; July 1977; Photo by F.C. Golet)

## Riverine System Photo Examples

Cowardin et al. 1979

### Riverine System

The Riverine System (fig. 3) includes all wetland and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens; and (2) habitats with water containing ocean derived salts in excess of 0.5 parts per thousand. A channel is "an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water." [Cowardin et al. 1979] In braided streams the system is bounded by the banks forming the outer limits of the depression within which the braiding occurs. Upland islands or Palustrine wetlands may occur within the channel, but they are not included in the Riverine System. The boundary between wetland and deepwater habitat in the Riverine System lies at a depth of 2 meters (6.6 feet) below the water surface. Riverine habitats in the Classes of rock bottom, unconsolidated bottom, or aquatic bed may be either wetland or deepwater habitats, while all other classes within the Riverine System are wetlands. If the NRI land cover/use is river wash, mud flats, beach, mixed barren, or the water is obviously less than 2 meters (6.6 feet) deep, then the area must be assigned as a wetland.

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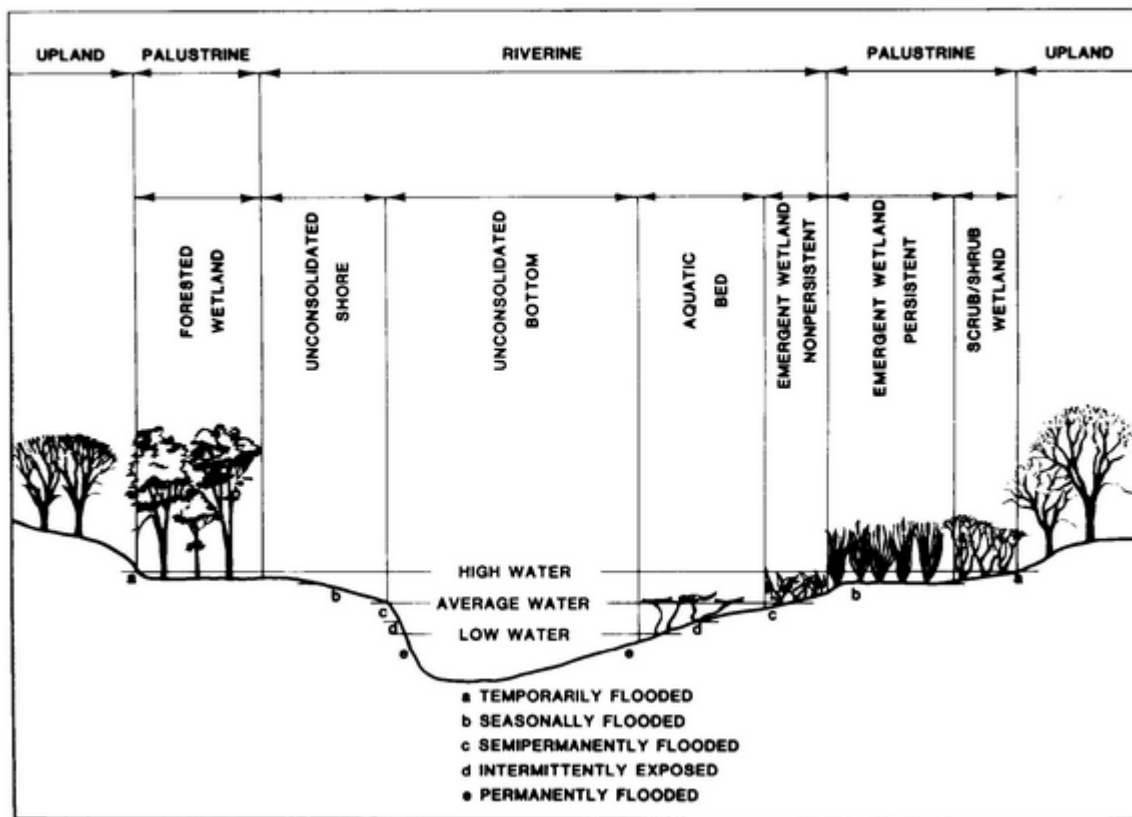


Figure 3 Distinguishing features and examples of habitats in the Riverine System [Cowardin, et al. 1979]

The following photographs represent Riverine Systems from Classification of Wetlands and Deepwater Habitats (Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. U.S. Fish and Wildlife Service, FWS/OBS-79/31, 131 p.). They provide examples of the classification system. The appropriate NRI code has been added to each photograph.



Plate 26. Kind of system: Riverine. Vegetation: None, or Other. Code 30. Dominance type: Water milfoils, hydrilla, and water stargrass. (Prince Georges County, Maryland; October 1985; Photo by V. Carter)



Plate 27. Kind of system: Riverine. Vegetation: None, or Other. Code 30. This photo was taken at low tide. (Cecil County, Maryland; July 1972; Photo by V. Carter)



Plate 28. Kind of system: Riverine. Vegetation: None, or Other. Code 30. The channel bottom is composed primarily of gravel and sand. The stream meanders through a grassy annual floodplain which is flanked by a more elevated floodplain supporting cottonwoods. (Crook County, Wyoming; May 1985; Photo by F.C. Golet)



Plate 29. Kind of system: Riverine. Vegetation: None, or Other. Code 30. Cannel meanders, a typical feature of lower perennial streams, are especially well developed along this section of the Yellowstone River. (Yellowstone National Park, Park County, Wyoming; May 1985; Photo by F.C. Golet)



Plate 30. Kind of system: Riverine. Vegetation: none, or Other. Code 30. Dominance type: Water lily. This channel was dug by man in an unsuccessful attempt to drain the wetland. Plants in the Palustrine wetland bordering the channel include sedge, sweet gale, leatherleaf, and Atlantic white cedar. (Washington County, Rhode Island; July 1977; Photo by F.C. Golet)



Plate 31. Kind of system: Riverine. Vegetation: None, or Other. Code 30. Feltleaf willow grows along the edge of the stream. The entire channel is flooded for only a few weeks after snowmelt each year. (Kavik River, North Slope Borough, Alaska; July 1985; Photo by F.C. Golet)



Plate 32. Kind of system: Riverine. Vegetation: None, or Other. Code 30. Young tamarisk plants are scattered all over this sand flat. (Socorro County, New Mexico; April 1978; Photo by P.B. Reed)



Plate 33. Kind of system: Riverine. Vegetation: Emergent, non-persistent. Code 31. Dominance type: Arrow arum and pickerelweed. This wetland lies in a bay of the Chicopee River. (Hampden County, Massachusetts; July 1970; Photo by R.C. Smardon)

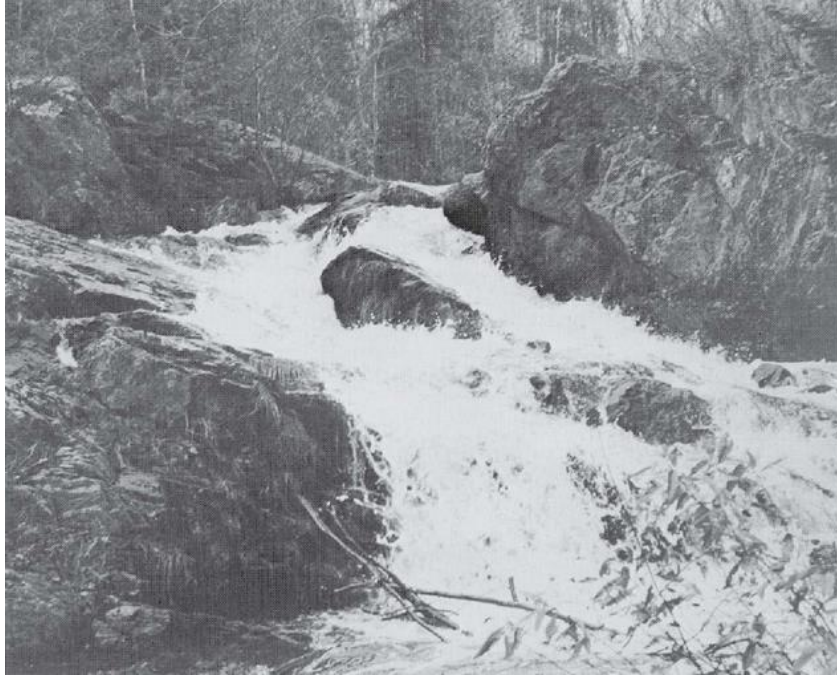


Plate 34. Kind of system: Riverine. Vegetation: None, or Other. Code 30. (Penobscot County, Maine; October 1977; Photo by R.W. Tiner)



Plate 36. Kind of system: Riverine. Vegetation: None, or Other. Code 30. (Washington County, Rhode Island; July 1977; Photo by F.C. Golet)



Plate 37. Kind of system: Riverine. Vegetation: None, or Other. Code 30. This high-gradient mountain stream arises in the Alaska Range. The gravel piled at the left-hand edge of the photo had accumulated in the channel during flood stage and was bull-dozed to its present position to prevent flooding of a highway just downstream. (Fairbanks North Star Borough, Alaska; July 1985; Photo by F.C. Golet)



Plate 38. Kind of system: Riverine. Vegetation: None, or Other. Code 30. The average annual discharge for this river, the Rio Salado, is 14.6 hm<sup>3</sup>/yr (11,800 acre-ft/yr). (Socorro County, New Mexico; April 1978; Photo by P.B. Reed)



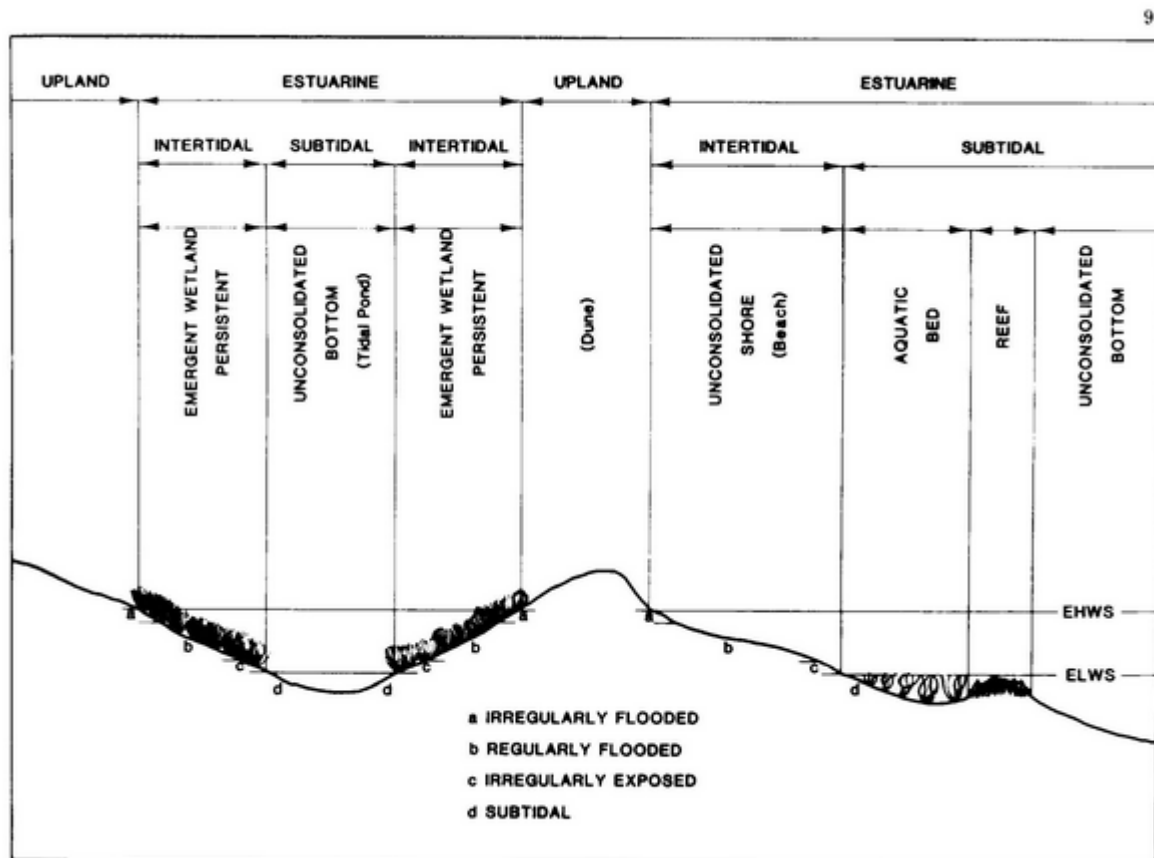
Plate 39. Kind of system: Riverine. Vegetation: None, or Other. Code 30. Streambeds such as this are common throughout the arid West. They carry water for brief periods after snowmelt and following rainstorms which are irregular and unpredictable in occurrence. (Badlands National Monument, Jackson County, South Dakota; May 1985; Photo by F.C. Golet)

## Estuarine System Photo Examples

Cowardin et al. 1979

### Estuarine System

The Estuarine System consists of deepwater tidal habitats and adjacent tidal wetlands that are semi-enclosed by land, but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land (fig. 2). The salinity (at least 0.5 parts per thousand) may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines, dilution of sea water is appreciable. Offshore areas with typical Estuarine plants and animals, such as red mangroves (*Rhizophora mangle*) and eastern oysters (*Crassostrea virginica*), are also included in the Estuarine System [Cowardin et al. 1979]. Estuarine subtidal habitats are all classified as deepwater while Estuarine intertidal habitats are classified as wetlands. If the NRI land cover/use is non-water (i.e., beach, sand dune, bare exposed rock, mixed barren, mud flat, or marsh), or if the point is above water at the extreme low water of spring tide, the point must be classified as a wetland. If the point is permanently covered with water (the NRI land cover/use code is estuary or other water code), the point would be classified as a deepwater habitat.



**Figure 2** Distinguishing features and examples of habitats in the Estuarine System (EHWS=extreme high water of spring tides, ELWS=extreme low water of spring tides) [Cowardin, et al. 1979]

The following photographs represent Estuarine Systems from Classification of Wetlands and Deepwater Habitats (Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. U.S. Fish and Wildlife Service, FWS/OBS-79/31, 131 p.). They provide examples of the classification system. The appropriate NRI code has been added to each photograph.



Plate 7. Kind of system: Estuarine. Vegetation: Emergent—persistent. Code 21. An irregularly flooded persistent-emergent wetland dominated by saltmarsh cordgrass and saltmeadow cordgrass is shown in the right background (Washington County, Rhode Island; July 1977; Photo by F.C. Golet)



Plate 8. Kind of system: Estuarine. Vegetation: None, or Other. Code 20. This site lies within the Fjord Biogeographic Province. Glacier-mantled mountains plunge steeply into water more than 180m (600 feet) deep. (Lynn Canal, Haines Borough, Alaska; June 1985; Photo by F.C. Golet)

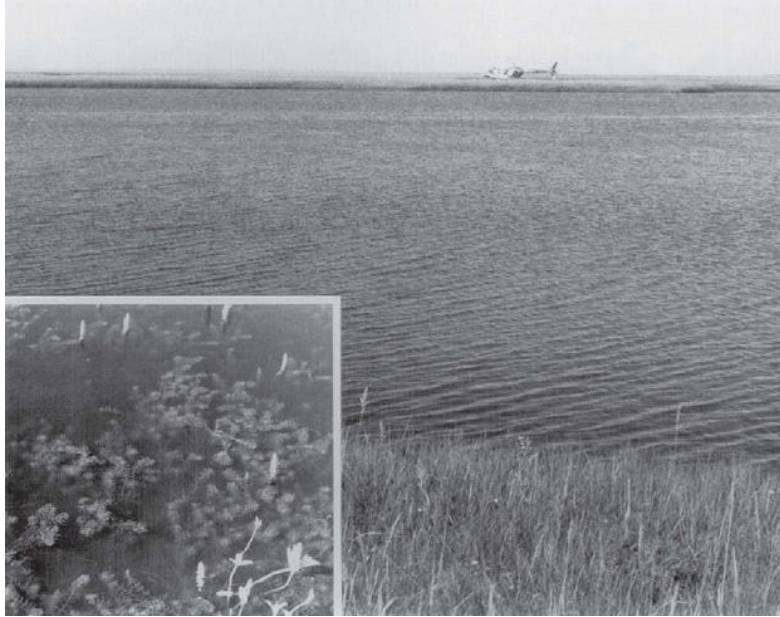


Plate 9. Kind of system: Estuarine Vegetation: Emergent Code 21 Dominance type: Water milfoils. Subordinate plant species include mare's tail and crowfoot. This pond is located on coastal tundra; it is flooded with tidal water only during exceptionally high tides (less often than monthly). Plants characterizing the aquatic bed are shown in the photo-inset. (Between Azun and Narokachik rivers, Yukon-Kuskokwim Delta, Alaska; July 1985; Photo by F.C. Golet)



Plate 10. Kind of system: Estuarine. Vegetation: Scrub-shrub. Code 22. An individual red mangrove has become established on this oyster reef. (Rookery Bay Sanctuary, Collier County, Florida; January 1978; Photo by E.T. LaRoe)



Plate 11. Kind of system: Estuarine. Vegetation: Emergent. Code 21. This photo was taken at low tide; at high tide, the entire channel is flooded. The channel is flanked by irregularly flooded persistent emergent wetland supporting such plants as: lyme grass, beach lovage, silverweed, sedges, ovalleaf willow, and Arctic daisy. This site lies 100 m from Angyoyaravak Bay, on the Bering Sea. (Tutakoke River area, Yukon-Kuskokwim Delta, Alaska; July 1985; Photo by F.C. Golet)



Plate 12. Kind of system: Estuarine. Vegetation: None, or Other. Code 20. (Washington County, Rhode Island; July 1977; Photo by F.C. Golet)



Plate 13. Kind of system: Estuarine. Vegetation: None, or Other. Code 20. Mean tidal range in this area of the Arctic Ocean is approximately 15cm (6in). (Mikkelsen Bay, North Slope Borough, Alaska; July 1985; Photo by F.C. Golet)



Plate 14. Kind of system: Estuarine. Vegetation: None, or Other. Code 20. Turnagain Arm, a large bay off Cook Inlet, is 4-7 km (2.5-4 mi) wide at this location. Mean tidal range is 9.2m (30ft), and the entire area shown here is dewatered at low tide. (Municipality of Anchorage, Alaska; June 1985; Photo by F.C. Golet)

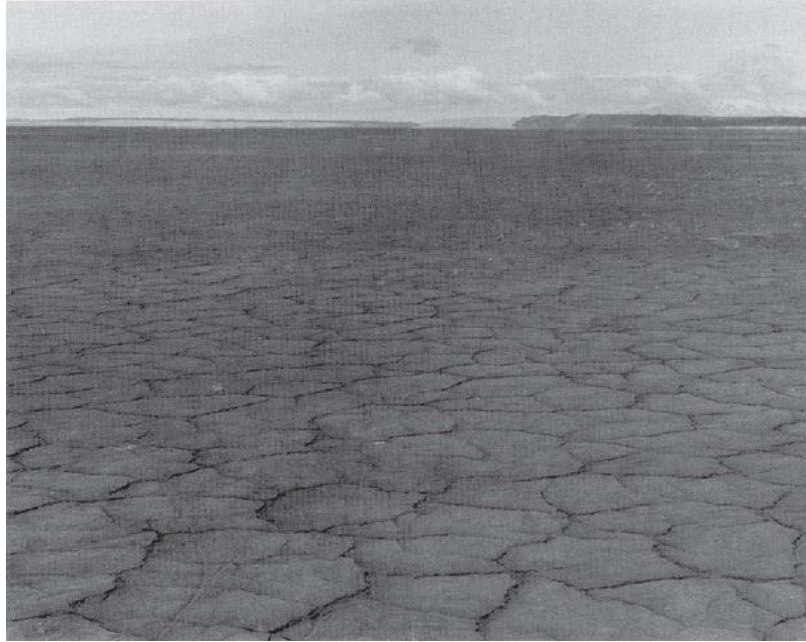


Plate 15. Kind of system: Estuarine. Vegetation: None, or Other. Alkali grass grows in widely scattered clumps at the right-hand edge of the photo. Mean tidal range at Fire Island (background left) is 7.4 m (24.4 feet). The cracks on these mud flats are evidence of the irregularly flooded tidal regime. (Municipality of Anchorage, Alaska; June 1985; Photo by F.C. Golet)



Plate 16. Kind of system: Estuarine Vegetation: Emergent Code 21 Dominance type: Saltmarsh cordgrass. Saltmarsh cordgrass is the only plant growing in the regularly flooded zone of this salt marsh. Saltmeadow cordgrass, seaside goldenrod, and the sedge, *Carex paleacea*, grow at the landward edge of the marsh. The photo was taken at high tide. (Essex County, Massachusetts: September 1985; Photo by F.C. Golet)



Plate 17. Kind of system: Estuarine Vegetation: Emergent Code 21 Dominance type: California cordgrass. The most common subordinate plants are glassworts. This wetland borders an irregularly flooded emergent wetland dominated by glasswort. The photo was taken at high tide. (San Mateo County, California; August 1976; Photo by V. Carter)



Plate 18. Kind of system: Estuarine Vegetation: Emergent. Code 21. Dominance type: Sedge. The photo was taken at low tide. (Coos County, Oregon; May 1977; Photo by D.D. Peters)



Plate 19. Kind of system: Estuarine. Vegetation: Emergent. Code 21. Dominance type: Arrow grass. Subordinate plants include samphire and seaside plantain. This stand is located at the seaward edge of the irregularly flooded zone where it is inundated by most, but not all, high tides. Water depth is less than 5 cm (2 in.). Slightly more elevated stands of *Triglochin maritimum* contain little or no standing water between periods of inundation. (Municipality of Anchorage, Alaska; June 1985; Photo by F.C. Golet)



Plate 20. Kind of system: Estuarine. Vegetation: Emergent. Code 21. Dominance type: Reed. Saltmeadow cordgrass and saltmarsh cordgrass are subordinate species. (Washington County, Rhode Island; July 1977; Photo by F.C. Golet)



Plate 21. Kind of system: Estuarine. Vegetation: Emergent. Code 21. Dominance type: Common threesquare. Subordinate species include saltmeadow cordgrass and saltmarsh cordgrass; these appear as a fringe at the water's edge. (Dorchester County, Maryland; June 1974; Photo by V. Carter)



Plate 22. Kind of system: Estuarine Vegetation: Emergent Code 21 Dominance type: Sedge. Subordinate species include sedge, silverweed, arrow grass, and mare's tail. Located on the floodplain of a tidal river, this site receives freshwater runoff from the Chugach Mountains and the Twenty-mile Glacier (center back-ground), and is also inundated by exceptionally high tides. Soil salinity during October 1985 was 3.0 0 / 00. (Municipality of Anchorage, Alaska; June 1985; Photo by F.C. Golet)

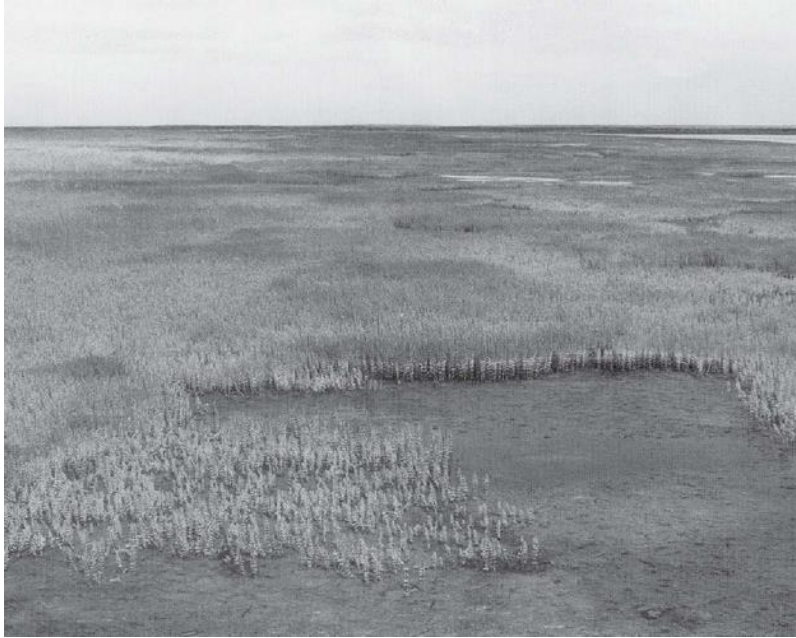


Plate 23. Kind of system: Estuarine Vegetation: Emergent Code 21 Dominance type: Mare's tail. This stand of mare's tail lies at the landward limit of the regularly flooded zone, where the substrate is covered with several centimeters of water at high tide. The Azun River, source of the tidal water, is just visible at the right-hand edge of the photo. (Mouth of Azun River, Yukon-Kuskokwim Delta, Alaska; July 1985; Photo by F.C. Golet)



Plate 24. Kind of system: Estuarine. Vegetation: Scrub-shrub. Code 22. Dominance type: Marsh elder. Subordinate plants growing beneath the marsh elder are black grass, salt grass, and saltmeadow cordgrass. This wetland lies toward the landward edge of an irregularly flooded persistent-emergent wetland dominated by saltmarsh cordgrass, saltmeadow cordgrass, and salt grass (background). (Washington County, Rhode Island; July 1977; Photo by F.C. Golet)



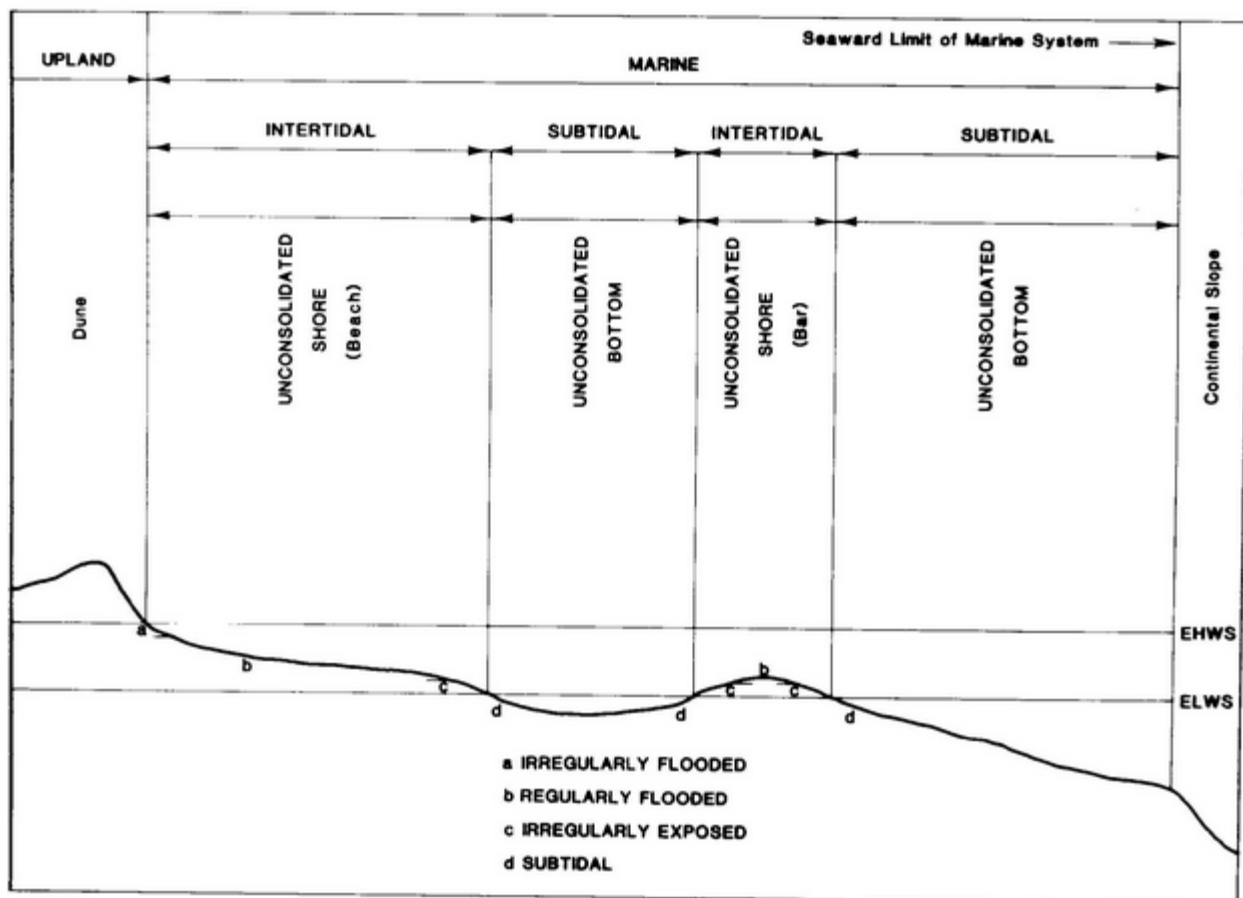
Plate 25. Kind of system: Estuarine. Vegetation: Scrub-shrub. Code 22. Dominance type: Red mangrove. This mangrove swamp is located in the southern part of the Florida Everglades. (Dade County, Florida; December 1975; Photo by V. Carter)

## Marine System Photo Examples

Cowardin et al. 1979

### Marine System

The Marine System consists of open ocean overlying the continental shelf and its associated high energy coastline. Marine habitats are exposed to the waves and currents of the open ocean, and the water regimes are determined primarily by the ebb and flow of oceanic tides (fig. 1). Salinity exceeds 30 parts per thousand, with little or no dilution except outside the mouths of estuaries. Shallow coastal indentations or bays without appreciable freshwater inflow and coasts with exposed rocky islands that provide the mainland with little or no shelter from wind and waves are also considered part of the Marine System because they generally support typical marine biota. [Cowardin et al. 1979] Marine subtidal habitats are all deepwater, while Marine intertidal habitats are classified as wetland. If the NRI land cover/use is not bay or gulf, but is a non-water cover/use (i.e., beach, sand dune, bare exposed rock, mixed barren, or mud flat), then the point must be classified as a wetland (intertidal). If the point is permanently covered with water (the NRI land cover/use is bay or gulf), the point must be classified as a deepwater habitat (subtidal).



**Figure 1** Distinguishing features and examples of habitats in the Marine System (EHWS=extreme high water of spring tides; ELWS=extreme low water of spring tides) [Cowardin, et al. 1979]

The following photographs represent Marine Systems from Classification of Wetlands and Deepwater Habitats (Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. U.S. Fish and Wildlife Service, FWS/OBS-79/31, 131 p.). They provide examples of the classification system. The appropriate NRI code has been added to each photograph.



Plate 1. Kind of system: Marine. Vegetation: None or Other. Code 10. This underwater photograph shows colonies of common sea fans and other gorgonians living on bedrock. Bare rock is visible in the center and lower left corner of the photo. (Monroe County, Florida; July 1969; Photo by E.T. LaRoe)



Plate 2. Kind of system: Marine. Vegetation: None or Other. Code 10. This underwater photograph shows corals as well as several species of gorgonians. (Monroe County, Florida; August 1970; Photo by E. T. LaRoe)



Plate 3. Kind of system: Marine. Vegetation: None, or Other. Code 10. Subordinate plants in the aquatic bed include rockweed, knotted wrack, and Irish moss. This photo was taken at low tide. (Newport County, Rhode Island; July 1977; Photo by F.C. Golet)



Plate 4. Kind of system: Marine. Vegetation: None, or Other. Code 10. Most stones are larger than 30.5 cm (12 in) in diameter. (Washington County, Rhode Island; July 1977; Photo by F.C. Golet)



Plate 5. Kind of system: Marine. Vegetation: None or Other. Code 10. Lines of wrack on the beach mark the landward limit of various high tides during the past several days. The photo was taken at low tide. (Parker River National Wildlife Refuge, Essex County, Massachusetts; September 1985; Photo by F. C. Golet)



Plate 6. Kind of system: Marine. Vegetation: None, or Other. Code 10. (Point Reyes National Seashore, Marin County, California; August 1975; Photo by V. Carter)

#### 4.4 Lists of Average Rights-of-Way

In the absence of photo-interpretable rights-of-way, use the county lists of average rights-of-way. If the county of interest is not included in the county list, use the state list of average rights-of-way. The tables are as follows:

- [Table 14. State List of Average Rights-of-Way](#)
- [Table 15. ERSL County List of Average Rights-of-Way](#)
- [Table 16. CRSL County List of Average Rights-of-Way](#)
- [Table 17. WRS� County List of Average Rights-of-Way](#)

**Table 14. State List of Average Rights-of-Way**

Average Road Widths (in feet) by State and Road Type			
Source: 1992 NRI County Base Data (Average weighted by miles of road type in the county)			
FIPS	State	Paved < 4 Lanes	Unpaved
01	Alabama	79	41
04	Arizona	96	58
05	Arkansas	73	57
06	California	75	31
08	Colorado	89	56
09	Connecticut	63	56
10	Delaware	60	30
12	Florida	77	51
13	Georgia	58	33
15	Hawaii	66	27
16	Idaho	76	45
17	Illinois	64	46
18	Indiana	50	37
19	Iowa	109	67
20	Kansas	93	57
21	Kentucky	66	38
22	Louisiana	96	48
23	Maine	73	54
24	Maryland	54	29
25	Massachusetts	59	32
26	Michigan	80	63
27	Minnesota	105	64
28	Mississippi	80	48
29	Missouri	80	59
30	Montana	105	51
31	Nebraska	111	65
32	Nevada	180	38
33	New Hampshire	55	43

34	New Jersey	42	30
35	New Mexico	108	41
36	New York	57	43
37	North Carolina	76	57
38	North Dakota	164	69
39	Ohio	59	44
40	Oklahoma	79	53
41	Oregon	67	36
42	Pennsylvania	54	34
44	Rhode Island	54	45
45	South Carolina	68	44
46	South Dakota	139	73
47	Tennessee	58	41
48	Texas	104	49
49	Utah	100	52
50	Vermont	52	50
51	Virginia	53	34
53	Washington	65	41
54	West Virginia	56	30
55	Wisconsin	69	52
56	Wyoming	143	55
72	Caribbean	65	30

**Table 15. ERSI County List of Average Rights-of-Way**

<b>Average Road Widths (in feet) by County and Road Type</b>				
<b>Source: 1992 NRI County Base Data</b>				
<b>(Average weighted by miles of road type in the county)</b>				
<b>FIPS</b>	<b>State</b>	<b>County</b>	<b>Paved &lt; 4 Lanes</b>	<b>Unpaved</b>
01001	Alabama	Autauga	84	35
01003	Alabama	Baldwin	77	40
01005	Alabama	Barbour	91	60
01007	Alabama	Bibb	46	20
01009	Alabama	Blount	89	20
01011	Alabama	Bullock	78	50
01013	Alabama	Butler	80	60
01015	Alabama	Calhoun	73	45
01017	Alabama	Chambers	64	30
01019	Alabama	Cherokee	72	40
01021	Alabama	Chilton	80	29
01023	Alabama	Choctaw	74	60
01025	Alabama	Clarke	97	29

01027	Alabama	Clay	85	32
01029	Alabama	Cleburne	87	57
01031	Alabama	Coffee	86	25
01033	Alabama	Colbert	87	55
01035	Alabama	Conecuh	84	40
01037	Alabama	Coosa	68	30
01039	Alabama	Covington	84	25
01041	Alabama	Crenshaw	82	51
01043	Alabama	Cullman	87	30
01045	Alabama	Dale	90	40
01047	Alabama	Dallas	85	59
01049	Alabama	De Kalb	79	60
01051	Alabama	Elmore	92	45
01053	Alabama	Escambia	70	25
01055	Alabama	Etowah	50	22
01057	Alabama	Fayette	69	21
01059	Alabama	Franklin	84	60
01061	Alabama	Geneva	85	40
01063	Alabama	Greene	82	50
01065	Alabama	Hale	81	60
01067	Alabama	Henry	90	40
01069	Alabama	Houston	82	60
01071	Alabama	Jackson	77	15
01073	Alabama	Jefferson	63	50
01075	Alabama	Lamar	83	40
01077	Alabama	Lauderdale	82	41
01079	Alabama	Lawrence	91	71
01081	Alabama	Lee	82	40
01083	Alabama	Limestone	69	40
01085	Alabama	Lowndes	108	39
01087	Alabama	Macon	92	50
01089	Alabama	Madison	55	49
01091	Alabama	Marengo	98	40
01093	Alabama	Marion	92	40
01095	Alabama	Marshall	67	60
01097	Alabama	Mobile	65	51
01099	Alabama	Monroe	92	30
01101	Alabama	Montgomery	110	32
01103	Alabama	Morgan	53	40
01105	Alabama	Perry	85	57
01107	Alabama	Pickens	93	30
01109	Alabama	Pike	89	29
01111	Alabama	Randolph	93	35
01113	Alabama	Russell	78	60
01115	Alabama	St Clair	85	40

01117	Alabama	Shelby	78	32
01119	Alabama	Sumter	86	40
01121	Alabama	Talladega	84	47
01123	Alabama	Tallapoosa	95	30
01125	Alabama	Tuscaloosa	78	35
01127	Alabama	Walker	75	58
01129	Alabama	Washington	90	24
01131	Alabama	Wilcox	91	30
01133	Alabama	Winston	91	58
09001	Connecticut	Fairfield	61	55
09003	Connecticut	Hartford	66	60
09005	Connecticut	Litchfield	63	55
09007	Connecticut	Middlesex	62	55
09009	Connecticut	New Haven	60	55
09011	Connecticut	New London	63	54
09013	Connecticut	Tolland	64	55
09015	Connecticut	Windham	61	55
10001	Delaware	Kent	65	30
10003	Delaware	New Castle	75	29
10005	Delaware	Sussex	53	30
12001	Florida	Alachua	100	75
12003	Florida	Baker	63	51
12005	Florida	Bay	79	30
12007	Florida	Bradford	77	50
12009	Florida	Brevard	54	30
12011	Florida	Broward	98	52
12013	Florida	Calhoun	82	30
12015	Florida	Charlotte	61	60
12017	Florida	Citrus	55	50
12019	Florida	Clay	62	62
12021	Florida	Collier	52	50
12023	Florida	Columbia	75	50
12025	Florida	Dade	85	47
12027	Florida	De Soto	69	50
12029	Florida	Dixie	82	40
12031	Florida	Duval	63	30
12033	Florida	Escambia	107	20
12035	Florida	Flagler	97	99
12037	Florida	Franklin	65	30
12039	Florida	Gadsden	97	41
12041	Florida	Gilchrist	90	90
12043	Florida	Glades	70	50
12045	Florida	Gulf	78	45
12047	Florida	Hamilton	100	80
12049	Florida	Hardee	70	40

12051	Florida	Hendry	61	43
12053	Florida	Hernando	83	83
12055	Florida	Highlands	71	50
12057	Florida	Hillsborough	60	20
12059	Florida	Holmes	73	20
12061	Florida	Indian River	78	60
12063	Florida	Jackson	100	59
12065	Florida	Jefferson	113	40
12067	Florida	Lafayette	100	82
12069	Florida	Lake	70	60
12071	Florida	Lee	62	39
12073	Florida	Leon	70	33
12075	Florida	Levy	78	40
12077	Florida	Liberty	80	30
12079	Florida	Madison	101	50
12081	Florida	Manatee	89	60
12083	Florida	Marion	65	47
12085	Florida	Martin	138	127
12087	Florida	Monroe	92	96
12089	Florida	Nassau	77	30
12091	Florida	Okaloosa	127	25
12093	Florida	Okeechobee	94	60
12095	Florida	Orange	82	20
12097	Florida	Osceola	110	52
12099	Florida	Palm Beach	116	52
12101	Florida	Pasco	116	40
12103	Florida	Pinellas	49	51
12105	Florida	Polk	72	60
12107	Florida	Putnam	55	40
12109	Florida	St Johns	76	60
12111	Florida	St Lucie	128	41
12113	Florida	Santa Rosa	75	60
12115	Florida	Sarasota	65	61
12117	Florida	Seminole	83	50
12119	Florida	Sumter	38	50
12121	Florida	Suwannee	68	50
12123	Florida	Taylor	97	99
12125	Florida	Union	72	50
12127	Florida	Volusia	70	20
12129	Florida	Wakulla	71	30
12131	Florida	Walton	120	100
12133	Florida	Washington	67	53
13001	Georgia	Appling	77	30
13003	Georgia	Atkinson	46	30
13005	Georgia	Bacon	40	30

13007	Georgia	Baker	44	30
13009	Georgia	Baldwin	41	30
13011	Georgia	Banks	69	30
13013	Georgia	Barrow	46	30
13015	Georgia	Bartow	51	30
13017	Georgia	Ben Hill	82	30
13019	Georgia	Berrien	53	30
13021	Georgia	Bibb	38	29
13023	Georgia	Bleckley	67	24
13025	Georgia	Brantley	58	30
13027	Georgia	Brooks	87	35
13029	Georgia	Bryan	44	30
13031	Georgia	Bulloch	64	40
13033	Georgia	Burke	44	28
13035	Georgia	Butts	71	30
13037	Georgia	Calhoun	45	30
13039	Georgia	Camden	50	33
13043	Georgia	Candler	60	28
13045	Georgia	Carroll	66	40
13047	Georgia	Catoosa	47	30
13049	Georgia	Charlton	56	30
13051	Georgia	Chatham	40	30
13053	Georgia	Chattahoochee	44	30
13055	Georgia	Chattooga	35	30
13057	Georgia	Cherokee	85	30
13059	Georgia	Clarke	47	21
13061	Georgia	Clay	41	30
13063	Georgia	Clayton	77	30
13065	Georgia	Clinch	51	30
13067	Georgia	Cobb	60	45
13069	Georgia	Coffee	44	30
13071	Georgia	Colquitt	81	50
13073	Georgia	Columbia	68	32
13075	Georgia	Cook	75	29
13077	Georgia	Coweta	49	30
13079	Georgia	Crawford	41	30
13081	Georgia	Crisp	87	35
13083	Georgia	Dade	58	30
13085	Georgia	Dawson	71	31
13087	Georgia	Decatur	43	30
13089	Georgia	De Kalb	60	38
13091	Georgia	Dodge	80	28
13093	Georgia	Dooly	65	40
13095	Georgia	Dougherty	39	30
13097	Georgia	Douglas	51	30

13099	Georgia	Early	54	30
13101	Georgia	Echols	50	29
13103	Georgia	Effingham	47	27
13105	Georgia	Elbert	78	30
13107	Georgia	Emanuel	82	60
13109	Georgia	Evans	60	22
13111	Georgia	Fannin	55	30
13113	Georgia	Fayette	60	25
13115	Georgia	Floyd	41	30
13117	Georgia	Forsyth	72	31
13119	Georgia	Franklin	38	30
13121	Georgia	Fulton	102	50
13123	Georgia	Gilmer	93	30
13125	Georgia	Glascok	66	31
13127	Georgia	Glynn	40	31
13129	Georgia	Gordon	37	30
13131	Georgia	Grady	55	53
13133	Georgia	Greene	58	53
13135	Georgia	Gwinnett	83	30
13137	Georgia	Habersham	88	30
13139	Georgia	Hall	47	30
13141	Georgia	Hancock	40	29
13143	Georgia	Haralson	79	39
13145	Georgia	Harris	43	30
13147	Georgia	Hart	35	33
13149	Georgia	Heard	80	30
13151	Georgia	Henry	60	30
13153	Georgia	Houston	60	30
13155	Georgia	Irwin	88	29
13157	Georgia	Jackson	38	30
13159	Georgia	Jasper	84	30
13161	Georgia	Jeff Davis	41	30
13163	Georgia	Jefferson	80	30
13165	Georgia	Jenkins	68	30
13167	Georgia	Johnson	67	30
13169	Georgia	Jones	39	30
13171	Georgia	Lamar	36	30
13173	Georgia	Lanier	46	30
13175	Georgia	Laurens	43	30
13177	Georgia	Lee	46	30
13179	Georgia	Liberty	55	30
13181	Georgia	Lincoln	71	30
13183	Georgia	Long	45	30
13185	Georgia	Lowndes	47	31
13187	Georgia	Lumpkin	52	25

13189	Georgia	McDuffie	85	30
13191	Georgia	McIntosh	43	30
13193	Georgia	Macon	44	30
13195	Georgia	Madison	65	30
13197	Georgia	Marion	65	27
13199	Georgia	Meriwether	65	62
13201	Georgia	Miller	80	30
13205	Georgia	Mitchell	88	41
13207	Georgia	Monroe	38	30
13209	Georgia	Montgomery	43	30
13211	Georgia	Morgan	39	30
13213	Georgia	Murray	37	30
13215	Georgia	Muscogee	69	54
13217	Georgia	Newton	64	30
13219	Georgia	Oconee	71	30
13221	Georgia	Oglethorpe	66	30
13223	Georgia	Paulding	57	31
13225	Georgia	Peach	39	27
13227	Georgia	Pickens	20	20
13229	Georgia	Pierce	97	33
13231	Georgia	Pike	36	18
13233	Georgia	Polk	45	30
13235	Georgia	Pulaski	60	31
13237	Georgia	Putnam	45	30
13239	Georgia	Quitman	40	30
13241	Georgia	Rabun	40	29
13243	Georgia	Randolph	40	30
13245	Georgia	Richmond	75	58
13247	Georgia	Rockdale	59	28
13249	Georgia	Schley	42	30
13251	Georgia	Screven	88	60
13253	Georgia	Seminole	66	30
13255	Georgia	Spalding	63	26
13257	Georgia	Stephens	71	31
13259	Georgia	Stewart	42	30
13261	Georgia	Sumter	44	33
13263	Georgia	Talbot	46	50
13265	Georgia	Taliaferro	43	30
13267	Georgia	Tattnall	80	30
13269	Georgia	Taylor	47	30
13271	Georgia	Telfair	46	30
13273	Georgia	Terrell	67	30
13275	Georgia	Thomas	68	40
13277	Georgia	Tift	87	30
13279	Georgia	Toombs	80	30

13281	Georgia	Towns	46	29
13283	Georgia	Treutlen	45	30
13285	Georgia	Troup	56	106
13287	Georgia	Turner	81	29
13289	Georgia	Twiggs	42	28
13291	Georgia	Union	53	30
13293	Georgia	Upton	37	30
13295	Georgia	Walker	60	30
13297	Georgia	Walton	80	57
13299	Georgia	Ware	84	30
13301	Georgia	Warren	87	35
13303	Georgia	Washington	67	30
13305	Georgia	Wayne	80	30
13307	Georgia	Webster	39	29
13309	Georgia	Wheeler	42	30
13311	Georgia	White	70	30
13313	Georgia	Whitfield	38	30
13315	Georgia	Wilcox	60	27
13317	Georgia	Wilkes	80	30
13319	Georgia	Wilkinson	43	30
13321	Georgia	Worth	90	31
18001	Indiana	Adams	50	30
18003	Indiana	Allen	58	49
18005	Indiana	Bartholomew	44	36
18007	Indiana	Benton	64	43
18009	Indiana	Blackford	61	40
18011	Indiana	Boone	47	32
18013	Indiana	Brown	43	31
18015	Indiana	Carroll	39	33
18017	Indiana	Cass	41	33
18019	Indiana	Clark	39	30
18021	Indiana	Clay	40	30
18023	Indiana	Clinton	47	35
18025	Indiana	Crawford	47	35
18027	Indiana	Daviess	56	40
18029	Indiana	Dearborn	57	40
18031	Indiana	Decatur	48	30
18033	Indiana	De Kalb	44	40
18035	Indiana	Delaware	63	37
18037	Indiana	Dubois	57	50
18039	Indiana	Elkhart	52	42
18041	Indiana	Fayette	37	30
18043	Indiana	Floyd	46	40
18045	Indiana	Fountain	55	35
18047	Indiana	Franklin	44	30

18049	Indiana	Fulton	47	33
18051	Indiana	Gibson	67	39
18053	Indiana	Grant	40	37
18055	Indiana	Greene	36	29
18057	Indiana	Hamilton	49	40
18059	Indiana	Hancock	40	30
18061	Indiana	Harrison	36	30
18063	Indiana	Hendricks	43	35
18065	Indiana	Henry	53	35
18067	Indiana	Howard	58	50
18069	Indiana	Huntington	54	35
18071	Indiana	Jackson	48	30
18073	Indiana	Jasper	50	46
18075	Indiana	Jay	46	40
18077	Indiana	Jefferson	38	31
18079	Indiana	Jennings	39	30
18081	Indiana	Johnson	39	33
18083	Indiana	Knox	64	39
18085	Indiana	Kosciusko	44	40
18087	Indiana	La Grange	62	50
18089	Indiana	Lake	46	40
18091	Indiana	La Porte	48	40
18093	Indiana	Lawrence	67	50
18095	Indiana	Madison	42	35
18097	Indiana	Marion	46	37
18099	Indiana	Marshall	52	38
18101	Indiana	Martin	39	33
18103	Indiana	Miami	78	35
18105	Indiana	Monroe	54	28
18107	Indiana	Montgomery	53	40
18109	Indiana	Morgan	45	30
18111	Indiana	Newton	68	55
18113	Indiana	Noble	46	40
18115	Indiana	Ohio	46	40
18117	Indiana	Orange	56	30
18119	Indiana	Owen	52	39
18121	Indiana	Parke	39	34
18123	Indiana	Perry	47	40
18125	Indiana	Pike	76	34
18127	Indiana	Porter	63	60
18129	Indiana	Posey	72	30
18131	Indiana	Pulaski	44	39
18133	Indiana	Putnam	48	40
18135	Indiana	Randolph	46	35
18137	Indiana	Ripley	39	32

18139	Indiana	Rush	38	35
18141	Indiana	St Joseph	44	37
18143	Indiana	Scott	45	30
18145	Indiana	Shelby	32	37
18147	Indiana	Spencer	55	40
18149	Indiana	Starke	44	40
18151	Indiana	Steuben	59	48
18153	Indiana	Sullivan	88	40
18155	Indiana	Switzerland	40	32
18157	Indiana	Tippecanoe	55	40
18159	Indiana	Tipton	59	50
18161	Indiana	Union	63	60
18163	Indiana	Vanderburgh	63	45
18165	Indiana	Vermillion	77	40
18167	Indiana	Vigo	57	45
18169	Indiana	Wabash	45	30
18171	Indiana	Warren	84	40
18173	Indiana	Warrick	46	33
18175	Indiana	Washington	39	30
18177	Indiana	Wayne	43	37
18179	Indiana	Wells	48	40
18181	Indiana	White	50	40
18183	Indiana	Whitley	44	35
21001	Kentucky	Adair	52	31
21003	Kentucky	Allen	61	30
21005	Kentucky	Anderson	142	29
21007	Kentucky	Ballard	58	39
21009	Kentucky	Barren	59	40
21011	Kentucky	Bath	54	36
21013	Kentucky	Bell	62	43
21015	Kentucky	Boone	62	38
21017	Kentucky	Bourbon	65	38
21019	Kentucky	Boyd	46	41
21021	Kentucky	Boyle	57	29
21023	Kentucky	Bracken	94	26
21025	Kentucky	Breathitt	99	30
21027	Kentucky	Breckinridge	59	51
21029	Kentucky	Bullitt	43	30
21031	Kentucky	Butler	105	42
21033	Kentucky	Caldwell	61	32
21035	Kentucky	Calloway	47	38
21037	Kentucky	Campbell	78	38
21039	Kentucky	Carlisle	59	34
21041	Kentucky	Carroll	66	30
21043	Kentucky	Carter	50	30

21045	Kentucky	Casey	48	30
21047	Kentucky	Christian	69	50
21049	Kentucky	Clark	54	30
21051	Kentucky	Clay	88	39
21053	Kentucky	Clinton	61	38
21055	Kentucky	Crittenden	54	36
21057	Kentucky	Cumberland	63	30
21059	Kentucky	Daviess	66	60
21061	Kentucky	Edmonson	60	37
21063	Kentucky	Elliott	60	60
21065	Kentucky	Estill	45	28
21067	Kentucky	Fayette	69	38
21069	Kentucky	Fleming	56	30
21071	Kentucky	Floyd	92	33
21073	Kentucky	Franklin	56	26
21075	Kentucky	Fulton	72	30
21077	Kentucky	Gallatin	51	41
21079	Kentucky	Garrard	64	40
21081	Kentucky	Grant	43	30
21083	Kentucky	Graves	57	30
21085	Kentucky	Grayson	72	41
21087	Kentucky	Green	56	30
21089	Kentucky	Greenup	54	30
21091	Kentucky	Hancock	60	47
21093	Kentucky	Hardin	106	22
21095	Kentucky	Harlan	70	35
21097	Kentucky	Harrison	55	30
21099	Kentucky	Hart	42	35
21101	Kentucky	Henderson	61	28
21103	Kentucky	Henry	46	30
21105	Kentucky	Hickman	67	60
21107	Kentucky	Hopkins	66	34
21109	Kentucky	Jackson	64	30
21111	Kentucky	Jefferson	71	18
21113	Kentucky	Jessamine	67	29
21115	Kentucky	Johnson	85	31
21117	Kentucky	Kenton	58	38
21119	Kentucky	Knott	114	30
21121	Kentucky	Knox	64	39
21123	Kentucky	Larue	103	30
21125	Kentucky	Laurel	62	50
21127	Kentucky	Lawrence	97	52
21129	Kentucky	Lee	68	30
21131	Kentucky	Leslie	80	28
21133	Kentucky	Letcher	70	31

21135	Kentucky	Lewis	66	60
21137	Kentucky	Lincoln	55	50
21139	Kentucky	Livingston	60	35
21141	Kentucky	Logan	56	50
21143	Kentucky	Lyon	75	52
21145	Kentucky	McCracken	58	61
21147	Kentucky	McCreary	67	37
21149	Kentucky	McLean	61	30
21151	Kentucky	Madison	62	54
21153	Kentucky	Magoffin	70	40
21155	Kentucky	Marion	69	30
21157	Kentucky	Marshall	79	60
21159	Kentucky	Martin	58	20
21161	Kentucky	Mason	86	30
21163	Kentucky	Meade	62	54
21165	Kentucky	Menifee	45	28
21167	Kentucky	Mercer	57	34
21169	Kentucky	Metcalfe	66	33
21171	Kentucky	Monroe	50	30
21173	Kentucky	Montgomery	43	33
21175	Kentucky	Morgan	63	36
21177	Kentucky	Muhlenberg	46	30
21179	Kentucky	Nelson	101	34
21181	Kentucky	Nicholas	60	50
21183	Kentucky	Ohio	138	60
21185	Kentucky	Oldham	57	32
21187	Kentucky	Owen	65	29
21189	Kentucky	Owsley	68	30
21191	Kentucky	Pendleton	57	30
21193	Kentucky	Perry	89	28
21195	Kentucky	Pike	94	32
21197	Kentucky	Powell	105	30
21199	Kentucky	Pulaski	72	48
21201	Kentucky	Robertson	60	49
21203	Kentucky	Rockcastle	57	31
21205	Kentucky	Rowan	57	40
21207	Kentucky	Russell	74	60
21209	Kentucky	Scott	68	40
21211	Kentucky	Shelby	56	30
21213	Kentucky	Simpson	58	30
21215	Kentucky	Spencer	49	20
21217	Kentucky	Taylor	54	30
21219	Kentucky	Todd	60	48
21221	Kentucky	Trigg	54	40
21223	Kentucky	Trimble	48	30

21225	Kentucky	Union	60	50
21227	Kentucky	Warren	69	31
21229	Kentucky	Washington	81	30
21231	Kentucky	Wayne	68	74
21233	Kentucky	Webster	33	30
21235	Kentucky	Whitley	59	37
21237	Kentucky	Wolfe	64	31
21239	Kentucky	Woodford	67	38
23001	Maine	Androscoggin	71	50
23003	Maine	Aroostook	71	50
23005	Maine	Cumberland	69	50
23007	Maine	Franklin	72	50
23009	Maine	Hancock	119	79
23011	Maine	Kennebec	62	50
23013	Maine	Knox	66	21
23015	Maine	Lincoln	66	21
23017	Maine	Oxford	72	55
23019	Maine	Penobscot	81	60
23021	Maine	Piscataquis	72	50
23023	Maine	Sagadahoc	71	50
23025	Maine	Somerset	72	49
23027	Maine	Waldo	73	50
23029	Maine	Washington	70	60
23031	Maine	York	71	50
24001	Maryland	Allegany	65	50
24003	Maryland	Anne Arundel	40	29
24005	Maryland	Baltimore	51	29
24009	Maryland	Calvert	34	31
24011	Maryland	Caroline	57	40
24013	Maryland	Carroll	53	20
24015	Maryland	Cecil	44	31
24017	Maryland	Charles	76	24
24019	Maryland	Dorchester	47	28
24021	Maryland	Frederick	82	25
24023	Maryland	Garrett	44	30
24025	Maryland	Harford	26	12
24027	Maryland	Howard	44	29
24029	Maryland	Kent	39	29
24031	Maryland	Montgomery	54	30
24033	Maryland	Prince Georges	60	26
24035	Maryland	Queen Annes	61	39
24037	Maryland	St Marys	52	41
24039	Maryland	Somerset	37	28
24041	Maryland	Talbot	52	36
24043	Maryland	Washington	63	50

24045	Maryland	Wicomico	52	30
24047	Maryland	Worcester	45	17
25001	Massachusetts	Barnstable	50	30
25003	Massachusetts	Berkshire	74	38
25005	Massachusetts	Bristol	51	30
25007	Massachusetts	Dukes	50	30
25009	Massachusetts	Essex	56	30
25011	Massachusetts	Franklin	53	31
25013	Massachusetts	Hampden	53	30
25015	Massachusetts	Hampshire	51	30
25017	Massachusetts	Middlesex	57	30
25019	Massachusetts	Nantucket	50	30
25021	Massachusetts	Norfolk	52	30
25023	Massachusetts	Plymouth	59	30
25025	Massachusetts	Suffolk	59	25
25027	Massachusetts	Worcester	71	35
26001	Michigan	Alcona	86	66
26003	Michigan	Alger	103	66
26005	Michigan	Allegan	76	66
26007	Michigan	Alpena	85	70
26009	Michigan	Antrim	76	66
26011	Michigan	Arenac	85	66
26013	Michigan	Baraga	116	63
26015	Michigan	Barry	67	66
26017	Michigan	Bay	73	66
26019	Michigan	Benzie	75	66
26021	Michigan	Berrien	67	66
26023	Michigan	Branch	68	66
26025	Michigan	Calhoun	68	66
26027	Michigan	Cass	71	66
26029	Michigan	Charlevoix	77	66
26031	Michigan	Cheboygan	105	66
26033	Michigan	Chippewa	76	66
26035	Michigan	Clare	101	62
26037	Michigan	Clinton	75	66
26039	Michigan	Crawford	83	66
26041	Michigan	Delta	86	38
26043	Michigan	Dickinson	117	66
26045	Michigan	Eaton	76	66
26047	Michigan	Emmet	70	66
26049	Michigan	Genesee	131	66
26051	Michigan	Gladwin	88	63
26053	Michigan	Gogebic	86	48
26055	Michigan	Grand Traverse	85	74
26057	Michigan	Gratiot	85	66

26059	Michigan	Hillsdale	102	62
26061	Michigan	Houghton	94	60
26063	Michigan	Huron	84	66
26065	Michigan	Ingham	69	66
26067	Michigan	Ionia	72	66
26069	Michigan	Iosco	86	66
26071	Michigan	Iron	121	66
26073	Michigan	Isabella	70	66
26075	Michigan	Jackson	70	66
26077	Michigan	Kalamazoo	73	59
26079	Michigan	Kalkaska	91	66
26081	Michigan	Kent	79	66
26083	Michigan	Keweenaw	83	66
26085	Michigan	Lake	73	66
26087	Michigan	Lapeer	79	66
26089	Michigan	Leelanau	71	66
26091	Michigan	Lenawee	66	66
26093	Michigan	Livingston	105	66
26095	Michigan	Luce	79	66
26097	Michigan	Mackinac	86	66
26099	Michigan	Macomb	70	66
26101	Michigan	Manistee	77	47
26103	Michigan	Marquette	84	66
26105	Michigan	Mason	67	66
26107	Michigan	Mecosta	92	67
26109	Michigan	Menominee	77	66
26111	Michigan	Midland	121	66
26113	Michigan	Missaukee	82	67
26115	Michigan	Monroe	72	66
26117	Michigan	Montcalm	71	66
26119	Michigan	Montmorency	95	60
26121	Michigan	Muskegon	70	46
26123	Michigan	Newaygo	66	66
26125	Michigan	Oakland	98	60
26127	Michigan	Oceana	96	66
26129	Michigan	Ogemaw	74	30
26131	Michigan	Ontonagon	103	67
26133	Michigan	Osceola	134	66
26135	Michigan	Oscoda	76	40
26137	Michigan	Otsego	73	66
26139	Michigan	Ottawa	67	66
26141	Michigan	Presque Isle	94	66
26143	Michigan	Roscommon	79	50
26145	Michigan	Saginaw	69	66
26147	Michigan	St Clair	72	66

26149	Michigan	St Joseph	66	59
26151	Michigan	Sanilac	96	67
26153	Michigan	Schoolcraft	86	59
26155	Michigan	Shiawassee	67	66
26157	Michigan	Tuscola	70	66
26159	Michigan	Van Buren	77	66
26161	Michigan	Washtenaw	99	66
26163	Michigan	Wayne	72	66
26165	Michigan	Wexford	67	66
28001	Mississippi	Adams	78	48
28003	Mississippi	Alcorn	84	49
28005	Mississippi	Amite	58	25
28007	Mississippi	Attala	84	50
28009	Mississippi	Benton	84	39
28011	Mississippi	Bolivar	91	75
28013	Mississippi	Calhoun	71	38
28015	Mississippi	Carroll	112	60
28017	Mississippi	Chickasaw	158	46
28019	Mississippi	Choctaw	102	43
28021	Mississippi	Claiborne	81	60
28023	Mississippi	Clarke	61	50
28025	Mississippi	Clay	145	34
28027	Mississippi	Coahoma	77	38
28029	Mississippi	Copiah	85	40
28031	Mississippi	Covington	72	50
28033	Mississippi	De Soto	73	67
28035	Mississippi	Forrest	75	49
28037	Mississippi	Franklin	77	48
28039	Mississippi	George	75	40
28041	Mississippi	Greene	59	39
28043	Mississippi	Grenada	84	50
28045	Mississippi	Hancock	64	40
28047	Mississippi	Harrison	54	40
28049	Mississippi	Hinds	69	60
28051	Mississippi	Holmes	83	40
28053	Mississippi	Humphreys	123	60
28055	Mississippi	Issaquena	96	50
28057	Mississippi	Itawamba	84	40
28059	Mississippi	Jackson	44	44
28061	Mississippi	Jasper	80	51
28063	Mississippi	Jefferson	129	40
28065	Mississippi	Jefferson Davis	65	60
28067	Mississippi	Jones	93	58
28069	Mississippi	Kemper	98	43
28071	Mississippi	Lafayette	69	58

28073	Mississippi	Lamar	65	44
28075	Mississippi	Lauderdale	98	50
28077	Mississippi	Lawrence	60	60
28079	Mississippi	Leake	93	32
28081	Mississippi	Lee	119	50
28083	Mississippi	Leflore	74	40
28085	Mississippi	Lincoln	61	41
28087	Mississippi	Lowndes	85	59
28089	Mississippi	Madison	84	59
28091	Mississippi	Marion	65	60
28093	Mississippi	Marshall	97	73
28095	Mississippi	Monroe	69	53
28097	Mississippi	Montgomery	118	49
28099	Mississippi	Neshoba	95	50
28101	Mississippi	Newton	86	25
28103	Mississippi	Noxubee	86	37
28105	Mississippi	Oktibbeha	92	60
28107	Mississippi	Panola	121	58
28109	Mississippi	Pearl River	73	40
28111	Mississippi	Perry	83	35
28113	Mississippi	Pike	47	34
28115	Mississippi	Pontotoc	129	40
28117	Mississippi	Prentiss	53	23
28119	Mississippi	Quitman	129	55
28121	Mississippi	Rankin	67	45
28123	Mississippi	Scott	67	52
28125	Mississippi	Sharkey	96	59
28127	Mississippi	Simpson	99	60
28129	Mississippi	Smith	81	69
28131	Mississippi	Stone	80	44
28133	Mississippi	Sunflower	62	39
28135	Mississippi	Tallahatchie	75	78
28137	Mississippi	Tate	80	48
28139	Mississippi	Tippah	66	40
28141	Mississippi	Tishomingo	76	71
28143	Mississippi	Tunica	82	50
28145	Mississippi	Union	106	48
28147	Mississippi	Walthall	70	40
28149	Mississippi	Warren	95	60
28151	Mississippi	Washington	79	60
28153	Mississippi	Wayne	63	22
28155	Mississippi	Webster	97	49
28157	Mississippi	Wilkinson	89	56
28159	Mississippi	Winston	67	49
28161	Mississippi	Yalobusha	74	38

28163	Mississippi	Yazoo	86	39
33001	New Hampshire	Belknap	55	36
33003	New Hampshire	Carroll	53	46
33005	New Hampshire	Cheshire	56	40
33007	New Hampshire	Coos	63	39
33009	New Hampshire	Grafton	56	46
33011	New Hampshire	Hillsborough	53	46
33013	New Hampshire	Merrimack	55	45
33015	New Hampshire	Rockingham	56	45
33017	New Hampshire	Strafford	56	45
33019	New Hampshire	Sullivan	56	45
34001	New Jersey	Atlantic	42	28
34003	New Jersey	Bergen	53	34
34005	New Jersey	Burlington	42	30
34007	New Jersey	Camden	45	32
34009	New Jersey	Cape May	43	30
34011	New Jersey	Cumberland	41	30
34013	New Jersey	Essex	40	33
34015	New Jersey	Gloucester	43	30
34017	New Jersey	Hudson	78	28
34019	New Jersey	Hunterdon	32	30
34021	New Jersey	Mercer	42	30
34023	New Jersey	Middlesex	42	25
34025	New Jersey	Monmouth	52	25
34027	New Jersey	Morris	42	30
34029	New Jersey	Ocean	40	30
34031	New Jersey	Passaic	41	30
34033	New Jersey	Salem	42	31
34035	New Jersey	Somerset	41	30
34037	New Jersey	Sussex	36	30
34039	New Jersey	Union	40	29
34041	New Jersey	Warren	37	30
36001	New York	Albany	45	25
36003	New York	Allegany	72	50
36005	New York	Bronx	42	21
36007	New York	Broome	56	50
36009	New York	Cattaraugus	53	53
36011	New York	Cayuga	51	48
36013	New York	Chautauqua	64	48
36015	New York	Chemung	59	50
36017	New York	Chenango	50	50
36019	New York	Clinton	58	58
36021	New York	Columbia	67	33
36023	New York	Cortland	54	50
36025	New York	Delaware	66	50

36027	New York	Dutchess	53	33
36029	New York	Erie	74	39
36031	New York	Essex	58	50
36033	New York	Franklin	51	48
36035	New York	Fulton	59	50
36037	New York	Genesee	53	50
36039	New York	Greene	50	50
36041	New York	Hamilton	50	50
36043	New York	Herkimer	97	50
36045	New York	Jefferson	52	33
36047	New York	Kings	51	43
36049	New York	Lewis	44	30
36051	New York	Livingston	56	50
36053	New York	Madison	53	49
36055	New York	Monroe	55	43
36057	New York	Montgomery	50	50
36059	New York	Nassau	85	43
36061	New York	New York	44	19
36063	New York	Niagara	60	60
36065	New York	Oneida	58	49
36067	New York	Onondaga	68	50
36069	New York	Ontario	59	58
36071	New York	Orange	83	37
36073	New York	Orleans	67	50
36075	New York	Oswego	54	50
36077	New York	Otsego	52	50
36079	New York	Putnam	50	37
36081	New York	Queens	57	30
36083	New York	Rensselaer	70	61
36085	New York	Richmond	69	59
36087	New York	Rockland	41	33
36089	New York	St Lawrence	61	50
36091	New York	Saratoga	51	50
36093	New York	Schenectady	51	50
36095	New York	Schoharie	50	50
36097	New York	Schuyler	33	27
36099	New York	Seneca	57	50
36101	New York	Steuben	55	14
36103	New York	Suffolk	44	43
36105	New York	Sullivan	52	30
36107	New York	Tioga	60	50
36109	New York	Tompkins	33	28
36111	New York	Ulster	44	33
36113	New York	Warren	70	50
36115	New York	Washington	52	50

36117	New York	Wayne	52	53
36119	New York	Westchester	56	50
36121	New York	Wyoming	70	49
36123	New York	Yates	56	50
37001	North Carolina	Alamance	60	60
37003	North Carolina	Alexander	60	30
37005	North Carolina	Alleghany	60	25
37007	North Carolina	Anson	75	60
37009	North Carolina	Ashe	69	62
37011	North Carolina	Avery	61	39
37013	North Carolina	Beaufort	85	60
37015	North Carolina	Bertie	86	53
37017	North Carolina	Bladen	95	60
37019	North Carolina	Brunswick	84	61
37021	North Carolina	Buncombe	75	50
37023	North Carolina	Burke	70	70
37025	North Carolina	Cabarrus	60	60
37027	North Carolina	Caldwell	80	60
37029	North Carolina	Camden	90	60
37031	North Carolina	Carteret	78	60
37033	North Carolina	Caswell	83	60
37035	North Carolina	Catawba	78	60
37037	North Carolina	Chatham	77	60
37039	North Carolina	Cherokee	91	55
37041	North Carolina	Chowan	82	62
37043	North Carolina	Clay	79	60
37045	North Carolina	Cleveland	74	60
37047	North Carolina	Columbus	84	60
37049	North Carolina	Craven	85	60
37051	North Carolina	Cumberland	75	60
37053	North Carolina	Currituck	77	60
37055	North Carolina	Dare	63	58
37057	North Carolina	Davidson	73	59
37059	North Carolina	Davie	60	60
37061	North Carolina	Duplin	69	60
37063	North Carolina	Durham	73	60
37065	North Carolina	Edgecombe	94	53
37067	North Carolina	Forsyth	70	60
37069	North Carolina	Franklin	80	60
37071	North Carolina	Gaston	74	60
37073	North Carolina	Gates	106	69
37075	North Carolina	Graham	98	53
37077	North Carolina	Granville	78	60
37079	North Carolina	Greene	81	60
37081	North Carolina	Guilford	79	52

37083	North Carolina	Halifax	86	60
37085	North Carolina	Harnett	60	45
37087	North Carolina	Haywood	113	31
37089	North Carolina	Henderson	60	60
37091	North Carolina	Hertford	85	59
37093	North Carolina	Hoke	65	60
37095	North Carolina	Hyde	73	61
37097	North Carolina	Iredell	73	60
37099	North Carolina	Jackson	72	50
37101	North Carolina	Johnston	82	60
37103	North Carolina	Jones	87	60
37105	North Carolina	Lee	76	60
37107	North Carolina	Lenoir	77	60
37109	North Carolina	Lincoln	65	60
37111	North Carolina	McDowell	60	50
37113	North Carolina	Macon	81	60
37115	North Carolina	Madison	92	61
37117	North Carolina	Martin	60	60
37119	North Carolina	Mecklenburg	74	60
37121	North Carolina	Mitchell	106	60
37123	North Carolina	Montgomery	87	60
37125	North Carolina	Moore	76	60
37127	North Carolina	Nash	81	60
37129	North Carolina	New Hanover	68	60
37131	North Carolina	Northampton	87	60
37133	North Carolina	Onslow	79	60
37135	North Carolina	Orange	73	60
37137	North Carolina	Pamlico	80	60
37139	North Carolina	Pasquotank	76	60
37141	North Carolina	Pender	87	60
37143	North Carolina	Perquimans	81	60
37145	North Carolina	Person	68	60
37147	North Carolina	Pitt	85	60
37149	North Carolina	Polk	72	60
37151	North Carolina	Randolph	73	60
37153	North Carolina	Richmond	73	58
37155	North Carolina	Robeson	79	60
37157	North Carolina	Rockingham	83	60
37159	North Carolina	Rowan	71	60
37161	North Carolina	Rutherford	73	50
37163	North Carolina	Sampson	77	60
37165	North Carolina	Scotland	72	60
37167	North Carolina	Stanly	72	60
37169	North Carolina	Stokes	68	60
37171	North Carolina	Surry	73	60

37173	North Carolina	Swain	91	60
37175	North Carolina	Transylvania	64	60
37177	North Carolina	Tyrrell	60	60
37179	North Carolina	Union	73	60
37181	North Carolina	Vance	76	60
37183	North Carolina	Wake	73	60
37185	North Carolina	Warren	28	20
37187	North Carolina	Washington	71	60
37189	North Carolina	Watauga	60	32
37191	North Carolina	Wayne	77	60
37193	North Carolina	Wilkes	70	60
37195	North Carolina	Wilson	85	60
37197	North Carolina	Yadkin	62	40
37199	North Carolina	Yancey	90	60
39001	Ohio	Adams	39	32
39003	Ohio	Allen	53	44
39005	Ohio	Ashland	55	40
39007	Ohio	Ashtabula	87	66
39009	Ohio	Athens	90	45
39011	Ohio	Auglaize	48	41
39013	Ohio	Belmont	46	29
39015	Ohio	Brown	125	59
39017	Ohio	Butler	50	44
39019	Ohio	Carroll	46	30
39021	Ohio	Champaign	70	40
39023	Ohio	Clark	66	39
39025	Ohio	Clermont	44	30
39027	Ohio	Clinton	50	40
39029	Ohio	Columbiana	73	50
39031	Ohio	Coshocton	71	50
39033	Ohio	Crawford	57	45
39035	Ohio	Cuyahoga	54	44
39037	Ohio	Darke	61	53
39039	Ohio	Defiance	60	50
39041	Ohio	Delaware	54	50
39043	Ohio	Erie	53	52
39045	Ohio	Fairfield	58	46
39047	Ohio	Fayette	53	41
39049	Ohio	Franklin	60	44
39051	Ohio	Fulton	51	60
39053	Ohio	Gallia	66	56
39055	Ohio	Geauga	60	60
39057	Ohio	Greene	51	33
39059	Ohio	Guernsey	107	55
39061	Ohio	Hamilton	60	44

39063	Ohio	Hancock	62	31
39065	Ohio	Hardin	52	38
39067	Ohio	Harrison	58	30
39069	Ohio	Henry	59	46
39071	Ohio	Highland	46	35
39073	Ohio	Hocking	49	30
39075	Ohio	Holmes	60	48
39077	Ohio	Huron	62	57
39079	Ohio	Jackson	65	43
39081	Ohio	Jefferson	58	30
39083	Ohio	Knox	60	60
39085	Ohio	Lake	60	50
39087	Ohio	Lawrence	44	29
39089	Ohio	Licking	64	60
39091	Ohio	Logan	60	40
39093	Ohio	Lorain	65	49
39095	Ohio	Lucas	42	28
39097	Ohio	Madison	45	44
39099	Ohio	Mahoning	69	50
39101	Ohio	Marion	56	47
39103	Ohio	Medina	64	60
39105	Ohio	Meigs	49	32
39107	Ohio	Mercer	48	40
39109	Ohio	Miami	49	44
39111	Ohio	Monroe	78	47
39113	Ohio	Montgomery	54	41
39115	Ohio	Morgan	54	35
39117	Ohio	Morrow	60	60
39119	Ohio	Muskingum	47	40
39121	Ohio	Noble	52	32
39123	Ohio	Ottawa	62	50
39125	Ohio	Paulding	56	47
39127	Ohio	Perry	54	38
39129	Ohio	Pickaway	41	30
39131	Ohio	Pike	62	40
39133	Ohio	Portage	60	60
39135	Ohio	Preble	43	44
39137	Ohio	Putnam	46	36
39139	Ohio	Richland	60	10
39141	Ohio	Ross	58	39
39143	Ohio	Sandusky	67	60
39145	Ohio	Scioto	52	59
39147	Ohio	Seneca	59	55
39149	Ohio	Shelby	53	20
39151	Ohio	Stark	68	37

39153	Ohio	Summit	77	39
39155	Ohio	Trumbull	76	50
39157	Ohio	Tuscarawas	123	79
39159	Ohio	Union	63	45
39161	Ohio	Van Wert	57	40
39163	Ohio	Vinton	59	33
39165	Ohio	Warren	53	38
39167	Ohio	Washington	54	39
39169	Ohio	Wayne	54	30
39171	Ohio	Williams	52	50
39173	Ohio	Wood	63	60
39175	Ohio	Wyandot	69	50
42001	Pennsylvania	Adams	53	38
42003	Pennsylvania	Allegheny	69	34
42005	Pennsylvania	Armstrong	57	32
42007	Pennsylvania	Beaver	72	48
42009	Pennsylvania	Bedford	46	33
42011	Pennsylvania	Berks	60	24
42013	Pennsylvania	Blair	21	27
42015	Pennsylvania	Bradford	50	50
42017	Pennsylvania	Bucks	55	33
42019	Pennsylvania	Butler	70	48
42021	Pennsylvania	Cambria	43	20
42023	Pennsylvania	Cameron	39	33
42025	Pennsylvania	Carbon	50	34
42027	Pennsylvania	Centre	58	30
42029	Pennsylvania	Chester	79	34
42031	Pennsylvania	Clarion	37	18
42033	Pennsylvania	Clearfield	38	33
42035	Pennsylvania	Clinton	43	21
42037	Pennsylvania	Columbia	53	33
42039	Pennsylvania	Crawford	67	47
42041	Pennsylvania	Cumberland	54	33
42043	Pennsylvania	Dauphin	52	17
42045	Pennsylvania	Delaware	51	30
42047	Pennsylvania	Elk	36	32
42049	Pennsylvania	Erie	65	32
42051	Pennsylvania	Fayette	48	33
42053	Pennsylvania	Forest	53	40
42055	Pennsylvania	Franklin	33	25
42057	Pennsylvania	Fulton	27	45
42059	Pennsylvania	Greene	41	33
42061	Pennsylvania	Huntingdon	50	29
42063	Pennsylvania	Indiana	49	24
42065	Pennsylvania	Jefferson	34	33

42067	Pennsylvania	Juniata	180	33
42069	Pennsylvania	Lackawanna	47	40
42071	Pennsylvania	Lancaster	56	16
42073	Pennsylvania	Lawrence	67	33
42075	Pennsylvania	Lebanon	56	25
42077	Pennsylvania	Lehigh	52	42
42079	Pennsylvania	Luzerne	45	35
42081	Pennsylvania	Lycoming	70	33
42083	Pennsylvania	McKean	55	35
42085	Pennsylvania	Mercer	37	34
42087	Pennsylvania	Mifflin	38	22
42089	Pennsylvania	Monroe	44	32
42091	Pennsylvania	Montgomery	51	33
42093	Pennsylvania	Montour	44	34
42095	Pennsylvania	Northampton	46	32
42097	Pennsylvania	Northumberland	54	33
42099	Pennsylvania	Perry	89	32
42101	Pennsylvania	Philadelphia	42	34
42103	Pennsylvania	Pike	40	40
42105	Pennsylvania	Potter	53	36
42107	Pennsylvania	Schuylkill	40	33
42109	Pennsylvania	Snyder	38	30
42111	Pennsylvania	Somerset	36	23
42113	Pennsylvania	Sullivan	43	29
42115	Pennsylvania	Susquehanna	49	33
42117	Pennsylvania	Tioga	100	49
42119	Pennsylvania	Union	106	33
42121	Pennsylvania	Venango	52	32
42123	Pennsylvania	Warren	45	34
42125	Pennsylvania	Washington	36	33
42127	Pennsylvania	Wayne	40	40
42129	Pennsylvania	Westmoreland	74	25
42131	Pennsylvania	Wyoming	65	35
42133	Pennsylvania	York	37	33
44001	Rhode Island	Bristol	51	45
44003	Rhode Island	Kent	53	45
44005	Rhode Island	Newport	55	45
44007	Rhode Island	Providence	55	45
44009	Rhode Island	Washington	53	44
45001	South Carolina	Abbeville	67	51
45003	South Carolina	Aiken	67	51
45005	South Carolina	Allendale	59	50
45007	South Carolina	Anderson	68	52
45009	South Carolina	Bamberg	68	42
45011	South Carolina	Barnwell	73	50

45013	South Carolina	Beaufort	70	50
45015	South Carolina	Berkeley	130	52
45017	South Carolina	Calhoun	68	49
45019	South Carolina	Charleston	57	50
45021	South Carolina	Cherokee	67	50
45023	South Carolina	Chester	69	46
45025	South Carolina	Chesterfield	68	50
45027	South Carolina	Clarendon	68	50
45029	South Carolina	Colleton	57	50
45031	South Carolina	Darlington	67	50
45033	South Carolina	Dillon	68	50
45035	South Carolina	Dorchester	57	54
45037	South Carolina	Edgefield	68	49
45039	South Carolina	Fairfield	70	41
45041	South Carolina	Florence	64	50
45043	South Carolina	Georgetown	67	24
45045	South Carolina	Greenville	68	50
45047	South Carolina	Greenwood	65	50
45049	South Carolina	Hampton	68	50
45051	South Carolina	Horry	69	30
45053	South Carolina	Jasper	72	50
45055	South Carolina	Kershaw	67	50
45057	South Carolina	Lancaster	66	50
45059	South Carolina	Laurens	68	50
45061	South Carolina	Lee	68	50
45063	South Carolina	Lexington	66	25
45065	South Carolina	McCormick	68	32
45067	South Carolina	Marion	81	50
45069	South Carolina	Marlboro	66	50
45071	South Carolina	Newberry	68	30
45073	South Carolina	Oconee	71	42
45075	South Carolina	Orangeburg	66	45
45077	South Carolina	Pickens	70	50
45079	South Carolina	Richland	63	50
45081	South Carolina	Saluda	69	50
45083	South Carolina	Spartanburg	60	62
45085	South Carolina	Sumter	79	66
45087	South Carolina	Union	63	32
45089	South Carolina	Williamsburg	75	45
45091	South Carolina	York	68	50
46003	South Dakota	Aurora	137	73
46005	South Dakota	Beadle	136	73
46007	South Dakota	Bennett	143	68
46009	South Dakota	Bon Homme	138	74
46011	South Dakota	Brookings	134	74

46013	South Dakota	Brown	135	72
46015	South Dakota	Brule	139	72
46017	South Dakota	Buffalo	145	72
46019	South Dakota	Butte	146	74
46021	South Dakota	Campbell	145	71
46023	South Dakota	Charles Mix	140	73
46025	South Dakota	Clark	139	73
46027	South Dakota	Clay	135	74
46029	South Dakota	Codington	136	74
46031	South Dakota	Corson	146	70
46033	South Dakota	Custer	147	73
46035	South Dakota	Davison	133	74
46037	South Dakota	Day	136	73
46039	South Dakota	Deuel	138	74
46041	South Dakota	Dewey	145	71
46043	South Dakota	Douglas	137	73
46045	South Dakota	Edmunds	140	72
46047	South Dakota	Fall River	144	73
46049	South Dakota	Faulk	140	72
46051	South Dakota	Grant	137	74
46053	South Dakota	Gregory	145	72
46055	South Dakota	Haakon	149	72
46057	South Dakota	Hamlin	138	73
46059	South Dakota	Hand	136	72
46061	South Dakota	Hanson	141	74
46063	South Dakota	Harding	144	71
46065	South Dakota	Hughes	144	72
46067	South Dakota	Hutchinson	137	74
46069	South Dakota	Hyde	150	73
46071	South Dakota	Jackson	144	71
46073	South Dakota	Jerauld	141	73
46075	South Dakota	Jones	149	72
46077	South Dakota	Kingsbury	135	73
46079	South Dakota	Lake	134	74
46081	South Dakota	Lawrence	140	74
46083	South Dakota	Lincoln	135	74
46085	South Dakota	Lyman	145	71
46087	South Dakota	McCook	137	74
46089	South Dakota	McPherson	137	73
46091	South Dakota	Marshall	137	73
46093	South Dakota	Meade	144	73
46095	South Dakota	Mellette	149	71
46097	South Dakota	Miner	138	74
46099	South Dakota	Minnehaha	136	75
46101	South Dakota	Moody	134	75

46103	South Dakota	Pennington	138	73
46105	South Dakota	Perkins	143	73
46107	South Dakota	Potter	144	72
46109	South Dakota	Roberts	136	74
46111	South Dakota	Sanborn	138	73
46113	South Dakota	Shannon	135	67
46115	South Dakota	Spink	140	72
46117	South Dakota	Stanley	149	72
46119	South Dakota	Sully	142	72
46121	South Dakota	Todd	139	68
46123	South Dakota	Tripp	143	71
46125	South Dakota	Turner	135	74
46127	South Dakota	Union	135	74
46129	South Dakota	Walworth	144	72
46135	South Dakota	Yankton	135	75
46137	South Dakota	Ziebach	147	70
47001	Tennessee	Anderson	67	60
47003	Tennessee	Bedford	54	40
47005	Tennessee	Benton	56	50
47007	Tennessee	Bledsoe	80	48
47009	Tennessee	Blount	70	26
47011	Tennessee	Bradley	25	19
47013	Tennessee	Campbell	75	40
47015	Tennessee	Cannon	49	40
47017	Tennessee	Carroll	47	46
47019	Tennessee	Carter	28	33
47021	Tennessee	Cheatham	62	60
47023	Tennessee	Chester	46	47
47025	Tennessee	Claiborne	69	17
47027	Tennessee	Clay	43	40
47029	Tennessee	Cocke	52	40
47031	Tennessee	Coffee	52	31
47033	Tennessee	Crockett	63	40
47035	Tennessee	Cumberland	44	40
47037	Tennessee	Davidson	59	41
47039	Tennessee	Decatur	96	85
47041	Tennessee	De Kalb	51	40
47043	Tennessee	Dickson	54	40
47045	Tennessee	Dyer	79	50
47047	Tennessee	Fayette	56	61
47049	Tennessee	Fentress	46	40
47051	Tennessee	Franklin	55	39
47053	Tennessee	Gibson	82	60
47055	Tennessee	Giles	55	45
47057	Tennessee	Grainger	68	68

47059	Tennessee	Greene	56	20
47061	Tennessee	Grundy	52	39
47063	Tennessee	Hamblen	50	41
47065	Tennessee	Hamilton	55	31
47067	Tennessee	Hancock	58	30
47069	Tennessee	Hardeman	58	35
47071	Tennessee	Hardin	54	50
47073	Tennessee	Hawkins	89	49
47075	Tennessee	Haywood	68	55
47077	Tennessee	Henderson	45	40
47079	Tennessee	Henry	66	37
47081	Tennessee	Hickman	75	40
47083	Tennessee	Houston	37	25
47085	Tennessee	Humphreys	45	40
47087	Tennessee	Jackson	51	40
47089	Tennessee	Jefferson	54	40
47091	Tennessee	Johnson	46	28
47093	Tennessee	Knox	59	41
47095	Tennessee	Lake	65	40
47097	Tennessee	Lauderdale	139	60
47099	Tennessee	Lawrence	57	30
47101	Tennessee	Lewis	205	68
47103	Tennessee	Lincoln	76	50
47105	Tennessee	Loudon	42	40
47107	Tennessee	McMinn	82	79
47109	Tennessee	McNairy	47	40
47111	Tennessee	Macon	44	40
47113	Tennessee	Madison	62	25
47115	Tennessee	Marion	46	42
47117	Tennessee	Marshall	52	28
47119	Tennessee	Mauzy	74	50
47121	Tennessee	Meigs	47	40
47123	Tennessee	Monroe	52	50
47125	Tennessee	Montgomery	52	38
47127	Tennessee	Moore	46	41
47129	Tennessee	Morgan	47	40
47131	Tennessee	Obion	83	42
47133	Tennessee	Overton	45	40
47135	Tennessee	Perry	63	29
47137	Tennessee	Pickett	49	40
47139	Tennessee	Polk	44	24
47141	Tennessee	Putnam	45	40
47143	Tennessee	Rhea	69	69
47145	Tennessee	Roane	47	47
47147	Tennessee	Robertson	60	60

47149	Tennessee	Rutherford	57	30
47151	Tennessee	Scott	45	41
47153	Tennessee	Sequatchie	66	30
47155	Tennessee	Sevier	75	50
47157	Tennessee	Shelby	59	41
47159	Tennessee	Smith	43	40
47161	Tennessee	Stewart	50	39
47163	Tennessee	Sullivan	45	31
47165	Tennessee	Sumner	60	30
47167	Tennessee	Tipton	58	40
47169	Tennessee	Trousdale	42	40
47171	Tennessee	Unicoi	41	25
47173	Tennessee	Union	59	35
47175	Tennessee	Van Buren	87	40
47177	Tennessee	Warren	53	40
47179	Tennessee	Washington	44	33
47181	Tennessee	Wayne	130	50
47183	Tennessee	Weakley	63	50
47185	Tennessee	White	52	40
47187	Tennessee	Williamson	46	40
47189	Tennessee	Wilson	43	40
50001	Vermont	Addison	52	50
50003	Vermont	Bennington	53	50
50005	Vermont	Caledonia	53	50
50007	Vermont	Chittenden	51	50
50009	Vermont	Essex	55	50
50011	Vermont	Franklin	52	50
50013	Vermont	Grand Isle	53	50
50015	Vermont	Lamoille	53	50
50017	Vermont	Orange	53	50
50019	Vermont	Orleans	53	50
50021	Vermont	Rutland	52	50
50023	Vermont	Washington	52	50
50025	Vermont	Windham	52	50
50027	Vermont	Windsor	52	50
51001	Virginia	Accomack	57	40
51003	Virginia	Albemarle	34	27
51005	Virginia	Alleghany	43	40
51007	Virginia	Amelia	57	30
51009	Virginia	Amherst	56	36
51011	Virginia	Appomattox	45	30
51015	Virginia	Augusta	44	39
51017	Virginia	Bath	51	41
51019	Virginia	Bedford	60	30
51021	Virginia	Bland	44	34

51023	Virginia	Botetourt	96	38
51025	Virginia	Brunswick	67	30
51027	Virginia	Buchanan	34	30
51029	Virginia	Buckingham	57	30
51031	Virginia	Campbell	39	30
51033	Virginia	Caroline	58	30
51035	Virginia	Carroll	70	40
51036	Virginia	Charles City	42	30
51037	Virginia	Charlotte	66	39
51041	Virginia	Chesterfield	84	50
51043	Virginia	Clarke	62	30
51045	Virginia	Craig	37	25
51047	Virginia	Culpeper	60	30
51049	Virginia	Cumberland	66	50
51051	Virginia	Dickenson	42	29
51053	Virginia	Dinwiddie	47	30
51057	Virginia	Essex	71	30
51059	Virginia	Fairfax	66	29
51061	Virginia	Fauquier	44	30
51063	Virginia	Floyd	44	30
51065	Virginia	Fluvanna	59	50
51067	Virginia	Franklin	65	46
51069	Virginia	Frederick	59	30
51071	Virginia	Giles	66	31
51073	Virginia	Gloucester	51	30
51075	Virginia	Goochland	52	30
51077	Virginia	Grayson	70	40
51079	Virginia	Greene	65	30
51081	Virginia	Greensville	48	40
51083	Virginia	Halifax	49	30
51085	Virginia	Hanover	55	30
51087	Virginia	Henrico	65	34
51089	Virginia	Henry	59	25
51091	Virginia	Highland	48	37
51093	Virginia	Isle of Wight	48	30
51095	Virginia	James City	67	31
51097	Virginia	King and Queen	47	30
51099	Virginia	King George	58	33
51101	Virginia	King William	47	30
51103	Virginia	Lancaster	44	30
51105	Virginia	Lee	44	30
51107	Virginia	Loudoun	58	45
51109	Virginia	Louisa	60	30
51111	Virginia	Lunenburg	50	35
51113	Virginia	Madison	66	30

51115	Virginia	Mathews	34	29
51117	Virginia	Mecklenburg	53	30
51119	Virginia	Middlesex	51	30
51121	Virginia	Montgomery	59	35
51125	Virginia	Nelson	36	27
51127	Virginia	New Kent	82	33
51131	Virginia	Northampton	61	34
51133	Virginia	Northumberland	43	30
51135	Virginia	Nottoway	46	35
51137	Virginia	Orange	49	30
51139	Virginia	Page	48	30
51141	Virginia	Patrick	50	50
51143	Virginia	Pittsylvania	45	30
51145	Virginia	Powhatan	52	30
51147	Virginia	Prince Edward	85	40
51149	Virginia	Prince George	53	36
51153	Virginia	Prince William	48	30
51155	Virginia	Pulaski	38	30
51157	Virginia	Rappahannock	60	30
51159	Virginia	Richmond	50	31
51161	Virginia	Roanoke	50	34
51163	Virginia	Rockbridge	50	38
51165	Virginia	Rockingham	50	41
51167	Virginia	Russell	68	30
51169	Virginia	Scott	51	30
51171	Virginia	Shenandoah	56	40
51173	Virginia	Smyth	46	30
51175	Virginia	Southampton	48	40
51177	Virginia	Spotsylvania	51	36
51179	Virginia	Stafford	44	50
51181	Virginia	Surry	34	31
51183	Virginia	Sussex	49	36
51185	Virginia	Tazewell	64	30
51187	Virginia	Warren	52	20
51191	Virginia	Washington	48	31
51193	Virginia	Westmoreland	43	30
51195	Virginia	Wise	64	26
51197	Virginia	Wythe	97	30
51199	Virginia	York	87	33
51550	Virginia	Chesapeake City	32	30
51800	Virginia	Suffolk City	59	30
51810	Virginia	Virginia Beach City	60	4
54001	West Virginia	Barbour	40	30
54003	West Virginia	Berkeley	46	30
54005	West Virginia	Boone	85	30

54007	West Virginia	Braxton	34	30
54009	West Virginia	Brooke	54	30
54011	West Virginia	Cabell	50	23
54013	West Virginia	Calhoun	46	30
54015	West Virginia	Clay	43	30
54017	West Virginia	Doddridge	64	30
54019	West Virginia	Fayette	54	30
54021	West Virginia	Gilmer	74	30
54023	West Virginia	Grant	27	15
54025	West Virginia	Greenbrier	53	30
54027	West Virginia	Hampshire	63	30
54029	West Virginia	Hancock	49	30
54031	West Virginia	Hardy	57	30
54033	West Virginia	Harrison	33	30
54035	West Virginia	Jackson	62	30
54037	West Virginia	Jefferson	63	30
54039	West Virginia	Kanawha	42	30
54041	West Virginia	Lewis	51	30
54043	West Virginia	Lincoln	48	30
54045	West Virginia	Logan	67	30
54047	West Virginia	McDowell	84	30
54049	West Virginia	Marion	63	30
54051	West Virginia	Marshall	45	30
54053	West Virginia	Mason	51	30
54055	West Virginia	Mercer	69	30
54057	West Virginia	Mineral	39	25
54059	West Virginia	Mingo	67	30
54061	West Virginia	Monongalia	66	30
54063	West Virginia	Monroe	55	30
54065	West Virginia	Morgan	56	30
54067	West Virginia	Nicholas	55	30
54069	West Virginia	Ohio	42	30
54071	West Virginia	Pendleton	47	40
54073	West Virginia	Pleasants	89	64
54075	West Virginia	Pocahontas	69	30
54077	West Virginia	Preston	73	30
54079	West Virginia	Putnam	61	28
54081	West Virginia	Raleigh	63	30
54083	West Virginia	Randolph	83	30
54085	West Virginia	Ritchie	51	30
54087	West Virginia	Roane	45	30
54089	West Virginia	Summers	60	30
54091	West Virginia	Taylor	64	30
54093	West Virginia	Tucker	64	30
54095	West Virginia	Tyler	73	30

54097	West Virginia	Upshur	51	30
54099	West Virginia	Wayne	62	30
54101	West Virginia	Webster	37	30
54103	West Virginia	Wetzel	76	30
54105	West Virginia	Wirt	49	30
54107	West Virginia	Wood	46	30
54109	West Virginia	Wyoming	66	30
72101	Caribbean	Arecibo	75	30
72103	Caribbean	Utuaado	60	30
72105	Caribbean	Juana Diaz	73	30
72107	Caribbean	Corozal	60	31
72109	Caribbean	San Sebastian	60	30
72111	Caribbean	Aguadilla	60	30
72113	Caribbean	Manati	67	30
72115	Caribbean	Mayaguez	60	30
72117	Caribbean	Bayamon	78	41
72119	Caribbean	Barran-Quitas	60	30
72121	Caribbean	Rio Grande	62	30
72123	Caribbean	Humacao	60	30
72125	Caribbean	Guayama	66	30
72127	Caribbean	San German	68	30
72129	Caribbean	Ponce	75	30
72131	Caribbean	Caguas	61	30
72133	Caribbean	Cayey	60	20
72135	Caribbean	Virgin Islands	60	30

**Table 16. CRSL County List of Average Rights-of-Way**

<b>Average Road Widths (in feet) by County and Road Type</b>				
<b>Source: 1992 NRI County Base Data</b>				
<b>(Average weighted by miles of road type in the county)</b>				
<b>FIPS</b>	<b>State</b>	<b>County</b>	<b>Paved &lt; 4 Lanes</b>	<b>Unpaved</b>
05001	Arkansas	Arkansas	72	56
05003	Arkansas	Ashley	72	59
05005	Arkansas	Baxter	71	54
05007	Arkansas	Benton	71	59
05009	Arkansas	Boone	72	57
05011	Arkansas	Bradley	73	59
05013	Arkansas	Calhoun	73	59
05015	Arkansas	Carroll	72	51
05017	Arkansas	Chicot	79	53
05019	Arkansas	Clark	72	58
05021	Arkansas	Clay	73	59

05023	Arkansas	Cleburne	71	54
05025	Arkansas	Cleveland	73	59
05027	Arkansas	Columbia	71	58
05029	Arkansas	Conway	71	55
05031	Arkansas	Craighead	72	57
05033	Arkansas	Crawford	72	58
05035	Arkansas	Crittenden	72	56
05037	Arkansas	Cross	72	58
05039	Arkansas	Dallas	73	59
05041	Arkansas	Desha	72	57
05043	Arkansas	Drew	72	58
05045	Arkansas	Faulkner	71	58
05047	Arkansas	Franklin	72	52
05049	Arkansas	Fulton	73	60
05051	Arkansas	Garland	71	59
05053	Arkansas	Grant	72	59
05055	Arkansas	Greene	72	60
05057	Arkansas	Hempstead	72	59
05059	Arkansas	Hot Spring	71	59
05061	Arkansas	Howard	72	58
05063	Arkansas	Independence	73	59
05065	Arkansas	Izard	74	56
05067	Arkansas	Jackson	72	59
05069	Arkansas	Jefferson	81	51
05071	Arkansas	Johnson	70	54
05073	Arkansas	Lafayette	72	59
05075	Arkansas	Lawrence	73	59
05077	Arkansas	Lee	72	51
05079	Arkansas	Lincoln	71	58
05081	Arkansas	Little River	76	59
05083	Arkansas	Logan	74	54
05085	Arkansas	Lonoke	72	58
05087	Arkansas	Madison	74	47
05089	Arkansas	Marion	72	49
05091	Arkansas	Miller	72	58
05093	Arkansas	Mississippi	71	57
05095	Arkansas	Monroe	73	54
05097	Arkansas	Montgomery	74	58
05099	Arkansas	Nevada	73	60
05101	Arkansas	Newton	72	50
05103	Arkansas	Ouachita	72	57
05105	Arkansas	Perry	74	55
05107	Arkansas	Phillips	71	54
05109	Arkansas	Pike	73	56
05111	Arkansas	Poinsett	73	56

05113	Arkansas	Polk	73	56
05115	Arkansas	Pope	71	54
05117	Arkansas	Prairie	72	56
05119	Arkansas	Pulaski	70	59
05121	Arkansas	Randolph	72	60
05123	Arkansas	St Francis	71	55
05125	Arkansas	Saline	71	59
05127	Arkansas	Scott	73	58
05129	Arkansas	Searcy	73	52
05131	Arkansas	Sebastian	71	59
05133	Arkansas	Sevier	73	59
05135	Arkansas	Sharp	71	58
05137	Arkansas	Stone	74	60
05139	Arkansas	Union	72	52
05141	Arkansas	Van Buren	71	58
05143	Arkansas	Washington	72	59
05145	Arkansas	White	113	59
05147	Arkansas	Woodruff	72	55
05149	Arkansas	Yell	73	60
17001	Illinois	Adams	80	45
17003	Illinois	Alexander	94	50
17005	Illinois	Bond	57	38
17007	Illinois	Boone	66	53
17009	Illinois	Brown	74	45
17011	Illinois	Bureau	64	53
17013	Illinois	Calhoun	58	29
17015	Illinois	Carroll	77	54
17017	Illinois	Cass	73	40
17019	Illinois	Champaign	56	49
17021	Illinois	Christian	55	43
17023	Illinois	Clark	70	39
17025	Illinois	Clay	70	41
17027	Illinois	Clinton	59	37
17029	Illinois	Coles	52	38
17031	Illinois	Cook	64	23
17033	Illinois	Crawford	60	40
17035	Illinois	Cumberland	59	40
17037	Illinois	De Kalb	72	54
17039	Illinois	De Witt	56	41
17041	Illinois	Douglas	50	39
17043	Illinois	Du Page	72	46
17045	Illinois	Edgar	58	40
17047	Illinois	Edwards	94	41
17049	Illinois	Effingham	55	55
17051	Illinois	Fayette	53	44

17053	Illinois	Ford	59	51
17055	Illinois	Franklin	60	41
17057	Illinois	Fulton	73	48
17059	Illinois	Gallatin	87	41
17061	Illinois	Greene	67	39
17063	Illinois	Grundy	68	51
17065	Illinois	Hamilton	75	42
17067	Illinois	Hancock	64	49
17069	Illinois	Hardin	87	45
17071	Illinois	Henderson	61	42
17073	Illinois	Henry	63	52
17075	Illinois	Iroquois	59	50
17077	Illinois	Jackson	71	45
17079	Illinois	Jasper	56	42
17081	Illinois	Jefferson	57	41
17083	Illinois	Jersey	54	38
17085	Illinois	Jo Daviess	66	49
17087	Illinois	Johnson	83	41
17089	Illinois	Kane	64	52
17091	Illinois	Kankakee	65	52
17093	Illinois	Kendall	67	51
17095	Illinois	Knox	66	51
17097	Illinois	Lake	73	53
17099	Illinois	La Salle	74	50
17101	Illinois	Lawrence	80	47
17103	Illinois	Lee	73	55
17105	Illinois	Livingston	60	48
17107	Illinois	Logan	63	41
17109	Illinois	McDonough	60	41
17111	Illinois	McHenry	61	51
17113	Illinois	McLean	62	46
17115	Illinois	Macon	58	41
17117	Illinois	Macoupin	81	41
17119	Illinois	Madison	61	50
17121	Illinois	Marion	55	40
17123	Illinois	Marshall	63	52
17125	Illinois	Mason	63	44
17127	Illinois	Massac	66	39
17129	Illinois	Menard	64	42
17131	Illinois	Mercer	69	53
17133	Illinois	Monroe	52	42
17135	Illinois	Montgomery	77	42
17137	Illinois	Morgan	118	45
17139	Illinois	Moultrie	51	38
17141	Illinois	Ogle	73	56

17143	Illinois	Peoria	74	56
17145	Illinois	Perry	60	42
17147	Illinois	Piatt	57	47
17149	Illinois	Pike	97	43
17151	Illinois	Pope	85	40
17153	Illinois	Pulaski	80	42
17155	Illinois	Putnam	64	47
17157	Illinois	Randolph	64	42
17159	Illinois	Richland	83	45
17161	Illinois	Rock Island	76	53
17163	Illinois	St Clair	62	41
17165	Illinois	Saline	70	42
17167	Illinois	Sangamon	85	44
17169	Illinois	Schuyler	73	43
17171	Illinois	Scott	99	41
17173	Illinois	Shelby	49	39
17175	Illinois	Stark	65	55
17177	Illinois	Stephenson	85	53
17179	Illinois	Tazewell	62	52
17181	Illinois	Union	73	47
17183	Illinois	Vermilion	62	44
17185	Illinois	Wabash	70	40
17187	Illinois	Warren	65	50
17189	Illinois	Washington	57	39
17191	Illinois	Wayne	53	41
17193	Illinois	White	59	39
17195	Illinois	Whiteside	70	53
17197	Illinois	Will	80	55
17199	Illinois	Williamson	65	40
17201	Illinois	Winnebago	81	51
17203	Illinois	Woodford	59	48
19001	Iowa	Adair	98	66
19003	Iowa	Adams	166	69
19005	Iowa	Allamakee	123	66
19007	Iowa	Appanoose	136	65
19009	Iowa	Audubon	110	65
19011	Iowa	Benton	103	64
19013	Iowa	Black Hawk	115	66
19015	Iowa	Boone	115	66
19017	Iowa	Bremer	99	66
19019	Iowa	Buchanan	147	74
19021	Iowa	Buena Vista	98	69
19023	Iowa	Butler	76	66
19025	Iowa	Calhoun	101	66
19027	Iowa	Carroll	96	70

19029	Iowa	Cass	100	66
19031	Iowa	Cedar	102	64
19033	Iowa	Cerro Gordo	100	66
19035	Iowa	Cherokee	105	65
19037	Iowa	Chickasaw	116	66
19039	Iowa	Clarke	116	76
19041	Iowa	Clay	104	71
19043	Iowa	Clayton	101	65
19045	Iowa	Clinton	129	66
19047	Iowa	Crawford	123	66
19049	Iowa	Dallas	103	74
19051	Iowa	Davis	162	64
19053	Iowa	Decatur	86	62
19055	Iowa	Delaware	119	69
19057	Iowa	Des Moines	120	62
19059	Iowa	Dickinson	89	80
19061	Iowa	Dubuque	89	60
19063	Iowa	Emmet	103	66
19065	Iowa	Fayette	107	66
19067	Iowa	Floyd	100	66
19069	Iowa	Franklin	102	66
19071	Iowa	Fremont	70	60
19073	Iowa	Greene	119	65
19075	Iowa	Grundy	93	66
19077	Iowa	Guthrie	126	79
19079	Iowa	Hamilton	122	66
19081	Iowa	Hancock	71	66
19083	Iowa	Hardin	107	66
19085	Iowa	Harrison	114	66
19087	Iowa	Henry	134	63
19089	Iowa	Howard	109	90
19091	Iowa	Humboldt	87	70
19093	Iowa	Ida	111	66
19095	Iowa	Iowa	108	63
19097	Iowa	Jackson	116	79
19099	Iowa	Jasper	157	61
19101	Iowa	Jefferson	104	64
19103	Iowa	Johnson	94	66
19105	Iowa	Jones	155	69
19107	Iowa	Keokuk	129	76
19109	Iowa	Kossuth	75	66
19111	Iowa	Lee	114	65
19113	Iowa	Linn	132	70
19115	Iowa	Louisa	96	65
19117	Iowa	Lucas	113	53

19119	Iowa	Lyon	101	70
19121	Iowa	Madison	120	69
19123	Iowa	Mahaska	120	79
19125	Iowa	Marion	118	64
19127	Iowa	Marshall	117	67
19129	Iowa	Mills	95	66
19131	Iowa	Mitchell	104	70
19133	Iowa	Monona	91	66
19135	Iowa	Monroe	118	88
19137	Iowa	Montgomery	129	63
19139	Iowa	Muscatine	76	66
19141	Iowa	O'Brien	106	68
19143	Iowa	Osceola	112	71
19145	Iowa	Page	111	60
19147	Iowa	Palo Alto	88	66
19149	Iowa	Plymouth	135	66
19151	Iowa	Pocahontas	105	71
19153	Iowa	Polk	74	66
19155	Iowa	Pottawattamie	81	64
19157	Iowa	Poweshiek	110	64
19159	Iowa	Ringgold	97	80
19161	Iowa	Sac	106	72
19163	Iowa	Scott	112	66
19165	Iowa	Shelby	112	66
19167	Iowa	Sioux	136	68
19169	Iowa	Story	109	66
19171	Iowa	Tama	156	64
19173	Iowa	Taylor	103	66
19175	Iowa	Union	152	63
19177	Iowa	Van Buren	80	60
19179	Iowa	Wapello	108	64
19181	Iowa	Warren	142	95
19183	Iowa	Washington	169	74
19185	Iowa	Wayne	131	64
19187	Iowa	Webster	100	75
19189	Iowa	Winnebago	105	66
19191	Iowa	Winneshiek	97	66
19193	Iowa	Woodbury	115	66
19195	Iowa	Worth	112	38
19197	Iowa	Wright	104	66
20001	Kansas	Allen	78	49
20003	Kansas	Anderson	92	58
20005	Kansas	Atchison	93	50
20007	Kansas	Barber	97	52
20009	Kansas	Barton	98	51

20011	Kansas	Bourbon	90	66
20013	Kansas	Brown	100	60
20015	Kansas	Butler	90	50
20017	Kansas	Chase	77	41
20019	Kansas	Chautauqua	92	60
20021	Kansas	Cherokee	82	50
20023	Kansas	Cheyenne	108	60
20025	Kansas	Clark	129	60
20027	Kansas	Clay	91	66
20029	Kansas	Cloud	108	57
20031	Kansas	Coffey	91	50
20033	Kansas	Comanche	85	76
20035	Kansas	Cowley	93	50
20037	Kansas	Crawford	67	45
20039	Kansas	Decatur	150	64
20041	Kansas	Dickinson	103	68
20043	Kansas	Doniphan	97	44
20045	Kansas	Douglas	101	44
20047	Kansas	Edwards	83	58
20049	Kansas	Elk	76	60
20051	Kansas	Ellis	92	50
20053	Kansas	Ellsworth	99	60
20055	Kansas	Finney	98	60
20057	Kansas	Ford	89	50
20059	Kansas	Franklin	79	49
20061	Kansas	Geary	94	58
20063	Kansas	Gove	95	63
20065	Kansas	Graham	131	60
20067	Kansas	Grant	84	61
20069	Kansas	Gray	120	60
20071	Kansas	Greeley	131	69
20073	Kansas	Greenwood	94	46
20075	Kansas	Hamilton	108	88
20077	Kansas	Harper	76	50
20079	Kansas	Harvey	87	60
20081	Kansas	Haskell	89	60
20083	Kansas	Hodgeman	121	61
20085	Kansas	Jackson	111	78
20087	Kansas	Jefferson	112	47
20089	Kansas	Jewell	104	60
20091	Kansas	Johnson	63	55
20093	Kansas	Kearny	94	60
20095	Kansas	Kingman	96	60
20097	Kansas	Kiowa	104	40
20099	Kansas	Labette	65	49

20101	Kansas	Lane	131	60
20103	Kansas	Leavenworth	94	49
20105	Kansas	Lincoln	108	51
20107	Kansas	Linn	73	49
20109	Kansas	Logan	107	60
20111	Kansas	Lyon	135	59
20113	Kansas	McPherson	89	66
20115	Kansas	Marion	85	52
20117	Kansas	Marshall	104	52
20119	Kansas	Meade	93	50
20121	Kansas	Miami	90	77
20123	Kansas	Mitchell	80	43
20125	Kansas	Montgomery	84	69
20127	Kansas	Morris	85	48
20129	Kansas	Morton	92	76
20131	Kansas	Nemaha	89	50
20133	Kansas	Neosho	119	59
20135	Kansas	Ness	137	57
20137	Kansas	Norton	121	60
20139	Kansas	Osage	114	59
20141	Kansas	Osborne	129	53
20143	Kansas	Ottawa	103	40
20145	Kansas	Pawnee	92	60
20147	Kansas	Phillips	102	55
20149	Kansas	Pottawatomie	87	50
20151	Kansas	Pratt	96	78
20153	Kansas	Rawlins	123	63
20155	Kansas	Reno	91	60
20157	Kansas	Republic	91	55
20159	Kansas	Rice	92	69
20161	Kansas	Riley	82	56
20163	Kansas	Rooks	109	60
20165	Kansas	Rush	105	55
20167	Kansas	Russell	100	69
20169	Kansas	Saline	74	56
20171	Kansas	Scott	115	60
20173	Kansas	Sedgwick	76	60
20175	Kansas	Seward	88	61
20177	Kansas	Shawnee	81	44
20179	Kansas	Sheridan	124	60
20181	Kansas	Sherman	70	60
20183	Kansas	Smith	144	45
20185	Kansas	Stafford	84	61
20187	Kansas	Stanton	100	64
20189	Kansas	Stevens	91	60

20191	Kansas	Sumner	88	50
20193	Kansas	Thomas	98	60
20195	Kansas	Trego	116	65
20197	Kansas	Wabaunsee	76	59
20199	Kansas	Wallace	100	65
20201	Kansas	Washington	106	40
20203	Kansas	Wichita	99	70
20205	Kansas	Wilson	91	48
20207	Kansas	Woodson	116	50
20209	Kansas	Wyandotte	104	57
22001	Louisiana	Acadia	106	50
22003	Louisiana	Allen	93	41
22005	Louisiana	Ascension	102	50
22007	Louisiana	Assumption	97	50
22009	Louisiana	Avoyelles	85	49
22011	Louisiana	Beauregard	111	49
22013	Louisiana	Bienville	84	34
22015	Louisiana	Bossier	101	49
22017	Louisiana	Caddo	93	46
22019	Louisiana	Calcasieu	94	49
22021	Louisiana	Caldwell	112	48
22023	Louisiana	Cameron	103	50
22025	Louisiana	Catahoula	60	60
22027	Louisiana	Claiborne	98	47
22029	Louisiana	Concordia	116	50
22031	Louisiana	De Soto	95	37
22033	Louisiana	East Baton Rouge	94	49
22035	Louisiana	East Carroll	103	49
22037	Louisiana	East Feliciana	86	50
22039	Louisiana	Evangeline	109	49
22041	Louisiana	Franklin	113	49
22043	Louisiana	Grant	101	47
22045	Louisiana	Iberia	96	50
22047	Louisiana	Iberville	111	50
22049	Louisiana	Jackson	99	46
22051	Louisiana	Jefferson	89	50
22053	Louisiana	Jefferson Davis	111	49
22055	Louisiana	Lafayette	89	23
22057	Louisiana	Lafourche	99	42
22059	Louisiana	La Salle	80	80
22061	Louisiana	Lincoln	100	50
22063	Louisiana	Livingston	91	51
22065	Louisiana	Madison	108	59
22067	Louisiana	Morehouse	101	50
22069	Louisiana	Natchitoches	112	48

22071	Louisiana	Orleans	100	48
22073	Louisiana	Ouachita	92	48
22075	Louisiana	Plaquemines	108	50
22077	Louisiana	Pointe Coupee	50	50
22079	Louisiana	Rapides	93	49
22081	Louisiana	Red River	108	48
22083	Louisiana	Richland	105	49
22085	Louisiana	Sabine	106	47
22087	Louisiana	St Bernard	116	50
22089	Louisiana	St Charles	104	49
22091	Louisiana	St Helena	105	49
22093	Louisiana	St James	108	50
22095	Louisiana	St John the Baptist	98	50
22097	Louisiana	St Landry	104	49
22099	Louisiana	St Martin	83	50
22101	Louisiana	St Mary	104	50
22103	Louisiana	St Tammany	104	49
22105	Louisiana	Tangipahoa	84	49
22107	Louisiana	Tensas	120	50
22109	Louisiana	Terrebonne	89	50
22111	Louisiana	Union	53	45
22113	Louisiana	Vermilion	102	56
22115	Louisiana	Vernon	98	44
22117	Louisiana	Washington	104	49
22119	Louisiana	Webster	96	48
22121	Louisiana	West Baton Rouge	50	50
22123	Louisiana	West Carroll	103	49
22125	Louisiana	West Feliciana	87	50
22127	Louisiana	Winn	95	46
27001	Minnesota	Aitkin	111	65
27003	Minnesota	Anoka	79	66
27005	Minnesota	Becker	111	62
27007	Minnesota	Beltrami	148	56
27009	Minnesota	Benton	85	66
27011	Minnesota	Big Stone	102	56
27013	Minnesota	Blue Earth	112	35
27015	Minnesota	Brown	108	69
27017	Minnesota	Carlton	80	60
27019	Minnesota	Carver	89	66
27021	Minnesota	Cass	93	66
27023	Minnesota	Chippewa	143	79
27025	Minnesota	Chisago	73	66
27027	Minnesota	Clay	99	50
27029	Minnesota	Clearwater	105	60
27031	Minnesota	Cook	146	33

27033	Minnesota	Cottonwood	114	65
27035	Minnesota	Crow Wing	88	67
27037	Minnesota	Dakota	100	66
27039	Minnesota	Dodge	114	66
27041	Minnesota	Douglas	106	80
27043	Minnesota	Faribault	103	70
27045	Minnesota	Fillmore	71	63
27047	Minnesota	Freeborn	113	99
27049	Minnesota	Goodhue	93	66
27051	Minnesota	Grant	83	66
27053	Minnesota	Hennepin	82	65
27055	Minnesota	Houston	93	66
27057	Minnesota	Hubbard	92	67
27059	Minnesota	Isanti	75	66
27061	Minnesota	Itasca	118	74
27063	Minnesota	Jackson	100	69
27065	Minnesota	Kanabec	112	66
27067	Minnesota	Kandiyohi	111	47
27069	Minnesota	Kittson	118	40
27071	Minnesota	Koochiching	126	50
27073	Minnesota	Lac qui Parle	125	75
27075	Minnesota	Lake	89	40
27077	Minnesota	Lake of the Woods	121	49
27079	Minnesota	Le Sueur	132	60
27081	Minnesota	Lincoln	114	66
27083	Minnesota	Lyon	116	66
27085	Minnesota	McLeod	78	59
27087	Minnesota	Mahnomen	80	67
27089	Minnesota	Marshall	132	75
27091	Minnesota	Martin	123	73
27093	Minnesota	Meeker	89	66
27095	Minnesota	Mille Lacs	126	66
27097	Minnesota	Morrison	72	33
27099	Minnesota	Mower	101	71
27101	Minnesota	Murray	114	79
27103	Minnesota	Nicollet	118	68
27105	Minnesota	Nobles	109	69
27107	Minnesota	Norman	103	63
27109	Minnesota	Olmsted	95	65
27111	Minnesota	Otter Tail	100	66
27113	Minnesota	Pennington	140	98
27115	Minnesota	Pine	72	66
27117	Minnesota	Pipestone	100	66
27119	Minnesota	Polk	146	75
27121	Minnesota	Pope	133	69

27123	Minnesota	Ramsey	85	64
27125	Minnesota	Red Lake	128	60
27127	Minnesota	Redwood	122	66
27129	Minnesota	Renville	92	66
27131	Minnesota	Rice	113	77
27133	Minnesota	Rock	102	66
27135	Minnesota	Roseau	106	73
27137	Minnesota	St Louis	103	38
27139	Minnesota	Scott	86	66
27141	Minnesota	Sherburne	86	66
27143	Minnesota	Sibley	113	68
27145	Minnesota	Stearns	85	66
27147	Minnesota	Steele	107	73
27149	Minnesota	Stevens	121	73
27151	Minnesota	Swift	130	68
27153	Minnesota	Todd	105	60
27155	Minnesota	Traverse	124	70
27157	Minnesota	Wabasha	117	66
27159	Minnesota	Wadena	111	66
27161	Minnesota	Waseca	92	73
27163	Minnesota	Washington	56	68
27165	Minnesota	Watonwan	128	76
27167	Minnesota	Wilkin	99	66
27169	Minnesota	Winona	142	68
27171	Minnesota	Wright	85	56
27173	Minnesota	Yellow Medicine	128	68
29001	Missouri	Adair	83	60
29003	Missouri	Andrew	81	75
29005	Missouri	Atchison	80	75
29007	Missouri	Audrain	87	60
29009	Missouri	Barry	63	36
29011	Missouri	Barton	96	50
29013	Missouri	Bates	122	60
29015	Missouri	Benton	87	60
29017	Missouri	Bollinger	90	75
29019	Missouri	Boone	77	60
29021	Missouri	Buchanan	83	75
29023	Missouri	Butler	87	66
29025	Missouri	Caldwell	83	75
29027	Missouri	Callaway	84	60
29029	Missouri	Camden	75	60
29031	Missouri	Cape Girardeau	79	75
29033	Missouri	Carroll	85	75
29035	Missouri	Carter	83	51
29037	Missouri	Cass	71	60

29039	Missouri	Cedar	74	40
29041	Missouri	Chariton	84	75
29043	Missouri	Christian	59	33
29045	Missouri	Clark	84	60
29047	Missouri	Clay	68	60
29049	Missouri	Clinton	80	60
29051	Missouri	Cole	88	49
29053	Missouri	Cooper	81	60
29055	Missouri	Crawford	88	57
29057	Missouri	Dade	69	35
29059	Missouri	Dallas	82	38
29061	Missouri	Daviess	80	75
29063	Missouri	De Kalb	123	66
29065	Missouri	Dent	88	60
29067	Missouri	Douglas	76	33
29069	Missouri	Dunklin	89	75
29071	Missouri	Franklin	99	66
29073	Missouri	Gasconade	90	60
29075	Missouri	Gentry	84	60
29077	Missouri	Greene	57	12
29079	Missouri	Grundy	86	75
29081	Missouri	Harrison	78	75
29083	Missouri	Henry	88	60
29085	Missouri	Hickory	85	60
29087	Missouri	Holt	77	60
29089	Missouri	Howard	69	60
29091	Missouri	Howell	78	29
29093	Missouri	Iron	93	48
29095	Missouri	Jackson	71	60
29097	Missouri	Jasper	64	40
29099	Missouri	Jefferson	68	60
29101	Missouri	Johnson	89	93
29103	Missouri	Knox	87	60
29105	Missouri	Laclede	72	36
29107	Missouri	Lafayette	84	60
29109	Missouri	Lawrence	58	40
29111	Missouri	Lewis	95	60
29113	Missouri	Lincoln	94	60
29115	Missouri	Linn	83	75
29117	Missouri	Livingston	86	75
29119	Missouri	McDonald	84	50
29121	Missouri	Macon	83	60
29123	Missouri	Madison	84	63
29125	Missouri	Maries	91	60
29127	Missouri	Marion	83	60

29129	Missouri	Mercer	85	75
29131	Missouri	Miller	91	60
29133	Missouri	Mississippi	77	75
29135	Missouri	Moniteau	82	60
29137	Missouri	Monroe	84	60
29139	Missouri	Montgomery	81	60
29141	Missouri	Morgan	86	60
29143	Missouri	New Madrid	80	75
29145	Missouri	Newton	54	39
29147	Missouri	Nodaway	85	60
29149	Missouri	Oregon	89	56
29151	Missouri	Osage	83	60
29153	Missouri	Ozark	78	39
29155	Missouri	Pemiscot	79	75
29157	Missouri	Perry	82	75
29159	Missouri	Pettis	73	60
29161	Missouri	Phelps	84	53
29163	Missouri	Pike	88	60
29165	Missouri	Platte	82	60
29167	Missouri	Polk	91	44
29169	Missouri	Pulaski	71	36
29171	Missouri	Putnam	84	75
29173	Missouri	Ralls	89	62
29175	Missouri	Randolph	80	75
29177	Missouri	Ray	83	60
29179	Missouri	Reynolds	99	58
29181	Missouri	Ripley	90	55
29183	Missouri	St Charles	92	65
29185	Missouri	St Clair	87	60
29186	Missouri	Ste Genevieve	84	68
29187	Missouri	St Francois	79	75
29189	Missouri	St Louis	80	59
29195	Missouri	Saline	84	60
29197	Missouri	Schuyler	86	60
29199	Missouri	Scotland	86	75
29201	Missouri	Scott	75	75
29203	Missouri	Shannon	86	61
29205	Missouri	Shelby	84	60
29207	Missouri	Stoddard	81	75
29209	Missouri	Stone	58	38
29211	Missouri	Sullivan	83	75
29213	Missouri	Taney	83	55
29215	Missouri	Texas	85	38
29217	Missouri	Vernon	78	60
29219	Missouri	Warren	82	66

29221	Missouri	Washington	92	41
29223	Missouri	Wayne	88	55
29225	Missouri	Webster	86	40
29227	Missouri	Worth	79	60
29229	Missouri	Wright	87	40
31001	Nebraska	Adams	113	65
31003	Nebraska	Antelope	99	65
31005	Nebraska	Arthur	108	65
31007	Nebraska	Banner	119	65
31009	Nebraska	Blaine	119	65
31011	Nebraska	Boone	116	65
31013	Nebraska	Box Butte	118	65
31015	Nebraska	Boyd	115	65
31017	Nebraska	Brown	120	65
31019	Nebraska	Buffalo	116	65
31021	Nebraska	Burt	110	65
31023	Nebraska	Butler	121	65
31025	Nebraska	Cass	112	65
31027	Nebraska	Cedar	119	65
31029	Nebraska	Chase	117	65
31031	Nebraska	Cherry	101	65
31033	Nebraska	Cheyenne	104	65
31035	Nebraska	Clay	116	65
31037	Nebraska	Colfax	114	65
31039	Nebraska	Cuming	113	65
31041	Nebraska	Custer	105	65
31043	Nebraska	Dakota	116	65
31045	Nebraska	Dawes	113	65
31047	Nebraska	Dawson	112	65
31049	Nebraska	Deuel	116	65
31051	Nebraska	Dixon	116	65
31053	Nebraska	Dodge	111	65
31055	Nebraska	Douglas	82	65
31057	Nebraska	Dundy	116	65
31059	Nebraska	Fillmore	120	65
31061	Nebraska	Franklin	117	65
31063	Nebraska	Frontier	116	65
31065	Nebraska	Furnas	116	65
31067	Nebraska	Gage	123	65
31069	Nebraska	Garden	93	65
31071	Nebraska	Garfield	115	65
31073	Nebraska	Gosper	118	65
31075	Nebraska	Grant	98	65
31077	Nebraska	Greeley	118	65
31079	Nebraska	Hall	130	65

31081	Nebraska	Hamilton	118	65
31083	Nebraska	Harlan	118	65
31085	Nebraska	Hayes	117	65
31087	Nebraska	Hitchcock	113	65
31089	Nebraska	Holt	104	65
31091	Nebraska	Hooker	119	65
31093	Nebraska	Howard	120	65
31095	Nebraska	Jefferson	117	65
31097	Nebraska	Johnson	116	65
31099	Nebraska	Kearney	112	65
31101	Nebraska	Keith	113	65
31103	Nebraska	Keya Paha	120	65
31105	Nebraska	Kimball	120	65
31107	Nebraska	Knox	114	65
31109	Nebraska	Lancaster	127	65
31111	Nebraska	Lincoln	103	65
31113	Nebraska	Logan	120	65
31115	Nebraska	Loup	117	65
31117	Nebraska	McPherson	109	65
31119	Nebraska	Madison	98	65
31121	Nebraska	Merrick	115	65
31123	Nebraska	Morrill	108	65
31125	Nebraska	Nance	119	65
31127	Nebraska	Nemaha	117	65
31129	Nebraska	Nuckolls	118	65
31131	Nebraska	Otoe	123	65
31133	Nebraska	Pawnee	118	65
31135	Nebraska	Perkins	116	65
31137	Nebraska	Phelps	110	65
31139	Nebraska	Pierce	115	65
31141	Nebraska	Platte	103	65
31143	Nebraska	Polk	123	65
31145	Nebraska	Red Willow	116	65
31147	Nebraska	Richardson	115	65
31149	Nebraska	Rock	119	65
31151	Nebraska	Saline	118	65
31153	Nebraska	Sarpy	88	65
31155	Nebraska	Saunders	111	65
31157	Nebraska	Scotts Bluff	107	65
31159	Nebraska	Seward	114	65
31161	Nebraska	Sheridan	106	65
31163	Nebraska	Sherman	116	65
31165	Nebraska	Sioux	117	65
31167	Nebraska	Stanton	115	65
31169	Nebraska	Thayer	117	65

31171	Nebraska	Thomas	99	65
31173	Nebraska	Thurston	108	65
31175	Nebraska	Valley	113	65
31177	Nebraska	Washington	106	65
31179	Nebraska	Wayne	120	65
31181	Nebraska	Webster	119	65
31183	Nebraska	Wheeler	119	65
31185	Nebraska	York	114	65
38001	North Dakota	Adams	161	81
38003	North Dakota	Barnes	124	90
38005	North Dakota	Benson	176	66
38007	North Dakota	Billings	132	66
38009	North Dakota	Bottineau	139	66
38011	North Dakota	Bowman	141	66
38013	North Dakota	Burke	174	56
38015	North Dakota	Burleigh	124	84
38017	North Dakota	Cass	121	69
38019	North Dakota	Cavalier	162	66
38021	North Dakota	Dickey	163	66
38023	North Dakota	Divide	131	64
38025	North Dakota	Dunn	199	66
38027	North Dakota	Eddy	156	66
38029	North Dakota	Emmons	149	66
38031	North Dakota	Foster	173	66
38033	North Dakota	Golden Valley	136	66
38035	North Dakota	Grand Forks	164	66
38037	North Dakota	Grant	179	66
38039	North Dakota	Griggs	164	23
38041	North Dakota	Hettinger	161	66
38043	North Dakota	Kidder	157	66
38045	North Dakota	La Moure	167	66
38047	North Dakota	Logan	131	66
38049	North Dakota	McHenry	189	66
38051	North Dakota	McIntosh	125	66
38053	North Dakota	McKenzie	160	66
38055	North Dakota	McLean	197	66
38057	North Dakota	Mercer	159	66
38059	North Dakota	Morton	157	66
38061	North Dakota	Mountrail	206	66
38063	North Dakota	Nelson	203	53
38065	North Dakota	Oliver	215	83
38067	North Dakota	Pembina	165	66
38069	North Dakota	Pierce	226	66
38071	North Dakota	Ramsey	216	66
38073	North Dakota	Ransom	185	84

38075	North Dakota	Renville	181	100
38077	North Dakota	Richland	128	76
38079	North Dakota	Rolette	159	67
38081	North Dakota	Sargent	167	66
38083	North Dakota	Sheridan	181	98
38085	North Dakota	Sioux	165	58
38087	North Dakota	Slope	233	89
38089	North Dakota	Stark	221	66
38091	North Dakota	Steele	162	66
38093	North Dakota	Stutsman	159	66
38095	North Dakota	Towner	177	66
38097	North Dakota	Traill	149	72
38099	North Dakota	Walsh	172	66
38101	North Dakota	Ward	210	72
38103	North Dakota	Wells	148	66
38105	North Dakota	Williams	147	66
40001	Oklahoma	Adair	67	33
40003	Oklahoma	Alfalfa	109	66
40005	Oklahoma	Atoka	93	32
40007	Oklahoma	Beaver	78	66
40009	Oklahoma	Beckham	87	66
40011	Oklahoma	Blaine	91	66
40013	Oklahoma	Bryan	93	31
40015	Oklahoma	Caddo	74	66
40017	Oklahoma	Canadian	94	66
40019	Oklahoma	Carter	76	32
40021	Oklahoma	Cherokee	59	33
40023	Oklahoma	Choctaw	123	35
40025	Oklahoma	Cimarron	81	66
40027	Oklahoma	Cleveland	67	60
40029	Oklahoma	Coal	81	33
40031	Oklahoma	Comanche	85	66
40033	Oklahoma	Cotton	86	75
40035	Oklahoma	Craig	78	33
40037	Oklahoma	Creek	91	50
40039	Oklahoma	Custer	81	66
40041	Oklahoma	Delaware	84	33
40043	Oklahoma	Dewey	78	66
40045	Oklahoma	Ellis	85	66
40047	Oklahoma	Garfield	120	66
40049	Oklahoma	Garvin	57	33
40051	Oklahoma	Grady	80	34
40053	Oklahoma	Grant	90	66
40055	Oklahoma	Greer	76	66
40057	Oklahoma	Harmon	71	66

40059	Oklahoma	Harper	88	66
40061	Oklahoma	Haskell	82	33
40063	Oklahoma	Hughes	80	50
40065	Oklahoma	Jackson	86	66
40067	Oklahoma	Jefferson	74	56
40069	Oklahoma	Johnston	88	33
40071	Oklahoma	Kay	111	66
40073	Oklahoma	Kingfisher	96	66
40075	Oklahoma	Kiowa	97	66
40077	Oklahoma	Latimer	79	14
40079	Oklahoma	Le Flore	57	33
40081	Oklahoma	Lincoln	88	66
40083	Oklahoma	Logan	83	66
40085	Oklahoma	Love	52	30
40087	Oklahoma	McClain	77	33
40089	Oklahoma	McCurtain	75	35
40091	Oklahoma	McIntosh	97	48
40093	Oklahoma	Major	93	66
40095	Oklahoma	Marshall	77	33
40097	Oklahoma	Mayes	71	33
40099	Oklahoma	Murray	62	33
40101	Oklahoma	Muskogee	96	50
40103	Oklahoma	Noble	124	66
40105	Oklahoma	Nowata	80	34
40107	Oklahoma	Okfuskee	76	51
40109	Oklahoma	Oklahoma	109	103
40111	Oklahoma	Okmulgee	69	60
40113	Oklahoma	Osage	54	33
40115	Oklahoma	Ottawa	68	33
40117	Oklahoma	Pawnee	131	66
40119	Oklahoma	Payne	130	66
40121	Oklahoma	Pittsburg	102	32
40123	Oklahoma	Pontotoc	90	66
40125	Oklahoma	Pottawatomie	95	66
40127	Oklahoma	Pushmataha	72	33
40129	Oklahoma	Roger Mills	90	66
40131	Oklahoma	Rogers	67	34
40133	Oklahoma	Seminole	97	33
40135	Oklahoma	Sequoyah	71	33
40137	Oklahoma	Stephens	46	33
40139	Oklahoma	Texas	79	66
40141	Oklahoma	Tillman	92	65
40143	Oklahoma	Tulsa	70	50
40145	Oklahoma	Wagoner	84	50
40147	Oklahoma	Washington	57	33

40149	Oklahoma	Washita	73	66
40151	Oklahoma	Woods	81	66
40153	Oklahoma	Woodward	84	66
46003	South Dakota	Aurora	137	73
46005	South Dakota	Beadle	136	73
46007	South Dakota	Bennett	143	68
46009	South Dakota	Bon Homme	138	74
46011	South Dakota	Brookings	134	74
46013	South Dakota	Brown	135	72
46015	South Dakota	Brule	139	72
46017	South Dakota	Buffalo	145	72
46019	South Dakota	Butte	146	74
46021	South Dakota	Campbell	145	71
46023	South Dakota	Charles Mix	140	73
46025	South Dakota	Clark	139	73
46027	South Dakota	Clay	135	74
46029	South Dakota	Codington	136	74
46031	South Dakota	Corson	146	70
46033	South Dakota	Custer	147	73
46035	South Dakota	Davison	133	74
46037	South Dakota	Day	136	73
46039	South Dakota	Deuel	138	74
46041	South Dakota	Dewey	145	71
46043	South Dakota	Douglas	137	73
46045	South Dakota	Edmunds	140	72
46047	South Dakota	Fall River	144	73
46049	South Dakota	Faulk	140	72
46051	South Dakota	Grant	137	74
46053	South Dakota	Gregory	145	72
46055	South Dakota	Haakon	149	72
46057	South Dakota	Hamlin	138	73
46059	South Dakota	Hand	136	72
46061	South Dakota	Hanson	141	74
46063	South Dakota	Harding	144	71
46065	South Dakota	Hughes	144	72
46067	South Dakota	Hutchinson	137	74
46069	South Dakota	Hyde	150	73
46071	South Dakota	Jackson	144	71
46073	South Dakota	Jerauld	141	73
46075	South Dakota	Jones	149	72
46077	South Dakota	Kingsbury	135	73
46079	South Dakota	Lake	134	74
46081	South Dakota	Lawrence	140	74
46083	South Dakota	Lincoln	135	74
46085	South Dakota	Lyman	145	71

46087	South Dakota	McCook	137	74
46089	South Dakota	McPherson	137	73
46091	South Dakota	Marshall	137	73
46093	South Dakota	Meade	144	73
46095	South Dakota	Mellette	149	71
46097	South Dakota	Miner	138	74
46099	South Dakota	Minnehaha	136	75
46101	South Dakota	Moody	134	75
46103	South Dakota	Pennington	138	73
46105	South Dakota	Perkins	143	73
46107	South Dakota	Potter	144	72
46109	South Dakota	Roberts	136	74
46111	South Dakota	Sanborn	138	73
46113	South Dakota	Shannon	135	67
46115	South Dakota	Spink	140	72
46117	South Dakota	Stanley	149	72
46119	South Dakota	Sully	142	72
46121	South Dakota	Todd	139	68
46123	South Dakota	Tripp	143	71
46125	South Dakota	Turner	135	74
46127	South Dakota	Union	135	74
46129	South Dakota	Walworth	144	72
46135	South Dakota	Yankton	135	75
46137	South Dakota	Ziebach	147	70
48001	Texas	Anderson	73	50
48003	Texas	Andrews	104	47
48005	Texas	Angelina	94	35
48007	Texas	Aransas	136	60
48009	Texas	Archer	100	50
48011	Texas	Armstrong	143	60
48013	Texas	Atascosa	120	82
48015	Texas	Austin	104	50
48017	Texas	Bailey	106	60
48019	Texas	Bandera	94	50
48021	Texas	Bastrop	140	43
48023	Texas	Baylor	99	37
48025	Texas	Bee	77	47
48027	Texas	Bell	104	80
48029	Texas	Bexar	66	60
48031	Texas	Blanco	75	40
48033	Texas	Borden	78	45
48035	Texas	Bosque	85	50
48037	Texas	Bowie	135	40
48039	Texas	Brazoria	102	60
48041	Texas	Brazos	132	50

48043	Texas	Brewster	107	60
48045	Texas	Briscoe	100	50
48047	Texas	Brooks	55	20
48049	Texas	Brown	77	50
48051	Texas	Burleson	126	47
48053	Texas	Burnet	93	60
48055	Texas	Caldwell	65	40
48057	Texas	Calhoun	66	32
48059	Texas	Callahan	100	50
48061	Texas	Cameron	117	60
48063	Texas	Camp	115	49
48065	Texas	Carson	117	60
48067	Texas	Cass	118	46
48069	Texas	Castro	98	50
48071	Texas	Chambers	94	66
48073	Texas	Cherokee	123	45
48075	Texas	Childress	182	55
48077	Texas	Clay	105	50
48079	Texas	Cochran	94	50
48081	Texas	Coke	106	55
48083	Texas	Coleman	102	45
48085	Texas	Collin	119	39
48087	Texas	Collingsworth	110	49
48089	Texas	Colorado	82	54
48091	Texas	Comal	76	41
48093	Texas	Comanche	98	50
48095	Texas	Concho	104	60
48097	Texas	Cooke	103	51
48099	Texas	Coryell	88	48
48101	Texas	Cottle	72	40
48103	Texas	Crane	96	60
48105	Texas	Crockett	98	50
48107	Texas	Crosby	93	59
48109	Texas	Culberson	100	50
48111	Texas	Dallam	111	55
48113	Texas	Dallas	63	52
48115	Texas	Dawson	87	40
48117	Texas	Deaf Smith	121	60
48119	Texas	Delta	110	40
48121	Texas	Denton	114	35
48123	Texas	De Witt	85	53
48125	Texas	Dickens	116	56
48127	Texas	Dimmit	110	50
48129	Texas	Donley	142	49
48131	Texas	Duval	99	60

48133	Texas	Eastland	155	55
48135	Texas	Ector	69	30
48137	Texas	Edwards	142	60
48139	Texas	Ellis	63	38
48141	Texas	El Paso	81	29
48143	Texas	Erath	81	32
48145	Texas	Falls	93	50
48147	Texas	Fannin	109	43
48149	Texas	Fayette	103	43
48151	Texas	Fisher	100	40
48153	Texas	Floyd	107	50
48155	Texas	Foard	100	35
48157	Texas	Fort Bend	83	60
48159	Texas	Franklin	87	41
48161	Texas	Freestone	144	65
48163	Texas	Frio	107	80
48165	Texas	Gaines	97	80
48167	Texas	Galveston	109	60
48169	Texas	Garza	122	60
48171	Texas	Gillespie	120	45
48173	Texas	Glasscock	101	29
48175	Texas	Goliad	82	44
48177	Texas	Gonzales	96	40
48179	Texas	Gray	124	58
48181	Texas	Grayson	78	49
48183	Texas	Gregg	94	40
48185	Texas	Grimes	108	48
48187	Texas	Guadalupe	75	33
48189	Texas	Hale	107	50
48191	Texas	Hall	125	40
48193	Texas	Hamilton	87	45
48195	Texas	Hansford	97	54
48197	Texas	Hardeman	122	60
48199	Texas	Hardin	95	58
48201	Texas	Harris	157	58
48203	Texas	Harrison	150	60
48205	Texas	Hartley	126	60
48207	Texas	Haskell	109	40
48209	Texas	Hays	86	50
48211	Texas	Hemphill	167	46
48213	Texas	Henderson	91	40
48215	Texas	Hidalgo	155	55
48217	Texas	Hill	102	40
48219	Texas	Hockley	111	60
48221	Texas	Hood	112	50

48223	Texas	Hopkins	108	51
48225	Texas	Houston	117	31
48227	Texas	Howard	89	60
48229	Texas	Hudspeth	111	33
48231	Texas	Hunt	86	50
48233	Texas	Hutchinson	91	52
48235	Texas	Irion	117	55
48237	Texas	Jack	103	60
48239	Texas	Jackson	92	60
48241	Texas	Jasper	177	35
48243	Texas	Jeff Davis	97	80
48245	Texas	Jefferson	155	55
48247	Texas	Jim Hogg	110	54
48249	Texas	Jim Wells	112	80
48251	Texas	Johnson	121	30
48253	Texas	Jones	111	40
48255	Texas	Karnes	93	40
48257	Texas	Kaufman	119	40
48259	Texas	Kendall	131	31
48261	Texas	Kenedy	175	44
48263	Texas	Kent	99	54
48265	Texas	Kerr	93	40
48267	Texas	Kimble	156	43
48269	Texas	King	112	40
48271	Texas	Kinney	113	75
48273	Texas	Kleberg	155	55
48275	Texas	Knox	100	62
48277	Texas	Lamar	90	40
48279	Texas	Lamb	156	55
48281	Texas	Lampasas	180	60
48283	Texas	La Salle	140	50
48285	Texas	Lavaca	89	41
48287	Texas	Lee	82	40
48289	Texas	Leon	94	30
48291	Texas	Liberty	90	57
48293	Texas	Limestone	155	44
48295	Texas	Lipscomb	102	80
48297	Texas	Live Oak	102	37
48299	Texas	Llano	92	40
48301	Texas	Loving	116	56
48303	Texas	Lubbock	99	60
48305	Texas	Lynn	109	45
48307	Texas	McCulloch	107	40
48309	Texas	McLennan	87	45
48311	Texas	McMullen	128	60

48313	Texas	Madison	137	41
48315	Texas	Marion	120	40
48317	Texas	Martin	93	47
48319	Texas	Mason	149	40
48321	Texas	Matagorda	157	55
48323	Texas	Maverick	93	57
48325	Texas	Medina	79	40
48327	Texas	Menard	109	40
48329	Texas	Midland	100	100
48331	Texas	Milam	107	60
48333	Texas	Mills	117	46
48335	Texas	Mitchell	88	65
48337	Texas	Montague	138	29
48339	Texas	Montgomery	72	36
48341	Texas	Moore	112	60
48343	Texas	Morris	104	49
48345	Texas	Motley	100	60
48347	Texas	Nacogdoches	100	49
48349	Texas	Navarro	133	38
48351	Texas	Newton	173	35
48353	Texas	Nolan	85	54
48355	Texas	Nueces	83	50
48357	Texas	Ochiltree	100	71
48359	Texas	Oldham	130	33
48361	Texas	Orange	155	52
48363	Texas	Palo Pinto	91	49
48365	Texas	Panola	98	47
48367	Texas	Parker	83	60
48369	Texas	Parmer	110	55
48371	Texas	Pecos	120	75
48373	Texas	Polk	106	40
48375	Texas	Potter	145	89
48377	Texas	Presidio	121	61
48379	Texas	Rains	88	50
48381	Texas	Randall	98	56
48383	Texas	Reagan	108	55
48385	Texas	Real	97	60
48387	Texas	Red River	108	40
48389	Texas	Reeves	115	55
48391	Texas	Refugio	85	47
48393	Texas	Roberts	78	60
48395	Texas	Robertson	98	30
48397	Texas	Rockwall	93	49
48399	Texas	Runnels	115	40
48401	Texas	Rusk	200	55

48403	Texas	Sabine	125	42
48405	Texas	San Augustine	124	42
48407	Texas	San Jacinto	108	37
48409	Texas	San Patricio	75	50
48411	Texas	San Saba	107	50
48413	Texas	Schleicher	138	40
48415	Texas	Scurry	87	45
48417	Texas	Shackelford	112	59
48419	Texas	Shelby	109	32
48421	Texas	Sherman	109	70
48423	Texas	Smith	83	40
48425	Texas	Somervell	93	40
48427	Texas	Starr	91	60
48429	Texas	Stephens	117	67
48431	Texas	Sterling	147	33
48433	Texas	Stonewall	90	44
48435	Texas	Sutton	93	20
48437	Texas	Swisher	90	50
48439	Texas	Tarrant	155	55
48441	Texas	Taylor	105	50
48443	Texas	Terrell	120	47
48445	Texas	Terry	124	60
48447	Texas	Throckmorton	100	67
48449	Texas	Titus	104	50
48451	Texas	Tom Green	126	50
48453	Texas	Travis	108	30
48455	Texas	Trinity	133	55
48457	Texas	Tyler	151	55
48459	Texas	Upshur	108	51
48461	Texas	Upton	115	55
48463	Texas	Uvalde	109	72
48465	Texas	Val Verde	133	40
48467	Texas	Van Zandt	84	60
48469	Texas	Victoria	68	44
48471	Texas	Walker	111	50
48473	Texas	Waller	91	80
48475	Texas	Ward	120	64
48477	Texas	Washington	157	55
48479	Texas	Webb	120	30
48481	Texas	Wharton	86	60
48483	Texas	Wheeler	87	60
48485	Texas	Wichita	83	60
48487	Texas	Wilbarger	110	53
48489	Texas	Willacy	121	40
48491	Texas	Williamson	74	44

48493	Texas	Wilson	168	51
48495	Texas	Winkler	120	53
48497	Texas	Wise	209	62
48499	Texas	Wood	84	49
48501	Texas	Yoakum	100	80
48503	Texas	Young	106	55
48505	Texas	Zapata	120	57
48507	Texas	Zavala	95	38
55001	Wisconsin	Adams	68	50
55003	Wisconsin	Ashland	76	44
55005	Wisconsin	Barron	62	49
55007	Wisconsin	Bayfield	73	46
55009	Wisconsin	Brown	69	70
55011	Wisconsin	Buffalo	70	50
55013	Wisconsin	Burnett	58	50
55015	Wisconsin	Calumet	92	50
55017	Wisconsin	Chippewa	70	59
55019	Wisconsin	Clark	73	50
55021	Wisconsin	Columbia	71	60
55023	Wisconsin	Crawford	51	59
55025	Wisconsin	Dane	82	50
55027	Wisconsin	Dodge	70	50
55029	Wisconsin	Door	66	66
55031	Wisconsin	Douglas	58	50
55033	Wisconsin	Dunn	69	50
55035	Wisconsin	Eau Claire	62	50
55037	Wisconsin	Florence	73	50
55039	Wisconsin	Fond du Lac	63	53
55041	Wisconsin	Forest	74	50
55043	Wisconsin	Grant	79	50
55045	Wisconsin	Green	59	50
55047	Wisconsin	Green Lake	60	52
55049	Wisconsin	Iowa	72	66
55051	Wisconsin	Iron	74	50
55053	Wisconsin	Jackson	76	56
55055	Wisconsin	Jefferson	67	66
55057	Wisconsin	Juneau	74	50
55059	Wisconsin	Kenosha	75	52
55061	Wisconsin	Kewaunee	71	57
55063	Wisconsin	La Crosse	73	66
55065	Wisconsin	Lafayette	66	64
55067	Wisconsin	Langlade	67	51
55069	Wisconsin	Lincoln	78	41
55071	Wisconsin	Manitowoc	70	66
55073	Wisconsin	Marathon	74	67

55075	Wisconsin	Marinette	61	50
55077	Wisconsin	Marquette	70	66
55078	Wisconsin	Menominee	69	49
55079	Wisconsin	Milwaukee	71	50
55081	Wisconsin	Monroe	65	50
55083	Wisconsin	Oconto	69	55
55085	Wisconsin	Oneida	70	47
55087	Wisconsin	Outagamie	63	50
55089	Wisconsin	Ozaukee	61	66
55091	Wisconsin	Pepin	66	60
55093	Wisconsin	Pierce	73	66
55095	Wisconsin	Polk	55	50
55097	Wisconsin	Portage	72	66
55099	Wisconsin	Price	72	42
55101	Wisconsin	Racine	67	52
55103	Wisconsin	Richland	65	54
55105	Wisconsin	Rock	69	52
55107	Wisconsin	Rusk	72	49
55109	Wisconsin	St Croix	71	66
55111	Wisconsin	Sauk	60	50
55113	Wisconsin	Sawyer	63	66
55115	Wisconsin	Shawano	65	50
55117	Wisconsin	Sheboygan	79	49
55119	Wisconsin	Taylor	71	46
55121	Wisconsin	Trempealeau	69	50
55123	Wisconsin	Vernon	74	66
55125	Wisconsin	Vilas	70	48
55127	Wisconsin	Walworth	77	66
55129	Wisconsin	Washburn	75	50
55131	Wisconsin	Washington	76	25
55133	Wisconsin	Waukesha	74	49
55135	Wisconsin	Waupaca	66	50
55137	Wisconsin	Waushara	75	66
55139	Wisconsin	Winnebago	69	50
55141	Wisconsin	Wood	66	59

**Table 17. WRS� County List of Average Rights-of-Way**

<b>Average Road Widths (in feet) by County and Road Type</b>				
<b>Source: 1992 NRI County Base Data</b>				
<b>(Average weighted by miles of road type in the county)</b>				
<b>FIPS</b>	<b>State</b>	<b>County</b>	<b>Paved &lt; 4 Lanes</b>	<b>Unpaved</b>
04001	Arizona	Apache	80	59
04003	Arizona	Cochise	91	41
04005	Arizona	Coconino	195	36
04007	Arizona	Gila	80	67
04009	Arizona	Graham	80	20
04011	Arizona	Greenlee	92	50
04012	Arizona	La Paz	80	66
04013	Arizona	Maricopa	83	53
04015	Arizona	Mohave	80	66
04017	Arizona	Navajo	126	93
04019	Arizona	Pima	90	75
04021	Arizona	Pinal	79	66
04023	Arizona	Santa Cruz	92	54
04025	Arizona	Yavapai	86	43
04027	Arizona	Yuma	80	66
06001	California	Alameda	72	25
06003	California	Alpine	86	23
06005	California	Amador	83	36
06007	California	Butte	73	33
06009	California	Calaveras	78	33
06011	California	Colusa	73	40
06013	California	Contra Costa	71	23
06015	California	Del Norte	89	35
06017	California	El Dorado	73	40
06019	California	Fresno	75	36
06021	California	Glenn	72	26
06023	California	Humboldt	70	42
06025	California	Imperial	75	32
06027	California	Inyo	81	21
06029	California	Kern	75	26
06031	California	Kings	74	40
06033	California	Lake	92	37
06035	California	Lassen	83	29
06037	California	Los Angeles	75	26
06039	California	Madera	72	23
06041	California	Marin	75	40
06043	California	Mariposa	80	40

06045	California	Mendocino	86	54
06047	California	Merced	73	35
06049	California	Modoc	77	33
06051	California	Mono	85	40
06053	California	Monterey	75	40
06055	California	Napa	71	40
06057	California	Nevada	74	40
06059	California	Orange	75	26
06061	California	Placer	74	40
06063	California	Plumas	75	27
06065	California	Riverside	75	22
06067	California	Sacramento	74	40
06069	California	San Benito	76	40
06071	California	San Bernardino	79	21
06073	California	San Diego	75	24
06075	California	San Francisco	62	31
06077	California	San Joaquin	74	40
06079	California	San Luis Obispo	77	40
06081	California	San Mateo	87	40
06083	California	Santa Barbara	77	40
06085	California	Santa Clara	78	40
06087	California	Santa Cruz	76	40
06089	California	Shasta	77	28
06091	California	Sierra	81	27
06093	California	Siskiyou	77	32
06095	California	Solano	73	40
06097	California	Sonoma	73	40
06099	California	Stanislaus	72	40
06101	California	Sutter	73	40
06103	California	Tehama	75	31
06105	California	Trinity	37	12
06107	California	Tulare	73	40
06109	California	Tuolumne	77	40
06111	California	Ventura	79	40
06113	California	Yolo	73	40
06115	California	Yuba	73	40
08001	Colorado	Adams	103	67
08003	Colorado	Alamosa	84	60
08005	Colorado	Arapahoe	75	60
08007	Colorado	Archuleta	94	53
08009	Colorado	Baca	146	93
08011	Colorado	Bent	85	60
08013	Colorado	Boulder	81	61
08015	Colorado	Chaffee	112	40
08017	Colorado	Cheyenne	60	60

08019	Colorado	Clear Creek	84	47
08021	Colorado	Conejos	68	47
08023	Colorado	Costilla	115	60
08025	Colorado	Crowley	87	28
08027	Colorado	Custer	102	60
08029	Colorado	Delta	135	44
08033	Colorado	Dolores	116	60
08035	Colorado	Douglas	85	60
08037	Colorado	Eagle	120	60
08039	Colorado	Elbert	86	60
08041	Colorado	El Paso	99	58
08043	Colorado	Fremont	91	51
08045	Colorado	Garfield	69	53
08047	Colorado	Gilpin	93	46
08049	Colorado	Grand	130	60
08051	Colorado	Gunnison	117	50
08053	Colorado	Hinsdale	97	33
08055	Colorado	Huerfano	93	52
08057	Colorado	Jackson	143	44
08059	Colorado	Jefferson	66	57
08061	Colorado	Kiowa	95	76
08063	Colorado	Kit Carson	86	68
08065	Colorado	Lake	85	51
08067	Colorado	La Plata	96	30
08069	Colorado	Larimer	60	46
08071	Colorado	Las Animas	92	60
08073	Colorado	Lincoln	69	60
08075	Colorado	Logan	130	59
08077	Colorado	Mesa	74	47
08079	Colorado	Mineral	113	35
08081	Colorado	Moffat	116	66
08083	Colorado	Montezuma	91	60
08085	Colorado	Montrose	67	34
08087	Colorado	Morgan	85	60
08089	Colorado	Otero	55	47
08091	Colorado	Ouray	52	35
08093	Colorado	Park	105	45
08095	Colorado	Phillips	76	47
08097	Colorado	Pitkin	76	47
08099	Colorado	Prowers	138	59
08101	Colorado	Pueblo	72	50
08103	Colorado	Rio Blanco	88	76
08105	Colorado	Rio Grande	78	44
08107	Colorado	Routt	91	56
08109	Colorado	Saguache	165	30

08111	Colorado	San Juan	149	30
08113	Colorado	San Miguel	91	53
08115	Colorado	Sedgwick	40	60
08117	Colorado	Summit	123	40
08119	Colorado	Teller	96	49
08121	Colorado	Washington	124	60
08123	Colorado	Weld	79	58
08125	Colorado	Yuma	85	60
15001	Hawaii	Hawaii	64	21
15003	Hawaii	Honolulu	63	23
15007	Hawaii	Kauai	63	27
15009	Hawaii	Maui	75	60
16001	Idaho	Ada	62	50
16003	Idaho	Adams	63	60
16005	Idaho	Bannock	69	50
16007	Idaho	Bear Lake	93	60
16009	Idaho	Benewah	110	46
16011	Idaho	Bingham	67	58
16013	Idaho	Blaine	80	60
16015	Idaho	Boise	87	65
16017	Idaho	Bonner	114	43
16019	Idaho	Bonneville	80	46
16021	Idaho	Boundary	88	42
16023	Idaho	Butte	66	30
16025	Idaho	Camas	124	48
16027	Idaho	Canyon	49	50
16029	Idaho	Caribou	87	60
16031	Idaho	Cassia	71	27
16033	Idaho	Clark	79	43
16035	Idaho	Clearwater	100	36
16037	Idaho	Custer	146	42
16039	Idaho	Elmore	54	47
16041	Idaho	Franklin	76	51
16043	Idaho	Fremont	76	46
16045	Idaho	Gem	66	55
16047	Idaho	Gooding	73	50
16049	Idaho	Idaho	82	39
16051	Idaho	Jefferson	80	59
16053	Idaho	Jerome	68	50
16055	Idaho	Kootenai	62	27
16057	Idaho	Latah	85	47
16059	Idaho	Lemhi	65	25
16061	Idaho	Lewis	114	40
16063	Idaho	Lincoln	116	50
16065	Idaho	Madison	110	66

16067	Idaho	Minidoka	59	54
16069	Idaho	Nez Perce	95	51
16071	Idaho	Oneida	87	50
16073	Idaho	Owyhee	69	54
16075	Idaho	Payette	64	46
16077	Idaho	Power	95	50
16079	Idaho	Shoshone	43	39
16081	Idaho	Teton	66	59
16083	Idaho	Twin Falls	72	46
16085	Idaho	Valley	62	52
16087	Idaho	Washington	61	60
30001	Montana	Beaverhead	99	28
30003	Montana	Big Horn	172	61
30005	Montana	Blaine	149	69
30007	Montana	Broadwater	104	60
30009	Montana	Carbon	128	45
30011	Montana	Carter	99	58
30013	Montana	Cascade	82	59
30015	Montana	Chouteau	118	80
30017	Montana	Custer	157	70
30019	Montana	Daniels	90	66
30021	Montana	Dawson	161	64
30023	Montana	Deer Lodge	149	61
30025	Montana	Fallon	137	60
30027	Montana	Fergus	118	60
30029	Montana	Flathead	60	36
30031	Montana	Gallatin	87	53
30033	Montana	Garfield	140	80
30035	Montana	Glacier	115	59
30037	Montana	Golden Valley	104	54
30039	Montana	Granite	60	35
30041	Montana	Hill	90	60
30043	Montana	Jefferson	175	80
30045	Montana	Judith Basin	120	60
30047	Montana	Lake	121	57
30049	Montana	Lewis and Clark	93	38
30051	Montana	Liberty	150	63
30053	Montana	Lincoln	68	49
30055	Montana	McCone	110	60
30057	Montana	Madison	99	48
30059	Montana	Meagher	146	59
30061	Montana	Mineral	55	32
30063	Montana	Missoula	99	32
30065	Montana	Musselshell	122	50
30067	Montana	Park	60	54

30069	Montana	Petroleum	135	61
30071	Montana	Phillips	92	73
30073	Montana	Pondera	80	58
30075	Montana	Powder River	115	60
30077	Montana	Powell	150	70
30079	Montana	Prairie	127	48
30081	Montana	Ravalli	69	42
30083	Montana	Richland	107	29
30085	Montana	Roosevelt	140	65
30087	Montana	Rosebud	146	55
30089	Montana	Sanders	131	43
30091	Montana	Sheridan	97	66
30093	Montana	Silver Bow	174	80
30095	Montana	Stillwater	112	60
30097	Montana	Sweet Grass	80	60
30099	Montana	Teton	73	60
30101	Montana	Toole	141	90
30103	Montana	Treasure	94	57
30105	Montana	Valley	185	80
30107	Montana	Wheatland	120	60
30109	Montana	Wibaux	75	65
30111	Montana	Yellowstone	128	60
30113	Montana	Yellowstone Nat Park	57	30
32001	Nevada	Churchill	154	38
32003	Nevada	Clark	150	61
32005	Nevada	Douglas	101	36
32007	Nevada	Elko	128	21
32009	Nevada	Esmeralda	316	31
32011	Nevada	Eureka	244	66
32013	Nevada	Humboldt	255	75
32015	Nevada	Lander	69	35
32017	Nevada	Lincoln	300	61
32019	Nevada	Lyon	77	24
32021	Nevada	Mineral	91	21
32023	Nevada	Nye	206	33
32027	Nevada	Pershing	131	20
32029	Nevada	Storey	120	21
32031	Nevada	Washoe	151	24
32033	Nevada	White Pine	246	60
32510	Nevada	Carson City	132	34
35001	New Mexico	Bernalillo	80	33
35003	New Mexico	Catron	80	73
35005	New Mexico	Chaves	90	35
35006	New Mexico	Cibola	97	20
35007	New Mexico	Colfax	101	60

35009	New Mexico	Curry	104	40
35011	New Mexico	De Baca	193	60
35013	New Mexico	Dona Ana	96	40
35015	New Mexico	Eddy	82	46
35017	New Mexico	Grant	90	68
35019	New Mexico	Guadalupe	140	63
35021	New Mexico	Harding	93	60
35023	New Mexico	Hidalgo	99	34
35025	New Mexico	Lea	85	34
35027	New Mexico	Lincoln	112	32
35028	New Mexico	Los Alamos	91	21
35029	New Mexico	Luna	80	45
35031	New Mexico	McKinley	250	71
35033	New Mexico	Mora	97	63
35035	New Mexico	Otero	96	40
35037	New Mexico	Quay	116	66
35039	New Mexico	Rio Arriba	80	25
35041	New Mexico	Roosevelt	103	61
35043	New Mexico	Sandoval	177	28
35045	New Mexico	San Juan	81	26
35047	New Mexico	San Miguel	101	67
35049	New Mexico	Santa Fe	87	30
35051	New Mexico	Sierra	148	32
35053	New Mexico	Socorro	111	51
35055	New Mexico	Taos	108	26
35057	New Mexico	Torrance	166	60
35059	New Mexico	Union	150	60
35061	New Mexico	Valencia	77	41
41001	Oregon	Baker	69	26
41003	Oregon	Benton	63	58
41005	Oregon	Clackamas	49	29
41007	Oregon	Clatsop	68	40
41009	Oregon	Columbia	59	50
41011	Oregon	Coos	51	21
41013	Oregon	Crook	57	29
41015	Oregon	Curry	53	29
41017	Oregon	Deschutes	72	21
41019	Oregon	Douglas	60	59
41021	Oregon	Gilliam	61	60
41023	Oregon	Grant	68	25
41025	Oregon	Harney	73	25
41027	Oregon	Hood River	64	61
41029	Oregon	Jackson	71	81
41031	Oregon	Jefferson	65	60
41033	Oregon	Josephine	63	51

41035	Oregon	Klamath	68	23
41037	Oregon	Lake	72	17
41039	Oregon	Lane	90	54
41041	Oregon	Lincoln	104	60
41043	Oregon	Linn	62	39
41045	Oregon	Malheur	64	52
41047	Oregon	Marion	59	41
41049	Oregon	Morrow	71	35
41051	Oregon	Multnomah	70	68
41053	Oregon	Polk	54	34
41055	Oregon	Sherman	76	60
41057	Oregon	Tillamook	62	21
41059	Oregon	Umatilla	74	30
41061	Oregon	Union	67	55
41063	Oregon	Wallowa	70	43
41065	Oregon	Wasco	92	60
41067	Oregon	Washington	86	40
41069	Oregon	Wheeler	84	44
41071	Oregon	Yamhill	29	20
49001	Utah	Beaver	142	51
49003	Utah	Box Elder	86	52
49005	Utah	Cache	79	27
49007	Utah	Carbon	89	51
49009	Utah	Daggett	100	100
49011	Utah	Davis	52	29
49013	Utah	Duchesne	111	40
49015	Utah	Emery	156	61
49017	Utah	Garfield	146	52
49019	Utah	Grand	200	53
49021	Utah	Iron	141	52
49023	Utah	Juab	77	50
49025	Utah	Kane	143	51
49027	Utah	Millard	127	50
49029	Utah	Morgan	56	35
49031	Utah	Piute	100	50
49033	Utah	Rich	86	34
49035	Utah	Salt Lake	84	33
49037	Utah	San Juan	94	63
49039	Utah	Sanpete	100	50
49041	Utah	Sevier	96	48
49043	Utah	Summit	63	50
49045	Utah	Tooele	80	35
49047	Utah	Uintah	123	100
49049	Utah	Utah	56	23
49051	Utah	Wasatch	100	50

49053	Utah	Washington	124	51
49055	Utah	Wayne	80	51
49057	Utah	Weber	76	38
53001	Washington	Adams	44	29
53003	Washington	Asotin	66	50
53005	Washington	Benton	75	49
53007	Washington	Chelan	56	22
53009	Washington	Clallam	60	30
53011	Washington	Clark	64	27
53013	Washington	Columbia	80	54
53015	Washington	Cowlitz	61	25
53017	Washington	Douglas	60	55
53019	Washington	Ferry	60	51
53021	Washington	Franklin	69	60
53023	Washington	Garfield	60	40
53025	Washington	Grant	83	50
53027	Washington	Grays Harbor	78	56
53029	Washington	Island	42	59
53031	Washington	Jefferson	71	60
53033	Washington	King	60	50
53035	Washington	Kitsap	53	42
53037	Washington	Kittitas	74	39
53039	Washington	Klickitat	65	53
53041	Washington	Lewis	67	40
53043	Washington	Lincoln	99	60
53045	Washington	Mason	68	42
53047	Washington	Okanogan	68	52
53049	Washington	Pacific	94	60
53051	Washington	Pend Oreille	66	14
53053	Washington	Pierce	64	60
53055	Washington	San Juan	41	30
53057	Washington	Skagit	62	49
53059	Washington	Skamania	60	50
53061	Washington	Snohomish	62	60
53063	Washington	Spokane	62	54
53065	Washington	Stevens	68	40
53067	Washington	Thurston	64	39
53069	Washington	Wahkiakum	53	37
53071	Washington	Walla Walla	70	50
53073	Washington	Whatcom	53	35
53075	Washington	Whitman	69	58
53077	Washington	Yakima	74	40
56001	Wyoming	Albany	138	60
56003	Wyoming	Big Horn	160	57
56005	Wyoming	Campbell	232	79

56007	Wyoming	Carbon	115	80
56009	Wyoming	Converse	187	30
56011	Wyoming	Crook	262	70
56013	Wyoming	Fremont	135	57
56015	Wyoming	Goshen	86	66
56017	Wyoming	Hot Springs	158	49
56019	Wyoming	Johnson	168	48
56021	Wyoming	Laramie	92	60
56023	Wyoming	Lincoln	188	44
56025	Wyoming	Natrona	162	60
56027	Wyoming	Niobrara	172	47
56029	Wyoming	Park	110	60
56031	Wyoming	Platte	94	62
56033	Wyoming	Sheridan	128	37
56035	Wyoming	Sublette	147	46
56037	Wyoming	Sweetwater	196	44
56039	Wyoming	Teton	83	33
56041	Wyoming	Uinta	171	69
56043	Wyoming	Washakie	141	66
56045	Wyoming	Weston	155	60
56047	Wyoming	Yellowstone Nat Park	50	50