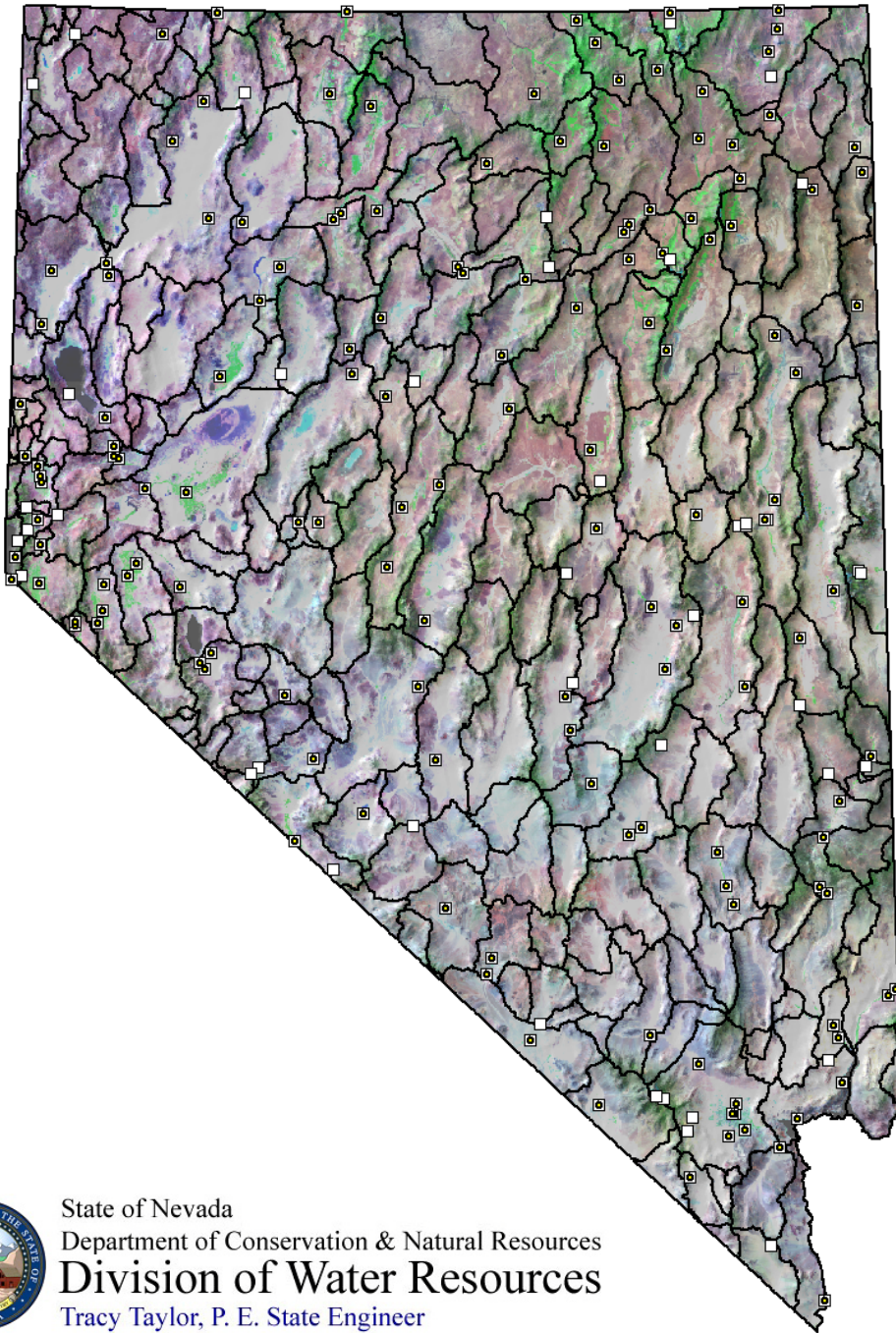


Evapotranspiration and Net Irrigation Water Requirements for Nevada



State of Nevada
Department of Conservation & Natural Resources
Division of Water Resources
Tracy Taylor, P. E. State Engineer

Evapotranspiration and Net Irrigation Water Requirements for Nevada

By

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Appendix 11a cont.

STATION NUMBER	STATION NAME	BASIN NAME	BASIN NUMBER	NUMBER OF YEARS USED FOR AVERAGE	START YEAR	END YEAR	REFERENCE ET _{os} (ft)	ALFALFA ET _{act} (ft)	HIGHLY MANAGED PASTURE GRASS ET _{act} (ft)	LOW MANAGED PASTURE GRASS ET _{act} (ft)	GRASS HAY ET _{act} (ft)	TURF GRASS ET _{act} (ft)	SHALLOW OPEN WATER E _{act} (ft)
267443	SHELDON	Guano Valley	6	30	1942	1972	3.5	2.5	2.3	1.9	2.2	2.2	3.6
267450	SHOSHONE 5 N*	Spring Valley	184	17	1989	2007	4.5	3.7	3.6	3.0	3.5	3.5	4.7
267463	SILVERPEAK*	Clayton Valley	143	30	1975	2007	5.5	4.7	4.6	3.8	4.2	4.7	5.7
267609	SMITH 1 N*	Smith Valley	107	23	1938	1966	4.4	3.6	3.5	2.9	3.3	3.4	4.6
267612	SMITH 6 N*	Smith Valley	107	23	1974	2007	4.3	3.7	3.6	3.0	3.4	3.5	4.5
267618	SMOKE CREEK ESPIL*	Smoke Creek Desert	21	14	1988	2004	4.7	4.2	4.1	3.4	4.0	4.0	4.9
267620	SMOKEY VALLEY*	Big Smoky Valley	137B	30	1975	2007	4.8	4.1	4.0	3.2	3.9	3.7	5.1
267640	SNOWBALL RCH	Little Smoky Valley	155A	30	1972	2002	4.0	3.0	2.8	2.3	2.6	2.6	4.2
267690	SOUTH FORK SP*	Dixie Creek - Tennile	48	8	1994	2007	4.3	3.4	3.3	2.7	3.0	3.1	4.5
267750	SPRING VALLEY SP*	Spring Valley	201	24	1975	2007	4.9	3.6	3.5	2.8	3.3	3.2	5.1
267806	STATELINE-HARRAH'S*	Lake Tahoe Basin	90	13	1985	1998	3.6	2.9	2.8	2.3	2.6	2.7	3.7
267820	STEAD*	Lemmon Valley	92B	14	1986	2006	4.2	3.7	3.6	3.0	3.5	3.6	4.4
267873	SULPHUR*	Black Rock Desert	28	21	1915	1953	4.5	3.8	3.8	3.1	3.7	3.6	4.7
267908	SUNNYSIDE*	White River Valley	207	30	1974	2007	4.7	4.0	3.8	3.1	3.6	3.6	4.9
267953	SUTCLIFFE	Pyramid Lake Valley	81	27	1968	2006	3.9	3.7	3.4	2.8	3.3	3.6	4.1
267983	TEMPIUTE 4 NW*	Penoyer Valley	170	12	1973	1984	5.1	4.4	4.4	3.6	4.3	4.3	5.4

Appendix 14. Mean annual reference (ET_{os}) and actual crop evapotranspiration (ET_{act}) of alfalfa, grass hay, pasture grass, turf grass, and small shallow open water bodies for all HAs. Values of the ET_{os} and ET_{act} for each HA were either assigned for HAs with single stations, computed using a valid period of record weighted average for HAs with multiple stations, or estimated from spatial interpolation for HAs with no stations. * indicates that the ET_{os} and ET_{act} was estimated using spatial interpolation.

BASIN NAME	BASIN NUMBER	BASIN REGION	REFERENCE ET _{os} (ft)	ALFALFA ET _{act} (ft)	HIGHLY MANAGED PASTURE GRASS ET _{act} (ft)	LOW MANAGED PASTURE GRASS ET _{act} (ft)	GRASS HAY ET _{act} (ft)	TURF GRASS ET _{act} (ft)	SHALLOW OPEN WATER ET _{act} (ft)
Adobe Valley*	115	Central Region	5.0	4.3	4.1	3.3	3.9	4.0	5.2
Alkali Spring Valley*	142	Central Region	5.2	4.5	4.4	3.6	4.2	4.4	5.5
Alkali Valley*	111A	Central Region	4.7	4.1	3.9	3.1	3.7	3.9	4.9
Alkali Valley*	111B	Central Region	4.7	4.1	3.9	3.1	3.7	3.9	4.9
Amargosa Desert	230	Death Valley Basin	5.8	5.6	4.8	3.9	3.7	5.6	6.1
Antelope Valley	57	Humboldt River Basin	4.4	3.6	3.6	3.0	3.5	3.5	4.6
Antelope Valley	106	Walker River Basin	4.6	3.8	3.7	3.0	3.6	3.6	4.8
Antelope Valley*	186B	Central Region	4.1	3.2	3.1	2.5	2.9	2.9	4.3
Antelope Valley*	186A	Central Region	4.2	3.3	3.2	2.6	3.1	3.0	4.4
Antelope Valley*	93	Western Region	4.3	3.7	3.6	2.9	3.5	3.5	4.5
Antelope Valley*	151	Central Region	4.4	3.3	3.3	2.7	3.1	3.0	4.6
Bedell Flat*	94	Western Region	4.1	3.4	3.3	2.7	3.2	3.1	4.3
Big Smoky Valley	137B	Central Region	4.8	4.1	4.0	3.2	3.9	3.7	5.1
Big Smoky Valley	137A	Central Region	4.8	3.9	3.8	3.0	3.8	3.5	5.0
Black Moutains Area	215	Colorado River Basin	5.5	5.1	4.4	3.5	2.8	5.1	5.7
Black Rock Desert	28	Black Rock Desert Region	4.3	3.8	3.7	3.1	3.7	3.7	4.5
Boulder Flat*	61	Humboldt River Basin	4.2	3.5	3.4	2.8	3.3	3.3	4.4
Boulder Valley*	15	Northwest Region	4.3	3.8	3.7	3.0	3.6	3.6	4.6
Bradys Hot Springs Area*	75	West Central Region	4.5	3.9	3.8	3.1	3.6	3.7	4.8
Bruneau River Area	38	Snake River Basin	4.1	2.3	2.0	1.7	1.7	1.8	4.3

Appendix 14 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	REFERENCE ET _{os} (ft)	ALFALFA ET _{act} (ft)	HIGHLY MANAGED PASTURE GRASS ET _{act} (ft)	LOW MANAGED PASTURE GRASS ET _{act} (ft)	GRASS HAY ET _{act} (ft)	TURF GRASS ET _{act} (ft)	SHALLOW OPEN WATER ET _{act} (ft)
Buena Vista Valley*	129	Central Region	4.6	4.1	3.9	3.3	3.8	3.9	4.8
Buffalo Valley	131	Central Region	4.0	3.7	3.5	2.9	3.3	3.5	4.2
Butte Valley*	178A	Central Region	4.3	3.3	3.1	2.6	3.0	2.9	4.5
Butte Valley*	178B	Central Region	4.3	3.4	3.3	2.7	3.1	3.1	4.5
Cactus Flat*	148	Central Region	5.0	4.3	4.2	3.4	4.0	4.2	5.3
California Wash*	218	Colorado River Basin	5.5	5.2	4.5	3.7	3.3	5.3	5.7
Carico Lake Valley*	55	Humboldt River Basin	4.3	3.6	3.5	2.9	3.4	3.4	4.5
Carson Desert	101	Carson River Basin	4.2	3.7	3.6	2.9	3.5	3.6	4.4
Carson Desert*	101A	Carson River Basin	4.6	4.1	4.0	3.3	3.8	3.9	4.8
Carson Valley	105	Carson River Basin	4.3	3.6	3.5	2.9	3.3	3.4	4.5
Cave Valley*	180	Central Region	4.6	3.9	3.7	3.0	3.5	3.5	4.8
Churchill Valley	102	Carson River Basin	4.2	3.7	3.6	2.9	3.5	3.6	4.4
Clayton Valley	143	Central Region	5.5	4.7	4.6	3.8	4.2	4.7	5.7
Clover Valley	177	Central Region	4.0	3.3	3.3	2.7	3.1	3.1	4.2
Clover Valley	204	Colorado River Basin	4.9	4.5	4.2	3.5	3.9	4.1	5.2
Clovers Area	64	Humboldt River Basin	4.4	3.8	3.8	3.1	3.6	3.7	4.7
Coal Valley*	171	Central Region	5.0	4.4	4.2	3.4	4.0	4.2	5.2
Cold Spring Valley*	100	Western Region	4.2	3.7	3.6	3.0	3.5	3.6	4.4
Cold Spring Valley*	100A	Western Region	4.2	3.6	3.4	2.8	3.4	3.4	4.4
Coleman Valley*	11	Northwest Region	4.3	3.7	3.6	2.9	3.4	3.4	4.5
Colorado Valley	213	Colorado River Basin	6.5	6.2	5.3	4.3	3.7	6.1	6.9
Columbus Salt Marsh Valley	118	Central Region	5.5	4.7	4.4	3.6	4.3	4.3	5.8
Continental Lake Valley*	2	Northwest Region	4.3	3.6	3.5	2.9	3.4	3.4	4.5
Cowkick Valley	126	Central Region	4.8	3.8	3.5	2.9	3.4	3.3	5.0
Coyote spring Valley*	210	Colorado River Basin	5.4	5.1	4.5	3.6	3.7	5.0	5.7

Appendix 14 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	REFERENCE ET _{os} (ft)	ALFALFA ET _{act} (ft)	HIGHLY MANAGED PASTURE GRASS ET _{act} (ft)	LOW MANAGED PASTURE GRASS ET _{act} (ft)	GRASS HAY ET _{act} (ft)	TURF GRASS ET _{act} (ft)	SHALLOW OPEN WATER ET _{act} (ft)
Crater Flat*	229	Death Valley Basin	5.6	5.2	4.6	3.7	4.0	5.1	5.9
Crescent Valley	54	Humboldt River Basin	4.2	3.6	3.6	3.0	3.4	3.4	4.4
Dayton Valley*	103	Carson River Basin	4.4	3.8	3.7	3.0	3.5	3.6	4.6
Deep Creek Valley*	193	Great Salt Lake Basin	4.2	3.3	3.2	2.6	3.1	3.0	4.4
Delamar Valley*	182	Central Region	5.1	4.6	4.2	3.4	3.9	4.4	5.4
Desert Valley	31	Black Rock Desert Region	4.3	3.8	3.7	3.0	3.5	3.6	4.5
Diamond Valley	153	Central Region	4.1	3.2	3.1	2.5	3.0	2.9	4.3
Dixie Creek-Tennile Creek Area	48	Humboldt River Basin	4.3	3.4	3.3	2.7	3.0	3.1	4.5
Dixie Valley	128	Central Region	4.7	4.2	4.1	3.4	4.0	4.1	4.9
Dodge Flat	82	Truckee River Basin	4.6	3.9	3.8	3.1	3.7	3.7	4.8
Dry Lake Valley*	181	Central Region	4.9	4.3	4.1	3.3	3.8	4.0	5.1
Dry Valley*	19	Black Rock Desert Region	4.5	4.0	3.9	3.2	3.8	3.9	4.7
Dry Valley*	95	Western Region	4.1	3.4	3.2	2.6	3.2	3.1	4.3
Dry Valley*	198	Colorado River Basin	4.9	4.2	4.0	3.3	3.8	3.9	5.2
Duck Lake Valley*	16	Northwest Region	4.4	3.9	3.8	3.1	3.7	3.7	4.6
Eagle Valley	104	Carson River Basin	4.3	3.8	3.6	3.0	3.5	3.6	4.6
Eagle Valley*	200	Colorado River Basin	4.9	3.8	3.6	2.9	3.4	3.3	5.1
East Walker Area*	109	Walker River Basin	4.6	3.9	3.8	3.1	3.6	3.8	4.8
Eastgate Valley Area	127	Central Region	4.5	3.9	3.9	3.2	3.9	3.8	4.8
Edwards Creek Valley*	133	Central Region	4.5	3.7	3.6	2.9	3.5	3.4	4.7
Eldorado Valley	167	Central Region	5.4	5.1	4.3	3.5	3.1	5.0	5.7
Elko Segment	49	Humboldt River Basin	4.0	3.3	3.2	2.7	3.1	3.0	4.2
Emigrant Valley*	158A	Central Region	5.3	4.7	4.4	3.6	4.1	4.5	5.5
Emigrant Valley*	158B	Central Region	5.5	5.0	4.5	3.7	4.1	4.8	5.8
Escalante Desert*	197	Escalante Desert	4.9	4.3	4.0	3.3	3.8	4.0	5.2

Appendix 14 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	REFERENCE ET _{os} (ft)	ALFALFA ET _{act} (ft)	HIGHLY MANAGED PASTURE GRASS ET _{act} (ft)	LOW MANAGED PASTURE GRASS ET _{act} (ft)	GRASS HAY ET _{act} (ft)	TURF GRASS ET _{act} (ft)	SHALLOW OPEN WATER ET _{act} (ft)
Fairview Valley*	124	Central Region	4.6	3.8	3.6	3.0	3.5	3.5	4.8
Fernley Area	76	West Central Region	4.6	3.9	3.8	3.1	3.7	3.7	4.8
Fireball Valley*	77	West Central Region	4.6	4.0	3.8	3.1	3.7	3.7	4.8
Fish Lake Valley	117	Central Region	5.5	4.6	4.4	3.6	4.3	4.3	5.8
Fortymile Canyon*	227B	Death Valley Basin	5.4	4.9	4.5	3.6	4.0	4.8	5.7
Fortymile Canyon*	227A	Death Valley Basin	5.6	5.3	4.6	3.8	4.0	5.2	5.9
Frenchman Flat*	160	Central Region	5.7	5.3	4.7	3.8	4.1	5.2	6.0
Gabbs Valley*	122	Central Region	4.7	4.0	3.8	3.0	3.6	3.7	4.9
Garden Valley*	172	Central Region	4.9	4.2	4.1	3.4	4.0	4.1	5.1
Garfield Flat*	120	Central Region	4.8	4.3	4.0	3.2	3.9	4.0	5.1
Garnet Valley*	216	Colorado River Basin	5.9	5.6	4.9	4.0	3.6	5.6	6.2
Gold Butte Area*	223	Colorado River Basin	5.4	5.1	4.4	3.5	3.1	5.1	5.6
Gold Flat*	147	Central Region	5.2	4.5	4.3	3.5	4.0	4.4	5.4
Goose Creek Area*	41	Snake River Basin	4.1	3.2	3.1	2.6	3.0	2.9	4.3
Goshute Valley	187	Central Region	4.2	3.4	3.2	2.6	3.1	2.9	4.5
Granite Basin*	23	Black Rock Desert Region	4.3	3.8	3.8	3.1	3.7	3.7	4.5
Granite Springs Valley*	78	West Central Region	4.6	4.0	3.9	3.2	3.8	3.8	4.8
Grapevine Canyon*	231	Death Valley Basin	5.4	4.7	4.4	3.5	4.0	4.6	5.6
Grass Valley	71	Humboldt River Basin	4.6	3.9	3.8	3.1	3.6	3.6	4.9
Grass Valley	138	Central Region	4.2	3.5	3.4	2.8	3.3	3.3	4.4
Greasewood Basin*	224	Colorado River Basin	5.3	5.1	4.4	3.6	3.1	5.1	5.6
Great Salt Lake Desert	192	Great Salt Lake Basin	3.6	2.9	2.9	2.3	2.7	2.7	3.7
Gridley Lake Valley*	3	Northwest Region	4.3	3.7	3.6	2.9	3.5	3.5	4.5
Grouse Creek Valley*	190	Great Salt Lake Basin	4.2	3.3	3.2	2.6	3.0	3.0	4.4
Guano Valley*	6	Northwest Region	4.3	3.6	3.5	2.8	3.3	3.3	4.5

Appendix 14 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	REFERENCE ET _{os} (ft)	ALFALFA ET _{act} (ft)	HIGHLY MANAGED PASTURE GRASS ET _{act} (ft)	LOW MANAGED PASTURE GRASS ET _{act} (ft)	GRASS HAY ET _{act} (ft)	TURF GRASS ET _{act} (ft)	SHALLOW OPEN WATER ET _{act} (ft)
Hamlin Valley*	196	Great Salt Lake Basin	4.6	3.8	3.7	3.0	3.5	3.5	4.9
Hardscrabble Area*	68	Humboldt River Basin	4.4	3.7	3.6	2.9	3.4	3.4	4.7
Hidden Valley*	217	Colorado River Basin	5.9	5.6	4.9	3.9	3.6	5.6	6.2
Hidden Valley*	166	Central Region	5.9	5.7	4.9	4.0	3.6	5.6	6.2
High Rock Lake Valley*	25	Black Rock Desert Region	4.3	3.8	3.7	3.0	3.6	3.6	4.5
Honey Lake Valley*	97	Western Region	4.4	3.8	3.7	3.0	3.6	3.6	4.6
Hot Creek	156	Central Region	4.7	3.9	3.9	3.2	3.8	3.7	4.9
Hualapai Flat*	24	Black Rock Desert Region	4.3	3.9	3.8	3.1	3.7	3.7	4.6
Huntington Valley	47	Humboldt River Basin	4.0	3.2	3.0	2.5	2.8	2.8	4.2
Huntoon Valley*	113	Central Region	4.9	4.2	4.0	3.2	3.8	4.0	5.1
Imlay Area	72	Humboldt River Basin	4.7	4.1	4.0	3.3	3.9	3.9	4.9
Independence Valley	36	Snake River Basin	3.7	3.0	2.8	2.3	2.6	2.6	3.9
Independence Valley*	188	Central Region	4.1	3.2	3.1	2.5	3.0	2.9	4.3
Indian Springs Valley	161	Central Region	6.0	5.4	4.9	4.0	4.2	5.3	6.3
Ione Valley*	135	Central Region	4.7	3.8	3.6	2.9	3.5	3.5	4.9
Ivanpah Valley	164A	Central Region	5.9	5.7	4.9	4.0	4.1	5.6	6.2
Ivanpah Valley*	164B	Central Region	5.9	5.7	4.9	4.0	3.7	5.7	6.2
Jakes Valley	174	Central Region	4.3	3.2	3.1	2.5	2.9	2.8	4.5
Jarbridge River Area	39	Snake River Basin	3.9	3.3	3.0	2.5	2.9	2.8	4.1
Jean Lake Valley*	165	Central Region	5.9	5.7	4.9	4.0	3.7	5.6	6.2
Jersey Valley*	132	Central Region	4.4	4.0	3.9	3.2	3.7	3.8	4.7
Kane Springs Valley*	206	Colorado River Basin	5.0	4.7	4.1	3.4	3.7	4.5	5.3
Kawich Valley*	157	Central Region	5.1	4.5	4.3	3.5	4.1	4.4	5.4
Kelley Creek Area*	66	Humboldt River Basin	4.4	3.7	3.6	3.0	3.4	3.4	4.7
Kings River Valley*	30A	Black Rock Desert Region	4.3	3.7	3.6	3.0	3.5	3.5	4.6

Appendix 14 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	REFERENCE ET _{os} (ft)	ALFALFA ET _{act} (ft)	HIGHLY MANAGED PASTURE GRASS ET _{act} (ft)	LOW MANAGED PASTURE GRASS ET _{act} (ft)	GRASS HAY ET _{act} (ft)	TURF GRASS ET _{act} (ft)	SHALLOW OPEN WATER ET _{act} (ft)
Kings River Valley*	30B	Black Rock Desert Region	4.4	3.8	3.7	3.0	3.5	3.6	4.6
Kobeh Valley*	139	Central Region	4.2	3.4	3.3	2.7	3.1	3.1	4.4
Kumiva Valley*	79	West Central Region	4.4	3.9	3.9	3.2	3.7	3.8	4.7
Lake Tahoe Basin	90	Truckee River Basin	3.6	2.9	2.7	2.2	2.6	2.6	3.7
Lake Valley	183	Central Region	4.5	3.6	3.4	2.8	3.3	3.2	4.7
Lamoille Valley	45	Humboldt River Basin	3.9	3.0	2.8	2.3	2.7	2.6	4.1
Las Vegas Valley	212	Colorado River Basin	6.2	6.0	5.2	4.2	3.9	6.0	6.5
Lemmon Valley	92B	Western Region	4.2	3.7	3.6	3.0	3.5	3.6	4.4
Lemmon Valley*	92A	Western Region	4.2	3.7	3.6	3.0	3.5	3.6	4.4
Lida Valley*	144	Central Region	5.3	4.6	4.4	3.5	4.1	4.4	5.6
Little Fish Lake Valley*	150	Central Region	4.6	3.7	3.7	3.0	3.5	3.5	4.8
Little Humboldt Valley*	67	Humboldt River Basin	4.4	3.5	3.4	2.8	3.2	3.2	4.6
Little Owyhee River Area*	34	Snake River Basin	4.2	3.3	3.1	2.6	3.0	2.9	4.4
Little Smoky Valley	155A	Central Region	4.5	3.1	3.1	2.5	2.9	2.9	4.8
Little Smoky Valley*	155C	Central Region	4.6	3.9	3.8	3.1	3.7	3.7	4.9
Little Smoky Valley*	155B	Central Region	4.6	3.8	3.7	3.0	3.6	3.5	4.8
Long Valley*	9	Northwest Region	4.3	3.7	3.6	3.0	3.5	3.5	4.5
Long Valley*	175	Central Region	4.3	3.4	3.2	2.7	3.1	3.0	4.5
Lovelock Valley	73	Humboldt River Basin	4.7	4.1	4.1	3.4	4.0	4.0	4.9
Lovelock Valley*	73A	Humboldt River Basin	4.7	4.2	4.0	3.3	3.9	3.9	4.9
Lower Meadow Valley Wash	205	Colorado River Basin	5.0	4.7	4.2	3.4	3.4	4.8	5.3
Lower Moapa Valley	220	Colorado River Basin	5.1	4.9	4.3	3.5	3.2	5.0	5.4
Lower Reese River Valley	59	Humboldt River Basin	4.4	3.8	3.8	3.1	3.6	3.7	4.7
Macy Flat*	10	Northwest Region	4.3	3.6	3.5	2.9	3.4	3.4	4.5
Maggie Creek Area*	51	Humboldt River Basin	4.0	3.2	3.0	2.5	2.9	2.8	4.2

Appendix 14 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	REFERENCE ET _{os} (ft)	ALFALFA ET _{act} (ft)	HIGHLY MANAGED PASTURE GRASS ET _{act} (ft)	LOW MANAGED PASTURE GRASS ET _{act} (ft)	GRASS HAY ET _{act} (ft)	TURF GRASS ET _{act} (ft)	SHALLOW OPEN WATER ET _{act} (ft)
Marys Creek Area*	52	Humboldt River Basin	4.2	3.5	3.3	2.8	3.2	3.2	4.4
Marys River Area	42	Humboldt River Basin	3.9	3.1	3.0	2.5	2.9	2.8	4.1
Mason Valley	108	Walker River Basin	4.1	3.5	3.4	2.8	3.3	3.4	4.4
Massacre Lake Valley*	8	Northwest Region	4.3	3.7	3.6	2.9	3.5	3.5	4.5
Mercury Valley*	225	Death Valley Basin	5.9	5.5	4.9	4.0	4.0	5.5	6.2
Mesquite Valley*	163	Central Region	5.9	5.7	4.9	4.0	3.9	5.7	6.2
Middle Reese River Valley*	58	Humboldt River Basin	4.3	3.8	3.7	3.0	3.5	3.6	4.6
Monitor Valley*	140A	Central Region	4.4	3.5	3.4	2.8	3.3	3.2	4.7
Monitor Valley*	140B	Central Region	4.7	3.8	3.7	3.0	3.6	3.5	4.9
Mono Valley*	112	Central Region	4.8	4.1	3.9	3.2	3.8	3.9	5.0
Monte Cristo Valley*	136	Central Region	5.0	4.3	4.1	3.3	4.0	4.1	5.3
Mosquito Valley*	12	Northwest Region	4.3	3.7	3.6	2.9	3.5	3.5	4.5
Mud Meadow*	26	Black Rock Desert Region	4.3	3.7	3.7	3.0	3.6	3.6	4.5
Muddy River Springs Area*	219	Colorado River Basin	5.4	5.1	4.4	3.6	3.4	5.1	5.6
Newark Valley*	154	Central Region	4.3	3.3	3.2	2.7	3.1	3.0	4.5
Newcomb Lake Valley*	96	Western Region	4.2	3.5	3.4	2.8	3.3	3.2	4.4
North Fork Area	44	Humboldt River Basin	4.0	3.1	2.8	2.3	2.7	2.6	4.2
Oasis Valley	228	Death Valley Basin	5.5	5.1	4.5	3.6	4.1	5.0	5.7
Oriental Wash*	232	Death Valley Basin	5.3	4.6	4.4	3.5	4.1	4.5	5.6
Owyhee River Area	37	Snake River Basin	4.0	2.9	2.7	2.2	2.5	2.4	4.2
Pahrnagat Valley	209	Colorado River Basin	5.3	4.8	4.4	3.5	3.9	4.6	5.6
Pahroc Valley*	208	Colorado River Basin	4.9	4.4	4.1	3.4	3.9	4.1	5.2
Pahrump Valley	162	Central Region	5.7	5.4	4.8	4.0	4.1	5.5	6.0
Painter Flat*	18	Black Rock Desert Region	4.5	4.0	3.9	3.2	3.8	3.8	4.7
Panaca Valley	203	Colorado River Basin	4.9	4.5	4.2	3.5	4.0	4.1	5.2

Appendix 14 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	REFERENCE ET _{os} (ft)	ALFALFA ET _{act} (ft)	HIGHLY MANAGED PASTURE GRASS ET _{act} (ft)	LOW MANAGED PASTURE GRASS ET _{act} (ft)	GRASS HAY ET _{act} (ft)	TURF GRASS ET _{act} (ft)	SHALLOW OPEN WATER ET _{act} (ft)
Paradise Valley	69	Humboldt River Basin	4.6	3.8	3.6	3.0	3.5	3.4	4.8
Patterson Valley*	202	Colorado River Basin	4.9	4.1	3.9	3.2	3.7	3.7	5.1
Penoyer Valley	170	Central Region	5.1	4.4	4.4	3.6	4.2	4.3	5.4
Pilgrim Flat*	17	Black Rock Desert Region	4.4	3.9	3.8	3.2	3.7	3.8	4.7
Pilot Creek Valley	191	Great Salt Lake Basin	4.2	3.4	3.3	2.7	3.1	3.1	4.4
Pine Forest Valley*	29	Black Rock Desert Region	4.3	3.8	3.7	3.0	3.5	3.5	4.5
Pine Valley	53	Humboldt River Basin	4.4	3.2	3.1	2.5	2.9	2.9	4.6
Plute Valley*	214	Colorado River Basin	6.1	5.8	5.0	4.0	3.6	5.8	6.4
Pleasant Valley	130	Central Region	4.6	4.2	4.1	3.4	3.9	4.0	4.9
Pleasant Valley*	194	Great Salt Lake Basin	4.3	3.4	3.3	2.7	3.2	3.1	4.5
Pleasant Valley*	88	Truckee River Basin	4.7	4.1	3.9	3.2	3.8	3.8	5.0
Pueblo Valley	1	Northwest Region	4.3	3.7	3.6	3.0	3.5	3.5	4.5
Pumpnickel Valley*	65	Humboldt River Basin	4.5	3.9	3.8	3.1	3.6	3.7	4.7
Pyramid Lake Valley	81	Truckee River Basin	4.8	4.1	4.0	3.2	3.8	3.9	5.0
Queen Valley*	116	Central Region	5.1	4.4	4.2	3.4	4.0	4.1	5.4
Quinn River Valley	33B	Black Rock Desert Region	4.3	3.4	3.2	2.7	2.9	3.0	4.5
Quinn River Valley	33A	Black Rock Desert Region	4.4	3.9	3.8	3.1	3.6	3.6	4.6
Railroad Valley	173B	Central Region	4.6	4.1	4.1	3.3	3.9	4.0	4.9
Railroad Valley	173A	Central Region	4.8	4.2	4.1	3.4	4.0	4.1	5.0
Ralston Valley	141	Central Region	5.1	4.4	4.3	3.6	4.3	4.3	5.3
Rawhide Flats*	123	Central Region	4.4	3.8	3.7	3.0	3.6	3.7	4.7
Red Rock Valley	99	Western Region	4.0	3.1	2.9	2.4	2.9	2.7	4.2
Rhodes Salt Marsh Valley*	119	Central Region	5.0	4.4	4.1	3.3	4.0	4.1	5.3
Rock Creek Valley*	62	Humboldt River Basin	4.3	3.4	3.3	2.7	3.1	3.1	4.5
Rock Valley*	226	Death Valley Basin	5.8	5.4	4.8	3.9	3.9	5.4	6.1

Appendix 14 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	REFERENCE ET _{os} (ft)	ALFALFA ET _{act} (ft)	HIGHLY MANAGED PASTURE GRASS ET _{act} (ft)	LOW MANAGED PASTURE GRASS ET _{act} (ft)	GRASS HAY ET _{act} (ft)	TURF GRASS ET _{act} (ft)	SHALLOW OPEN WATER ET _{act} (ft)
Rose Valley*	199	Colorado River Basin	4.9	4.0	3.8	3.1	3.6	3.6	5.2
Ruby Valley	176	Central Region	4.0	3.3	3.2	2.6	3.1	3.0	4.2
Sage Hen Valley*	5	Northwest Region	4.3	3.4	3.3	2.7	3.2	3.1	4.6
Salmon Falls Creek Area	40	Snake River Basin	4.1	3.3	3.1	2.6	3.0	2.9	4.3
San Emidio Desert	22	Black Rock Desert Region	4.2	3.8	3.7	3.1	3.6	3.7	4.4
Sano Valley*	20	Black Rock Desert Region	4.5	4.0	3.9	3.2	3.8	3.8	4.7
Sarcobatus Flat	146	Central Region	5.3	4.4	4.3	3.4	3.9	4.3	5.5
Silver State Valley*	32	Black Rock Desert Region	4.5	3.9	3.8	3.1	3.6	3.6	4.7
Skeddadle Creek Valley*	98	Western Region	4.5	4.0	3.9	3.2	3.8	3.8	4.7
Smith Creek*	134	Central Region	4.5	3.5	3.3	2.7	3.2	3.2	4.7
Smith Valley	107	Walker River Basin	4.3	3.6	3.5	2.9	3.4	3.5	4.5
Smoke Creek Desert	21	Black Rock Desert Region	4.4	4.0	3.9	3.2	3.8	3.8	4.6
Snake Valley*	195	Great Salt Lake Basin	4.4	3.6	3.5	2.9	3.4	3.3	4.7
Soda Spring Valley	121A	Central Region	4.9	4.3	4.1	3.3	3.9	4.1	5.1
Soda Spring Valley*	121B	Central Region	4.7	4.1	3.9	3.2	3.8	3.9	5.0
South Fork Area*	46	Humboldt River Basin	4.1	3.3	3.1	2.5	2.9	2.9	4.3
South Fork Owyhee River Area	35	Snake River Basin	4.2	3.0	2.9	2.4	2.8	2.7	4.4
Spanish Springs Valley*	85	Truckee River Basin	4.4	3.9	3.7	3.1	3.6	3.7	4.6
Spring Valley	184	Central Region	4.5	3.7	3.6	3.0	3.5	3.5	4.7
Spring Valley	201	Colorado River Basin	4.9	3.6	3.5	2.8	3.3	3.2	5.1
Starr Valley Area	43	Humboldt River Basin	4.1	3.3	2.9	2.4	2.8	2.7	4.3
Steptoe Valley	179	Central Region	4.4	3.5	3.4	2.8	3.2	3.2	4.6
Stevens Basin*	152	Central Region	4.3	3.2	3.2	2.6	3.0	3.0	4.5
Stingaree Valley*	125	Central Region	4.7	3.8	3.6	2.9	3.5	3.4	4.9
Stone Cabin Valley*	149	Central Region	4.9	4.1	4.1	3.3	3.9	3.9	5.1

Appendix 14 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	REFERENCE ET _{os} (ft)	ALFALFA ET _{act} (ft)	HIGHLY MANAGED PASTURE GRASS ET _{act} (ft)	LOW MANAGED PASTURE GRASS ET _{act} (ft)	GRASS HAY ET _{act} (ft)	TURF GRASS ET _{act} (ft)	SHALLOW OPEN WATER ET _{act} (ft)
Stonewall Flat*	145	Central Region	5.2	4.5	4.3	3.5	4.1	4.4	5.5
Summit Lake Valley*	27	Black Rock Desert Region	4.3	3.7	3.6	3.0	3.5	3.5	4.5
Sun Valley*	86	Truckee River Basin	4.2	3.9	3.7	3.0	3.6	3.8	4.5
Surprise Valley*	14	Northwest Region	4.3	3.8	3.7	3.0	3.6	3.6	4.6
Susie Creek Area*	50	Humboldt River Basin	4.0	3.3	3.1	2.6	3.0	2.9	4.2
Swan Lake Valley*	7	Northwest Region	4.3	3.6	3.5	2.9	3.4	3.3	4.5
Teels Marsh Valley*	114	Central Region	5.0	4.3	4.1	3.3	3.9	4.1	5.2
Thousand Springs Valley	189D	Great Salt Lake Basin	4.4	3.5	3.4	2.7	3.2	3.1	4.6
Thousand Springs Valley	189A	Great Salt Lake Basin	4.3	2.9	2.8	2.3	2.7	2.5	4.5
Thousand Springs Valley*	189B	Great Salt Lake Basin	4.2	3.2	3.1	2.5	2.9	2.8	4.4
Thousand Springs Valley*	189C	Great Salt Lake Basin	4.2	3.3	3.1	2.6	3.0	2.9	4.4
Three Lakes Valley*	168	Central Region	5.7	5.3	4.7	3.8	4.0	5.2	6.0
Three Lakes Valley*	211	Colorado River Basin	6.0	5.6	5.0	4.0	4.0	5.5	6.3
Tikapoo Valley*	169A	Central Region	5.2	4.6	4.3	3.5	4.0	4.4	5.5
Tikapoo Valley*	169B	Central Region	5.5	5.0	4.5	3.7	3.9	4.9	5.7
Tippett Valley*	185	Central Region	4.3	3.4	3.3	2.7	3.2	3.1	4.5
Tracy Segment	83	Truckee River Basin	4.6	3.9	3.8	3.1	3.7	3.7	4.8
Truckee Canyon Segment*	91	Truckee River Basin	4.4	3.9	3.7	3.0	3.6	3.7	4.6
Truckee Meadows	87	Truckee River Basin	4.4	3.9	3.8	3.1	3.7	3.8	4.6
Tule Desert*	221	Colorado River Basin	5.0	4.7	4.1	3.4	3.5	4.6	5.3
Upper Reese River Valley	56	Humboldt River Basin	4.2	3.2	3.0	2.5	2.9	2.8	4.5
Virgin River Valley	222	Colorado River Basin	5.1	4.9	4.3	3.5	3.2	4.9	5.4
Virgin Valley	4	Northwest Region	4.4	3.3	3.1	2.6	3.0	2.9	4.6
Walker Lake Valley	110A	Walker River Basin	4.6	3.9	3.9	3.2	3.8	3.9	4.9
Walker Lake Valley	110C	Walker River Basin	4.7	4.1	3.9	3.2	3.8	3.9	4.9

Appendix 14 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	REFERENCE ET _{os} (ft)	ALFALFA ET _{act} (ft)	HIGHLY MANAGED PASTURE GRASS ET _{act} (ft)	LOW MANAGED PASTURE GRASS ET _{act} (ft)	GRASS HAY ET _{act} (ft)	TURF GRASS ET _{act} (ft)	SHALLOW OPEN WATER ET _{act} (ft)
Walker Lake Valley*	110B	Walker River Basin	4.6	4.0	3.9	3.1	3.7	3.9	4.9
Warm Springs Valley*	84	Truckee River Basin	4.4	3.8	3.6	3.0	3.5	3.6	4.6
Warner Valley*	13	Northwest Region	4.3	3.7	3.6	2.9	3.5	3.5	4.5
Washoe Valley	89	Truckee River Basin	5.2	4.4	4.2	3.4	4.0	3.9	5.5
Whirlwind Valley*	60	Humboldt River Basin	4.3	3.7	3.6	3.0	3.5	3.5	4.5
White Plains*	74	Humboldt River Basin	4.5	4.0	3.9	3.2	3.7	3.8	4.8
White River Valley	207	Colorado River Basin	4.6	4.0	3.8	3.2	3.7	3.6	4.9
Willow Creek Valley	63	Humboldt River Basin	4.4	3.1	3.1	2.6	2.9	2.9	4.7
Winnemucca Lake Valley*	80	Truckee River Basin	4.5	3.9	3.8	3.1	3.7	3.7	4.7
Winnemucca Segment	70	Humboldt River Basin	4.6	4.0	3.8	3.2	3.7	3.7	4.8
Yucca Flat*	159	Central Region	5.5	4.9	4.5	3.7	4.1	4.8	5.7

Appendix 15 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	ALFALFA NIWR (ft)	HIGHLY MANAGED PASTURE GRASS NIWR (ft)	LOW MANAGED PASTURE GRASS NIWR (ft)	GRASS HAY NIWR (ft)	TURF GRASS NIWR (ft)	SHALLOW OPEN WATER NIWR (ft)
Rose Valley*	199	Colorado River Basin	3.3	3.2	2.5	3.0	3.0	4.2
Ruby Valley	176	Central Region	2.5	2.6	2.0	2.5	2.4	3.0
Sage Hen Valley*	5	Northwest Region	2.9	2.8	2.2	2.7	2.7	3.9
Salmon Falls Creek Area	40	Snake River Basin	2.6	2.5	1.9	2.3	2.3	3.5
San Emidio Desert	22	Black Rock Desert Region	3.2	3.2	2.6	3.2	3.2	3.8
Sano Valley*	20	Black Rock Desert Region	3.5	3.5	2.8	3.4	3.5	4.1
Sarcobatus Flat	146	Central Region	4.2	4.0	3.2	3.7	4.2	5.2
Silver State Valley*	32	Black Rock Desert Region	3.3	3.3	2.6	3.1	3.2	4.0
Skedaddle Creek Valley*	98	Western Region	3.5	3.5	2.8	3.4	3.5	4.1
Smith Creek*	134	Central Region	3.0	2.9	2.3	2.8	2.7	4.1
Smith Valley	107	Walker River Basin	3.1	3.0	2.4	2.9	3.0	3.9
Smoke Creek Desert	21	Black Rock Desert Region	3.4	3.4	2.7	3.3	3.4	4.0
Snake Valley*	195	Great Salt Lake Basin	3.0	2.9	2.3	2.8	2.8	3.9
Soda Spring Valley	121A	Central Region	3.9	3.7	2.9	3.6	3.7	4.6
Soda Spring Valley*	121B	Central Region	3.8	3.6	2.8	3.5	3.6	4.6
South Fork Area*	46	Humboldt River Basin	2.5	2.5	1.9	2.3	2.3	3.2
South Fork Owyhee River Area	35	Snake River Basin	1.8	1.9	1.5	2.0	1.8	3.1
Spanish Springs Valley*	85	Truckee River Basin	3.3	3.3	2.6	3.2	3.3	3.9
Spring Valley	184	Central Region	3.0	3.0	2.4	2.9	2.9	3.9
Spring Valley	201	Colorado River Basin	3.0	2.9	2.3	2.8	2.6	4.1
Starr Valley Area	43	Humboldt River Basin	2.4	2.3	1.8	2.2	2.2	3.3
Steptoe Valley	179	Central Region	2.9	2.8	2.2	2.7	2.6	3.9
Stevens Basin*	152	Central Region	2.7	2.7	2.1	2.6	2.5	3.9
Stingaree Valley*	125	Central I Region	3.4	3.2	2.5	3.1	3.0	4.4
Stone Cabin Valley*	149	Central Region	3.7	3.7	2.9	3.6	3.6	4.6

Appendix 15 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	ALFALFA NIWR (ft)	HIGHLY MANAGED PASTURE GRASS NIWR (ft)	LOW MANAGED PASTURE GRASS NIWR (ft)	GRASS HAY NIWR (ft)	TURF GRASS NIWR (ft)	SHALLOW OPEN WATER NIWR (ft)
Stonewall Flat*	145	Central Region	4.2	4.0	3.2	3.8	4.0	5.0
Summit Lake Valley*	27	Black Rock Desert Region	3.1	3.1	2.5	3.1	3.1	3.8
Sun Valley*	86	Truckee River Basin	3.3	3.2	2.6	3.2	3.3	3.7
Surprise Valley*	14	Northwest Region	3.2	3.2	2.6	3.1	3.2	3.9
Susie Creek Area*	50	Humboldt River Basin	2.5	2.5	2.0	2.4	2.4	3.3
Swan Lake Valley*	7	Northwest Region	3.1	3.0	2.4	2.9	2.9	3.9
Teels Marsh Valley*	114	Central Region	4.0	3.8	3.0	3.7	3.8	4.8
Thousand Springs Valley	189D	Great Salt Lake Basin	2.9	2.9	2.2	2.8	2.6	4.0
Thousand Springs Valley	189A	Great Salt Lake Basin	2.2	2.2	1.7	2.1	2.0	3.6
Thousand Springs Valley*	189B	Great Salt Lake Basin	2.5	2.5	1.9	2.4	2.3	3.5
Thousand Springs Valley*	189C	Great Salt Lake Basin	2.6	2.6	2.0	2.5	2.4	3.6
Three Lakes Valley*	168	Central Region	4.9	4.4	3.5	3.8	4.9	5.6
Three Lakes Valley*	211	Colorado River Basin	5.3	4.7	3.7	3.9	5.2	6.0
Tikapoo Valley*	169A	Central Region	4.2	3.9	3.1	3.7	4.0	4.9
Tikapoo Valley*	169B	Central Region	4.6	4.1	3.3	3.6	4.5	5.2
Tippett Valley*	185	Central Region	2.8	2.8	2.2	2.7	2.6	3.8
Tracy Segment	83	Truckee River Basin	3.5	3.4	2.7	3.2	3.3	4.3
Truckee Canyon Segment*	91	Truckee River Basin	3.3	3.2	2.6	3.1	3.2	3.8
Truckee Meadows	87	Truckee River Basin	3.4	3.4	2.7	3.3	3.5	4.0
Tule Desert*	221	Colorado River Basin	4.0	3.5	2.8	3.1	4.0	4.4
Upper Reese River Valley	56	Humboldt River Basin	2.6	2.5	2.0	2.4	2.3	3.6
Virgin River Valley	222	Colorado River Basin	4.4	3.8	3.0	2.9	4.5	4.8
Virgin Valley	4	Northwest Region	2.8	2.7	2.1	2.6	2.5	4.0
Walker Lake Valley	110A	Walker River Basin	3.5	3.5	2.8	3.4	3.5	4.4
Walker Lake Valley	110C	Walker River Basin	3.8	3.6	2.9	3.5	3.7	4.6

Appendix 15 cont.

BASIN NAME	BASIN NUMBER	BASIN REGION	ALFALFA NIWR (ft)	HIGHLY MANAGED PASTURE GRASS NIWR (ft)	LOW MANAGED PASTURE GRASS NIWR (ft)	GRASS HAY NIWR (ft)	TURF GRASS NIWR (ft)	SHALLOW OPEN WATER NIWR (ft)
Walker Lake Valley*	110B	Walker River Basin	3.7	3.5	2.8	3.4	3.5	4.5
Warm Springs Valley*	84	Truckee River Basin	3.3	3.2	2.6	3.1	3.2	4.0
Warner Valley*	13	Northwest Region	3.1	3.1	2.5	3.0	3.0	3.9
Washoe Valley	89	Truckee River Basin	3.7	3.8	2.9	3.5	3.5	4.7
Whirlwind Valley*	60	Humboldt River Basin	3.0	3.0	2.4	2.9	2.9	3.7
White Plains*	74	Humboldt River Basin	3.5	3.4	2.8	3.3	3.4	4.3
White River Valley	207	Colorado River Basin	3.2	3.2	2.5	3.0	3.0	4.0
Willow Creek Valley	63	Humboldt River Basin	2.4	2.5	2.0	2.4	2.4	3.9
Winnemucca Lake Valley*	80	Truckee River Basin	3.5	3.4	2.7	3.3	3.4	4.2
Winnemucca Segment	70	Humboldt River Basin	3.4	3.4	2.7	3.2	3.3	4.2
Yucca Flat*	159	Central Region	4.6	4.2	3.3	3.8	4.5	5.3

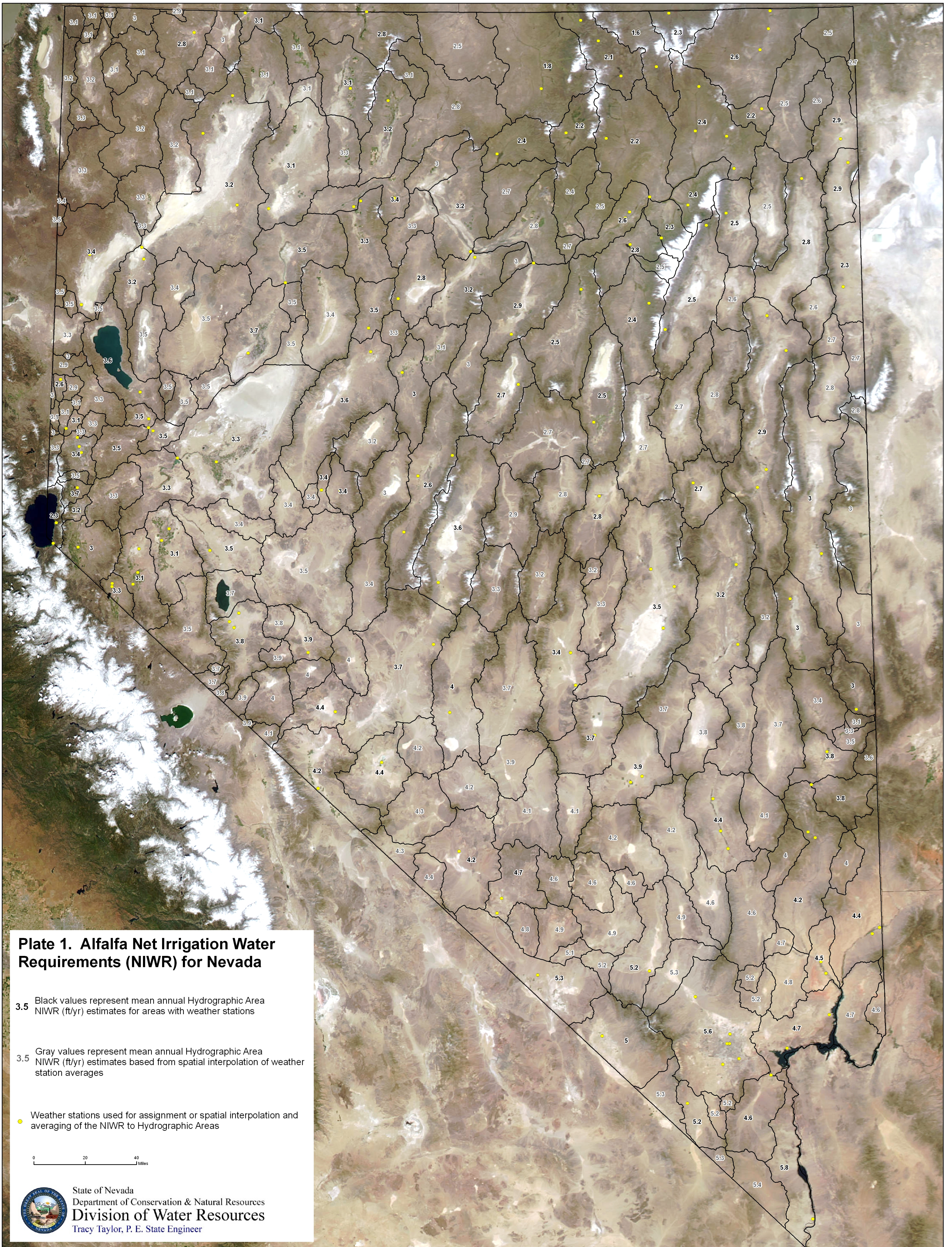


Plate 1. Alfalfa Net Irrigation Water Requirements (NIWR) for Nevada

- 3.5 Black values represent mean annual Hydrographic Area NIWR (ft/yr) estimates for areas with weather stations
- 3.5 Gray values represent mean annual Hydrographic Area NIWR (ft/yr) estimates based from spatial interpolation of weather station averages
- Weather stations used for assignment or spatial interpolation and averaging of the NIWR to Hydrographic Areas

