WATER RIGHTS FOR THE GREAT SALT LAKE

Is it The Impossible Dream?

- BY
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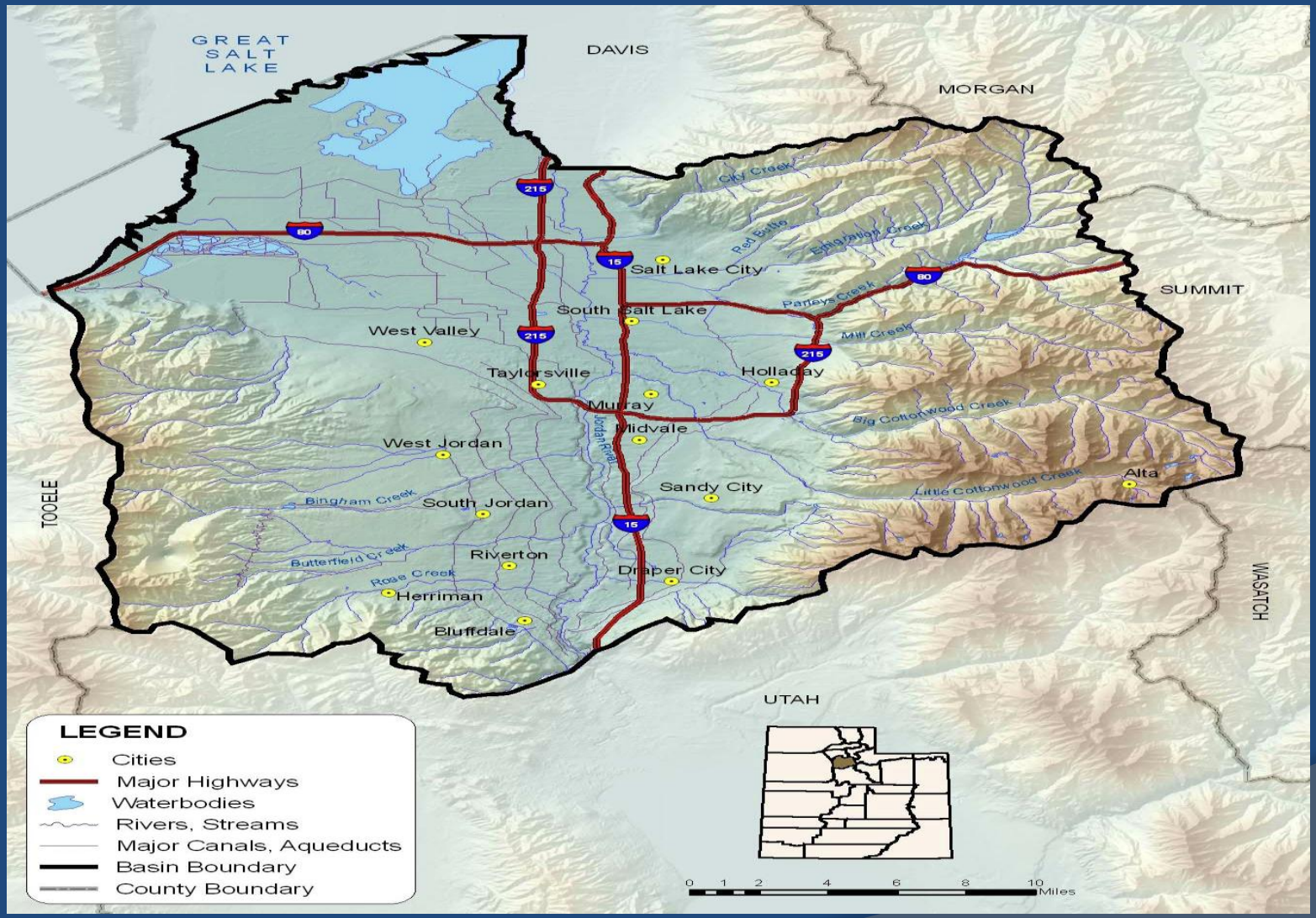
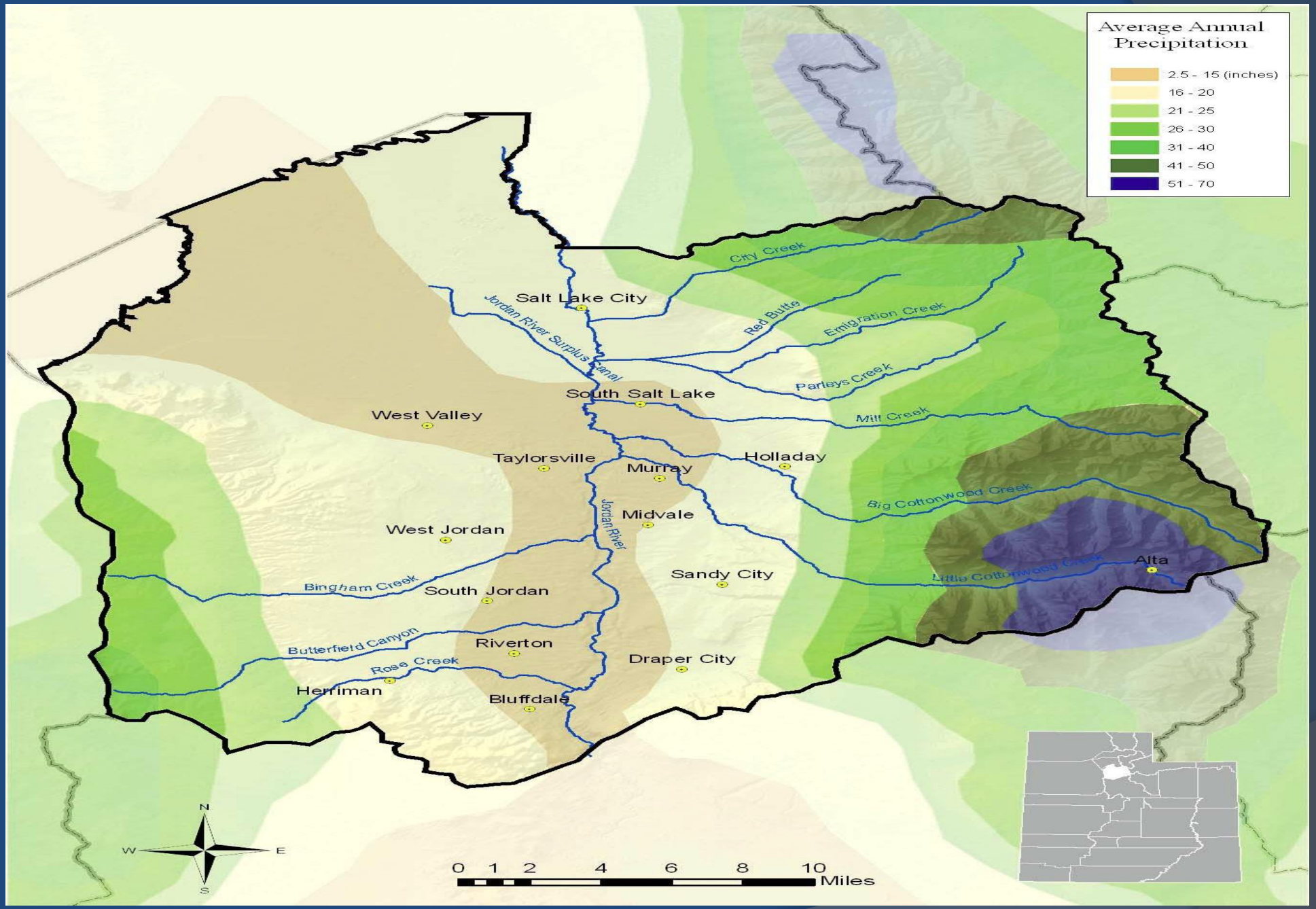
Jordan River Basin




Average Annual Precipitation
2.5 - 15 (inches)
16 - 20
21 - 25
26 - 30
31 - 40
41 - 50
51 - 70
City Creek
Salt Lake City
Jordan River Surplus Canal
Red Butte
Emigration Creek
Parleys Creek
South Salt Lake
Mill Creek
West Valley
Taylorsville
Murray
Holladay
Big Cottonwood Creek
Midvale
Jordan River
West Jordan
Sandy City
Alta
Little Cottonwood Creek
Bingham Creek
South Jordan
Butterfield Canyon
Riverton
Draper City
Rose Creek
Herriman
Bluffdale
N
W
E
S
0 1 2 4 6 8 10
Miles

Prior Appropriation Doctrine in the West

- System of Allocation of Water Resources in the Mountain West
- Mining camps of Colorado
- Appropriation doctrine has many parallels to mining law of 1872.
- Possessory interest initiated by some act of appropriation.
- Notice
- Annual labor
- Title

Role of the Federal Government

- The federal government has a dual interest in Western water, that of the sovereign; and second as the proprietor of the Western lands and its appurtenant water resources.

Government's Sovereign Powers

- These powers include the supreme authority to make treaties;
- The power to regulate commerce; and,
- The power to control navigation.
- Power to dispose of federal property.
- Federal enterprises are essentially free of state control.

Public Land Settlement

- Homestead Act of 1862, released public lands to settlement.
- Desert Land Act of 1877, severed the unappropriated and non-navigable water from the land.
- Federal land patents conveyed no interest in the appurtenant water.

Four Basic Tenets of the Appropriation Doctrine.

- First in time is first in right, the priority of the appropriation.
- Beneficial use is the measure and limit of the water right.
- Non-impairment of other water rights.
- Use it or lose it, the doctrine of forfeiture.

Beneficial Use

- Water could be appropriated only for a beneficial use. Beneficial use historically equated to economic activities of man.
- Beneficial use is the basis, measure and limit of a water right.

Non-Impairment of Other Water Rights.

- The appropriation doctrine protected each water right against interference from other appropriators, regardless of whether they were junior or senior in priority.

Use it or Lose it, the Doctrine of Forfeiture.

- Because of the scarcity and value of water in the West, if you don't use your water right, it will forfeit and the water will be available for use and appropriation by others.
- Water may also be lost by intentional abandonment.

Components of an Appropriated Water Right.

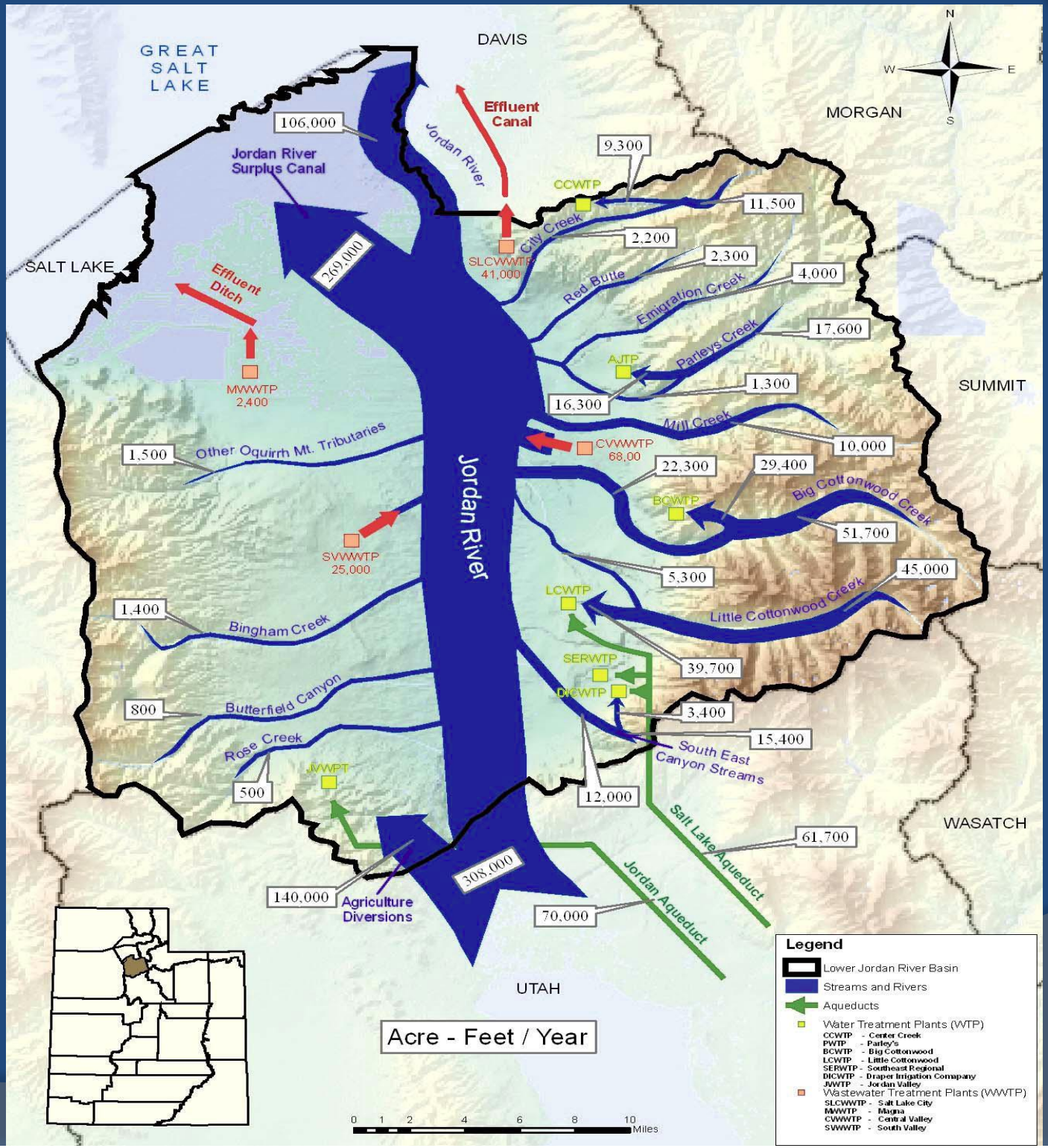
- Priority of appropriation.
- Source of supply
- Rate of diversion or flow (cfs)
- Period of use
- Place of use
- Nature of use
- Point of diversion

Appropriated Water Rights are Static

- The water right is “fixed” upon the date of the perfection of the appropriation as to the quantities of water appropriated, and that forever places a limitation on the right.
- The level of consumption can not be expanded.

AVERAGE ANNUAL BASIN WATER DATA * (1,000 acre-feet)

Category	Great Basin Utah Lake & Jordan River
Water Supply	
Yield/Runoff	1,144.0
Compact and Mining Increases	0.0
Compact Decreases	0.0
Imports/Inflow	140.0
Exports/Outflow	(6.0)
Supply Subtotal	***1,278.0***
Basin Inflow/Outflow near GSL	
Basin Inflow	10.0
Basin Outflow	(56.0)
Total Water Supply	***1,232.0***


GREAT SALT LAKE
DAVIS
MORGAN
SUMMIT
SALT LAKE
WASATCH
UTAH
N
S
E
W
106,000
Jordan River Surplus Canal
269,000
Effluent Canal
Jordan River
SLCWWTP 41,000
9,300
CCWTP
11,500
City Creek
2,200
2,300
Red Butte
4,000
Emigration Creek
17,600
Parleys Creek
AJTP
1,300
16,300
Mill Creek
10,000
CVWWTP 68,00
22,300
29,400
Big Cottonwood Creek
BCWTP
51,700
5,300
45,000
LCWTP
Little Cottonwood Creek
39,700
SERWTP
DICWTP
3,400
15,400
South East Canyon Streams
12,000
61,700
Salt Lake Aqueduct
Jordan Aqueduct
70,000
308,000
140,000
Agriculture Diversions
Effluent Ditch
MVWWTP 2,400
1,500
Other Oquirrh Mt. Tributaries
SVWWTP 25,000
1,400
Bingham Creek
800
Butterfield Canyon
Rose Creek
500
JVWPT
Acre - Feet / Year
0 1 2 4 6 8 10 Miles
Legend
Lower Jordan River Basin
Streams and Rivers
Aqueducts
Water Treatment Plants (WTP)
CCWTP - Center Creek
PWTP - Parley's
BCWTP - Big Cottonwood
LCWTP - Little Cottonwood
SERWTP - Southeast Regional
DICWTP - Draper Irrigation Company
JVWTP - Jordan Valley
Wastewater Treatment Plants (WWTP)
SLCWWTP - Salt Lake City
MWWTP - Magna
CVWWTP - Central Valley
SVWWTP - South Valley

Public Community Water System's Current and Projected Service Populations

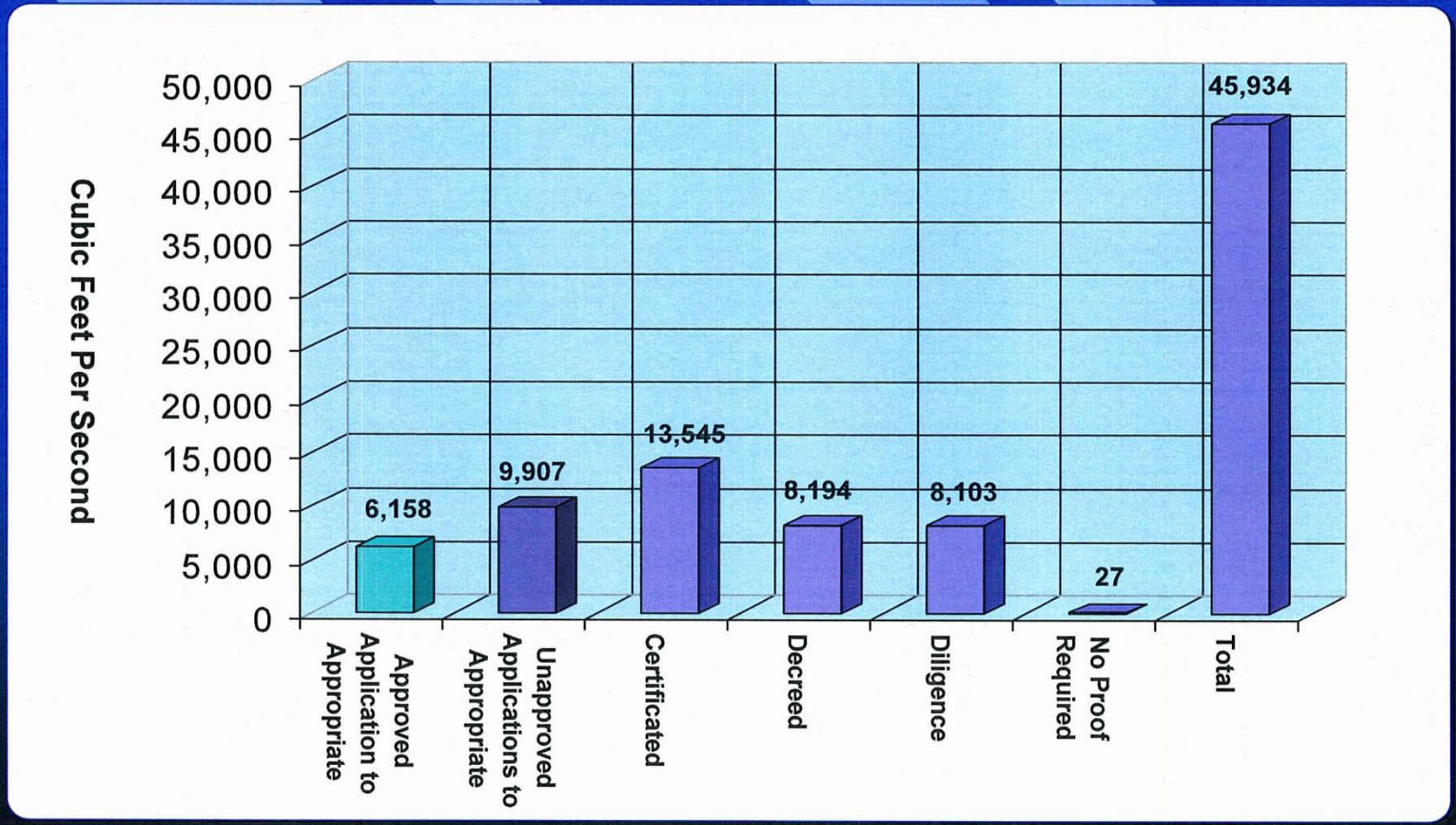
Water System	2000	2010	2030	2060
Jordan Valley Water Conservancy District (JVWCD)				
Bluffdale	5,731	28,154	55,219	62,988
Draper City Water	8,809	13,553	16,984	20,044
Draper Irrigation Company (Water Pro)	23,530	27,234	33,121	40,276
Granger-Hunter WID	104,022	113,194	149,039	166,971
Herriman	2,530	23,462	47,689	82,637
JVWCD Retail System	31,125	33,421	49,250	52,047
Kearns WID	41,173	61,483	108,012	225,524
Magna Water Company	23,715	35,414	62,214	129,899
Midvale City Water	12,873	17,835	23,653	33,269
Riverton Water	18,085	26,339	37,225	56,917
South Jordan	35,367	56,144	102,406	139,973
South Salt Lake Water	10,741	11,021	16,027	23,517
Taylorsville-Bennion WID	66,347	58,482	70,062	90,477
West Jordan City Water	67,906	86,742	111,068	140,262
White City Water	14,442	15,180	15,783	19,323
JVWCD Total	466,396	607,658	897,752	1,284,124
Metropolitan Water District of Salt Lake City and Sandy				
Salt Lake City Public Utilities	286,431	316,753	391,989	504,844
Sandy	96,647	101,587	105,620	129,313
MWDSLS Total	383,078	418,340	479,609	634,157
Other Independent Water Systems				
Alta Town System	320	359	378	400
Boundary Springs	100	100	100	100
Copperton Water Company	726	1,084	1,905	3,977
Dansie Water Company	100	100	100	100
EID/Oaks Water System	400	597	1,049	2,191
Hi-Country Estates #1	698	364	418	500
Hi-Country Estates #2	732	500	500	500
Holladay Water	11,200	15,909	19,183	24,868
Murray City Water	33,803	30,145	44,423	46,946
SL Co. #3 - Snowbird	163	243	428	893
Silver Fork Pipeline Corp	150	224	394	822
Silver Lake Company	26	26	26	26
Spring Glen Water Company	51	76	134	279
Webb Wells	200	299	525	1,096
Young Oaks Water Corp	35	52	92	192
Other System Totals	48,704	50,078	69,655	82,890
Basin Totals	898,178	1,076,000	1,465,016	2,001,171

TABLE 17
Current Public Community System Water Supplies vs. Future Demands

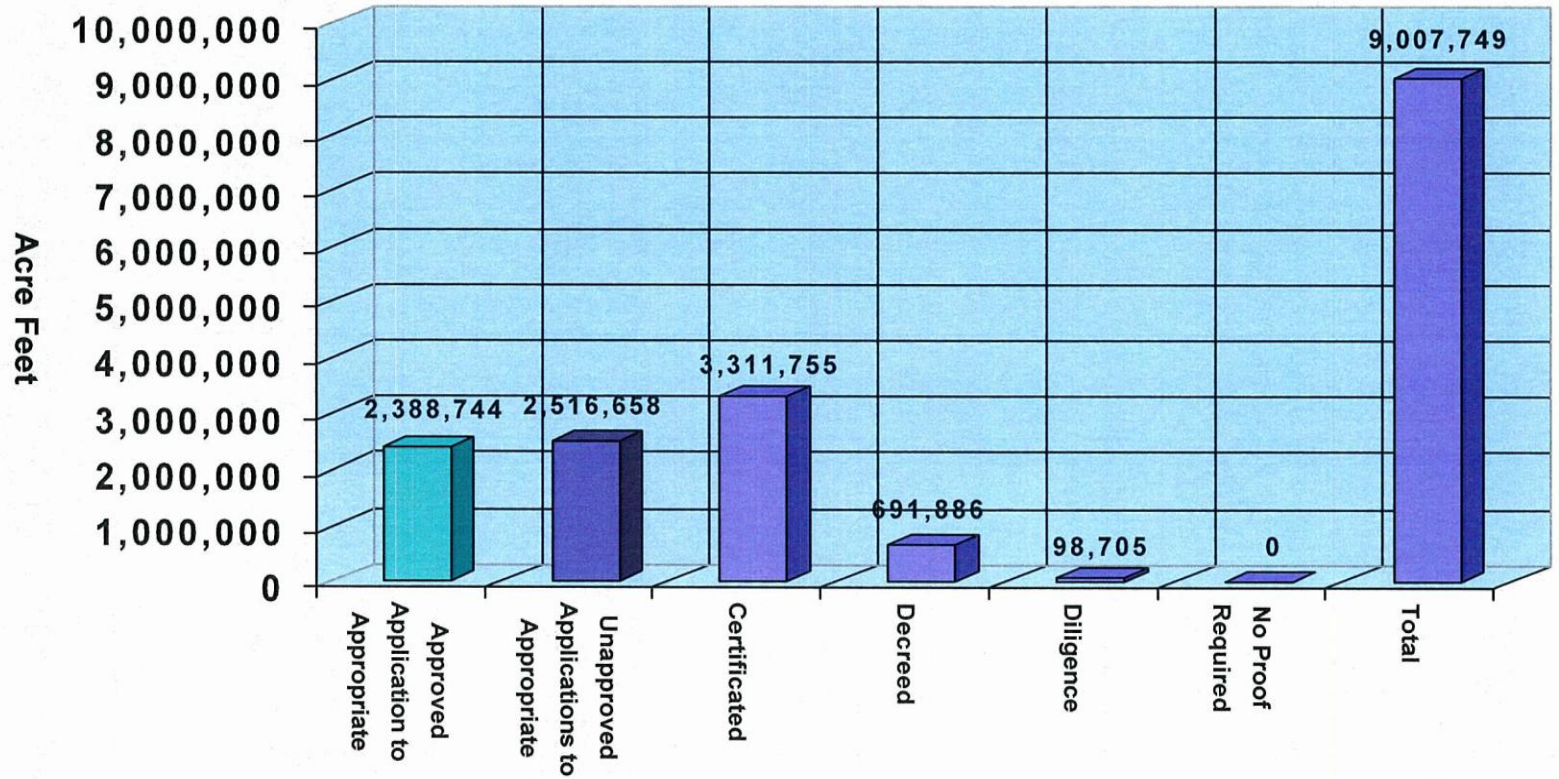
Water System	2010 Demand (acre-feet)	2010 Dry-year Supply* (acre-feet)	Water Use Projections w/ Water Conservation† (acre-feet) 2030	2060	Water Supply Deficits/Surpluses‡ (acre-feet) 2030	2060
Jordan Valley Water Conservancy District (JVWCD)						
Bluffdale	5,957	0	10,454	10,551	(10,454)	(10,551)
Draper City Water	4,642	0	5,205	5,435	(5,205)	(5,435)
Draper Irr. Co. (Water Pro)	11,574	4,583	12,595	13,551	(8,012)	(8,968)
Granger-Hunter WID	22,896	9,393	26,974	26,737	(17,581)	(17,344)
Herriman	4,680	434	8,512	13,050	(8,078)	(12,616)
Kearns WID	11,758	1,816	18,481	34,141	(16,665)	(32,325)
Magna Water Company	6,081	4,308	9,558	17,657	(5,250)	(13,349)
Midvale City Water	3,905	2,800	4,934	5,767	(1,834)	(2,967)
Riverton Water	11,175	5,040	14,132	19,118	(9,092)	(14,078)
South Jordan	13,174	0	21,499	26,000	(21,499)	(26,000)
South Salt Lake Water	3,364	3,157	4,376	5,682	(1,219)	(2,525)
Taylorsville-Bennion WID	12,490	7,500	13,388	15,297	(5,888)	(7,797)
West Jordan City Water	21,248	3,000	24,343	27,199	(21,343)	(24,199)
White City Water	2,948	4,052	2,742	2,971	1,310	1,081
JVWCD	11,391	102,335	15,019	14,043	87,316	88,292
JVWCD TOTAL	**147,283**	**148,418**	**191,912**	**237,199**	**(43,494)**	**(88,781)**
Metropolitan Water District of Salt Lake and Sandy (MWDSLS)						
Salt Lake City Public Utilities	79,501	59,500	88,028	100,308	(44,426)	(56,706)
Sandy City Water	25,589	28,026	23,805	25,786	(3,805)	(5,786)
MWDSLS	0	53,514	0	0	77,438	77,438
MWDSLS TOTAL	**105,090**	**141,040**	**111,833**	**126,094**	**29,207**	**14,946**
Other Independent Water Systems						
Alta Town Water System	121	238	115	107	123	131
Boundary Springs	47	162	42	37	120	125
Copperton Water Co.	240	625	377	697	248	(72)
Dansie Water Co.	89	282	79	70	203	212
EID/Oaks Water System	214	291	336	620	(45)	(329)
Hi-Country Estates #1	81	81	83	88	(2)	(7)
Hi-Country Estates #2	152	53	136	121	(83)	(68)
Holladay Water	4,713	5,763	5,084	5,832	679	(69)
Murray City Water	9,218	13,958	12,154	11,365	1,804	2,593
SL Co. #3 - Snowbird	307	560	482	890	78	(330)
Silver Fork Pipeline Corp.	79	62	124	229	(62)	(167)
Silver Lake Company	55	81	49	43	32	38
Spring Glen Water Co.	16	28	25	46	3	(18)
Webb Wells	94	137	147	272	(10)	(135)
Young Oaks Water Corp.	7	15	11	20	4	(5)
OTHER SYSTEM TOTAL	15,433	22,336	19,244	20,437	3,092	1,899
BASIN TOTAL	**267,806**	**311,794**	**322,989**	**383,730**	**(11,195)**	**(71,936)**

* Includes an estimate of the regional water supply available to each system from JVWCD and MWDSLS, respectively.
† All water use projections come from the Utah Water Demand/Supply Model and include incremental estimates of water conservation, with a total of 25% by 2050.
‡ Positive number indicate surpluses; numbers in parentheses (purple text) are deficits

Surface Water Summary (Cfs)



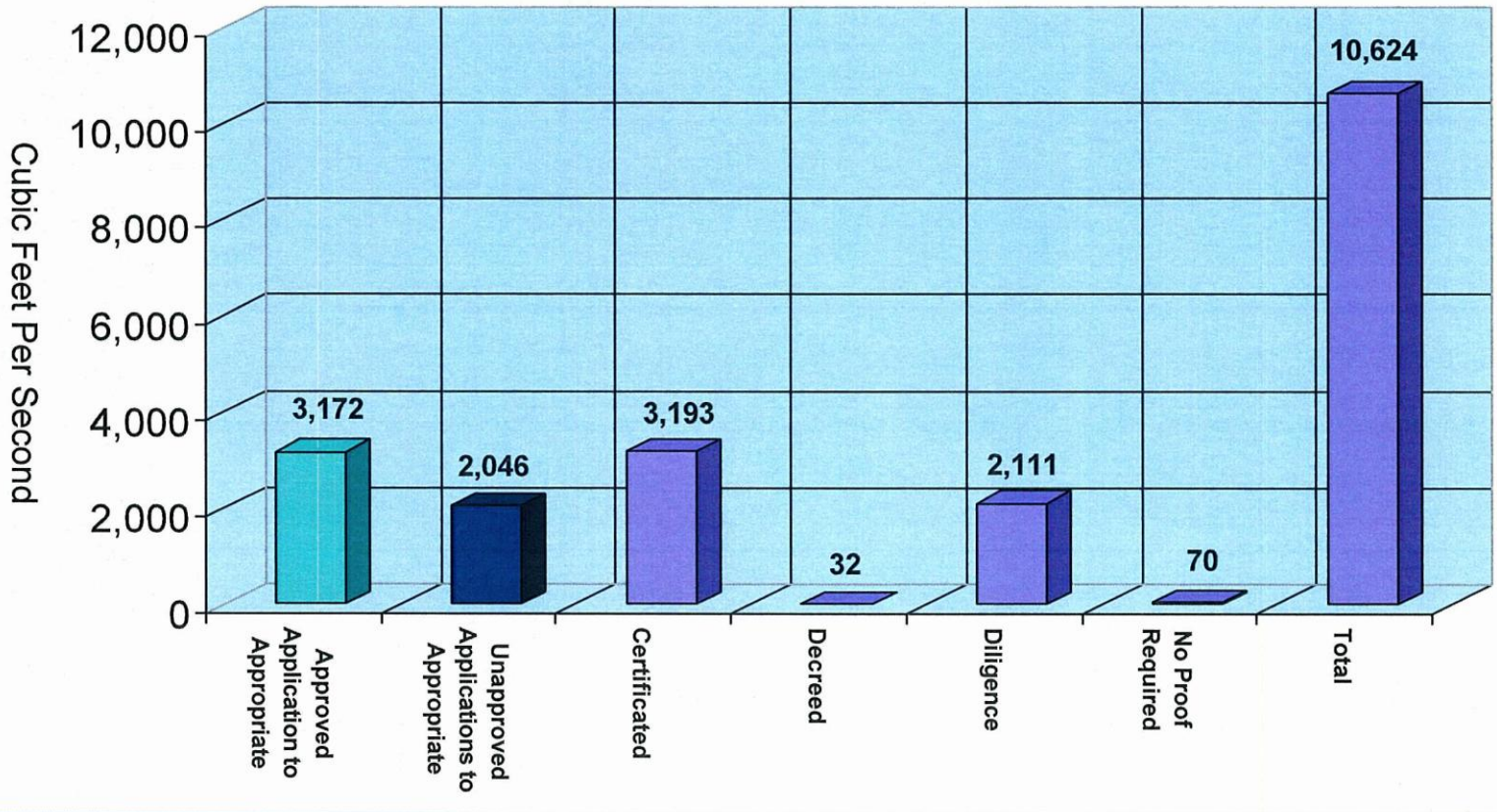
Surface Summary (Acre-ft)



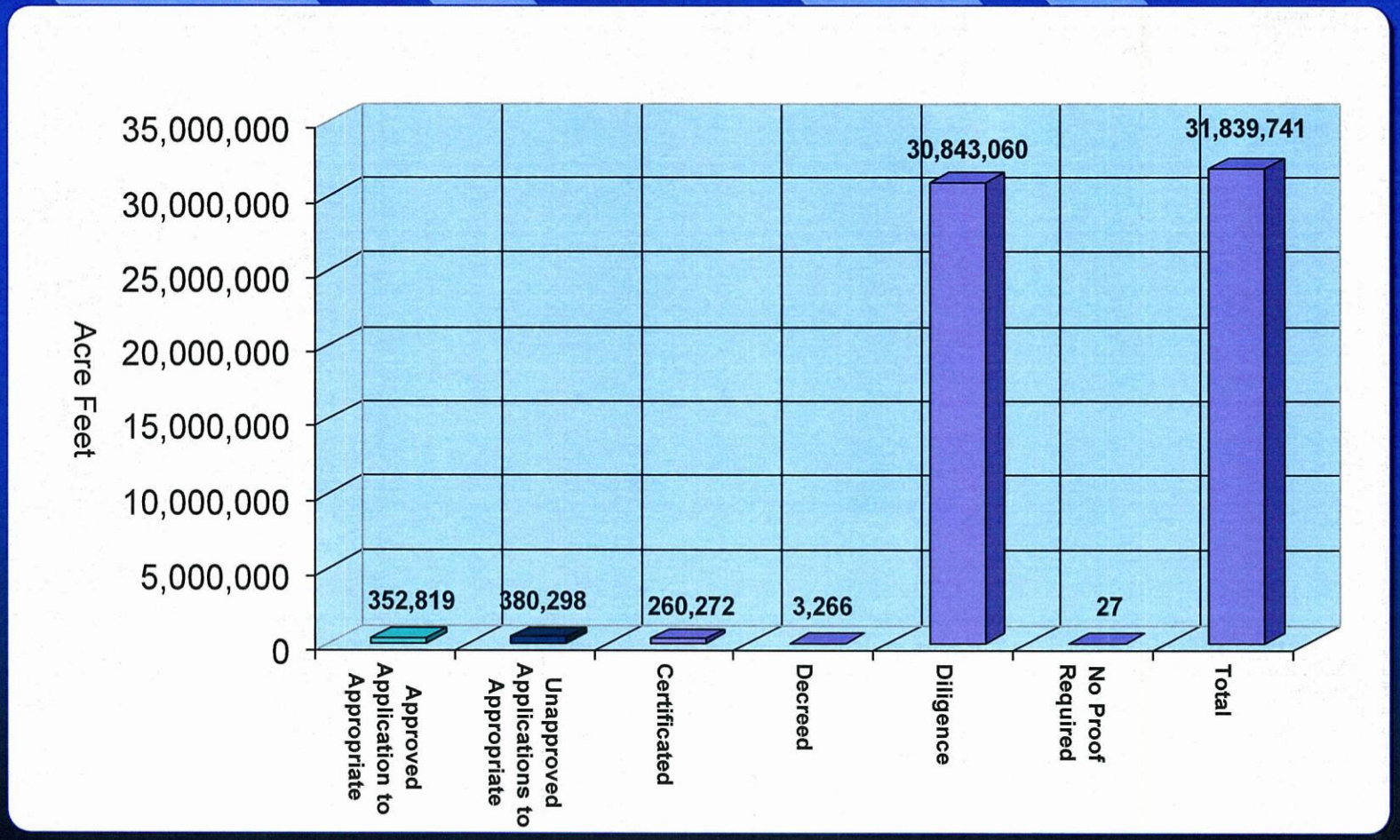
Surface Filing Summary

Filing	Cubic Feet Per Second	Acre-feet
Approved Application to Appropriate	6,157.83	2,388,744.10
Unapproved Applications to Appropriate	9,907.43	2,516,658.35
Certificated	13,545.00	3,311,754.61
Decreed	8,194.23	691,886.48
Diligence	8,102.53	98,705.27
No Proof Required	26.64	0
Total	**45,933.65**	**9,007,748.81**

Groundwater Summary (Cfs)



Groundwater Summary (Acre-ft)



Groundwater Filing Summary

Filing	Cubic Feet Per Second	Acre-feet
Approved Application to Appropriate	3,172.39	352,819.18
Unapproved Applications to Appropriate	2,045.53	380,297.94
Certificated	3,193.35	260,271.74
Decreed	31.67	3,265.80
Diligence	2,110.61	30,843,059.71
No Proof Required	70.35	26.96
Total	**10,623.89**	**31,839,741.33**

Mono Lake

National Audubon Society v. Superior Court

Core Conclusions of Mono Lake

- Extends State's sovereign authority to continuing supervision and control over navigable waters.
- Applies to waters navigable at statehood, and also to non-navigable tributaries.
- Bars claims to vested rights that enables diversions harmful to public trust interest.

Public Trust and Diversions

- The public trust and appropriated rights must work in harmony.
- Prosperity and habitability of the state depends upon the diversion and use of water.
- Public trust values should be considered in approving water rights.
- State may revisit water allocation decisions where circumstances change and impacts to public trust values become unacceptable.

Riverside Irr. 404 Permits

- *Riverside Irr. Dist. v. Andrews*, 758 F.2d 508 (10th Cir. 1985), held that a denial of a § 404 impaired the state's authority to allocate water, the COAE had authority to deny permit to prevent stream depletions damaging to critical habitat of the whooping crane.
- *National Wildlife Federation v. Gorsuch*, 693 F.2d 156, 224 U.S. App. D.C. 272 (1980), that the Wallop amendment was not intended to take precedence over legitimate and necessary water quality considerations.

Section 401 Water Quality Certification

- 33 U.S.C. § 1341.
- The section requires all federal permittees to obtain a state certification of compliance with state water quality standards.
- Requires compliance with both effluent limitations and water quality limitations.
- Used to enforce state imposed minimum stream flows for habitat protection.

Endangered Species Act
16 U.S.C. §1531

- Imposes an absolute duty on federal agencies to protect threatened and endangered species.
- This mandatory compliance may well require the subordination of state-created water rights to this federal interest.
- May require operations of federal water project to maximize the protection of the protected species, and subordinate state-created vested water rights to species protection.