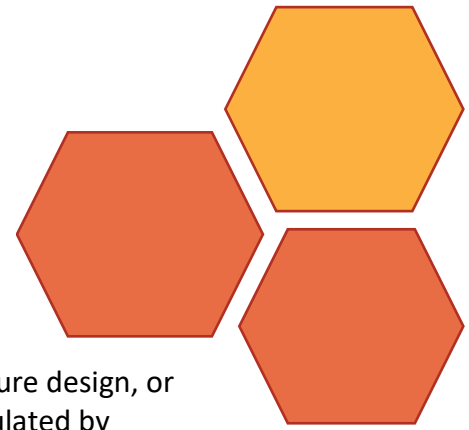


# Chapter 8 – Water Use & Prevention



Kane County does not oversee or manage water distribution, infrastructure design, or related costs. All water systems within the county are operated and regulated by independent water companies or special service districts. The County coordinates closely with these providers, as well as with the Utah Department of Environmental Quality and the Utah Division of Water Rights, to ensure proper compliance and collaboration.

## Kane County Water Budget

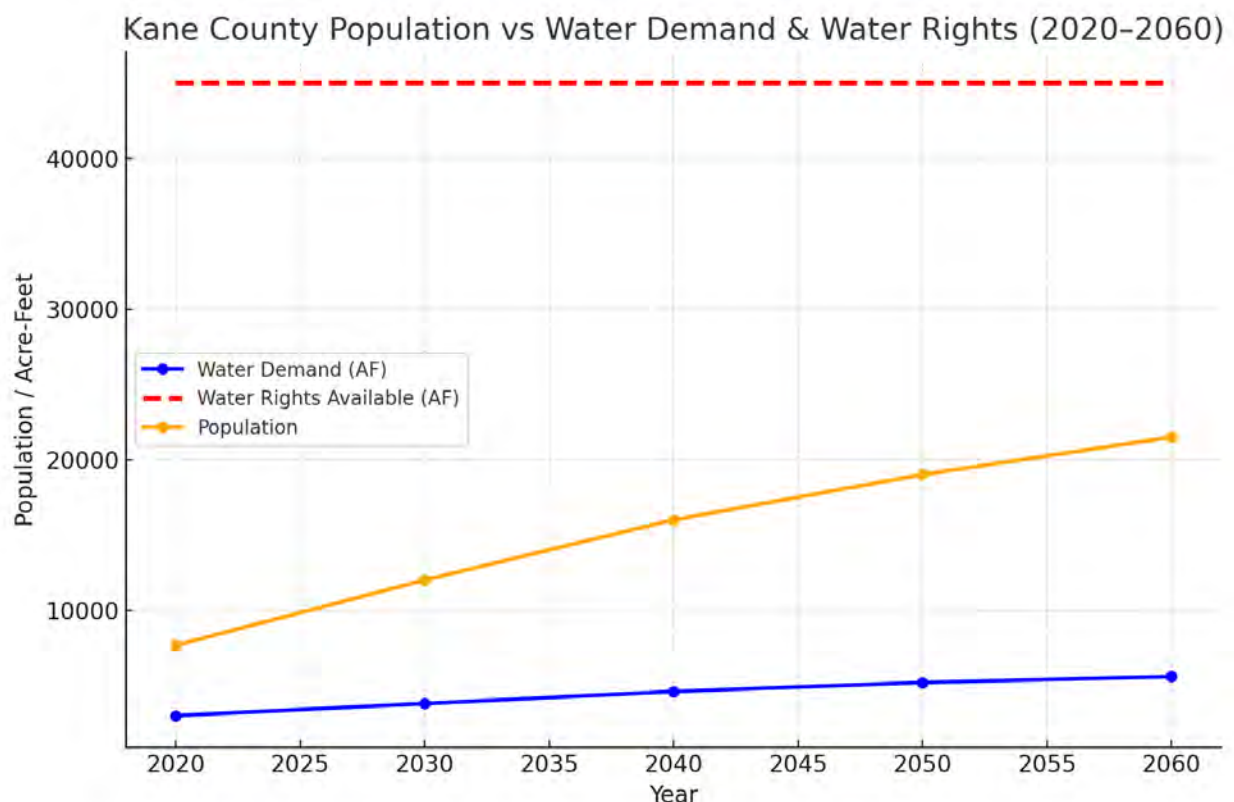
### Summary of Current System Capacity

Provider	Current Connections	Storage (Gallons)	Potential Connections	Water Rights (acre-feet)
Alton Town	90	125,000	125	42 AF
Best Friends Animal Society	134	246,000	200	≈ 142 AF
Church Wells SSD	102	470,000	370	100 AF
East Zion SSD	69	690,000	3,500	75 AF
Elk Ridge Water Co.	120	340,000	160	72 AF
Glen Canyon SSD	356	500,000	1,000	300 AF
Glendale Town	223	150,000	400	150 AF
Grand Staircase Water Co.	17	400,000	300	≈ 1836 AF
Kanab City	2637	2.5 million	4500	2,500 AF
Kane County Water Conservancy District SSD	3,575	2.5 million	11,900	2,000 AF
Orderville Town	393	1,000,000	1,000	400 AF
Ranch at Zion	18	125,000	250	100 AF
Zion Frontier Resort	83	250,000	200	85 AF
Zion Mountain Resort	125	275,000	300	100 AF
Zion Peak Water Co.	New Company in 2025, no information is currently available.			
<b>TOTAL (current)</b>	<b>8,214</b>	<b>8.9 million</b>	<b>24,205</b>	<b>≈ 7902 AF</b>

**Note:** 0.45 acre-feet/connection is the common minimum requirement across providers. Kane County’s current average is 0.33 acre-feet/connection. (2,727.6 AF used in 2024 divided by 8,214 Connections = .33 AF / connection.

## Projected Future Demand

- Population Growth
  - 2024 Kane County Population: 8,364 (Kem C Gardner Study)
  - 2060 Projected Population: 21,490 (KCWCD Study)
  - Growth: +13,826 people
  
- Water Usage Rate
  - Current: 233 gallons/capita/day
  - Goal (per Utah state): <305 gallons/capita/day by 2030
  - We'll assume Kane County maintains 233 gallons/capita/day (KCWCD Study)
  
- Projected Daily Demand by 2060
  - 21,490 people x 233 gallons per capita per day = 5,004,170 gallons
    - (2060 projected population) x (Current usage)
  
- Annual Water Demand
  - 5,004,170 x 365 ≈ 1.826 billion gallons/year
    - (Projected daily demand) x (Annual)
  
- Convert to Acre-Feet
  - 1.826 billion gallons/year ÷ 325,851 ≈ 5,603 acre-feet/year
    - (Projected annual water demand) ÷ (standard hydrological measure for one acre-foot)



\*Population origination point taken from most recent U.S. Census (2020: 7,667)

## Countywide Water Budget Summary

Category	Estimate
2023 Water Use	~3,000 acre-feet (based on current population)
2060 Projected Use	~5,600 acre-feet/year
Total County Water Rights	~45,000+ acre-feet (mostly KCWCD)
Surplus Potential	~39,000+ acre-feet (subject to infrastructure)
Existing Storage	~8.9 million gallons
Required Storage (2060)	At least 15–20 million gallons (est.)

Kane County’s water providers hold sufficient total water rights to meet projected population demands; however, existing infrastructure and delivery systems must be expanded or upgraded to accommodate future use and ensure the full utilization of available water supplies. For more detailed information, see the “Recommendations for Water Sustainability” section under “Policy and Building Code Recommendations for Water Conservation” below.

### Recommendations

1. Expand Storage:
  - Increase regional water tank capacity, especially in high-growth areas like East Zion and Johnson Canyon.
2. Upgrade Infrastructure:
  - Implement SCADA systems, new wells, and distribution upgrades.
3. Secure Redundant Supply:
  - Build reservoirs (e.g., Cove-East Fork, Alton) and invest in recharge projects.
4. Monitor Development:
  - Link subdivision approvals to confirmed water availability and rights.
5. Annual Updates:
  - Monitor gallons per capita per day and revise projections based on actual growth.

## Countywide Water Budget Summary (2025 - 2060 Projection)

Category	Estimate / Value
2023 Estimated Use	~3,000 acre-feet/year
2060 Projected Use	~5,600 acre-feet/year
Total County Water Rights	~45,000+ acre-feet (mostly under KCWCD)
Current Population (2024)	8,364
Projected Population (2060)	21,490

Per Capita Water Use	233 gallons/day (below Utah's 305 GPCD target)
Daily Demand by 2060	~5.0 million gallons/day
Annual Demand by 2060	~1.826 billion gallons/year
Required Acre-Feet by 2060	~5,600 acre-feet
Surplus Potential	39,000+ acre-feet (subject to infrastructure)
Current Storage Capacity	~8.9 million gallons
Required Storage by 2060	~15–20 million gallons (est.)

## Policy and Building Code Recommendations for Water Conservation

### Building Code Standards

- Recommend EPA WaterSense-certified fixtures for all new construction
- Encourage low-water landscaping on new developments; i.e., some areas are recommending turfgrass to be <20% of landscaped areas
- Encourage use of drip irrigation for all new landscaped areas
- Require water budgets with all new development applications

### Land Use & Planning Policies

- All new developments shall submit a water feasibility letter from their water provider and have approval from the Utah Department of Environmental Quality
- All new developments must ensure their water sources comply with Kane County Land Use Ordinance, Chapter 26: Water Source Protection Zones
- Tie residential and commercial density to confirmed water availability
- Prohibit development in subdivisions lacking secure water infrastructure
- Create a land use ordinance water conservation element

### Commercial Requirements

- Encourage water management plans for all commercial/institutional sites >5,000 sq ft landscaped
- Create water conservation recommendations for large projects

### Monitoring

- Encourage all new developments to submit a water conservation policy into its CC&Rs
- All new developments will meet with the Kane County Land Use Development Committee to assure compliance with water conservation elements
- Recommend that water providers use leak detection systems and make repairs quickly
- Kane County Water Conservancy District will be heavily involved in all new developments to help ensure adherence to water conservation policies

## County Efforts

- The Kane County Courthouse has reduced its number of trees and grassy areas to lower overall water consumption
- At the Kane County North Events Center (fairgrounds), grassy areas and new trees were eliminated in the landscaping plans to help showcase water conservation efforts
- At the Kane County Rodeo grounds and Kane County Jail, drought tolerant plants and xeriscaping were implemented for water conservation
- Overall, Kane County continues to actively promote and implement water-wise landscaping practices throughout its facilities

## Education & Incentives

- Encourage the water providers to offer rebates for efficient appliances, and irrigation upgrades
- Recommend water conservation certification programs for developers
- Provide a yearly training for commissioners, realtors and engineers to keep them up-to-date on water conservation plans.

## Compliance with State

- Continue policies that help Kane County maintain a low GPCD (Gallons Per Capita per Day)

## Recommendations for Water Sustainability

- **Expand Storage:** Add 10–15 million gallons of storage capacity over the next 35 years. Based on the projected 2060 population of 21,490 and maintaining the current per capita daily use of 233 gallons per person, total demand would reach approximately 5 million gallons per day. Providing 20–25 million gallons of total storage would align with Utah Division of Drinking Water (DDW) standards under R309-510-7, which recommend a 3–4 day reserve storage capacity.
- **Upgrade Infrastructure:** Prioritize SCADA, new wells, leak detection
- **Reservoir Projects:** Cove-East Fork, Alton Reservoir, aquifer recharge
- **Conservation:** native landscaping
- **Policy Enforcement:** Tie subdivision approvals to available water rights

## Conclusion

Kane County is well-positioned in terms of available legal water rights to meet future demands. However, infrastructure investments, policy enforcement, and conservation efforts are critical to meet projected 2060 growth sustainably. These policy recommendations will protect the county's water future and preserve quality of life for generations to come.

## 2023 Hydrogeologic Groundwater Study

Kane County’s water resources are dominated by groundwater, as surface water in the region is very limited. A 2023 hydrogeologic study of the Kanab Creek and Johnson Canyon basins – covering over 400,000 acres found that the principal aquifers are the Navajo Sandstone, Lamb Point, and Shinarump formations, which supply most of the county’s culinary water. These aquifers receive recharge mainly from precipitation, seepage from streams, and unconsumed irrigation water, with an estimated annual recharge of roughly 47,000 to 58,000 acre-feet. Groundwater movement indicates the two basins are hydraulically connected, and while current supplies are adequate for present and future use, climate change may reduce long-term recharge. Current withdrawals are within sustainable levels, and the aquifers remain viable sources for future development, though more detailed well siting and water rights studies are recommended to guide long-term planning.

### Water Systems

Due to the size and nature of Kane County, numerous independent public and private water systems and irrigation companies provide water. Each system is as unique as the area it services. Kane County does not oversee or manage water distribution, infrastructure design, or related costs.

<b>Kane County Water Providers</b>				
Provider	Current Connections	Active Wells	Storage Capacity in Gallons	Potential Connections
Alton Town	90	2	125,000	125
Best Friends Animal Society	115	2	246,000	169
Church Wells SSD	102	2	470,000	370
East Zion SSD	69	0	690,000	3500
Elkridge Water Company	120	2	340,000	160
Glen Canyon SSD (Big Water)	356	2	500,000	1,000
Glendale Town	223	2	150,000	400
Grand Staircase Water Co.	17	2	400,000	300
Kanab City	2637	16	5 million	4,500
Kane County Water Conservancy District SSD	3,575	10	2.5 million	11,900
Orderville Town	393	2	1,100,000	1,000
Ranch at Zion	18	2	125,000	250
Zion Frontier Resort	83	1	250,000	200
Zion Mountain Resort	125	2	275,000	300
Zion Peak Water Company	New Company in 2025, no information is currently available.			

During Development Committee meetings, Kane County encourages all new commercial, industrial, institutional, common interest community, and multifamily housing projects to implement low-water-use landscaping standards, in accordance with Chapter 21(C)(2)(4) of the Kane County Land Use Ordinance.

**\* No water systems in Kane County draw from or have any impact on the Great Salt Lake**

## Best Friends Animal Society (BFAS)

### System Overview

Best Friends Animal Society (BFAS) operates its own water system with 134 metered connections. The organization draws water from two active wells and stores it in two tanks with a combined capacity of 246,000 gallons. Though BFAS is below the legal threshold of 500 connections, it voluntarily implements a water conservation plan to guide sustainable use and future growth.

### Water Demand & Usage

- System designed for current and future residential/commercial growth.
- Demand managed internally with full oversight over supply and distribution.

### Conservation Measures

- **Leak Detection:** Master and individual meters with built-in leak detection
- **Use Comparison:** Assessment of residential vs. agricultural use for balance
- **Low Flow Devices:** Installed as available and based on use

### System Planning & Coordination

BFAS conducts strategic infrastructure planning independently of the Kane County Water Conservancy District. The organization ensures that its storage, supply, and distribution systems align with long-term sustainability goals.

### Policy & Ordinance Recommendations

- **Landscaping:** Encouragement of native and low-water plants
- **Irrigation:** Use of drip irrigation where practical
- **Certification:** Utility Manager is certified in water conservation
- **Water Rights:** 0.45 acre-feet required per residential connection

### Next Steps

- Increase public education on water efficiency
- Continue internal coordination for sustainable planning

### Conclusion

BFAS's voluntary conservation plan reflects its commitment to responsible water use, infrastructure investment, and community stewardship.

## Church Wells Special Service District (CWSSD)

### System Overview

The Church Wells Special Service District serves 102 water connections, drawing from the Navajo Aquifer via two wells. Its storage capacity totals 470,000 gallons, with the system capable of pumping up to 12,000 gallons per hour when both wells are active.

### Water Demand & Usage

- **Residential:** 92 connections (30% seasonal)
- **Commercial:** 7 users (10,000–60,000 gallons/month)
- **Industrial:** 3 cattlemen (~100,000 gallons/month total)
- **Peak Demand:** Up to 90,000 gallons/day in summer

### Conservation Measures

- **Tiered Rate Structure:** Higher residential use pays more; flat rate for industrial
- **Backflow Prevention:** Targeted at high-use customers
- **Metering & Leak Detection:** Transition to radio-read meters
- **Education & Outreach:** Emphasis on conservation through communication and landscaping practices

### System Planning & Coordination

The district continues to upgrade its infrastructure and maintain compliance with state water management regulations. Planning includes monitoring system efficiency and working with stakeholders to ensure service reliability.

### Policy & Ordinance Updates

- Encouragement of efficient water use via pricing and education
- No specific landscaping ordinances mentioned

### Next Steps

- Continue infrastructure upgrades and conservation education
- Monitor usage trends and engage community

### Conclusion

CWSSD supports sustainable water management through pricing strategies, infrastructure modernization, and community outreach.

## East Zion Special Service District (EZSSD)

### Collaborative Planning for Sustainable Water Use in the East Zion Area

Due to the anticipated growth in the East Zion area, Kane County is seeking to collaborate closely with local water providers to ensure that effective water conservation measures are implemented. This partnership will also help guarantee that, as new subdivisions are planned and developed, there will be an adequate and sustainable water supply to support them.

### System Overview

The East Zion Special Service District (EZSSD) currently serves 69 water connections and contracts with The Well Company for water delivery. Anticipated developments, including the first phase of Spirit Mountain—a planned unit development (PUD) with 18 lots and several glamping sites—as well as the Little Ponderosa Subdivision, which includes over 273 dry lots managed by Zion Peak Water Company, are expected to contribute more than 50 additional water connections in the near future.

### Water Demand & Usage

- Preparing for residential and commercial expansion (e.g., Spirit Mountain, Zion Peak projects)
- Usage monitored to balance residential and agricultural needs

### Conservation Measures

- **Leak Detection:** Flume monitors in use
- **Rate Structure:** \$75/month for first 7,000 gallons; \$0.04/gallon above
- **Impact Fees:** \$3,000 (water) and \$15,000 (sewer)
- **Restrictions:**
  - Sprinkler systems required for large-guest homes
  - Reverse osmosis discouraged due to waste
- Kane County prohibits short-term rentals in dry subdivisions in an effort to encourage property owners to pursue the establishment of new water system connections.

### System Planning & Coordination

Ongoing planning efforts include evaluating drinking water sources, expanding storage capacity, and working with developers like Steve Neeleman and Kevin McLaws to coordinate infrastructure needs. Impact Fee Facility Plans are also in development.

For all East Zion developments, Kane County works in coordination with the Utah Division of Water Rights and the Utah Department of Environmental Quality to ensure proper compliance.

## Policy & Ordinance Updates

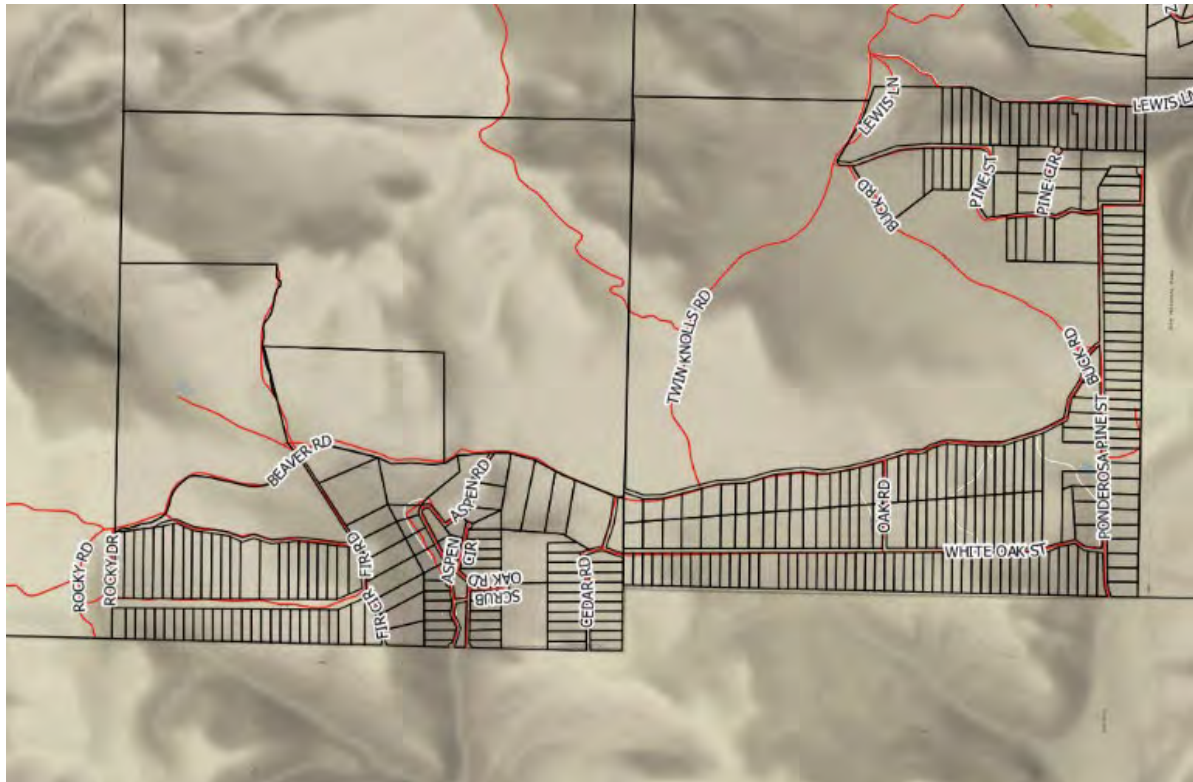
- **Landscaping Restrictions:** Low-water landscaping required in certain zones
- **Water Rights:** 0.45 acre-feet required per residence
- **Enforcement:** \$7.50 monthly late fee; 18% annual interest; possible liens

## Next Steps

- Set conservation benchmarks
- Enhance public education efforts
- Review and align yearly with Kane County General Plan, Chapter 8: Water Use & Prevention

## Conclusion

EZSSD is actively preparing for growth through strategic conservation policies, infrastructure planning, and stakeholder coordination.



## Elk Ridge Estates Water Company (EREWC)

### System Overview

Elk Ridge Estates Water Company is a privately run system owned by subdivision lot holders. It currently serves 120 connections, with infrastructure in place to expand to 160. The system draws from three wells (two active) and stores water in three tanks with a total capacity of 340,000 gallons.

### Water Demand & Usage

- **Monthly Allowance:** 5,500 gallons included
- **Excess Usage:** \$20 per 1,000 gallons
- **Outdoor Use:** Not permitted

### Conservation Measures

- **Metering:** All connections metered
- **Leak Detection:** Ongoing; SCADA system in development
- **Landscaping:** EREWC does not allow any outside watering for lawns, gardens, landscaping, etc.

### System Planning & Coordination

Governance and planning are handled internally by a board of directors made up of lot-owning shareholders. All infrastructure maintenance and upgrades are performed independently.

### Policy & Governance

- **Bylaws:** Governed by board
- **Water Rights:** 0.45 acre-feet per lot, non-transferable
- **Impact Fees:** None; lot purchase includes water shares

### Next Steps

- Continue technological upgrades (e.g., SCADA)
- Maintain conservation via usage limits

### Conclusion

EREWC ensures sustainable water use through private governance, strict conservation rules, and future tech implementation.

## Kane County Water Conservancy District Special Service District (KCWCD)

*KCWCD Full Water Conservancy Plan can be found in Appendix F*

### System Overview

The Kane County Water Conservancy District Special Service District (KCWCD) serves as the primary water provider for much of the county, including the Duck Creek, Johnson Canyon, and East Kane service areas. Supplying water through more than 3,600 culinary connections, KCWCD delivers service to approximately 75% of the unincorporated Kane County residents. Operated independently from Kane County, the district manages over 100 miles of pipeline and holds more than 40,000 acre-feet of water rights, providing reliable water service to the majority of the county's population.

Area	Connections	Wells	Storage	Future Capacity
Duck Creek	2986	5	1.4 million gal.	8,000 connections
Johnson Canyon	524	3	750,000 gal.	3,700 connections
East Kane	65	2	350,000 gal.	200 connections

### Water Demand & Usage

- 2023 gallons per capita per day: 233 (well below Utah's 2030 goal of 305 gpcd)

### Conservation Measures

- **Public Education:** Seasonal tips and "Slow the Flow" campaign
- **County Collaboration:** A representative from the KCWCD will serve on the Kane County Development Committee to review and approve all new developments for compliance with water conservation measures.
- **Leak Alerts:** Monthly monitoring for fast response
- **Graduated Rates:** Example: \$38.75 base + up to \$3.50/1,000 gallons for excess
- **Annual Audits:** Subdivisions selected for system-wide leak and efficiency checks

### System Planning & Coordination

Future infrastructure includes the 6,000-acre-foot Cove-East Fork Reservoir to support towns like Mount Carmel and Glendale, a 500-acre-foot reservoir for Alton, and aquifer recharge projects in Johnson Canyon and Kanab Creek. Additional wells are being drilled to meet rising demand.

## Policy & Ordinance Updates

- Supports Utah's 14–22% gpcd reduction goals by 2065
- Promotes county-wide compliance with state conservation mandates

## Next Steps

- Continue infrastructure expansion
- Maintain below-goal gpcd rates
- Plan for projected population of 21,490 by 2060

## Conclusion

KCWCD is a regional leader in water conservation, combining infrastructure investment, policy enforcement, and public education to meet future demands sustainably. Kane County Water Conservancy District provides approximately 75% of all water distribution services within unincorporated Kane County.



*Jackson Flat Reservoir*

## **Zion Mountain Local Service District (East Zion Initiative)**

### Collaborative Planning for Sustainable Water Use in the East Zion Area

With significant growth anticipated in the East Zion area, Kane County is working closely with local water providers, the Utah Department of Environmental Quality, and the Utah Division of Water Rights to implement effective water conservation measures. This collaboration is intended to ensure that new subdivisions are supported by an adequate and sustainable water supply as development moves forward.

### System Overview

The Zion Mountain Wastewater Treatment Project supports the East Zion Initiative (EZI), a conservation-focused gateway community at Zion's eastern entrance. Owned by the Zion Mountain Local Service District (ZMLSD), the system manages wastewater for existing and future developments like Zion Mountain Lodge, Spirit Ranch, and others. A third-party contractor will operate the system, with Bio habitats overseeing design, training, and operations.

### Water Demand & Usage

- Project focuses on wastewater treatment, with an emphasis on water reuse to reduce potable water demand.
  - Type I non-potable water used for toilet flushing, & ornamental landscaping
  - Type II non-potable water used for agricultural purposes
- Centralized treatment allows for system-wide efficiency and reduced environmental impact.

### Conservation Measures

- Wastewater reuse reduces strain on potable water systems.
- Phased construction (Phases 1A and 1B) minimizes initial investment while supporting future scalability.
- Facility design allows future expansion based on actual wastewater flow data.
- Conservation-focused design supports long-term sustainability goals of the East Zion community.
- Zion Mountain Local Service District promotes water-efficient landscaping to support long-term water conservation.

### System Planning & Coordination

The wastewater facility will serve both ZMLSD and neighboring EZSSD. A phased construction approach allows for flexibility and cost-efficiency. Phase 1 is divided into two sub-phases to address immediate needs while minimizing upfront costs. The project team has worked closely

with regulators to ensure each phase meets environmental and community standards. Long-term planning also accounts for infrastructure capacity for future developments in Phases 2 and 3.

### Policy & Ordinance Updates

- While no formal ordinances are listed, system governance and funding are conservation-aligned:
  - All new developments will require a development meeting with Kane County Land Use to ensure full adherence to water conservation requirements.
  - Funded through connection fees and user assessments.
  - Revenue generated from non-potable water reuse sales.
- Financial structure ensures infrastructure costs are covered by benefiting developments.
- Design and fiscal planning prioritize ecosystem protection and long-term land stewardship.

### Next Steps

- Ongoing data collection and system monitoring will guide future expansions and permitting.
- Collaborate with Kane County Land Use
- Collaborate with the Utah Department of Environmental Quality and the Utah Division of Water Rights

### Conclusion

The Zion Mountain Wastewater Project integrates conservation with vital infrastructure to support environmentally responsible development at Zion's east entrance. Through phased planning, financial self-sufficiency, and strong collaboration, the project promotes sustainable growth while safeguarding long-term environmental and community well-being. All new projects will collaborate with Kane County Land Use to protect and preserve existing water rights and secure future water resources for the Zion area. The water system shall have a water source protection plan as outlined in Kane County Land Use Ordinance, Chapter 26: Water Source Protection Zones.

## **Water & the Division of Food / Agriculture**

### Agricultural Land Preservation Tools and Conservation Easements

Kane County supports the preservation of working agricultural lands through a combination of state programs, local ordinances, tax incentives, and conservation funding. A key tool is the Utah Farmland Assessment Act (FAA), commonly referred to as the “Greenbelt” law. Enacted in 1969, this program allows qualifying agricultural properties to be assessed and taxed based on their productive value rather than their market value, helping farmers and ranchers remain economically viable despite rising land prices driven by development pressures.

If land no longer qualifies for Greenbelt status, the County Assessor must impose a rollback tax—the difference between market-value taxes and Greenbelt taxes—for up to five previous years. Rollback taxes are also applied when land under a conservation easement is developed or removed from protected status. In accordance with Utah Code §§ 17-41-601 and 17-41-602, 100% of rollback tax revenues are required to be deposited into a dedicated county fund reserved exclusively for preserving or restoring agricultural and open lands. These funds may be used to establish conservation easements or to support similar land protection strategies under Utah’s Land Conservation Easement Act.

In public land counties—where more than 50% of the land is federally or state owned—rollback tax funds cannot be used to acquire full ownership (fee interest) of additional property unless an equal-sized parcel is simultaneously returned to private ownership. The law also prohibits the use or threat of eminent domain in any transaction involving these funds. Rollback tax revenues may carry forward from year to year, but any balance not spent or obligated within ten years must be transferred to the LeRay McAllister Working Farm and Ranch Fund.

Through this framework of flexible land protection tools, state tax law, and dedicated conservation funding, Kane County advances its long-term goals of preserving open space, protecting rural landscapes, and sustaining a productive agricultural economy.

### Agriculture Protection Areas

Kane County protects its agricultural lands through the Agriculture Protection Area (APA) Ordinance (KCLUO Title 9-5-B), administered by the Kane County Land Use Authority. APA proposals must include at least one contiguous acre, be accompanied by the required fee, and undergo review by the Kane County Conservation District—acting as the Agriculture Advisory Board—and the Planning Commission before final action by the County Commission.

In accordance with Utah law, Kane County has established an Agriculture Protection Area Advisory Board to oversee the creation and management of APAs. The Board consists of five members appointed from the Soil Conservation District and operates under quorum requirements in compliance with the Utah Open and Public Meetings Act. APAs are intended to

protect agricultural operations from nuisance claims and incompatible land uses while maintaining flexibility for landowners.

Unlike permanent conservation easements, APAs are approved for a period of 20 years, after which they may be renewed or allowed to expire. Landowners also have the option to cancel an APA at any time by submitting a written request to the County Commission.

Kane County coordinates closely with the Utah Department of Agriculture and Food to connect landowners with conservation programs and keep them informed of legislative updates, including changes outlined in H.B. 371. This collaboration ensures that agricultural producers have access to the latest tools, technical assistance, and resources to support long-term land preservation.

### Water Conservation Efforts

The Kane County Conservation District has recently expanded its agricultural support resources to promote soil health and water conservation. The district acquired a no-till drill and is making it available for rent to local farmers. This equipment allows producers to improve soil moisture retention without the need for deep plowing, enhancing soil health and maintaining moisture in the ground—ultimately supporting improved crop production.

In addition, the district purchased a range drill to assist landowners in implementing rangeland restoration and management practices. These efforts enhance soil moisture retention and biodiversity across local rangelands.

The district also administers the Agriculture Resource Development Loan Program (ARDL), which provides low-interest loans to help landowners upgrade outdated irrigation systems and adopt more efficient water delivery methods. The ARDL program often partners with the USDA Natural Resources Conservation Service to combine state loan funds with federal programs such as the Environmental Quality Incentive Program and Utah’s Water Optimization Program, resulting in high-impact water conservation projects.

The Kane County Water Conservancy District continues to implement water conservation initiatives, including flow metering, now required by the State of Utah for certain water projects. These efforts help ensure accurate tracking and management of water use countywide.

### Water Conservation Projects

Kane County has several water-optimization projects that would support regional water conservation goals.

- Jackson Flat Reservoir
- Cove-East Fork Reservoir
- Alton Reservoir

- Aquifer recharge projects in Johnson Canyon and Kanab Creek
- Water reuse projects in the East Zion area

<b>Water and Land Conservation Resources for Kane County Residents</b>			
<b>Focus Area</b>	<b>Key Actions &amp; Programs</b>	<b>Resources</b>	<b>Benefits</b>
<b>Soil Health &amp; Moisture Retention</b>	The Kane County Conservation District provides rental access to a no-till drill for local farmers to improve soil moisture retention without deep plowing, enhancing soil health and crop yields. A range drill is also available for rangeland restoration and management, increasing moisture retention and biodiversity.	Kane County Conservation District	Improved soil health, reduced water loss, enhanced crop and rangeland productivity.
<b>Efficient Irrigation</b>	The Utah Conservation Commission administers the Agriculture Resource Development Loan Program (ARDL) to help landowners replace outdated irrigation systems with more efficient methods. Often paired with USDA NRCS EQIP and Utah's Water Optimization Program for maximum water savings.	Kane County Conservation District, USDA NRCS, Utah Department of Agriculture & Food	Reduced water use, increased irrigation efficiency, modernized systems.
<b>Water Use Monitoring</b>	The Kane County Water Conservancy District implements state-mandated flow metering for new and upgraded water projects, ensuring accurate tracking and improved long-term water management.	Kane County Water Conservancy District	Accurate water data, compliance with state law, improved planning.
<b>Flexible Land Protection</b>	Agriculture Protection Areas last 20 years and can be canceled at any time upon landowner request, offering protection without the permanence of conservation easements.	Kane County Commission	Land protection while preserving future use options.
<b>Agriculture Protection Area (APA) Ordinance</b>	Administered by the Kane County Commission with review by the Kane County Conservation District (Agriculture Advisory Board) and Planning Commission. Proposals must be submitted to the Land Use Authority with an associated fee. APAs must	Kane County Commission, Kane County Land Use Authority	Protects agricultural land from certain land use changes while maintaining flexibility for landowners.

## Water and Land Conservation Resources for Kane County Residents

Focus Area	Key Actions & Programs	Resources	Benefits
	include at least one contiguous acre and are approved, modified, or denied by the County Commission. (KCLUO 9-5B)		
<b>APA Advisory Board</b>	Established under Utah law to oversee APA creation and management. Consists of five members appointed from the Soil Conservation District, operating under quorum requirements and public meeting laws.	Kane County Conservation District	Ensures transparent, lawful oversight of agricultural land protection efforts.
<b>State Coordination</b>	Landowners are encouraged to register with the Utah Department of Agriculture & Food for updates on land conservation programs. They will connect you with a planner who will consult with you on your individual goals or project needs	Utah Department of Agriculture & Food	Access to conservation tools, technical assistance, and legislative updates.

### **Kane County Irrigation**

Southern Utah relies heavily on irrigation water to support its agriculture, communities, and growing population in an arid climate. The region’s water primarily comes from snowpack-fed rivers, reservoirs, and groundwater, with major sources including the Virgin, Sevier, and Colorado Rivers. Efficient irrigation is essential due to limited precipitation and high evaporation rates. Water is managed through a combination of traditional methods like flood irrigation and more modern techniques such as drip and sprinkler systems. Ongoing challenges include water scarcity, prolonged drought, and the need for conservation to balance urban development with agricultural demands.

#### Kane County Irrigation Water Providers

- Alton Farmer’s Association
- Glendale Irrigation Company
- Kanab Irrigation Company
- Orderville Irrigation Company
- Mt. Carmel Irrigation Company



Glendale Irrigation Company

Orderville Irrigation Company



Mt. Carmel Irrigation Company

Kanab Irrigation Company



## Dry Subdivisions

In the 1950s and 1960s, many subdivisions in Kane County were established without secured water rights or formal water restrictions. While this practice is no longer permitted, the County continues to monitor these subdivisions and actively encourages property owners to pursue upgrades that provide reliable water connections. Dry subdivisions are prohibited from operating short-term rentals to help protect limited water resources and public safety. Additionally, property owners in these subdivisions must obtain a permit from the Southwest Utah Public Health Department in order to legally haul water for residential use. If these subdivisions choose to pursue water service in the future, they will first be required to meet with the Kane County Land Use Development Committee—which includes representatives from the Kane County Water Conservancy District, Southwest Utah Public Health Department, the Kane County Building Official, the Kane County Land Use Administrator, and the Kane County Roads Engineer. Through this process, the Committee will evaluate whether water and the necessary water rights are available for these areas.

\* For maps of Dry Subdivisions visit: <https://eagleweb.kane.utah.gov/eaglesoftware/taxweb/search.jsp>

Kane County Dry Subdivisions			
SUB#	NAME	# of lots	Date
4	BEAR SPRINGS EST UNIT	15	2-8-65
9	BRYCE WOODLAND EST UNIT 1	42	8-8-66
15	BRYCE WOODLAND EST UNIT 2	40	6-12-67
17	BRYCE WOODLAND EST UNIT 3	37	12-13-68
20	BRYCE WOODLAND EST UNIT 4	87	8-23-68
26	BRYCE WOODLAND EST UNIT 5A	65	8-25-69
27	BRYCE WOODLAND EST UNIT 5B	92	10-13-69
29	BRYCE WOODLAND EST UNIT 5C	48	7-6-70
38	BRYCE WOODLAND EST UNIT 6F	59	2-7-72
202	CHAMBERLAIN RANCH (PUD)		3-26-07
14	COUGAR CANYON	108	1-18-67
97	DEER SPRINGS RANCH PLAT "A"	27	11-10-81
98	DEER SPRINGS RANCH PLAT "B"	73	11-10-81
99	DEER SPRINGS RANCH PLAT "C"	55	11-10-81
100	DEER SPRINGS RANCH PLAT "D"	15	11-10-81
101	DEER SPRINGS RANCH PLAT "E"	88	11-10-81
102	DEER SPRINGS RANCH PLAT "F"	46	11-10-81
1	FLY-IN "LD" RANCH	147	10-19-64
QA	GOLDEN CIRCLE HEIGHTS AMENDED	50	6-1-62
P	NAVAJO HILLS AMENDED	97	4-10-61
N	NAVAJO LAKE ESTATES UNIT 1	157	7-26-61
N2	NAVAJO LAKE ESTATES UNIT 1	60	12-30-63
N3	NAVAJO LAKE ESTATES UNIT 1	115	7-6-65

73	NAVAJO LAKE ESTATES UNIT 1	84	3-3-75
74A	NAVAJO LAKE ESTATES UNIT 1	44	3-3-75
75A	NAVAJO LAKE ESTATES UNIT 1	68	3-3-75
56	NORTH FORK ESTATES UNIT 1	38	8-14-72
61	NORTH FORK ESTATES UNIT 2	394	11-13-72
31	SILVAN CANYON ESTATES UNIT 1	76	7-17-70
2	SKY HAVEN MOUNTAIN RETREAT	54	2-14-64
123	SKY HAVEN MOUNTAIN RETREAT UNITS 2 & 3	247	10-30-89
3A	TIMBERLOST MTN ESTATES REVISED	72	1-8-65
19	WONDERLAND VISTA UNIT "A"	87	6-20-68
114	ZION HUNTING ESTATES	93	7-18-88

## Kane County Dry Rural Subdivisions

SUB#	NAME	# of lots	Date Recorded
248	BRIDGE RIDGE SUBD	3	12-2-13
255	BRYCE VIEW ESTATES II	10	4-29-15
259	CLEAR CREEK HEIGHTS	3	8-6-15
298	CROOKED CREEK RANCH	2	1-3-19
244	EAST JUNIPER HILLS	8	9-3-15
251	FERRIL & DOROTHY HEATON	2	5-19-14
293	GOODFELLOW ESTATES	3	10-17-18
238	HOWDY SPRING SUBD	10	2-14-12
254	JUMP UP CANYON	4	1-16-15
S-240	LEGEND LEDGES	10	3-27-13
260	MILLET POINT ESTATES	9	10-19-15
253	MINER RANCH SUBD		9-11-14
264	NATURE CONSERVATORY	4	5-20-16
279	NORTH FORK JUNCTION	2	8-1-17
267	NORTH JUNIPER HILLS PHASE		6-15-16
268	NORTH JUNIPER HILLS PHASE		6-15-16
269	NORTH JUNIPER HILLS PHASE		6-15-16
278	PARADISE HILL	5	7-7-17
256	PAUNSAUGUNT RANCHES	9	6-11-15
313	PLAVISHLY ESTATES	4	1-27-20
262	ROLLAN'S BIRCH RETREAT	4	12-16-15
297	SQUARE ONE	2	12-27-18
287	SUNSET MTN	1	12-11-17
246	THE FALL CANYON RANCH	6	10-16-13
30	THE VIEW" AT ZION ESTATES 1		6-11-19
309	THE VIEW" AT ZION ESTATES 2		6-11-19
245	WEST JUNIPER HILLS	8	9-3-13
265	WEST JUNIPER HILLS PHASE 2		6-15-16
266	WEST JUNIPER HILLS PHASE 3		6-15-16