

# **BENEFITS PROVIDED BY THE IRRIGATED AGRICULTURAL LANDSCAPE**

**George N Wallace, 2018**

One of the main motivations for working to minimize the “buy and dry” approach to water transfers is because multiple values and benefits are lost as the irrigated landscape diminishes and the associated management and infrastructure are weakened. Some of the values provided by irrigated agriculture include:

**Economic diversity.** Irrigated agriculture produces wealth from renewable resources like soil, sunlight, water, and CO<sub>2</sub> year after year unlike other more volatile and less sustainable economic sectors. Its producers provide an irreplaceable knowledge base developed over generations.

**Locally grown food and fiber:** The local food and “sustainable foodshed” movements continue to gain momentum because of concerns about knowing where food comes from, food quality, food safety, and lowering the carbon footprint of food production. The demand for food will only increase over time. Ag requires considerable water but much of that returns to consumers in the form of food.

**Climate Change Mitigation:** With an increase in extreme weather, it is prudent to have a geographically distributed food production capability. Western irrigated agriculture can apply some renewable, gravity fed water from snowmelt over a growing season even during drought and when weather extremes limit production in rainfed portions of the US or as a result of declining groundwater aquifers. Even the Pentagon has acknowledged that decentralized food production in the US is and will continue to be an important part of homeland security in the future.

**Open Space:** irrigated agriculture provides pastoral landscapes that reside deeply in the American psyche and at less cost than other types of open space parcels managed by local governments.

**Community Separators:** Irrigated landscapes often serve as separators that preserve community integrity and prevent the documented costs associated with unchecked exurban development. This includes both farms and ranches.

**Wildlife Habitat:** the irrigated landscape provides considerable wildlife habitat near ditches, reservoirs, associated wetlands, field borders, as well as State, Farm Bill, private initiated habitat areas. These provide food and critical habitat to migrating waterfowl, songbirds, as well as many resident wildlife species.

**The Potential for Water Sharing:** The extensive system of diversion structures, reservoirs, canals, ditches and a history of cooperation among irrigators and other water users makes the sharing of water conveyance structures and storage possible. The irrigated landscape is, in essence, a reservoir of water that can provide a buffer for drought, drought recovery, emergencies and the firming of urban water supplies. This flexibility disappears once irrigation water is permanently transferred to domestic use.

**Ground Water Recharge:** irrigated agriculture is an important source for the recharging of wells and aquifers that have come to depend on it.

**Flood Surge Control:** During recent floods, irrigation canals and reservoirs were able to help absorb the shock of flooding rivers and reduce damage to urban infrastructure.

**Recreation and Tourism:** Mid and late summer boating and recreational flows are maintained by releases needed by irrigators from mountain reservoirs. Irrigation reservoirs provide fishing, boating and other forms of recreation as well as diverse amenity values.