Glossary

Glossary

agricultural drainage (1) The process of directing excess water away from the

root zones of plants by natural or artificial means, such as by using a system of pipes and drains placed below ground surface level. (2) The water drained away from irrigated

farmland.

agricultural land Land in farms regularly used for agricultural production;

all land devoted to crop or livestock enterprises, for example, farmstead lands, drainage and irrigation ditches,

water supply, cropland, and grazing land.

agricultural runoff

The runoff into surface waters of herbicides, fungicides,

insecticides, and the nitrate and phosphate components of fertilizers and animal wastes from agricultural land and operations. Considered a nonpoint source of water

pollution.

air quality A measure of the health-related and visual characteristics

of the air often derived from quantitative measurements of the concentrations of specific injurious or contaminating

substances.

air quality classes

Classifications established under that Prevention of

Significant Deterioration portion of the Clean Air Act that limit the amount of air pollution considered significant within an area. Class I applies to areas where almost any change in air quality would be significant; Class II applies to areas where the deterioration normally accompanying moderate well-controlled growth would be permitted; Class III applies to areas where industrial deterioration

would generally be allowed.

ambient air Any unconfined portion of the atmosphere: open air,

surrounding air.

appropriate To authorize the use of a quantity of water to an individual

requesting it.

appropriated water (1) A quantity of water from a well, stream, river,

reservoir, or other source reserved for a specific use and place of use under state water-right laws, statutes, or regulations. (2) Surface water in an irrigation district that has been assigned or allocated to owners of water rights.

appropriation doctrine (prior)

The system for allocating water to private individuals used in the western United States under which (1) the right to water was acquired by diverting water and applying it to a beneficial use and (2) a right to water acquired earlier in time is superior to a similar right acquired later in time. The doctrine of prior appropriation was in common use throughout the arid west as early settlers and miners began to develop the land. The prior appropriation doctrine is based on the concept of first in time, first in right. The first person to take a quantity of water and put it to beneficial use has a higher priority of right than a subsequent user. Under drought conditions, higher priority users are satisfied before junior users receive water. Appropriative rights can be lost through nonuse; they can also be sold or transferred apart from the land.

appropriative water right

Nevada's water law is based on statutes originally enacted in 1903 and Nevada Revised Statutes, Chapter 533, and is founded on the principal of *prior appropriation*. Unlike some other states, Nevada has a statewide system for the administration of both groundwater and surface water. Appropriative water rights are based on the concept of applying water to beneficial use and first in time, first in right. Appropriative water rights can be lost through nonuse and they may be sold or transferred apart from the land. Due in large part to the relative scarcity of water in Nevada and numerous competing uses, Nevada has had a thriving market for water transfers for a number of years. A person in Nevada who desires to place water to beneficial use must file an application with the State Engineer to initiate the process of acquiring an appropriative water right.

appropriator

One taking water from a watercourse under the authority of the state and applying it to beneficial use.

appurtenant

(1) (Legal) A right, privilege, or property that is considered incident to the principal property for purposes such as passage of title, conveyance, or passage of title. (2) (Water-Related) A right to water that is incident to the ownership or possession of the land.

appurtenant land

The land base to which water rights legally pertain or belong.

appurtenant to place of

use

The location of where the water will be put to beneficial

use.

appurtenant water right A water right that is incident to the ownership or

possession of land.

aquifer A geologic formation, a group of formations, or a part of a

formation that is water-bearing.

aquifer, basin-fill An aquifer located in a basin surrounded by mountains and

composed of sediments and debris shed from those mountains. Sediments are typically sand and gravel with

some clay.

aquifer, confined An aquifer that is bounded above and below by formations

of impermeable or relatively impermeable material. An

aquifer in which groundwater is under pressure

significantly greater than atmospheric and its upper limit is

the bottom of a bed of distinctly lower hydraulic

conductivity than that of the aquifer itself.

aquifer, unconfined An aquifer made up of loose material such as sand or

gravel that has not undergone lithification (settling). In an unconfined aquifer the upper boundary is the top of the

zone of saturation (water table).

aquitard A geological formation that contains, and is impermeable

to, groundwater.

arid A term applied to a climate or region where precipitation

is so deficient in quantity, or occurs so infrequently, that crop production is impractical or impossible without

irrigation.

attainment area An area considered to have air quality as good as or better

than the national ambient air quality standards as defined in the Clean Air Act. An area may be an attainment area for one pollutant and a nonattainment area for others. Basin and Range province

A region of north-trending mountains ranges and valleys encompassing western Utah and essentially all of Nevada. This geologic territory includes virtually all of the Great Basin and extends south and east through Arizona, New Mexico, and Texas all the way into Mexico. The Basin and Range can be differentiated from its surrounding geologic regions by its uplifted and tilted ranges separated by broad elongated basins. The Great Basin forms a unique part of this geologic region in as much as this hydrologic area has no drainage to the ocean.

basin

The land where water drains downhill into a body of water. The U.S. Geological Survey and the Nevada Division of Water Resources, Department of Conservation and Natural Resources, have divided Nevada into discrete hydrologic units for water planning and management purposes. These have been identified as 232 hydrographic areas (256 areas and subareas, combined) within 14 major hydrographic regions or basins.

bathymetry

- (1) The measurement of the depth of large bodies of water.
- (2) The measurement of water depth at various places in a body of water. Also the information derived from such measurements.

best management practice

A generally accepted practice for some aspect of natural resources management, such as water conservation measures, drainage management measures, or erosion control measures. Typically incorporates conservation criteria.

Biological Assessment

A document submitted to the U.S. Fish and Wildlife Service that provides data and project impacts to evaluate whether a federal action is likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction or adverse modification of critical habitat. The Biological Assessment is used by the agency to prepare their Biological Opinion.

Biological Opinion

A document that states the opinion of the U.S. Fish and Wildlife Service as to whether a federal action is likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction or adverse modification of critical habitat.

braiding (of river channels)

Successive division and rejoining of river flow with accompanying islands.

carbon monoxide

A colorless, odorless, poisonous gas produced by incomplete fossil fuel combustion.

combustion

The act or instance of burning some type of fuel such as gasoline to produce energy. Combustion is typically the process that powers automobile engines and power plant generators.

confluence

(1) The act of flowing together; the meeting or junction of two or more streams; also, the place where these streams meet. (2) The stream or body of water formed by the junction of two or more streams; a combined flood.

conservation district

A public organization created under state-enabling law as a special purpose district to develop and carry out a program of soil, water, and related resource conservation, use, and development within its boundaries. In the United States, such districts are usually a subdivision of state government with a local governing body and are frequently called a soil conservation district or a soil and water conservation district.

consumptive use

Water that is evaporated, transpired, incorporated into products or crops, consumed by humans or livestock, or otherwise removed from the immediate water environment.

conveyance loss

Water that is lost in transit from delivery systems such as pipes, canals, conduits, or ditches by leakage, seepage, spillage, evaporation, or evapotranspiration by plants growing in or near the channel. Generally, some portion of such losses will not be available for further use; however, leakage from an irrigation ditch, for example, may percolate to a groundwater source and be available for further use.

cooperating agency

Any public agency other than a lead agency that has jurisdiction over a resource or particular expertise that would be significantly affected by a proposed action or alternative. A state or local agency or an Indian Tribe, may, by agreement with the lead agency, become a cooperating agency.

criteria pollutants

Six pollutants known to be hazardous to human health for which the Environmental Protection Agency has established National Ambient Air Quality Standards: ozone, carbon monoxide, total suspended particulates, sulfur dioxide, lead, and nitrogen oxide. These standards are required under the 1970 amendments to the Clean Air Act.

de minimis

The minimum air pollutant threshold for which project conformity determination must be performed.

decree

The judgment of a court, an official order, or settlement.

decreed water rights (water)

Water rights determined by court decree. As specified by the Walker River Decree, a right to divert natural flow from the Walker River.

dedicated natural flow

River flows allocated to environmental use.

depletion

(1) The water consumed within a service area or no longer available as a source of supply; that part of a withdrawal that has been evaporated, transpired, incorporated into crops or products, consumed by man or livestock, or otherwise removed. (2) Net rate of water use from a stream or groundwater aquifer for beneficial and nonbeneficial uses.

Desert Research Institute A unit of the University of Nevada created in 1959 by an act of the Nevada Legislature. The DRI became an autonomous, nonprofit division and has since grown to be one of the world's largest multidisciplinary environmental research organizations focusing on arid lands. The DRI's five research centers focus on the geosphere, hydrosphere, biosphere, and atmosphere.

direct effects

Effects that are caused by an action and occur at the same time and place as the action. discharge The volume of water that passes a given point in a given

period of time.

diversion The redirection of movement of water from a stream, lake,

aquifer, or other source of water by a canal, pipe, well, or other conduit to another watercourse or to the land, as in

the case of an irrigation system.

drainwater Any residual water that flows away from an irrigation

project; it may or may not satisfy some portion of

downstream water rights.

drawdown The act, process, or result of depleting, as a liquid or body

of water as in the lowering of the water surface level due

to release of water from a reservoir.

Environmental Impact

Statement

A report required by the National Environmental Policy Act for all major projects that may have a significant impact on the quality of the human environment or are environmentally controversial. The Environmental Impact

Statement is a detailed and formal evaluation of the favorable and adverse environmental and social impacts of a proposed project and its alternatives. A tool for decision making, the Environmental Impact Statement describes the positive and negative impacts of the Proposed Action and includes alternatives to the Proposed Action that meet the

identified Purpose and Need for the action.

epilimnion The warm upper layer of a body of water with thermal

stratification, which extends down from the surface to the thermocline, forming the boundary between the warmer upper layers of the epilimnion and the colder waters of the lower depths, or hypolimnion. The epilimnion is less dense

than the lower waters and is wind-circulated and

essentially homothermous.

erosion (1) Detachment of soil particles under the influence of

water and/or wind. (2) The wearing away and removal of materials of the earth's crust by natural means. (3) The process by which flood waters lower the ground surface in an area by removing upper layers of soil. As usually

employed, the term includes weathering, solution,

corrosion, and transportation.

evaporation (1) The physical process by which a liquid (or a solid) is

transformed to the gaseous state. (2) The process by which

water is changed from a liquid to a vapor.

evapotranspiration The loss of water to the atmosphere from the earth's

surface by evaporation and by transpiration through plants.

evapotranspiration, net Evapotranspiration minus rainfall.

Executive Order Legally binding orders given by the President, acting as

the head of the Executive Branch, to federal administrative agencies. Executive Orders are generally used to direct federal agencies in their execution of congressionally

established laws or policies.

fallow (1) Allowing cropland, either tilled or untilled, to lie idle

during the whole or greater portion of the growing season. (2) Land plowed and tilled and left unplanted (i.e., not

irrigated).

farmland, prime As defined in the Farmland Protection Policy Act of 1981:

Land that provides optimal physical and chemical

characteristics for producing food, feed, forage, fiber, and oilseed crops, and is available for these uses (urban areas

are not included).

floodplain A normally dry land area that is susceptible to being

inundated by water from any natural source. This area is usually low land adjacent to a river, stream, watercourse,

ocean or lake.

flood stage (1) An elevation for the water level at high flows. (2) The

elevation at which overflow of the natural banks of a stream or body of water begins in the reach or area in

which the elevation is measured.

floodwater The terms floodwater and permit water are used

interchangeably to mean the water derived from the most junior surface water right controlled by the Walker River Irrigation District. This water is only available from May

through July under state-issued certificates of

appropriation, when demands for all other more senior surface water rights have been satisfied and there are excess or surplus natural flows remaining in the Walker

River stream system.

floor A generic term for the nearly level, lower-part of an inter-

montane basin or a major desert stream valley.

flow rate The speed or rate at which a volume of water is taken from

a water course or flows past a point of measurement or

diversion (e.g., cubic feet per second).

flow, natural The rate of water movement past a specified point on a

natural stream from a drainage area that has not been affected by stream diversion, storage, import, export, or change in consumptive use resulting from man's

modification of land use. Natural flow rarely occurs in a

developed country.

fugitive dust Dust particles that are introduced into the air through

certain activities such as soil cultivation, or vehicles operating on open fields or dirt roadways. A subset of

fugitive emissions.

full funding Sufficient financing to purchase enough water to increase

Walker Lake inflows by an average of 50,000 af/yr.

full transfer of The assumed transfer of up to the full amount of the water available water historically diverted (on an annual average acre foot per

historically diverted (on an annual average acre foot per acre basis) to serve irrigated lands in the Mason Valley, Smith Valley, and East Walker sub-areas. Full transfer assumes that this water would be fully available at existing points of diversion for transfer to Walker Lake, although the water would be subject to other physical losses below those points, such as infiltration from the Walker River to

groundwater.

gaining stream A stream or reach of a stream, the flow of which is being

increased by the inflow of ground water seepage or from

springs in, or alongside, the channel.

Gap Analysis A method for determining spatial relationships between

areas of high biological diversity and the boundaries of national parks, national wildlife refuges, and other preserves. The primary goal of Gap Analysis is to prevent additional species from being listed as threatened or

endangered. Analyses are made and displayed using a

geographic information system.

geographic information

system

A computer information system that can input, store, manipulate, analyze, and display geographically

referenced (i.e., geo-spatial) data to support the decision-

making processes of an organization.

geothermal Heat usually associated with groundwater, e.g. a

geothermal aquifer.

gradient Degree of incline; slope of a stream bed. The vertical

distance that water falls while traveling a horizontal

distance downstream.

Great Basin A hydrogeographic area covering most of Nevada and

much of western Utah and portions of southern Oregon and northeastern California. The region consists primarily of arid, high elevation, desert valleys, sinks (playas), dry lake beds, and salt flats. In the Great Basin, all surface waters drain inward to terminal lakes, sinks, or playas.

gross duty of water The gross amount of water allowed to be used or diverted

for irrigation purposes at the farm headgate or at the intake

of a canal system, usually expressed in terms of a maximum volume per unit of area per unit of time (e.g., acre feet per acre per year, CFS per acre per season).

groundwater table (1) The depth below the surface of the ground where the

soil is saturated (the open spaces between the individual soil particles are filled with water). (2) The upper surface of the zone of saturation for underground water. Also

referred to as the water table.

groundwater, perched Groundwater that is separated from the main body of

groundwater by an impermeable (unsaturated) layer.

groundwater basin A groundwater reservoir together with the entire overlying

land surface and the underlying aquifers that contribute water to the reservoir. In some cases, the differing boundaries of successively deeper aquifers make it difficult to define the limits of the basin. A groundwater basin could be separated from adjacent basins by geologic

boundaries or by hydrologic boundaries.

groundwater recharge The infiltration of water into a subsurface aquifer. It may

increase the total amount of water stored underground or only replenish the groundwater supply depleted through

pumping or natural discharge.

groundwater right, primary

A state-permitted right to pump groundwater for use on land that has no rights to surface water. Generally, such rights are limited to a maximum rate of flow and to an overall volumetric limit, such as 4.0 acre feet/acre per season.

supplemental groundwater right

A state-permitted right to pump groundwater to supplement another surface or ground water right. Generally, such rights are limited to a maximum rate of flow and to an overall volumetric limit from all sources, such that combined surface and groundwater use may not exceed (for example) 4.0 af/acre per season.

habitat

The native environment or specific surroundings where a plant or animal naturally grows or lives. The surroundings include physical factors such as temperature, moisture, and light together with biological factors such as the presence of food or predator organisms.

head cut

A break in slope at the top of a gully or section of gully that forms a waterfall, which in turn causes the underlying soil to erode and the gully to expand uphill.

hydrologic

Pertaining to the science dealing with water, its properties, phenomena, and distribution over the earth's surface.

hydrologic balance

An accounting of all water inflows to, water outflows from, and changes in water storage within a hydrologic unit over a specified period of time.

hydrologic model

Mathematical formulations that simulate hydrologic phenomenon considered as processes or as systems.

hypolimnion

The lowermost, noncirculating layer of cold water in a thermally stratified lake or reservoir that lies below the thermocline, remains perpetually cold, and is usually deficient of oxygen.

impermeable

Unable to transmit water; not easily penetrated. The property of a material or soil that does not allow, or allows only with great difficulty, the movement or passage of water. Impervious.

incidental recharge Groundwater recharge (infiltration) that occurs as a result

of water conveyance losses (seepage) through unlined (earthen) canals, or from residuals in the application or use

(ET) of irrigation water.

indirect effects Effects that are caused by an action and occur later in time,

or at another location, yet are reasonably foreseeable.

International Vegetation

Classification System

Characterizes vegetation as it currently exists on the landscape. Landforms, soils, and other features are not directly considered as part of the classification criteria.

inundate To cover with water, especially floodwaters.

invasive plant A plant that moves in and takes over an ecosystem to the

detriment of other species; often the result of

environmental manipulation.

inversion A layer of warm air in the atmosphere that prevents the

rise of cooling air and traps pollutants beneath it.

irrigated land Land receiving water by controlled artificial means for

agricultural purposes from surface or subsurface sources.

irrigation The application of water to soil for the purpose of growing

crops when rainfall is insufficient to maintain desirable

soil moisture for plant growth.

irrigation canal An irrigation conduit constructed to convey water from the

source of supply to one or more farms, including lined and unlined ditches and laterals as well as surface and sub-

surface pipelines.

irrigation conveyance

loss

The loss of water in transit from a reservoir, point of diversion, or groundwater pump (if not on farm) to the

point of use, whether in natural channels or in artificial

ones, such as canals, ditches, and laterals.

irrigation district

(1) Quasi-political districts created under special laws to provide for water services to property owners in the district. (2) A cooperative, self-governing public corporation set up as a subdivision of the state government, with definite geographic boundaries, organized and having taxing power to obtain and distribute water for the irrigation of lands within the district; created under the authority of a state legislature with the consent of a designated fraction of the landowners or citizens and having taxing power.

irrigation return flow

Applied water that is not consumptively used; that is, water that is not transpired, evaporated, or deep percolated into a groundwater basin, and which eventually returns to the river through the irrigation drainage network.

lake A considerable body of inland water formed by natural processes, a constructed reservoir, or an expanded part of a

river.

land retirement Taking land out of agricultural production through the cessation or irrigation, thus leaving it permanently fallow.

lead federal agency The federal agency or agencies preparing or having taken primary responsibility for preparing an Environmental Impact Statement.

> A stream or reach of a stream that is losing water by seepage into the ground. Also referred to as an influent stream.

The middle layer of a thermally stratified lake or reservoir. In this layer there is a rapid decrease in temperature with depth.

Action taken to avoid, reduce the severity of, or eliminate an adverse impact. Mitigation can include one or more of the following actions:

- avoiding impacts;
- minimizing impacts by limiting the degree or magnitude of an action;
- rectifying impacts by restoring, rehabilitating, or repairing the affected environment;
- reducing or eliminating impacts over time; and

losing stream

metalimnion

Mitigation

 compensating for the impact by replacing or providing substitute resources or environments to offset the loss.

National Ambient Air Quality Standards

National standards for outdoor air quality established by the U.S. Environmental Protection Agency. These include primary standards, which set limits to protect public health; and secondary standards, which set limits to protect public welfare.

National Environmental Policy Act A 1970 Act of Congress that requires all federal agencies to incorporate environmental considerations into their decision-making processes. The act requires an Environmental Impact Statement for any "major federal action significantly affecting the quality of the human environment."

National Pollutant Discharge Elimination System permit A permit required for any discharges of pollutants directly into the waters of the United States.

navigable waters

A body of water that is sufficiently high, wide, and deep enough to allow a vessel to pass through. Navigability may vary according to ship size, or environmental conditions such as water velocity or freezing.

Nevada State Engineer

The public official and office charged with the administration of the water appropriation system within the State of Nevada, Division of Water Resources, Department of Conservation and Natural Resources.

New Lands

Lands without any decreed water rights.

nitrogen oxides

Compounds of nitric oxide, nitrogen dioxide, and other oxides of nitrogen. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. Nitrogen dioxide is a criteria air pollutant, and may result in numerous adverse health effects.

No Action Alternative

Projected baseline condition, or anticipated future condition without a given action being taken. The expected future condition if no action is taken—which is not necessarily the same as the present condition. The effects of action alternatives are measured against this "no action" condition.

nonattainment area

Area that does not meet one or more of the National Ambient Air Quality Standards for the criteria pollutants designated in the Clean Air Act.

noxious weed

A plant species that possesses one or more of the following attributes: aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host of serious insect or disease and being native or new to or not common to the United States or parts thereof.

outlet

Point where water exits from a stream, river, lake, reservoir, tidewater, or artificial drain. The mouth of a river where it flows into a larger body of water.

oxygen depletion

The removal of dissolved oxygen from a body of water as a result of bacterial metabolism of degradable organic compounds added to the water, typically caused by human activities.

ozone

A strong-smelling, pale blue, reactive toxic chemical gas consisting of three oxygen atoms. Ozone is a product of the photochemical process involving the sun's energy and ozone precursors, such as hydrocarbons and oxides of nitrogen. Ozone exists in the upper atmosphere ozone layer (stratospheric ozone) and at the Earth's surface in the troposphere (ozone). Ozone in the troposphere causes numerous adverse health effects and is a criteria air pollutant. It is a major component of smog.

ozone precursors

Chemicals such as non-methane hydrocarbons and oxides of nitrogen, occurring either naturally or as a result of human activities, that contribute to the formation of ozone, a major component of smog.

particulate matter

Any material, except pure water, that exists in the solid or liquid state in the atmosphere. The size of particulate matter can vary from coarse, wind-blown dust particles to fine particle combustion products. Particulate matter is generally measured in microns.

permitted water right The rig

The right to put surface or groundwater to beneficial use that is identified by a document issued by the Nevada State Engineer prior to the filing of satisfactory proof of "perfection of application" in accordance with Nevada Revised Statutes Chapter 533. If proof of beneficial use is accepted by the State Engineer, then the water right permit can be converted into a certificated water right. If proof of beneficial use in not made to or accepted by the State Engineer, then the right to claim title to the water may cease.

place of use

The specific location, typically documented in a water right permit, where water is applied or used. A water user cannot use water at another location without transferring the right or obtaining a new right.

priority date

The date of establishment of a water right; the officially recognized date associated with a water right. The rights established by application have the application date as the date of priority. The priority date may make a water right senior (predating other rights) or junior (subordinate to other rights).

project area

The area generally affected by the proposed action. For this proposed action in this EIS, the project area is defined as the Nevada portions of the Walker River Basin.

proposed action

The federal action proposed to address an identified purpose and need in an Environmental Impact Statement.

proposed project

The specific project proposed for development, which may have an impact on the natural and human environment, and is evaluated in the Environmental Impact Statement.

qualitative analysis

The examination of a phenomenon to determine its qualitative characteristics, i.e., characteristics for which precise numerical identification are not appropriate.

quantitative analysis

The examination of a phenomenon using actual observed data with an intention to explain historic behavior and/or predict future behavior.

recharge, natural

The replenishment of groundwater storage from naturallyoccurring surface water supplies such as precipitation and natural stream flows. recreation resource Land and water areas and their natural attributes, with or

without constructed facilities, which provide opportunities

for outdoor recreation.

relicted land Land exposed by declines in water levels or location.

reservoir 1) A body of water used or constructed for the storage,

regulation, and control of water. (2) An artificially created lake in which water is collected and stored for future use.

riparian Pertaining to the banks of a river, stream, waterway, or

other flowing body of water, and to plant and animal

communities along such bodies of water.

riparian habitat Areas adjacent to rivers and streams with a high density,

diversity, and productivity of plant and animal species

relative to nearby uplands.

river mile The distance of a point on a river measured in miles from

the river's mouth along the low-water channel.

runoff (1) That portion of precipitation that moves from the land

to surface water bodies. (2) That portion of precipitation that is not intercepted by vegetation, absorbed by the land surface or evaporated, and thus flows overland into a depression, stream lake or ocean. (3) That part of the precipitation, snow melt, or irrigation water that appears in

uncontrolled surface streams, rivers, drains, or sewers.

storage rights A right to water stored in designated reservoirs (for this

Environmental Impact Statement, Bridgeport and Topaz Lake Reservoirs). Supplemental storage rights are used to supplement decreed (or natural flow) direct diversion water rights for more junior (1874 or later) dates of

priority.

study area The area that may be affected by the proposed project.

This area varies by resource.

substantial Meaningful or important adverse change in context or

intensity. A substantial change is one that would be noticeable and measurable and that would have either a short-term or long-term beneficial or adverse impact.

sulfur dioxide

A strong-smelling, colorless gas that is formed by the combustion of fossil fuels. Power plants, which may use coal or oil high in sulfur content, can be major sources of sulfur dioxide. Sulfur dioxide and other sulfur oxides contribute to the problem of acid deposition. Sulfur dioxide is a criteria air pollutant.

tailwater runoff

Refers to unused irrigation water that is collected at the downstream end of an irrigation system or field in a ditch, drain, or impoundment. This water may be reused again for irrigation purposes, left to evaporate, percolate into the ground, treated, and/or discharged to surface bodies of water.

thermocline

(1) The region in a thermally stratified body of water that separates warmer oxygen-rich surface water from cold oxygen-poor deep water and in which temperature decreases rapidly with depth. (2) A layer in a large body of water, such as a lake, that sharply separates regions differing in temperature, so that the temperature gradient across the layer is abrupt.

threatened species

Any plant or animal species likely to become an endangered species within the foreseeable future throughout all of a significant area of its range or natural habitat; identified by the Secretary of the Interior as "threatened" in accordance with the 1973 Endangered Species Act.

total dissolved solids

All the solids (usually inorganic mineral salts) that are dissolved in water. Used to evaluate water quality. Solutions high in Total Dissolved Solids have the capability of changing the chemical nature of water. High Total Dissolved Solids concentrations exert varying degrees of osmotic pressures and often become lethal to the biological inhabitants of an aquatic environment.

transpiration

(1) The movement of water from the soil or ground water reservoir via the stomata in plant cells to the atmosphere. (2) The quantity of water absorbed, transpired, and used directly in the building of plant tissue during a specified time period. It does not include soil evaporation. (3) The process by which water vapor escapes from a living plant, principally through the leaves, and enters the atmosphere.

upstream

Toward the source or upper part of a stream; against the current. In relation to water rights, the term refers to water uses or locations that affect water quality or quantity of downstream water uses or locations.

Walker River Irrigation District (WRID) Formed in April 1919 by farmers in Smith and Mason Valleys in response to the Decree 731, WRID includes all irrigated and non-irrigated lands in Nevada on the East Walker River, the West Walker River, and the main Walker River, except for lands within the Walker River Indian Reservation. Although WRID was established as a Nevada agency serving lands entirely within Nevada, its surface storage reservoirs are located either entirely in California (Bridgeport Reservoir) or partially in California and Nevada (Topaz Reservoir).

water efficiency

Refers to the fraction of diversions and groundwater pumping for irrigation that is used consumptively by irrigated land (i.e., net evapotranspiration for irrigated lands divided by the sum of surface water diversions and groundwater pumping).

watershed

(1) An area that, because of topographic slope, contributes water to a specified surface water drainage system, such as a stream or river. An area confined by topographic divides that drains a given stream or river. (2) The natural or disturbed unit of land on which all of the water that falls (or emanates from springs or melts from snow packs), collects by gravity, and fails to evaporate, runs off via a common outlet. (3) All lands enclosed by a continuous hydrologic drainage divide and lying upslope from a specified point on a stream; a region or area bounded peripherally by a water parting and draining ultimately to a particular water course or body of water. Also referred to as water basin or drainage basin. (4) A ridge of relatively high land dividing two areas that are drained by different river systems.

water rights

The qualified right to draw and use up to a specific amount (and/or flow rate) of water from a specified water source at a particular location, for a designated purpose, and for a specified period of time

wetlands

(1) Federal: those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. (2) Nevada: Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands typically include swamps, marshes, bogs, playas, springs, seeps, and similar areas. Wetlands are land 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 the purpose of this classification wetlands must have one or more of the following attributes: hydrophytic vegetation, hydric soil, or wetland hydrology.

Wildlife Management Area Lands and waters that have been acquired to implement a coordinated and balanced program resulting in the maximum revival of fish and wildlife and in the maximum recreational advantages to the people of the State of Nevada. Wildlife Management Areas are managed by the Nevada Department of Wildlife subject to supervision by the Nevada Board of Wildlife Commissioners.

Sources:

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