

## 7. Glossary

### **Acre-foot (af); plural: acre-feet**

The volume of water required to cover 1 acre of land (43,560 square feet) to a depth of 1 foot; equivalent to 325,851 gallons

### **Action item**

A description of a specific task that NeDNR and the NRDs will undertake to achieve the goals and objectives

### **Allocation**

1. A regulatory measure that stipulates the amount of water able to be used for irrigation purposes; or
2. Under the Compact, a limit of how much water from within the Republican River Basin can be consumed by each state (Nebraska, Kansas, and Colorado)

### **Alluvial aquifer**

An aquifer comprising unconsolidated material deposited by water, typically occurring adjacent to rivers or streams

### **Aquifer**

An underground geological formation or structure of permeable rock or unconsolidated materials that stores and/or transmits water, such as to wells and springs

### **Augmentation**

Supplementing or replacing surface water in a basin, subbasin, or reach through actions including, but not limited to, groundwater pumping and interbasin surface water transfers

### **Basin**

See "watershed"; in the context of this Plan, "Basin" refers to the Republican River Basin

### **Basin of origin**

For an interbasin transfer, the river basin in which the point or proposed point of diversion of water is located

### **Basin-wide plan**

A plan developed between NeDNR and the NRDs within a river basin to jointly manage hydrologically connected surface water and groundwater in the basin to achieve and sustain a balance between water uses and water supplies for the long term

### **Beneficial consumptive use**

The amount of water that is consumed under appropriate and reasonably efficient practices to accomplish without waste the purposes for which the appropriation or other legally permitted use is lawfully made

### **Best management practices**

Schedules of activities, maintenance procedures, and other management practices used for purposes of irrigation or other water use efficiency, to conserve or affect a savings of water, or to prevent or reduce present and future contamination of water

### **Compact**

See "Republican River Compact"

### **Compact Call Year**

A year in which NeDNR's analysis following the forecast procedures contained in the IMPs for the Upper, Middle, and Lower Republican NRDs indicate the potential for noncompliance with the Compact if sufficient management actions are not taken

### **Compact compliance**

Adhering to the water use stipulations outlined in the Compact

**Conjunctive management**

Using surface water and groundwater in combination to improve water availability and reliability, primarily through changing the timing of the flow of existing water sources by shifting when and where it is stored; does not result in new sources of water

**Conservation program**

A program that provides financial or other incentives to encourage voluntary modification of farming and irrigation practices, industrial practices, or residential and commercial practices for the purposes of water conservation

**Consumptive use**

That portion of water withdrawn that is evaporated, transpired, incorporated into products or crops, consumed by humans or livestock, or otherwise removed from the immediate water environment and does not return to a water resources system

**Conveyance**

The transport of water from one location to another

**Cubic foot per second (cfs); plural: cubic feet per second**

The flow rate or discharge equal to one cubic foot of water per second or about 7.5 gallons per second

**Depletion**

Reduction to streamflow that results from a use of either groundwater or surface water

**Discharge**

A hydrologic process where water moves from groundwater to surface water as part of the hydrologic cycle

**End gun**

A sprinkler located at the end of a center pivot irrigation system that is used to irrigate the portions of a field beyond the outermost span of the pivot

**Evaporation**

The process that transfers water from land surface to the atmosphere via energizing liquid water to water vapor

**Evapotranspiration**

The process that transfers water from land surface to the atmosphere as evaporation (or sublimation when below freezing) from open water, soil, and plant canopies and as transpiration by plants

**Fully appropriated**

A watershed can be designated by NeDNR as “fully appropriated” if it has a greater demand for surface water than supply of surface water

**Goal**

A broad statement that defines what a group wants to accomplish and provides the context from which meaningful objectives and action items are developed

**Groundwater**

Water that occurs in or moves, seeps, filters, or percolates through ground under the surface of the land

**Groundwater level**

The elevation at which ground is wholly saturated with water

**Groundwater mound**

An area in which groundwater levels have increased significantly from pre-development levels due to canal seepage

### **High Plains Aquifer**

An aquifer underlying parts of eight states: South Dakota, Nebraska, Wyoming, Colorado, Kansas, Oklahoma, New Mexico, and Texas, of which approximately two-thirds of the water underlies Nebraska

### **Hydrologically connected area**

The area within which pumping of a ground water well for 50 years will deplete the river or a baseflow tributary thereof by at least 10 percent of the amount pumped in that time, as defined by NeDNR rules

### **Infiltration**

The process by which water on the ground surface enters the soil

### **Integrated management plan (IMP)**

A plan developed between NeDNR and an NRD to jointly manage hydrologically connected surface water and groundwater to manage a river basin, subbasin, or reach to achieve and sustain a balance between water uses and water supplies for the long term

### **Interbasin transfer**

The diversion of water in one river basin and the transportation of such water to another river basin for storage or utilization for a beneficial purpose

### **Irrigated acreage retirement**

The removal of cropland from irrigated crop production, either permanently or for a pre-determined number of years; the non-irrigated land use is usually either dryland cropland or grassland

### **Irrigation**

The controlled application of water to land for the purpose of growing plants

### **Mainstem**

The primary river within a basin; in the case of the Republican River Basin, the Republican River is the mainstem

### **Measurable hydrologic objective**

A hydrologic target to measure and evaluate the extent to which reasonable progress is made toward achieving the final goals and objectives of the plan

### **Moratorium**

In the context of groundwater and surface water rights, a legally authorized suspension of drilling of groundwater wells, development of additional irrigated cropland, or approval of new surface water appropriations

### **Natural resources district (NRD)**

Local government entities of the State with broad responsibilities to protect Nebraska's natural resources within their subdivision; "NRDs" in this plan refers specifically to the Upper Republican, Middle Republican, Lower Republican, and Tri-Basin NRDs

### **Nebraska's allowable groundwater depletions**

The maximum level of depletions to streamflow from groundwater pumping within the Nebraska portion of the Republican River Basin that can be allowed in any one year without exceeding the Compact allocation over the appropriate averaging period

### **Objective**

A statement that defines a specific outcome that a group seeks to accomplish in working towards a goal

### **Offset**

A reduction in water use or an increase in water supply that corresponds with an increased use of water, for the purpose of balancing water uses and supplies; also referred to as mitigation

### **Ogallala Aquifer**

A geographic formation of the High Plains Aquifer found within Nebraska

**Rapid Response Area**

An area designated in the IMPs and rules and regulations for the Upper, Middle, and Lower Republican NRDs in which additional groundwater regulations may be applied during a Compact Call Year if necessary to maintain compliance with the Compact

**Recharge**

A hydrologic process where water moves downward from surface water to groundwater aquifers, both naturally through the hydrologic cycle or through intentional practices

**Republican River Compact (Compact)**

An agreement between Colorado, Kansas, and Nebraska that allocates consumption of the waters of the Republican River among the three states

**Republican River Compact Administration (RRCA)**

The entity that administers the Compact; comprised of one member each from Colorado, Kansas, and Nebraska

**Riparian**

Positioned on or near the banks of a river, stream, or other body of water

**Stakeholder Advisory Committee**

The group of individuals with a water interest in the Basin that was formally assembled for the purpose of collaborating with NeDNR and the NRDs on the development of this Plan

**Stream depletion factor**

A measure of how much groundwater pumping at a specific location would deplete streamflow after a specified period of time

**Streamflow**

The discharge that occurs in a natural channel of a surface stream course

**Subbasin**

A portion of a river basin that is drained by a waterway

**Surface water**

Water that is on the Earth's surface, such as in a stream, river, lake, or reservoir

**Surface water allotment systems**

Within the context of the Plan, this refers to how the irrigation districts determine how water is shared among surface water users within each district

**Transpiration**

The process that transfers water from plants to the atmosphere, as vapor, from aerial parts such as the leaves and stems

**Tributary**

A river that is not the primary river within a watershed; in the Republican River Basin, all rivers other than the Republican River are tributaries either directly to the Republican River, or indirectly as a tributary to another river that eventually flows to the Republican

**Variance**

An allowance of an exception to any request that is contrary to existing rules or regulations; for example, allowing an exception to a moratorium on new irrigated acres, new wells, or new surface water appropriations while providing adequate mitigations or transfers to assure that there is no net increase in depletions to the river or impacts to existing surface water or groundwater uses

**Water market**

An economic platform for temporary or permanent trades of the rights to use water, where the price of water is determined by variable economic and market conditions

**Watershed**

The area of land where all of the water that is under it or drains off of it goes into the same place; synonymous with "basin"

**Wetland**

An area of land saturated with water at or near the surface of the soil for all or part of the year, such as a swamp or a marsh

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