

CENTRAL UTAH
WATER CONSERVANCY DISTRICT

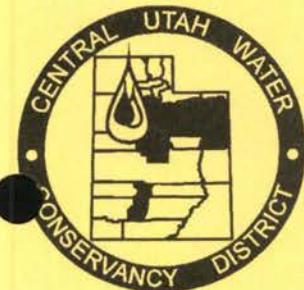


CENTRAL UTAH PROJECT COMPLETION PROGRAM

DIAMOND FORK SYSTEM
BONNEVILLE UNIT
FINAL SUPPLEMENT TO THE
FINAL ENVIRONMENTAL IMPACT STATEMENT

WATER QUALITY
TECHNICAL MEMORANDUM

June 1999



UTAH RECLAMATION
MITIGATION
AND CONSERVATION
COMMISSION



DIAMOND FORK SYSTEM
FINAL SUPPLEMENT TO THE
FINAL ENVIRONMENTAL IMPACT STATEMENT

**Water Quality
Technical Memorandum**



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TECHNICAL MEMORANDUM



DATE: April 1999

SUBJECT: 1999 Diamond Fork System FS-FEIS Water Quality Technical Memorandum

This memorandum details data analysis techniques and results used for assessing water quality Baseline conditions, and impacts of the Proposed Action and No Action Alternative for the 1999 Diamond Fork System FS-FEIS.

Input Data Description And Sources

Input Data Sources Corresponding to Stream Reaches

The following table (Table WQTM-1) lists the STORET database water quality monitoring sites used for analysis, and their corresponding CUWCD (1998 and 1999) reaches. Strawberry Reservoir and Lakeshore site data comprised monthly averaged monitoring data from 1988 to 1998. Data for all other sites included 1995 to 1998 monthly averaged monitoring data (*new data*) or *new data* in combination with 1978 to 1982 monthly averaged monitoring data (*historical data*; CUWCD, 1998).

Data Interpolation

All data were analyzed using a statistical package, JMP, for determining monthly means. In several instances data were incomplete or insufficient. Interpolation or replacement processes were used to provide completed information for analysis. Several methods were used that depended upon the level of data completeness. At least three measurements comprising a monthly average were considered sufficient, however:

- If only one *new datum* measurement was available for compilation of a monthly average, the new value and *historical* value (if it existed) were averaged using a simple mean. Justification is based on the need for more than one value per month by which impacts for that month are assessed. A simple mean is acceptable because it is known that the *new datum* value is composed of one measurement and the *historical data* value of *at least* one measurement, but it is unknown exactly how many.

Table WQTM-1
Water Quality Data Monitoring Sites (STORET), Descriptions, and Corresponding Reaches for Analysis

STORET Number	STORET Location	Diamond Fork FS-FEIS (1999) Water Quality Calculation Point	Diamond Fork FS-FEIS (1999) Representative Reach	SFN Draft EIS (1998) Reach	Notes
499578	Sixth Water Creek at Strawberry Tunnel Outlet	Sixth Water Creek below Strawberry Tunnel Outlet	Sixth Water Creek: Strawberry Tunnel to Sixth Water Aqueduct	Strawberry Tunnel	Outlet values would be diluted by natural flows in Sixth Water Creek resulting in different instream values. These values were used for this section because this is the site closest to the reach of interest.
499573	Sixth Water Creek above Syar Tunnel Outlet	Sixth Water Creek below Sixth Water Aqueduct	Sixth Water Creek: Sixth Water Aqueduct to Fifth Water Creek	Sixth Water Creek above Fifth Water Creek	Data from this monitoring station were used for all water quality values above Three Forks because it is the only regularly monitored site in the area.
		Sixth Water Creek below Fifth Water Creek*	Sixth Water Creek: Fifth Water Creek to Three Forks*	Sixth Water Creek above Three Forks	Data from this monitoring station were used for all water quality values above Three Forks because it is only regularly monitored site in the area.
499569	Diamond Fork Creek above Monks Hollow	Diamond Fork Creek below Three Forks	Diamond Fork Creek: Three Forks to Red Hollow	Upper Diamond Fork Creek, Diamond Fork Creek above Monks Hollow	Monks Hollow is also known as Red Hollow. This site is the only <i>new data</i> monitoring site in upper Diamond Fork.
499564	Diamond Fork Creek above Spanish Fork River	Diamond Fork Creek below Red Hollow	Diamond Fork Creek: Red Hollow to Spanish Fork River	Diamond Fork Creek at Hayes	Various monitoring locations on Diamond Fork Creek used for Diamond Fork Creek water quality data
499560	Spanish Fork River at Moark Junction	Spanish Fork River at Castilla Gage	Spanish Fork River: Diamond Fork Creek to Spanish Fork Diversion Dam	Spanish Fork River at Castilla	Moark Junction is the closest monitoring site available; two slightly different names used to describe the same reach.
499558	Spanish Fork River at Lake Shore	Spanish Fork River at Lake Shore	Spanish Fork River: Spanish Fork Diversion Dam to Utah Lake		Water quality impacts in lower Spanish Fork River were not assessed in 1998 so no 1998 site name is provided.

* Water Quality in Fifth Water Creek was assumed to be the same as in Sixth Water Creek. No *new data* was available for Fifth Water Creek.

- If two *new data* measurements were available but their average is different from the *historical* value by more than 50%, it is assumed that the *new data* value may be skewed. In this situation, a weighted average of new and *historical* values was used where:

$$\text{average monthly value} = (2 \times \text{new data value} + \text{old data value}) / 3 \quad [1]$$

This is a reasonable average since it is known that two measurements comprise the *new data* value and *at least* one measurement comprises the *historical data* value.

- If no measurements were available, either nearest similar neighbor *new data* value was used in its place or averaged similar neighbor *new data* values, if data trends dictated.
- If no measurements were available and no *new data* similar neighbor value was available, the *historical* value was used.
- If too much information was missing, (e.g., winter temperatures at Strawberry Tunnel Outlet) a reasonable estimate was made using basic limnology.

Attachment A shows the water quality values for each reach and each parameter used in the analysis.

Simple Flow-Weighted Mixing Analysis

A simple flow-weighted mixing analysis was used to calculate instream concentrations resulting from new flow regimes of the Proposed Action and No Action Alternative and to calculate annual flow-weighted averages. Baseline concentrations required no source water flow weighting, except for Sixth Water Creek from Sixth Water Aqueduct to Fifth Water Creek, but annual averages were all flow weighted. Flow weighting allows for calculation of an overall concentration based on actual parameter load. Without flow weighting, concentration during periods of low flow would have the same weight as concentration during periods of high flow, even though the total load contributed may be the same.

Source Water Flow-Weighting:

$$\text{Monthly Weighted Average Concentration} = \frac{\sum (\text{Flow}_n \times \text{Concentration}_n)}{\sum \text{Flow}_n} \quad [2]$$

where n = each water source, flow = monthly cfs for water source n, and concentration = monthly parameter concentration for water source n. Water sources include natural flows, Strawberry Reservoir releases, any additional tributary flows, and flows from the upstream reach. As calculations are carried downstream, concentration for upstream reach source water would be the monthly weighted average concentration for that reach.

Annual Flow-Weighting:

$$\text{Overall Weighted Average Concentration} = \frac{\sum (\text{Flow}_i \times \text{Concentration}_i)}{\sum \text{Flow}_i} \quad [3]$$

Where i = each month, flow = monthly cfs for the entire reach, and concentration = monthly weighted average concentration from eq [1], except for Baseline where concentration = measured monthly parameter concentration for the reach.

Attachment B provides flow weighted averaging for Baseline flow conditions, Attachment C provides averages

for Proposed Action conditions, and Attachment D provides flow weighted averages for No Action Alternative conditions.

Stratification Effects And Calculations

Potential stratification effects were determined by using values of Strawberry Reservoir parameters that were known to be sampled from below 33 ft (10 m). Mixed condition situations included means of all data for each month, regardless of depth. These values were then used to characterize Strawberry Reservoir water wherever releases were made directly into the Syar Tunnel. Mixed and deep means were evaluated for the stratification sensitive parameters: temperature, DO, and TP. Attachment A lists the values used for stratification dependent parameters as "Deep" for below 33 ft depth averages and "Mixed" for whole profile averaging.

Reaeration

Potentially low DO from stratified Strawberry Reservoir releases would likely experience reaeration, thereby mitigating the effect of stratification on DO. Reaeration is likely because high flows create turbulence, and in upper Sixth Water Creek the outlet elevation gradient is steep enough to result in a rapids-type of flow. Thus, a simple reaeration model was used to determine the effect of reaeration on reach DO for Baseline, Proposed Action, and No Action Alternative flow regimes.

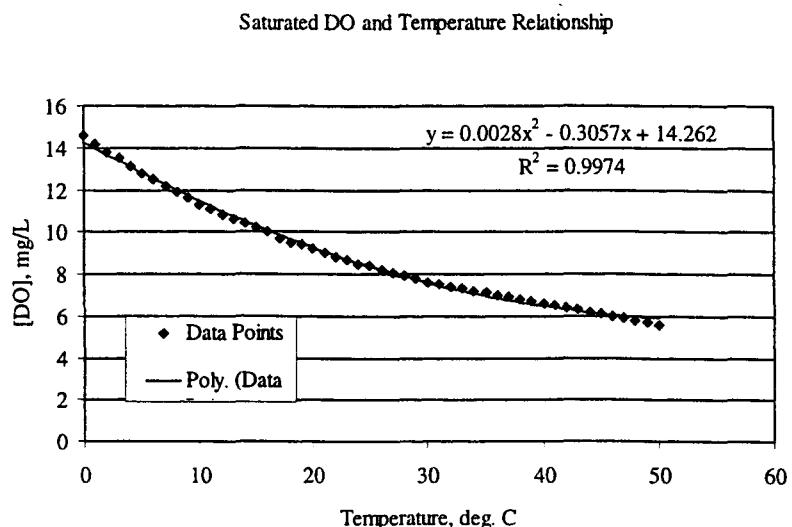
The overall process used Monthly Weighted Average DO and temperature concentrations (eq [2]), and flow regime discharge (cfs) to determine DO concentration for each tenth of the reach length. Temperature is used to determine potential saturated DO concentration (eq [4]; Figure WQTM-1) and to adjust the reaeration coefficient (eq [8]). Discharge is used to determine flow velocity (eq [5]) and depth (eq [6]), which are in turn used to calculate the reaeration coefficient (eq [7]).

DO at Saturation Concentration:

$$\text{Saturated DO} = 0.0028 \times (\text{Temperature})^2 - 0.3057 \times \text{Temperature} + 14.263 \quad [4]$$

Where DO is in mg/L and Temperature is in °C. Figure WQTM-1 shows the relationship between water temperature and saturated DO.

Figure WQTM-1. Data and Curve Fitting for Determining Saturated DO as a Function of Water Temperature.



Flow Velocity and Depth:

These are calculated based on regression analysis of flow and velocity versus discharge relationships developed for various reach sections. Table WQTM-2 lists the regression equations, correlation coefficients, and source for flow velocity (V) and depth (H), where x = discharge in cfs.

Table WQTM-2 Equations for Determining Velocity (eq [5]) and Depth (eq [6])					
Reach	Velocity, ft/s [5]	r ²	Depth, ft [6]	r ²	Source
Upper Sixth Water Creek	-6e ⁻¹ x ² + 0.011x + 2.345	0.9929	-3e ⁻¹ x ² + 0.0047x + 0.664	0.9913	CUWCD, 1991
Lower Sixth Water Creek	-1e ⁻⁵ x ² + 0.0196x + 1.792	0.9964	-5e ⁻⁶ x ² + 0.009x + 0.882	0.9963	CUWCD, 1991
Upper Diamond Fork Creek	-1e ⁻⁵ x ² + 0.0105x + 1.360	0.9807	-9e ⁻⁶ x ² + 0.0094x + 0.648	0.9804	CUWCD, 1997
Lower Diamond Fork Creek	-1e ⁻⁶ x ² + 0.0078 + 1.114	0.994	-5e ⁻⁷ x ² + 0.0034x + 0.2704	0.9602	CUWCD, 1997

Reaeration Coefficient:

$$K_{20} = 3.3 \times 86,400 \times V / H^{1.33} \quad [7]$$

Where K₂₀ = reaeration coefficient (day⁻¹) assumed for 20 °C temperature, V = velocity from eq [5], H = depth from eq. [6], and 86,400 is used to convert seconds to days. K is then adjusted for temperature effects using:

$$K = K_{20} \times 1.0238^{(T-20)} \quad [8]$$

K is the temperature adjusted reaeration coefficient and T is the Monthly Weighted Average temperature in °C.

Attachment E lists the velocity, depth, and K₂ values used in reaeration analysis.

Instream Reaerated DO:

Finally, the DO concentration at any distance along the reach can be calculated by the following simple reaeration model (Lamb, 1985):

$$D = D_0 e^{-(K \times Dist / V)} \quad [9]$$

Dist is the mixing distance along the reach (ft), D₀ is the initial DO concentration, K is from eq. [8], and D is the DO concentration at distance = Dist. Equation 9 is calculated for Dist = 0.1 to 1.0 times the reach length, at 0.1 multiplier intervals. Table WQTM-3 provides example reaeration calculations for Proposed Action flows in Sixth Water Creek. Final reaerated DO for the last section of the reach (d10) was used as the reach DO for upstream source water concentrations in calculating flow weighted concentrations for the next downstream section.

Distance Weighted Reaerated DO:

Because the mixing relationship is logarithmic, using either the initial or final reaerated DO is not appropriate to describe the entire reach, thus, distance weighted averaging was used. The reach was divided into ten equal segments (d1 to d10) and reaerated DO was determined for each segment using equation 8. Whole reach average consisted of summing the section DO concentrations and dividing by 10. Distance weighted reaerated DO was used to determine Baseline existing conditions, and to assess impacts of the Proposed Action and No Action Alternative.

Sediment Transport

Sediment transport calculations were based on studies by the CUWCD. In 1998, the CUWCD measured sediment load and concentration (ppm) at various points along Sixth Water Creek and Diamond Fork Creek as a function of flow, Q (cfs). Attachment F shows the data and relationships determined from this study and resulting transport analysis. When flows were lower than the range studied in 1998, the relationships were not always able to extrapolate the resulting sediment load and concentration, thus relationships from the 1996 CUWCD sediment report were used to determine sediment transport. These relationships used historical flow and transport data from a variety of studies to generate sediment transport relationships for Sixth Water Creek and Diamond Fork Creek. No historical flow versus concentration relationship was available, thus, concentrations were extrapolated by assuming a linear relationship between flow and lowest concentration modeled using the 1998 data for that reach. Because no data was available for the Spanish Fork River, the lowest Diamond Fork Creek relationship was used to approximate sediment transport in upper Spanish Fork River. Table WQTM-4 lists the relationships used for calculating sediment transport load (eq [10]) and concentrations (eq [11]).

**Table WQTM-4
Equations for Determining Sediment Transport**

Location	Load, tons/day [10]	Concentration, ppm [11]	Source
Sixth Water Creek above Sixth Water Aqueduct	$L = 101 \times \ln Q - 358$	$C = 238 \times \ln Q - 665$	CUWCD, 1998
Sixth Water Creek below Sixth Water Aqueduct	$L = 117 \times \ln Q - 395$	$C = 293 \times \ln Q - 882$	CUWCD, 1998
Sixth Water Creek below Fifth Water Creek	$L = 174 \times \ln Q - 717$	$C = 318 \times \ln Q - 1274$	
Diamond Fork Creek below Three Forks	$L = 336 \times \ln Q - 1678$	$C = 417 \times \ln Q - 2053$	CUWCD, 1998
Diamond Fork Creek at Mouth	$L = 282 \times \ln Q - 1406$	$C = 333 \times \ln Q - 163$	CUWCD, 1998
Sixth Water Creek	$L = 0.00174 Q^{1.815}$	Linear	CUWCD, 1996
Diamond Fork Creek	$L = 0.0159 Q^{1.611}$	Linear	CUWCD, 1996

Temperature Mixing Model Analysis

Temperature mixing with ambient air was used to determine freezing potential of the Spanish Fork River under

Baseline, Proposed Action, and No Action Alternative flow regimes. Freezing potential was evaluated at the Spanish Fork Diversion due to data completeness at this site and because potential for freezing at this dam implies freezing potential at downstream locations. Climate data was obtained from the Utah Climate Center and included minimum monthly historical air temperature (MinTair) (1973 to 1998), minimum daily relative humidity (MinRH), and maximum daily wind speed (MaxU). These data represent a potential ‘worst-case’ situation regarding freezing potential in the winter. It should be noted that this model does not account for flow volume thermal mass well; the only component that partially includes this component is flow depth. Model inputs include MinTair, water temperature (Twater), river heat exchange coefficient (kr), river velocity (TotVelocity), and distance in meters (X).

Climate Parameters:

To determine the river mixing coefficient, it is first necessary to calculate some climate parameters. Some of these parameters may be measured, however, given the Utah Climate Center data set, it was necessary to calculate the following: dewpoint temperature (Tdewpt), saturated vapor pressure (e saturated), and ambient vapor pressure (eambient).

Saturated Vapor Pressure (esaturated)

if Tair > 0;

$$\text{esaturated} = 6.1379 \exp [107.426/(240.97+\text{Tair})] \quad [11]$$

if Tair < 0;

$$\text{esaturated} = 6.1393 \exp (137.840/9272.55+\text{Tair})] \quad [12]$$

(Tair is in °C).

Ambient Vapor Pressure (eambient)

$$\text{eambient} = \text{Min RH} \times \text{esaturated} / 100 \quad [13]$$

esaturated is determined using equation [10] or [11] and Min RH = minimum relative humidity

Dewpoint Temperature (Tdewpt)

for Tair ≥ 0 and eambient not equal to 0

$$\text{Tdewpt} = [240.97 \log (\text{eambient}/6.1379)]/[17.502 – \log (\text{eambient}/6.1370)] \quad [14]$$

For Tair < 0 and eambient not equal to 0

$$\text{Tdewpt} = [272.55 \log (\text{eambient}/6.1393)]/[22.452 – \log (\text{eambient}/6.1392)] \quad [15]$$

eambient is determined using equation [12] or [13].

River Parameters:

First an approximate mixing coefficient is calculated, then it is adjusted for river parameters to determine the river mixing coefficient. Parameters needed for calculations include average of water and river temperature (T_m), approximate mixing coefficient (k), coefficient B (B), function of wind speed ($f(u)$), total river velocity (TotVelocity), density of water ($\rho = 1.0 \times 10^6 \text{ g/m}^3$), specific heat capacity of water ($C_p = 3.23 \times 10^4 \text{ Ws/g } ^\circ\text{C}$), and depth of water (H, meters)

Average of River and Water Temperature (T_m)

$$T_m = [T_{dewpt} + T_{water}]/2 \quad [16]$$

Where T_{dewpt} is calculated from eq. 14 or 15, and T_{water} is the Monthly Weighted Average temperature (eq [2])

B coefficient (B)

$$B = 0.35 + 0.015 T_m + 0.0012 T_m^2 \quad [17]$$

T_m is calculated using eq [16]

Function of Wind Speed ($f(u)$)

$$f(u) = 4.23 \text{ MaxU}^2 \quad [18]$$

Approximate Mixing Coefficient (k)

$$k = 4.5 + 0.05 T_{water} + B f(u) + 0.47 f(u) \quad [19]$$

B is calculated using eq [17] and $f(u)$ is from eq [18].

River Mixing Coefficient (k_r)

$$k_r = k / (\rho C_p H) \quad [20]$$

Where k is determined by eq. [19], $\rho = 1.0 \times 10^6 \text{ g/m}^3$, $C_p = 3.23 \times 10^4 \text{ Ws/g } ^\circ\text{C}$, and H is assumed to be 0.3 meters.

Mixed River Temperature:

Mixed river temperature is calculated for fixed distances (X) downstream using the following model:

$$T_x = (T_{water} - \text{Min Tair}) \exp[(k_r X) \text{TotVelocity}] + \text{Min Tair} \quad [21]$$

Where T_x is the water temperature at some distance, X (m) downstream, and k_r is determined using eq. 20. Attachment G lists the input and intermediate values, and river temperatures as a function of mixing distance for each month.

Utah Lake Water Quality Simulation Model

Results of the Utah Lake Water Quality Simulation Model are included in Attachment H. The simulation tracked levels of total dissolved solids, sodium, potassium, chloride, sulfate, calcium, magnesium and bicarbonate in Utah Lake for the 44-year period of record from 1930 to 1973. Water quality parameters were simulated in the main lake, Provo Bay and Goshen Bay.

ATTACHMENT A

WATER QUALITY INPUT DATA

Water Quality

Historic water quality

Month	Strawberry Reservoir					River System Reach									
	Shallow (< 33 ft)	Deep (>33 ft)	Shallow Minimum T	Deep Minimum T	Mixed	Strawberry Tunnel	Sixth Water Creek Above Fifth Water Creek	Sixth Water Creek Above Three Forks	Diamond Fork Creek Above Three Forks	Fifth Water Creek	Diamond Fork Creek Above Red Hollow	Diamond Fork at Hayes	Spanish Fork River at Castilla Gage	Spanish Fork River at Lake Shore	
TEMPERATURE															
Jan	0.1	2.3	0.2	2.3	same as ST	ST	same as A	A	same as A	2.0	2.0	2.6	2.0	2.0	3.3
Feb	0.3	2.3	-0.1	2.3	2.0	2.0	2.0	2.0	2.0	2.0	4.0	4.7	4.0	4.0	5.9
Mr	0.5	2.9	0.2	2.3	4.0	4.0	2.7	2.7	3.5	2.7	2.4	4.6	5.0	5.2	
Ap	2.2	4.1	0.1	3.7	4.0	4.0	3.8	3.5	9.0	3.8	7.9	9.0	8.9	8.8	
My	9.5	9.6	2.9	9.6	7.3	7.3	7.4	7.4	7.4	6.8	7.4	6.7	8.2	8.4	10.1
Ju	14.0	9.2	1.4	9.2	11.8	11.8	12.2	12.2	11.2	12.2	12.0	10.5	12.2	16.5	
July	19.6	11.4	18.1	6.6	10.0	10.0	12.9	12.9	13.9	12.9	13.9	12.8	13.3	16.3	
Aug	19.4	12.2	14.4	8.8	12.5	12.5	12.9	12.9	14.5	12.9	13.5	12.6	13.0	14.7	
Sept	17.1	13.0	15.5	6.8	11.0	11.0	11.4	11.4	13.3	11.4	11.4	10.5	10.5	16.3	
Oct	7.0	10.0	9.6	7.6	9.4	9.4	10.8	10.8	9.7	10.8	11.0	9.0	9.5	9.5	
Nov	5.3	8.4	3.8	8.4	2.8	2.8	18.7	18.7	3.7	18.7	4.4	4.4	4.9	4.9	
Dec	1.4	2.3	0.5	2.3	2.8	2.8	2.6	2.6	1.7	2.6	4.0	6.4	5.1	5.1	5.8

Month	Strawberry Reservoir		River System Reach									
	Deep (> 33 ft)	Mixed	Strawberry Tunnel	Sixth Water Creek Above Fifth Water Creek	Sixth Water Creek Above Three Forks	Diamond Fork Creek Above Three Forks	Fifth Water Creek	Diamond Fork Creek Above Red Hollow	Diamond Fork at Hayes	Spanish Fork Creek at Castilla Gage	Spanish Fork River at Lake Shore	

TP	mg/L											
Jan	0.100	0.085	0.085	0.012	0.012	0.008	0.012	0.016	0.015	0.038	0.038	
Feb	0.250	0.085	0.085	0.003	0.012	0.003	0.003	0.020	0.020	0.030	0.030	
Mr	0.220	0.051	0.051	0.006	0.006	0.010	0.006	0.008	0.018	0.139	0.242	
Ap	0.160	0.063	0.063	0.189	0.189	0.208	0.189	0.200	0.200	0.173	0.146	
My	0.130	0.032	0.032	0.108	0.108	0.092	0.108	0.100	0.221	0.230	0.230	
Ju	0.110	0.024	0.035	0.102	0.102	0.036	0.102	0.112	0.136	0.111	0.111	
July	0.140	0.042	0.025	0.069	0.069	0.029	0.069	0.077	0.095	0.082	0.058	
Aug	0.140	0.059	0.038	0.079	0.079	0.032	0.078	0.085	0.115	0.117	0.593	
Sept	0.140	0.074	0.123	0.120	0.180	0.092	0.120	0.168	0.172	0.273	0.273	
Oct	0.140	0.033	0.058	0.063	0.063	0.018	0.063	0.044	0.044	0.025	0.035	
Nov	0.040	0.050	0.044	0.035	0.035	0.037	0.035	0.052	0.042	0.054	0.054	
Dec	0.070	0.034	0.034	0.004	0.004	0.006	0.004	0.000	0.000	0.010	0.020	

DO	mg/L											
Jan	2.4	6.2	7.9	7.9	7.9	7.9	7.9	11.1	11.1	11.1	11.1	All units in mg/L unless noted otherwise
Feb	0.4	7.3	5.2	5.2	5.2	5.2	5.2	10.5	10.5	10.5	10.5	Historical data from 1998 CUWCD rpt
Mr	2.3	9.3	5.9	9.5	9.5	12.0	9.5	11.8	11.4	10.6	10.3 nnn	average of historical and new data due to insufficient samples
Ap	4.9	7.9	5.5	9.1	9.1	8.9	9.1	9.0	9.0	8.8	8.6 nnn	best conservative guess.
My	8.6	5.2	8.1	9.8	9.8	9.8	9.8	10.2	10.0	9.8 nnn	wt. average of historical (n= at least 1) and new data (n=2) due to insufficient sample	
Ju	6.5	5.9	8.0	9.4	9.4	9.6	9.4	9.6	9.8	9.5	8.6	and 50% variation in new v. historical value
July	4.4	5.5	8.5	8.7	8.7	8.3	8.7	8.5	8.7	8.6	8.2 nnn	Best nearest neighbor value used
Aug	2.3	8.1	8.4	8.4	8.4	8.1	8.4	8.4	8.5	8.3	8.0 nnn	average of upstream and downstream historical values
Sept	1.2	6.4	8.4	8.7	8.7	8.6	8.7	8.8	9.1	8.6	7.1 nnn	average of bracketting months
Oct	4.3	5.0	8.2	9.0	9.0	8.8	9.0	9.0	9.1	8.5	9.7	
Nov	6.4	4.4	10.9	10.8	10.8	10.7	10.8	10.9	10.8	9.8	9.8	
Dec	6.8	4.8	9.3	9.3	9.3	9.3	9.3	10.0	10.0	10.6	10.6	

Water Quality

Month	River System Reach									
	Strawberry Reservoir	Strawberry Tunnel	Sixth Water Creek Above Fifth Water Creek	Sixth Water Creek Above Three Forks	Diamond Fork Creek Above Three Forks	Fifth Water Creek	Diamond Fork Creek below Three Forks	Diamond Fork Creek below Red Hollow	Spanish Fork River at Castilla Gage	Spanish Fork River at Lake Shore
TDS										
Jan	130	130	397	397	901	397	362	362	476	476
Feb	107	107	397	397	301	397	379	379	456	532
Mr	170	170	454	454	298	454	365	371	500	516
Ap	105	105	306	306	248	306	302	302	396	490
My	152	174	293	293	221	293	278	284	326	310
Ju	142	250	272	272	216	272	240	279	274	322
July	147	265	165	165	273	165	182	195	264	388
Aug	152	263	161	161	297	161	177	191	259	459
Sept	143	242	174	174	300	174	193	200	309	399
Oct	147	222	251	251	309	251	283	268	417	436
Nov	150	270	397	397	308	397	360	358	482	491
Dec	151	151	400	400	302	400	351	311	466	466
TURBIDITY (NTU)										
	NTU									
Jan	1.6	1.6	2.0	2.0	18.0	2.0	12.0	3.6	5.8	8.0
Feb	0.8	0.8	5.0	5.0	12.0	5.0	7.1	7.1	20.1	33.1
Mr	1.2	1.2	7.3	7.3	5.6	7.3	15.7	13.7	53.6	93.5
Ap	1.9	1.9	35.0	35.0	17.5	35.0	51.0	120.0	212.0	304.0
My	2.0	2.0	13.5	13.5	29.2	13.5	29.7	50.0	63.0	75.9
Ju	0.4	0.4	75.3	75.3	27.5	75.3	81.0	96.4	57.6	10.8
July	0.1	0.1	28.0	28.0	4.3	28.0	27.0	28.0	29.7	1
Aug	1.8	1.8	35.0	35.0	14.0	35.0	20.5	116.4	201.0	3
Sept	1.4	1.4	3.5	3.5	33.9	3.5	71.5	5.8	300.4	755.0
Oct	1.9	1.9	2.2	2.2	20.0	2.2	2.6	2.6	18.3	34.0
Nov	1.9	1.9	1.0	1.0	6.8	1.0	3.0	1.0	3.0	3.0
Dec	0.4	0.4	0.0	0.0	1.4	0.0	1.5	0.9	2.2	3.4
TSS										
	mg/L									
Jan	0	0	5	5	100	5	9.4	9.4	14.9	20.4
Feb	0	0	0	0	0	0	8.5	8.5	41	73.6
Mr	1.75	0	4.2	4.2	10.1	4.2	16	10	42.4	220.3
Ap	2.31	0	59.3	59.3	173.6	59.3	174.2	174.2	607	1040
My	3.65	6	79.5	79.5	99.3	79.5	115	156	339	129.5
Ju	0	3.5	149.2	149.2	40.3	149.2	148	97.5	156	30
July	0	4	9.3	9.3	21.3	9.3	13.2	59.7	62	32.4
Aug	2.07	10.7	12.8	12.8	30.4	12.8	16.9	68.9	119	596
Sept	5.43	4	4.2	4.2	13.8	4.2	6.6	33	117	120.5
Oct	1.63	0	2.8	2.8	4.5	2.8	3.8	4	9.2	95.8
Nov	2.98	0	0	0	3.2	0	2	3.4	6	6
Dec	0	0	5	5	6	5	5	5	12.6	20.2
pH										
	pH units									
Jan	7.7	7.7	8.5	8.5	8.2	8.5	8.5	8.5	8.4	8.3
Feb	7.7	7.7	8.5	8.5	8.2	8.5	8.4	8.4	8.4	8.4
Mr	7.6	7.6	8.4	8.4	8.1	8.4	8.2	8.0	8.0	8.8
Ap	7.8	7.8	8.3	8.3	8.1	8.3	8.5	8.5	8.6	8.7
My	8.2	8.3	8.4	8.4	8.2	8.4	8.3	8.5	8.2	9.2
Ju	8.1	7.8	8.2	8.2	8.2	8.2	8.3	8.3	8.0	8.2
July	8.0	8.0	8.3	8.3	8.3	8.3	8.3	8.3	8.2	8.0
Aug	7.8	8.1	8.2	8.2	8.2	8.2	8.2	8.1	7.8	8.1
Sept	8.3	8.2	8.2	8.2	8.2	8.2	8.2	8.0	7.7	8.1
Oct	8.1	7.8	8.4	8.4	8.2	8.4	8.3	8.0	7.8	8.3
Nov	8.1	8.4	8.5	8.5	8.3	8.5	8.3	8.2	7.7	8.4
Dec	8.0	8.0	8.4	8.4	8.2	8.4	8.3	8.3	8.4	8.5

Water Quality

Month	River System Reach									
	Strawberry Reservoir	Strawberry Tunnel	Sixth Water Creek Above Fifth Water Creek	Sixth Water Creek Above Three Forks	Diamond Fork Creek Above Three Forks	Fifth Water Creek	Diamond Fork Creek below Three Forks	Diamond Fork Creek below Red Hollow	Spanish Fork River at Castilla Gage	Spanish Fork River at Lake Shore
NITRATE										
Jan	0.27	0.27	0.100	0.100	0.200	0.100	0.325	0.325	0.372	0.420
Feb	0.271	0.271	0.100	0.100	0.200	0.100	0.150	0.150	0.100	0.370
Mr	0.191	0.191	0.140	0.140	0.120	0.140	0.125	0.067	0.120	0.320
Ap	0.153	0.153	0.733	0.733	0.485	0.733	1.035	1.035	0.670	0.305
My	0.0478	0.655	0.244	0.244	0.284	0.244	0.364	0.515	0.470	0.470
Ju	0.0811	0.272	0.327	0.327	0.402	0.327	0.438	0.486	0.190	0.160
July	0.0661	0.247	0.047	0.047	0.025	0.047	0.392	0.100	0.113	0.350
Aug	0.148	0.180	0.203	0.203	0.063	0.203	0.190	0.183	0.183	0.183
Sept	0.141	0.058	0.164	0.164	0.012	0.164	0.150	0.126	0.238	3.300
Oct	0.147	0.877	0.310	0.310	0.072	0.310	0.160	0.170	1.557	0.460
Nov	0.15	0.032	0.025	0.025	0.063	0.025	0.030	0.060	0.115	0.115
Dec	0.182	0.182	0.467	0.467	0.140	0.467	0.110	0.113	0.115	0.355
AMMONIA										
Jan	0.660	0.660	0.010	0.010	0.010	0.010	0.027	0.027	0.046	0.066
Feb	0.066	0.066	0.010	0.010	0.010	0.010	0.005	0.005	0.005	0.418
Mr	0.065	0.065	0.022	0.022	0.023	0.022	0.005	0.008	0.012	0.776
Ap	0.093	0.093	0.121	0.121	0.043	0.121	0.049	0.049	0.234	0.418
My	0.028	0.053	0.007	0.007	0.006	0.007	0.014	0.034	0.010	0.010
Ju	0.028	0.055	0.037	0.037	0.026	0.037	0.012	0.012	0.048	0.020
July	0.022	0.041	0.065	0.065	0.010	0.065	0.054	0.025	0.000	0.251
Aug	0.022	0.347	0.013	0.023	0.017	0.013	0.000	0.000	0.000	0.020
Sept	0.270	0.143	0.051	0.051	0.010	0.051	0.038	0.018	0.020	0.140
Oct	0.008	0.007	0.048	0.048	0.018	0.048	0.030	0.032	0.034	0.069
Nov	0.027	0.400	0.000	0.000	0.000	0.000	0.000	0.010	0.026	0.026
Dec	0.248	0.248	0.033	0.033	0.010	0.033	0.013	0.013	0.036	0.060
SELENIUM										
Jan	?	?	?	?	?	?	?	3	?	1.9
Feb	0.5	?	?	?	?	?	?	?	?	1.6
Mr	0.5	?	?	?	?	?	?	?	?	?
Ap	1.7	?	?	?	?	?	?	?	?	1.2
My	0.5	11.6	1.2	1.2	0.5	1.2	0.5	0.75	0.5	1.4
Ju	0.5	20	0.8	0.8	0.5	0.8	0.5	1.4	0.5	1.2
July	0.5	19	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.1
Aug	2.5	8.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4
Sept	2.5	10	0.5	0.5	0.5	0.5	0.5	0.5	1	1.5
Oct	2.5	11.7	3.8	3.8	0.5	3.8	1.41	0.77	1.2	1.6
Nov	?	?	?	?	?	?	?	3	?	?
Dec	?	?	?	?	?	?	?	?	?	?

Less than detection limit 1.0 replaced with 0.5 mg/L

Less than detection limit 5.0 replaced with 2.5 mg/L

all values in mg/L unless noted otherwise

nnn Historical data from 1998 CUWCD rpt

nnn average of historical and new data due to insufficient samples

nnn best conservative guess.

nnn wt. average of historical (n= at least 1) and new data (n=2) due to insufficient samples and 50% variation in new v. historical value

nnn Best nearest neighbor value used

nnn average of upstream and downstream historical values

nnn average of bracketting months

ATTACHMENT B

BASELINE WATER QUALITY ANALYSIS

Selenium

BASELINE

Water Quality Calculation Point	Concentration Source	Oct	May	Jun	Jul	Aug	Sep	Type of Average	Average	Maximum
flow in cfs, concentration in mg/L										
Sixth Water Creek below Strawberry Tunnel Outlet	Flows 6th Water above 5th Water wt. factor	6 11.7 70	21 11.6 244	11 20.0 220	7 19.0 133	6 8.8 53	6 10.0 60	Simple	13.5	
Measured								Flow Weighted	13.7	20.0
Sixth Water Creek below Sixth Water Aqueduct	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor	31 4.3 133	94 3.0 280	233 1.4 331	284 1.0 272	223 2.7 595	119 2.9 343	Simple	2.5	
Measured								Flow Weighted	2.0	4.3
Sixth Water Creek below Fifth Water Creek	Flows Sixth Water above 3 Forks wt. factor	34 3.8 129	121 1.2 145	242 0.8 194	288 0.5 144	225 0.5 113	122 0.5 61	Simple	1.2	
Measured								Flow Weighted	0.8	3.8
Diamond Fork Creek below Three Forks	Flows Diamond Fork above 3 Forks + previous reach wt. factor	39 3.8 148	180 1.2 216	260 0.8 208	295 0.5 148	230 0.5 115	128 0.5 64	Simple	1.2	
Measured								Flow Weighted	0.8	3.8
Diamond Fork Creek below Red Hollow	Flows Diamond Fork below Red Hollow wt. factor	39 1.4 55	180 0.5 90	260 0.5 130	295 0.5 148	230 0.5 115	128 0.5 64	Simple	0.7	
Measured			assume same					Flow Weighted	0.5	1.4
Intermediate Point (Diamond Fork Creek at Mouth)	Flows Diamond Fork at Hayes wt. factor	39 0.8 30	180 0.8 135	260 1.4 364	293 0.5 147	230 0.5 115	128 0.5 64	Simple	0.7	
Measured								Flow Weighted		1.4
Spanish Fork River at Castilla Gage	Flows Spanish Fork at Castilla wt. factor	93 1.2 112	465 0.5 233	405 0.5 203	363 0.5 182	283 0.5 142	178 1.0 178	Simple	0.7	
Measured								Flow Weighted	0.6	1.2
Intermediate Point (Spanish Fork River below East Bench Diversion Dam)	Flows Spanish Fork at Castilla wt. factor	5 1.2 6	100 0.5 50	54 0.5 21	42 0.5 16	32 0.5 17	17 1.0 17	Simple	0.7	
Measured								Flow Weighted	0.4	1.2
Spanish Fork River at Lake Shore	Flows Spanish Fork at Lakeshore wt. factor	30 1.6 48	138 1.4 193	22 1.2 26	3 1.1 3	3 1.4 4	8 1.5 12	Simple	1.4	
Measured								Flow Weighted	1.4	1.6

TDS: Total Dissolved Solids

BASELINE

Water Quality Calculation Point	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average	Maximum
		flow in cfs, concentration in mg/L														
Sixth Water Creek below Strawberry Tunnel Outlet	Flows 6th Water above 5th Water wt. factor	6 251 1,506	6 397 2,362	6 400 2,397	6 397 2,382	6 397 2,382	7 454 3,178	14 306 4,288	21 293 6,153	11 272 2,992	7 165 1,155	6 161 966	6 174 1,044	Simple	306	
Measured														Flow Weighted	302	454
Sixth Water Aqueduct	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor	31 167 5,181	7 362 2,532	6 400 2,397	6 397 2,382	6 397 2,382	7 454 3,178	20 246 4,918	94 184 17,249	233 148 34,516	284 147 41,874	223 152 33,950	119 145 17,203	Simple	267	
Measured														Flow Weighted	162	454
Sixth Water Creek below Filth Water Creek	Flows Sixth Water above 3 Forks wt. factor	34 251 8,534	10 397 3,970	9 400 3,596	8 397 3,176	9 397 3,573	11 454 4,994	35 306 10,719	121 293 35,453	242 272 65,824	288 165 47,520	225 161 36,225	122 174 21,228	Simple	306	
Measured														Flow Weighted	220	454
Diamond Fork Creek below Three Forks	Flows Diamond Fork above 3 Forks + previous reach wt. factor	39 251 9,789	16 397 6,352	14 400 5,593	12 397 4,764	14 397 5,558	19 454 8,626	67 306 20,519	180 293 52,740	260 272 70,720	295 165 48,675	230 161 37,030	128 174 22,272	Simple	306	
Measured														Flow Weighted	230	454
Diamond Fork Creek below Red Hollow	Flows Diamond Fork below Red Hollow wt. factor	39 283 11,037	16 360 5,760	14 351 4,907	12 362 4,344	14 379 5,306	19 365 6,935	67 302 20,234	180 278 50,040	260 240 62,400	295 182 53,690	230 177 40,710	128 193 24,704	Simple	289	
Measured														Flow Weighted	228	379
Intermediate Point (Diamond Fork Creek at Mouth)	Flows Diamond Fork at Hayes wt. factor	39 268 10,452	16 358 5,728	14 311 4,354	12 362 4,344	14 379 5,306	19 371 7,049	67 302 20,234	180 284 51,120	260 279 72,540	293 195 57,135	230 191 43,930	128 200 25,600	Simple	292	
Measured														Flow Weighted	242	379
Spanish Fork River at Castilla Gage	Flows Spanish Fork at Castilla wt. factor	93 417 38,781	70 482 33,740	68 466 31,711	67 476 31,892	82 456 37,392	113 500 56,500	247 396 97,812	465 326 151,590	405 274 110,970	363 264 95,832	283 259 73,297	178 309 55,002	Simple	385	
Measured														Flow Weighted	335	500
Intermediate Point (Spanish Fork River below East Bench Diversion Dam)	Flows Spanish Fork at Castilla wt. factor	5 417 2,085	0 482 -	0 466 -	0 476 -	0 456 -	0 500 -	25 396 9,900	100 326 32,600	54 274 14,796	42 264 11,088	32 259 8,288	17 309 5,253	Simple	385	
Measured														Flow Weighted	305	500
Spanish Fork River at Lake Shore	Flows Spanish Fork at Lakeshore wt. factor	30 436 13,080	67 491 32,897	77 466 35,908	79 476 37,604	97 532 51,604	129 516 66,564	199 490 97,510	138 310 42,780	22 322 7,084	3 288 1,164	3 459 1,377	8 399 3,192	Simple	440	
Measured														Flow Weighted	459	

Temperature, Deep: Below 33 ft Depth

BASELINE

Water Quality Calculation Point	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	deg. C	deg. F
flow in cfs, temperature in degrees C															
Sixth Water Creek below Strawberry Tunnel Outlet	Flows 6th Water above 5th Water wt. factor (degrees F)	6 10.8 65 51	6 18.7 112 66	6 2.6 16 37	6 2.0 12 36	6 2.0 12 36	7 2.7 19 37	14 3.5 49 38	21 7.4 155 45	11 12.2 134 54	7 12.9 90 55	6 12.9 77 53	6 11.4 68 53	Simple	8.3 47 7.9 46
Measured														Flow Weighted	
Sixth Water Creek below Sixth Water Aqueduct	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor (degrees F)	31 7.7 239 46	7 16.8 118 62	6 2.6 16 37	6 2.0 12 36	6 2.0 12 36	7 2.7 19 37	20 3.1 62 38	94 9.0 849 48	233 13.9 3,242 57	284 19.4 5,520 67	223 19.2 4,287 67	119 16.8 2,001 62	Simple	9.6 49 15.8 60
Measured														Flow Weighted	
Sixth Water Creek below Fifth Water Creek	Flows Sixth Water above 3 Forks wt. factor (degrees F)	34 10.8 367 51	10 18.7 187 66	9 2.6 23 37	8 2.0 16 36	9 2.0 18 36	11 2.7 30 37	35 3.5 123 38	121 7.4 895 45	242 12.2 2,952 54	288 12.9 3,715 55	225 12.9 2,903 53	122 11.4 1,391 53	Simple	8.3 47 11.3 52
Measured														Flow Weighted	
Diamond Fork Creek below Three Forks	Flows Diamond Fork above 3 Forks + previous reach wt. factor (degrees F)	39 10.8 421 51	16 18.7 299 66	14 2.6 36 37	12 2.0 24 36	14 2.0 28 36	19 2.7 51 37	67 3.5 235 38	180 7.4 1,332 45	260 12.2 3,172 54	295 12.9 3,806 55	230 12.9 2,967 53	128 11.4 1,459 53	Simple	8.3 47 10.9 52
Measured														Flow Weighted	
Diamond Fork Creek below Red Hollow	Flows Diamond Fork below Red Hollow wt. factor (degrees F)	39 11.0 429 52	16 4.4 70 40	14 4.0 56 39	12 2.0 24 36	14 4.0 56 39	19 2.4 56 36	67 7.9 46 44	180 6.7 531 44	260 12.0 1,206 54	295 13.9 3,120 57	230 13.5 4,101 56	128 11.4 1,459 53	Simple	7.8 46 11.1 52
Measured														Flow Weighted	
Intermediate Point (Diamond Fork Creek at Mouth)	Flows Diamond Fork at Hayes wt. factor (degrees F)	39 9.0 351 48	16 4.4 70 40	14 6.4 90 44	12 2.6 31 37	14 4.7 66 40	19 4.6 87 40	67 9.0 603 48	180 8.2 1,476 47	260 10.5 2,730 51	293 12.8 3,750 55	230 12.6 2,898 55	128 10.5 1,344 51	Simple	7.9 46 10.6 51
Measured														Flow Weighted	
Spanish Fork River at Castilla Gage	Flows Spanish Fork at Castilla wt. factor (degrees F)	93 9.5 884 49	70 4.9 343 41	68 5.1 347 41	67 2.0 134 36	82 4.0 328 39	113 5.0 565 41	247 8.9 2,198 48	465 8.4 3,906 47	405 12.2 4,941 54	363 13.3 4,828 56	283 13.0 3,679 55	178 10.5 1,869 51	Simple	8.1 47 9.9 50
Measured														Flow Weighted	
Intermediate Point (Spanish Fork River below East Bench Diversion Dam)	Flows Spanish Fork at Castilla wt. factor (degrees F)	5 9.5 48 49	0 4.9 - 41	0 5.1 - 41	0 2.0 - 36	0 4.0 - 39	0 5.0 - 41	25 8.9 223 48	100 8.4 840 47	54 12.2 659 54	42 13.3 559 56	32 13.0 4,16 55	17 10.5 179 51	Simple	8.1 47 10.6 51
Measured														Flow Weighted	
Spanish Fork River at Lake Shore	Flows Spanish Fork at Lakeshore wt. factor (degrees F)	30 9.5 285 49	67 4.9 328 41	77 5.8 448 42	79 3.3 261 38	97 5.9 574 43	129 5.2 675 41	199 8.8 1,751 48	138 10.1 1,395 50	22 16.5 363 62	3 16.3 49 61	3 14.7 44 58	8 16.3 130 61	Simple	9.8 50 7.4 45
Measured														Flow Weighted	

Temperature, Minimum Deep: Below 33 ft Depth, Measured Minimum Monthly Average

BASELINE

Water Quality Calculation Point	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average	
															deg. C	deg. F
Sixth Water Creek below Strawberry Tunnel Outlet	Flows 6th Water above 5th Water wt. factor (degrees F)	6 10.8 65 51	6 18.7 112 66	6 2.6 16 37	6 2.0 12 36	6 2.0 12 36	7 2.7 19 37	14 3.5 49 38	21 7.4 155 45	11 12.2 134 54	7 12.9 90 55	6 12.9 77 55	6 11.4 68 53	Simple Flow Weighted	8.3 7.9	47 46
Sixth Water Creek below Sixth Water Aqueduct	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor (degrees F)	31 8.2 255 47	7 17.2 121 63	6 2.6 16 37	6 2.0 12 36	6 2.0 12 36	7 2.7 19 37	20 3.6 71 38	94 9.1 856 48	233 9.3 2,177 49	284 6.8 1,919 44	223 8.9 1,987 48	119 7.0 837 45	Simple Flow Weighted	6.6 8.0	44 46
Sixth Water Creek below Fifth Water Creek	Flows Sixth Water above 3 Forks wt. factor (degrees F)	34 10.8 367 51	10 18.7 187 66	9 2.6 23 37	8 2.0 16 36	9 2.0 18 36	11 2.7 30 37	35 3.5 123 38	121 7.4 895 45	242 12.2 2,952 54	288 12.9 3,715 55	225 12.9 2,903 55	122 11.4 1,391 53	Simple Flow Weighted	8.3 11.3	47 52
Diamond Fork Creek below Three Forks	Flows Diamond Fork above 3 Forks + previous reach wt. factor (degrees F)	39 10.8 421 51	16 18.7 299 66	14 2.6 36 37	12 2.0 24 36	14 2.0 28 36	19 2.7 51 37	67 3.5 235 38	180 7.4 1,332 45	260 12.2 3,172 54	295 12.9 3,806 55	230 12.9 2,967 55	128 11.4 1,459 53	Simple Flow Weighted	8.3 10.9	47 52
Diamond Fork Creek below Red Hollow	Flows Diamond Fork below Red Hollow wt. factor (degrees F)	39 11.0 429 52	16 4.4 70 40	14 4.0 56 39	12 2.0 24 36	14 4.0 56 39	19 2.4 46 36	67 7.9 531 46	180 6.7 1,206 44	260 12.0 3,120 54	295 13.9 4,101 57	230 13.5 3,105 56	128 11.4 1,459 53	Simple Flow Weighted	7.8 11.1	46 52
Intermediate Point (Diamond Fork Creek at Mouth)	Flows Diamond Fork at Hayes wt. factor (degrees F)	39 9.0 351 48	16 4.4 70 40	14 6.4 90 44	12 2.6 31 37	14 4.7 66 40	19 4.6 87 40	67 9.0 603 48	180 8.2 1,476 47	260 10.5 2,730 51	293 12.8 3,750 55	230 12.6 2,898 55	128 10.5 1,344 51	Simple Flow Weighted	7.9 10.6	46 51
Spanish Fork River at Castilla Gage	Flows Spanish Fork at Castilla wt. factor (degrees F)	93 9.5 884 49	70 4.9 343 41	68 5.1 347 41	67 2.0 134 36	82 4.0 328 39	113 5.0 565 41	247 8.9 2,198 48	465 8.4 3,906 47	405 12.2 4,941 54	363 13.3 4,828 56	283 13.0 3,679 55	178 10.5 1,869 51	Simple Flow Weighted	8.1 9.9	47 50
Intermediate Point (Spanish Fork River below East Bench Diversion Dam)	Flows Spanish Fork at Castilla wt. factor (degrees F)	5 9.5 48 49	0 4.9 - 41	0 5.1 - 41	0 2.0 - 36	0 4.0 - 39	0 5.0 - 41	25 8.9 223 48	100 8.4 840 47	54 12.2 659 54	42 13.3 559 56	32 13.0 416 55	17 10.5 179 51	Simple Flow Weighted	8.1 10.6	47 51
Spanish Fork River at Lake Shore	Flows Spanish Fork at Lakeshore wt. factor (degrees F)	30 9.5 285 49	67 4.9 328 41	77 5.8 448 42	79 3.3 261 38	97 5.9 574	129 5.2 675 41	199 8.8 1,751 48	138 10.1 1,395 50	22 16.5 363 62	3 16.3 49 61	3 14.7 44 58	8 16.3 130 61	Simple Flow Weighted	9.8 7.4	50

Temperature, Mixed: Measured Average of All Depths

BASELINE

Water Quality Calculation Point	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average	
		cfs													deg. C	deg. F
Sixth Water Creek below Strawberry Tunnel Outlet	Flows 6th Water above 5th Water wt. factor (degrees F)	6 10.8 65 51	6 18.7 112 66	6 2.6 16 37	6 2.0 12 36	6 2.0 12 36	7 2.7 19 37	14 3.5 49 38	21 7.4 155 45	11 12.2 134 54	7 12.9 90 55	6 12.9 77 55	6 11.4 68 53	Simple Flow Weighted	8.3 7.9	47 46
Sixth Water Creek below Sixth Water Aqueduct	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor (degrees F)	31 9.7 300 49	7 16.4 115 62	6 2.6 16 37	6 2.0 12 36	6 2.0 12 36	7 2.7 19 37	20 3.7 73 39	94 7.3 685 45	233 11.8 2,754 53	284 10.1 2,860 50	223 12.5 2,790 55	119 11.0 1,311 52	Simple Flow Weighted	7.6 10.6	46 51
Sixth Water Creek below Filth Water Creek	Flows Sixth Water above 3 Forks wt. factor (degrees F)	34 10.8 367 51	10 18.7 187 66	9 2.6 23 37	8 2.0 16 36	9 2.0 18 36	11 2.7 30 37	35 3.5 123 38	121 7.4 895 45	242 12.2 2,952 54	288 12.9 3,715 55	225 12.9 2,903 55	122 11.4 1,391 53	Simple Flow Weighted	8.3 11.3	47 52
Diamond Fork Creek below Three Forks	Flows Diamond Fork above 3 Forks + previous reach wt. factor (degrees F)	39 10.8 421 51	16 18.7 299 66	14 2.6 36 37	12 2.0 24 36	14 2.0 28 36	19 2.7 51 37	67 3.5 235 38	180 7.4 1,332 45	260 12.2 3,172 54	295 12.9 3,806 55	230 12.9 2,967 55	128 11.4 1,459 53	Simple Flow Weighted	8.3 10.9	47 52
Diamond Fork Creek below Red Hollow	Flows Diamond Fork below Red Hollow wt. factor (degrees F)	39 11.0 429 52	16 4.4 70 40	14 4.0 56 39	12 2.0 24 36	14 4.0 56 39	19 2.4 46 36	67 7.9 531 46	180 6.7 1,206 44	260 12.0 3,120 54	295 13.9 4,101 57	230 13.5 3,105 56	128 11.4 1,459 53	Simple Flow Weighted	7.8 11.1	46 52
Intermediate Point (Diamond Fork Creek at Mouth)	Flows Diamond Fork at Hayes wt. factor (degrees F)	39 9.0 351 48	16 4.4 70 40	14 6.4 90 44	12 2.6 31 37	14 4.7 66 40	19 4.6 87 40	67 9.0 603 48	180 8.2 1,476 47	260 10.5 2,730 51	293 12.8 3,750 55	230 12.6 2,898 55	128 10.5 1,344 51	Simple Flow Weighted	7.9 10.6	46 51
Spanish Fork River at Castilla Gage	Flows Spanish Fork at Castilla wt. factor (degrees F)	93 9.5 884 49	70 4.9 343 41	68 5.1 347 41	67 2.0 134 36	82 4.0 328 39	113 5.0 565 41	247 8.9 2,198 48	465 8.4 3,906 47	405 12.2 4,941 54	363 13.3 4,828 54	283 13.0 3,679 56	178 10.5 1,869 51	Simple Flow Weighted	8.1 9.9	47 50
Intermediate Point (Spanish Fork River below East Bench Diversion Dam)	Flows Spanish Fork at Castilla wt. factor (degrees F)	5 9.5 48 49	0 4.9 - 41	0 5.1 -	0 2.0 -	0 4.0 -	0 5.0 -	25 8.9 223 48	100 8.4 840 47	54 12.2 659 54	42 13.3 559 56	32 13.0 416 55	17 10.5 179 51	Simple Flow Weighted	8.1 10.6	47 51
Spanish Fork River at Lake Shore	Flows Spanish Fork at Lakeshore wt. factor (degrees F)	30 9.5 285 49	67 4.9 328 41	77 5.8 448 42	79 3.3 261 38	97 5.9 574 43	129 5.2 675 41	199 8.8 1,751 48	138 10.1 1,395 50	22 16.5 363 62	3 16.3 49 61	3 14.7 44 58	8 16.3 130 61	Simple Flow Weighted	9.8 7.4	50 45

TP, Mixed: Total Phosphorous, Historical Average of All Depths

BASELINE

Water Quality Calculation Point	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average	Maximum
flow in cfs, concentration in mg/L																
Sixth Water Creek below Strawberry Tunnel Outlet	Flows 6th Water above 5th Water wt. factor	6 0.063 0.378	6 0.035 0.210	6 0.004 0.021	6 0.012 0.072	6 0.003 0.018	7 0.006 0.042	14 0.189 2.646	21 0.108 2.268	11 0.102 1.122	7 0.069 0.483	6 0.079 0.474	6 0.120 0.720	Simple Flow Weighted	0.066 0.083	0.189
Sixth Water Creek below Sixth Water Aqueduct	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor	31 0.039 1.198	7 0.042 0.295	6 0.004 0.021	6 0.012 0.072	6 0.003 0.018	7 0.006 0.042	20 0.139 2.789	94 0.057 5.356	233 0.061 14.309	284 0.074 20.981	223 0.002 0.474	119 0.006 0.720	Simple Flow Weighted	0.037 0.045	0.139
Sixth Water Creek below Fifth Water Creek	Flows Sixth Water above 3 Forks wt. factor	34 0.063 2.142	10 0.035 0.350	9 0.004 0.032	8 0.012 0.096	9 0.012 0.108	11 0.006 0.066	35 0.189 6.615	121 0.108 13.068	242 0.102 24.684	288 0.069 19.872	225 0.079 17.775	122 0.180 21.960	Simple Flow Weighted	0.072 0.096	0.189
Diamond Fork Creek below Three Forks	Flows Diamond Fork above 3 Forks + previous reach wt. factor	39 0.063 2.457	16 0.035 0.560	14 0.004 0.049	12 0.012 0.144	14 0.012 0.168	19 0.006 0.114	67 0.189 12.663	180 0.108 19.440	260 0.102 26.520	295 0.069 20.355	230 0.079 18.170	128 0.180 23.040	Simple Flow Weighted	0.072 0.097	0.189
Diamond Fork Creek below Red Hollow	Flows Diamond Fork below Red Hollow wt. factor	39 0.044 1.716	16 0.052 0.832	14 0.000 0.000	12 0.015 0.180	14 0.020 0.280	19 0.008 0.152	67 0.200 13.400	180 0.100 18.000	260 0.112 29.120	295 0.077 22.715	230 0.085 19.550	128 0.168 21.504	Simple Flow Weighted	0.073 0.200	
Intermediate Point (Diamond Fork Creek at Mouth)	Flows Diamond Fork at Hayes wt. factor	39 0.044 1.716	16 0.042 0.672	14 0.000 0.000	12 0.015 0.180	14 0.020 0.280	19 0.018 0.342	67 0.200 13.400	180 0.221 39.780	260 0.136 35.360	293 0.095 27.835	230 0.115 26.450	128 0.172 22.016	Simple Flow Weighted	0.090 0.132	0.221
Spanish Fork River at Castilla Gage	Flows Spanish Fork at Castilla wt. factor	93 0.025 2.325	70 0.054 3.780	68 0.010 0.680	67 0.038 2.546	82 0.030 2.460	113 0.130 14.690	247 0.173 42.731	465 0.230 106.950	405 0.111 44.955	363 0.082 29.766	283 0.117 33.111	178 0.273 48.594	Simple Flow Weighted	0.106 0.137	0.273
Intermediate Point (Spanish Fork River below East Bench Diversion Dam)	Flows Spanish Fork at Castilla wt. factor	5 0.025 0.125	0 0.054 0.000	0 0.010 0.000	0 0.038 0.000	0 0.030 0.000	0 0.130 0.000	25 0.173 4.325	100 0.230 23.000	54 0.111 5.994	42 0.082 3.444	32 0.117 3.744	17 0.273 4.641	Simple Flow Weighted	0.106 0.165	0.273
Spanish Fork River at Lake Shore	Flows Spanish Fork at Lakeshore wt. factor	30 0.035 1.050	67 0.054 3.618	77 0.020 1.537	79 0.038 3.002	97 0.030 2.910	129 0.242 21.178	199 0.146 29.123	138 0.230 31.740	22 0.111 2.442	3 0.058 0.173	3 0.593 1.779	8 0.273 2.184	Simple Flow Weighted	0.152 0.130	0.273

TP, Deep: Total Phosphorous, Historical Average of Below 33 ft Depth

BASELINE

Water Quality Calculation Point	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average	Maximum
flow in cfs, concentration in mg/L																
Sixth Water Creek below Strawberry Tunnel Outlet Measured	Flows 6th Water above 5th Water wt. factor	6 0.063 0.378	6 0.035 0.210	6 0.004 0.021	6 0.012 0.072	6 0.003 0.018	7 0.006 0.042	14 0.189 2.646	21 0.108 2.268	11 0.102 1.122	7 0.069 0.483	6 0.079 0.474	6 0.120 0.720	Simple Flow Weighted	0.066 0.083	0.189
Sixth Water Creek below Sixth Water Aqueduct Measured	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor	31 0.125 3.878	7 0.036 0.250	6 0.004 0.021	6 0.012 0.072	6 0.003 0.018	7 0.006 0.042	20 0.180 3.606	94 0.125 11.758	233 0.110 25.542	284 0.138 39.263	223 0.138 30.854	119 0.139 16.540	Simple Flow Weighted	0.085 0.127	0.180
Sixth Water Creek below Fifth Water Creek Measured	Flows Sixth Water above 3 Forks wt. factor	34 0.063 2.142	10 0.035 0.350	9 0.004 0.032	8 0.012 0.096	9 0.012 0.108	11 0.006 0.066	35 0.189 6.615	121 0.108 13.068	242 0.102 24.684	288 0.069 19.872	225 0.079 17.775	122 0.180 21.960	Simple Flow Weighted	0.072 0.096	0.189
Diamond Fork Creek below Three Forks Measured	Flows Diamond Fork above 3 Forks + previous reach wt. factor	39 0.063 2.457	16 0.035 0.560	14 0.004 0.049	12 0.012 0.144	14 0.012 0.168	19 0.006 0.114	67 0.189 12.663	180 0.108 19.440	260 0.102 26.520	295 0.069 20.355	230 0.079 18.170	128 0.180 23.040	Simple Flow Weighted	0.072 0.097	0.189
Diamond Fork Creek below Red Hollow Measured	Flows Diamond Fork below Red Hollow wt. factor	39 0.044 1.716	16 0.052 0.832	14 0.000 0.000	12 0.015 0.180	14 0.020 0.280	19 0.008 0.152	67 0.200 13.400	180 0.100 18.000	260 0.112 29.120	295 0.077 22.715	230 0.085 19.550	128 0.168 21.504	Simple Flow Weighted	0.073 0.100	0.200
Intermediate Point (Diamond Fork Creek at Mouth) Measured	Flows Diamond Fork at Hayes wt. factor	39 0.044 1.716	16 0.042 0.672	14 0.000 0.000	12 0.015 0.180	14 0.020 0.280	19 0.018 0.342	67 0.200 13.400	180 0.221 39.780	260 0.136 35.360	293 0.095 27.835	230 0.115 26.450	128 0.172 22.016	Simple Flow Weighted	0.090 0.132	0.221
Spanish Fork River at Castilla Gage Measured	Flows Spanish Fork at Castilla wt. factor	93 0.025 2.325	70 0.054 3.780	68 0.010 0.680	67 0.038 2.546	82 0.030 2.460	113 0.130 14.690	247 0.173 42.731	465 0.230 106.950	405 0.111 44.955	363 0.082 29.766	283 0.117 33.111	178 0.273 48.594	Simple Flow Weighted	0.106 0.137	0.273
Intermediate Point (Spanish Fork River below East Bench Diversion Dam) Measured	Flows Spanish Fork at Castilla wt. factor	5 0.025 0.125	0 0.054 0.000	0 0.010 0.000	0 0.038 0.000	0 0.030 0.000	0 0.130 0.000	25 0.173 4.325	100 0.230 23.000	54 0.111 5.994	42 0.082 3.444	32 0.117 3.744	17 0.273 4.641	Simple Flow Weighted	0.106 0.165	0.273
Spanish Fork River at Lake Shore Measured	Flows Spanish Fork at Lakeshore wt. factor	30 0.035 1.050	67 0.054 3.618	77 0.020 1.537	79 0.038 3.002	97 0.030 2.910	129 0.242 31.178	199 0.146 29.123	138 0.230 31.740	22 0.111 2.442	3 0.058 0.173	3 0.593 1.779	8 0.273 2.184	Simple Flow Weighted	0.152 0.130	0.593

Turbidity

BASELINE

Water Quality Calculation Point	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average	Maximum
		flow in cfs, concentration in NTU														
Sixth Water Creek below Strawberry Tunnel Outlet	Flows 6th Water above 5th Water wt. factor	6 2.2 13.2	6 1.0 6.0	6 0.0 0.0	6 2.0 12.0	6 5.0 30.0	7 7.3 51.3	14 35.0 490.0	21 13.5 283.5	11 75.3 827.8	7 28.0 196.0	6 35.0 210.0	6 3.5 21.0	Simple	17.3	75.3
Sixth Water Creek below Sixth Water Aqueduct	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor	31 2.0 60.5	7 1.1 7.9	6 0.0 0.0	6 2.0 12.0	6 5.0 30.0	7 7.3 51.3	20 25.1 501.1	94 4.5 426.6	233 4.0 923.2	284 0.8 215.6	223 2.7 594.1	119 1.5 178.1	Flow Weighted	21.0	
Sixth Water Creek below Filth Water Creek	Flows Sixth Water above 3 Forks wt. factor	34 2.2 74.8	10 1.0 10.0	9 0.0 0.0	8 2.0 16.0	9 5.0 45.0	11 7.3 80.7	35 35.0 1225.0	121 13.5 1633.5	242 75.3 18210.5	288 28.0 8064.0	225 35.0 7875.0	122 3.5 427.0	Simple	4.7	25.1
Diamond Fork Creek below Three Forks	Flows Diamond Fork above 3 Forks + previous reach wt. factor	39 2.2 85.8	16 1.0 16.0	14 0.0 0.0	12 2.0 24.0	14 5.0 70.0	19 7.3 139.3	67 35.0 2345.0	180 13.5 2430.0	260 75.3 19565.0	295 28.0 8260.0	230 35.0 8050.0	128 3.5 448.0	Flow Weighted	33.8	
Diamond Fork Creek below Red Hollow	Flows Diamond Fork below Red Hollow wt. factor	39 2.6 101.4	16 3.0 48.0	14 1.5 21.0	12 12.0 144.0	14 7.1 99.4	19 15.7 297.7	67 51.0 3417.0	180 29.7 5340.0	260 81.0 21060.0	295 27.0 7965.0	230 20.5 4715.0	128 71.5 9152.0	Simple	17.3	75.3
Intermediate Point (Diamond Fork Creek at Mouth)	Flows Diamond Fork at Hayes wt. factor	39 2.6 101.4	16 1.0 16.0	14 0.9 12.6	12 3.6 43.2	14 7.1 99.4	19 13.7 260.3	67 120.0 8040.0	180 50.0 9000.0	260 96.4 25064.0	293 28.0 8204.0	230 116.4 26772.0	128 5.8 742.4	Flow Weighted	37.1	120.0
Spanish Fork River at Castilla Gage	Flows Spanish Fork at Castilla wt. factor	93 18.3 1701.9	70 3.0 210.0	68 2.2 149.6	67 5.8 388.6	82 20.1 1648.2	113 53.6 6056.8	247 212.0 52364.0	465 63.0 29295.0	405 57.6 23328.0	363 29.7 10781.1	283 201.0 56883.0	178 300.4 53471.2	Simple	80.6	300.4
Intermediate Point (Spanish Fork River below East Bench Diversion Dam)	Flows Spanish Fork at Castilla wt. factor	5 18.3 91.5	0 3.0 0.0	0 2.2 0.0	0 5.8 0.0	0 20.1 0.0	0 53.6 0.0	25 212.0 5300.0	100 63.0 6300.0	54 57.6 3110.4	42 29.7 1247.4	32 201.0 6432.0	17 300.4 5106.8	Flow Weighted	80.6	300.4
Spanish Fork River at Lake Shore	Flows Spanish Fork at Lakeshore wt. factor	30 34.0 1018.5	67 3.0 201.0	77 3.4 260.3	79 8.0 629.6	97 33.1 3210.7	129 93.5 +055.1	199 304.0 60496.0	138 75.9 10474.2	22 18.8 413.6	3 31.4 94.2	3 285.6 866.7	8 755.0 6040.0	Simple	137.1	755.0
														Flow Weighted	112.4	

TSS: Total Suspended Solids
BASELINE

Water Quality Calculation Point	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average	Maximum			
flow in cfs, concentration in mg/L																			
Sixth Water Creek below Strawberry Tunnel Outlet	Flows 6th Water above 5th Water w.t. factor	6 16.8	6 0.0	6 30.0	6 30.0	6 0.0	7 29.4	14 830.2	21 1669.5	11 149.2	7 1641.2	6 9.3	6 65.1	6 12.8	4.2 76.8	25.2 43.3	Simple Flow Weighted	27.6 43.3	149.2
Measured		2.8 1.9	0.0 0.4	5.0 30.0	5.0 30.0	0.0 0.0	4.2 29.4	59.3 844.1	79.5 1936.0	149.2 1641.2	9.3 65.1	12.8 526.0	4.2 638.8	2.4 5.4	7.9 5.6	7.9 42.2			
Sixth Water Creek below Sixth Water Aqueduct	Flows 6th Water above 5th Water + Strawberry Reservoir w.t. factor	31 57.6	7 3.0	6 30.0	6 30.0	6 0.0	7 29.4	20 42.2	94 20.6	233 1641.2	284 7.0	223 0.2	119 526.0						
Measured		1.9 57.6	0.4 3.0	5.0 30.0	5.0 30.0	0.0 0.0	4.2 29.4	42.2 844.1	20.6 1936.0	1641.2 7.0	0.2 65.1	2.4 526.0	5.4 638.8	5.4 5.6	7.9 5.6	7.9 42.2			
Sixth Water Creek below Fifth Water Creek	Flows Sixth Water above 3 Forks w.t. factor	34 95.2	10 0.0	9 45.0	8 40.0	9 0.0	11 46.2	35 2075.5	121 59.3	242 79.5	288 9619.5	225 149.2	122 36106.4	4.2 2678.4	12.8 2880.0	4.2 512.4	27.6 48.6	27.6 48.6	149.2
Measured		2.8 109.2	0.0 0.0	5.0 70.0	5.0 60.0	0.0 0.0	4.2 79.8	59.3 3973.1	79.5 14310.0	149.2 38792.0	9.3 2743.5	12.8 2944.0	4.2 537.6	4.2 537.6	27.6 49.9	27.6 49.9	149.2		
Diamond Fork Creek below Three Forks	Flows Diamond Fork above 3 Forks + previous reach w.t. factor	39 109.2	16 0.0	14 70.0	12 60.0	14 0.0	19 79.8	67 3973.1	180 14310.0	260 38792.0	295 2743.5	230 2944.0	128 537.6						
Measured		2.8 109.2	0.0 0.0	5.0 70.0	5.0 60.0	0.0 0.0	4.2 79.8	59.3 3973.1	79.5 14310.0	149.2 38792.0	9.3 2743.5	12.8 2944.0	4.2 537.6	4.2 537.6	27.6 49.9	27.6 49.9	149.2		
Diamond Fork Creek below Red Hollow	Flows Diamond Fork below Red Hollow w.t. factor	39 148.2	16 32.0	14 70.0	12 112.8	14 119.0	19 304.0	67 11671.4	180 115.0	260 148.0	295 13.2	230 3887.0	128 844.8	128 844.8	43.2 63.0	43.2 63.0	174.2		
Measured		3.6 148.2	2.0 32.0	5.0 70.0	9.4 112.8	8.5 119.0	16.0 304.0	174.2 11671.4	115.0 20700.0	148.0 38480.0	13.2 3887.0	16.9 844.8	6.6 63.0	6.6 63.0	43.2 63.0	43.2 63.0	174.2		
assume same																			
Intermediate Point (Diamond Fork Creek at Mouth)	Flows Diamond Fork at Hayes w.t. factor	39 156.0	16 54.4	14 70.0	12 112.8	14 119.0	19 190.0	67 11671.4	180 28080.0	260 25350.0	293 17492.1	230 15847.0	128 4224.0	128 4224.0	52.5 81.3	52.5 81.3	174.2		
Measured		4.0 156.0	3.4 54.4	5.0 70.0	9.4 112.8	8.5 119.0	10.0 190.0	174.2 11671.4	156.0 28080.0	97.5 25350.0	59.7 17492.1	68.9 15847.0	33.0 4224.0	33.0 4224.0	52.5 81.3	52.5 81.3	174.2		
Spanish Fork River at Castilla Gage	Flows Spanish Fork at Castilla w.t. factor	93 855.6	70 420.0	68 856.8	67 998.3	82 3362.0	113 4791.2	247 149929.0	465 157635.0	405 63180.0	363 22506.0	283 33677.0	178 20826.0	178 20826.0	127.2 188.6	127.2 188.6	607.0		
Measured		9.2 855.6	6.0 420.0	12.6 856.8	14.9 998.3	41.0 3362.0	42.4 4791.2	607.0 149929.0	339.0 157635.0	156.0 63180.0	62.0 22506.0	119.0 33677.0	117.0 20826.0	117.0 20826.0	127.2 188.6	127.2 188.6	607.0		
Intermediate Point (Spanish Fork River below East Bench Diversion Dam)	Flows Spanish Fork at Castilla w.t. factor	5 46.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	25 15175.0	100 33900.0	54 8424.0	42 2604.0	32 3808.0	17 1989.0	17 1989.0	127.2 239.8	127.2 239.8	607.0		
Measured		9.2 46.0	6.0 0.0	12.6 0.0	14.9 0.0	41.0 0.0	42.4 0.0	607.0 15175.0	339.0 33900.0	156.0 8424.0	62.0 2604.0	119.0 3808.0	117.0 1989.0	117.0 1989.0	127.2 239.8	127.2 239.8	607.0		
Spanish Fork River at Lake Shore	Flows Spanish Fork at Lakeshore w.t. factor	30 2874.0	67 402.0	77 1555.4	79 1611.6	97 7139.2	129 28418.7	199 206960.0	138 17871.0	22 660.0	3 97.2	3 1788.0	8 964.0	8 964.0	198.7 317.3	198.7 317.3	1040.0		
Measured		95.8 2874.0	6.0 402.0	20.2 1555.4	20.4 1611.6	73.6 7139.2	220.3 28418.7	1040.0 206960.0	129.5 17871.0	30.0 660.0	32.4 97.2	596.0 1788.0	120.5 964.0	120.5 964.0	198.7 317.3	198.7 317.3	1040.0		

Nitrate

BASELINE

Water Quality Calculation Point	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average	Maximum
flow in cfs, concentration in mg/L																
Sixth Water Creek below Strawberry Tunnel Outlet	Flows 6th Water above 5th Water wt. factor	6 0.310 1.860	6 0.025 0.150	6 0.467 2.800	6 0.100 0.600	6 0.100 0.600	7 0.000 0.000	14 0.733 10.262	21 0.244 5.124	11 0.327 3.597	7 0.047 0.329	6 0.203 1.218	6 0.164 0.984	Simple	0.227	0.733
Measured														Flow Weighted	0.270	
Sixth Water Creek below Sixth Water Aqueduct	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor	31 0.179 5.535	7 0.043 0.300	6 0.467 2.800	6 0.100 0.600	6 0.100 0.600	7 0.000 0.000	20 0.559 11.180	94 0.092 8.613	233 0.093 21.601	284 0.066 18.639	223 0.149 33.334	119 0.142 16.917	Simple	0.166	0.559
Measured														Flow Weighted	0.116	
Sixth Water Creek below Fifth Water Creek	Flows Sixth Water above 3 Forks wt. factor	34 0.310 10.540	10 0.025 0.250	9 0.467 4.200	8 0.100 0.800	9 0.100 0.900	11 0.140 1.540	35 0.733 25.655	121 0.244 29.524	242 0.327 79.134	288 0.047 13.536	225 0.203 45.675	122 0.164 20.008	Simple	0.238	0.733
Measured														Flow Weighted	0.208	
Diamond Fork Creek below Three Forks	Flows Diamond Fork above 3 Forks + previous reach wt. factor	39 0.310 12.090	16 0.025 0.400	14 0.467 6.533	12 0.100 1.200	14 0.100 1.400	19 0.140 2.660	67 0.733 49.111	180 0.244 43.920	260 0.327 85.020	295 0.047 13.865	230 0.203 46.690	128 0.164 20.992	Simple	0.238	0.733
Measured														Flow Weighted	0.223	
Diamond Fork Creek below Red Hollow	Flows Diamond Fork below Red Hollow wt. factor	39 0.160 6.240	16 0.030 0.480	14 0.110 1.540	12 0.325 3.900	14 0.150 2.100	19 0.125 2.375	67 1.035 69.345	180 0.364 65.520	260 0.438 113.880	295 0.392 115.640	230 0.190 43.700	128 0.150 19.200	Simple	0.289	1.035
Measured														Flow Weighted	0.348	
Intermediate Point (Diamond Fork Creek at Mouth)	Flows Diamond Fork at Hayes wt. factor	39 0.170 6.630	16 0.060 0.960	14 0.113 1.587	12 0.325 3.900	14 0.150 2.100	19 0.067 1.273	67 1.035 69.345	180 0.515 92.700	260 0.486 126.360	293 0.100 29.300	230 0.183 42.090	128 0.126 16.128	Simple	0.278	1.035
Measured														Flow Weighted	0.308	
Spanish Fork River at Castilla Gage	Flows Spanish Fork at Castilla wt. factor	93 1.557 144.801	70 0.115 8.050	68 0.115 7.820	67 0.372 24.924	82 0.100 8.200	113 0.120 13.560	247 0.670 165.490	465 0.470 218.550	405 0.190 76.950	363 0.113 41.019	283 0.183 51.789	178 0.238 42.364	Simple	0.354	1.557
Measured														Flow Weighted	0.330	
Intermediate Point (Spanish Fork River below East Bench Diversion Dam)	Flows Spanish Fork at Castilla wt. factor	5 1.557 7.785	0 0.115 0.000	0 0.115 0.000	0 0.372 0.000	0 0.100 0.000	0 0.120 0.000	25 0.670 16.750	100 0.470 47.000	54 0.190 10.260	42 0.113 4.746	32 0.183 5.856	17 0.238 4.046	Simple		
Measured														Flow Weighted	0.029	
Spanish Fork River at Lake Shore	Flows Spanish Fork at Lakeshore wt. factor	30 0.460 13.800	67 0.115 7.705	77 0.355 27.335	79 0.420 33.180	97 0.370 35.890	129 0.320 11.280	199 0.305 60.695	138 0.470 64.860	22 0.160 3.520	3 0.350 1.050	3 0.183 0.549	8 3.300 26.400	Simple	0.567	3.30
Measured														Flow Weighted	0.371	

pH

BASELINE

Water Quality Calculation Point	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average	Maximum
flow in cfs, concentration in pH units																
Sixth Water Creek below Strawberry Tunnel Outlet	Flows 6th Water above 5th Water wt. factor	6 8.4 50.4	6 8.5 51.0	6 8.4 50.4	6 8.5 51.0	6 8.5 51.0	7 8.4 58.8	14 8.3 116.2	21 8.4 176.4	11 8.2 90.2	7 8.3 58.1	6 8.2 49.2	6 8.2 49.2	Simple	8.4	8.5
Measured														Flow Weighted	8.4	
Sixth Water Creek below Sixth Water Aqueduct	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor	31 8.1 252.2	7 8.4 59.1	6 8.4 50.4	6 8.5 51.0	6 8.5 51.0	7 8.4 58.8	20 8.2 163.0	94 8.2 772.1	233 8.1 1879.5	284 8.0 2276.9	223 7.8 1746.1	119 8.2 981.5	Simple	8.2	8.5
Measured														Flow Weighted	8.1	
Sixth Water Creek below Fifth Water Creek	Flows Sixth Water above 3 Forks wt. factor	34 8.4 285.6	10 8.5 85.0	9 8.4 75.6	8 8.5 68.0	9 8.5 76.5	11 8.4 92.4	35 8.3 290.5	121 8.4 1016.4	242 8.2 1984.4	288 8.3 2390.4	225 8.2 1845.0	122 8.2 1000.4	Simple	8.4	8.5
Measured														Flow Weighted	8.3	
Diamond Fork Creek below Three Forks	Flows Diamond Fork above 3 Forks + previous reach wt. factor	39 8.4 327.6	16 8.5 136.0	14 8.4 117.6	12 8.5 102.0	14 8.5 119.0	19 8.4 159.6	67 8.3 556.1	180 8.4 1512.0	260 8.2 2132.0	295 8.3 2448.5	230 8.2 1886.0	128 8.2 1049.6	Simple	8.4	8.5
Measured														Flow Weighted	8.3	
Diamond Fork Creek below Red Hollow	Flows Diamond Fork below Red Hollow wt. factor	39 8.3 323.7	16 8.3 132.8	14 8.3 116.2	12 8.5 102.0	14 8.4 117.6	19 8.2 155.8	67 8.5 569.5	180 8.3 1494.0	260 8.3 2158.0	295 8.3 2448.5	230 8.2 1886.0	128 8.2 1049.6	Simple	8.3	8.5
Measured														Flow Weighted	8.3	
Intermediate Point (Diamond Fork Creek at Mouth)	Flows Diamond Fork at Hayes wt. factor	39 8.0 312.0	16 8.2 131.2	14 8.3 116.2	12 8.5 102.0	14 8.4 117.6	19 8.0 152.0	67 8.5 569.5	180 8.3 1530.0	260 8.3 2158.0	295 8.3 2431.9	230 8.1 1863.0	128 8.0 1024.0	Simple	8.3	8.5
Measured														Flow Weighted	8.3	
Spanish Fork River at Castilla Gage	Flows Spanish Fork at Castilla wt. factor	93 7.8 725.4	70 7.7 539.0	68 8.4 571.2	67 8.4 562.8	82 8.4 688.8	113 8.0 904.0	247 8.6 2124.2	465 8.2 3813.0	405 8.0 3240.0	363 8.2 2976.6	283 7.8 2207.4	178 7.7 1370.6	Simple	8.1	8.6
Measured														Flow Weighted	8.1	
Intermediate Point (Spanish Fork River below East Bench Diversion Dam)	Flows Spanish Fork at Castilla wt. factor	5 7.8 39.0	0 7.7 0.0	0 8.4 0.0	0 8.4 0.0	0 8.4 0.0	0 8.0 0.0	25 8.6 215.0	100 8.2 820.0	54 8.0 432.0	42 8.2 344.4	32 7.8 249.6	17 7.7 130.9	Simple	8.1	8.6
Measured														Flow Weighted	8.1	
Spanish Fork River at Lake Shore	Flows Spanish Fork at Lakeshore wt. factor	30 8.3 249.9	67 8.4 562.8	77 8.5 655.7	79 8.3 655.7	97 8.4 817.7	129 8.8 1139.1	199 8.7 1721.4	138 9.2 1264.1	22 8.2 180.4	3 8.0 124.0	3 8.1 24.3	8 8.1 64.6	Simple	8.4	9.2
Measured														Flow Weighted	8.6	

Ammonia

BASELINE

Water Quality Calculation Point	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average	Maximum
flow in cfs, concentration in mg/L																
Sixth Water Creek below Strawberry Tunnel Outlet	Flows 6th Water above 5th Water wt. factor	6 0.048 0.288	6 0.000 0.000	6 0.033 0.195	6 0.010 0.060	6 0.010 0.060	7 0.022 0.154	14 0.121 1.700	21 0.007 0.147	11 0.037 0.407	7 0.065 0.455	6 0.013 0.078	6 0.051 0.306	Simple	0.035	0.121
Measured														Flow Weighted	0.038	
Sixth Water Creek below Sixth Water Aqueduct	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor	31 0.015 0.479	7 0.004 0.027	6 0.033 0.195	6 0.010 0.060	6 0.010 0.060	7 0.022 0.154	20 0.113 2.259	94 0.023 2.206	233 0.028 6.623	284 0.023 6.549	223 0.258 4.917	119 30.760	Simple	0.047	0.258
Measured														Flow Weighted	0.052	
Sixth Water Creek below Fifth Water Creek	Flows Sixth Water above 3 Forks wt. factor	34 0.048 1.632	10 0.000 0.000	9 0.033 0.293	8 0.010 0.080	9 0.010 0.090	11 0.022 0.242	35 0.121 4.250	121 0.007 0.847	242 0.037 8.954	288 0.065 18.720	225 0.023 5.175	122 0.051 6.222	Simple	0.036	0.121
Measured														Flow Weighted	0.042	
Diamond Fork Creek below Three Forks	Flows Diamond Fork above 3 Forks + previous reach wt. factor	39 0.048 1.872	16 0.000 0.000	14 0.033 0.455	12 0.010 0.120	14 0.010 0.140	19 0.022 0.418	67 0.121 8.136	180 0.007 1.260	260 0.037 9.620	295 0.065 19.175	230 0.023 5.290	128 0.051 6.528	Simple	0.036	0.121
Measured														Flow Weighted	0.042	
Diamond Fork Creek below Red Hollow	Flows Diamond Fork below Red Hollow wt. factor	39 0.030 1.170	16 0.000 0.000	14 0.013 0.182	12 0.027 0.324	14 0.005 0.070	19 0.005 0.095	67 0.049 3.283	180 0.014 2.520	260 0.012 3.120	295 0.054 15.930	230 0.000 0.000	128 0.038 4.864	Simple	0.021	0.054
Measured														Flow Weighted	0.025	
Intermediate Point (Diamond Fork Creek at Mouth)	Flows Diamond Fork at Hayes wt. factor	39 0.032 1.248	16 0.010 0.160	14 0.013 0.182	12 0.027 0.324	14 0.005 0.070	19 0.008 0.152	67 0.049 3.283	180 0.034 6.120	260 0.012 3.120	293 0.025 7.325	230 0.000 0.000	128 0.018 2.304	Simple	0.019	0.049
Measured														Flow Weighted	0.019	
Spanish Fork River at Castilla Gage	Flows Spanish Fork at Castilla wt. factor	93 0.034 3.162	70 0.026 1.820	68 0.036 2.448	67 0.046 3.082	82 0.005 0.410	113 0.012 1.356	247 0.234 57.798	465 0.010 4.650	405 0.048 19.440	363 0.000 0.000	283 0.000 0.000	178 0.020 3.560	Simple	0.039	0.234
Measured														Flow Weighted	0.040	
Intermediate Point (Spanish Fork River below East Bench Diversion Dam)	Flows Spanish Fork at Castilla wt. factor	5 0.034 0.170	0 0.026 0.000	0 0.036 0.000	0 0.046 0.000	0 0.005 0.000	0 0.012 0.000	25 0.234 5.850	100 0.010 1.000	54 0.048 2.592	42 0.000 0.000	32 0.000 0.000	17 0.020 0.340	Simple	0.039	
Measured														Flow Weighted	0.036	
Spanish Fork River at Lake Shore	Flows Spanish Fork at Lakeshore wt. factor	30 0.069 2.070	67 0.026 1.742	77 0.060 4.620	79 0.066 5.214	97 0.418 40.546	129 0.776 100.104	199 0.418 83.182	138 0.010 1.380	22 0.020 0.440	3 0.251 0.752	3 0.020 0.060	8 0.140 1.120	Simple	0.189	0.776
Measured														Flow Weighted	0.283	

DO, Mixed: Dissolved Oxygen, Historical Average of All Depths

BASELINE

Reach Section	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average	Minimum
flow in cfs, concentration in mg/L																
Sixth Water Creek below Strawberry Tunnel Outlet Measured	Flows 6th Water above 5th Water wt. factor	6 10.2 61.2	6 10.0 60.0	6 11.3 67.8	6 10.6 63.6	6 9.1 54.6	7 11.4 79.8	14 11.0 154.0	21 10.9 228.9	11 10.2 112.2	7 9.8 68.6	6 9.7 58.2	6 10.0 60.0	Simple Flow Weighted	10.4 10.5	9.1
Sixth Water Creek below Sixth Water Aqueduct Measured	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor	31 9.2 285.2	7 9.3 65.1	6 12.6 75.6	6 12.4 74.4	6 10.8 64.8	7 12.6 88.2	20 10.6 212.0	94 7.4 695.6	233 6.8 1584.4	284 7.9 2243.6	223 8.4 1873.2	119 9.9 1178.1	Simple Flow Weighted	9.9 8.2	6.8
Sixth Water Creek below Fifth Water Creek Measured	Flows Sixth Water above 3 Forks wt. factor	34 9.1 309.4	10 10.7 107.0	9 9.5 85.5	8 8.2 65.6	9 5.6 50.4	11 9.7 106.7	35 9.3 325.5	121 9.9 1197.9	242 9.5 2299.0	288 8.9 2563.2	225 8.6 1935.0	122 8.8 1073.6	Simple Flow Weighted	9.0 9.1	5.6
Diamond Fork Creek below Three Forks Measured	Flows Diamond Fork above 3 Forks + previous reach wt. factor	39 9.3 362.7	16 10.4 166.4	14 10.3 144.2	12 9.2 110.4	14 7.1 99.4	19 12.3 233.7	67 9.5 636.5	180 10.0 1800.0	260 9.7 2522.0	295 8.5 2507.5	230 8.3 1909.0	128 8.9 1139.2	Simple Flow Weighted	9.5 9.1	7.1
Diamond Fork Creek below Red Hollow Measured	Flows Diamond Fork below Red Hollow wt. factor	39 9.2 358.8	16 11.2 179.2	14 10.4 145.6	12 11.4 136.8	14 10.8 151.2	19 12.0 228.0	67 9.2 616.4	180 9.9 1782.0	260 9.6 2496.0	295 8.6 2537.0	230 8.5 1955.0	128 8.9 1139.2	Simple Flow Weighted	10.0 9.2	8.5
Intermediate Point (Diamond Fork Creek at Mouth) Measured	Flows Diamond Fork at Hayes wt. factor	39 9.4 366.6	16 11.0 176.0	14 10.2 142.8	12 11.3 135.6	14 10.7 149.8	19 11.5 218.5	67 9.2 616.4	180 10.3 1854.0	260 9.9 2574.0	293 8.9 2607.7	230 8.7 2001.0	128 9.3 1190.4	Simple Flow Weighted	10.1 9.5	8.7
Spanish Fork River at Castilla Gage Measured	Flows Spanish Fork at Castilla wt. factor	93 8.8 818.4	70 10.0 700.0	68 10.8 734.4	67 11.3 757.1	82 10.7 877.4	113 10.8 1220.4	247 9.1 2247.7	465 10.1 4696.5	405 9.6 3888.0	363 8.8 3194.4	283 8.5 2405.5	178 8.8 1566.4	Simple Flow Weighted	9.8 9.5	8.5
Spanish Fork River at Lake Shore Measured	Flows Spanish Fork at Lakeshore wt. factor	30 10.2 306.0	67 10.5 703.5	77 11.1 854.7	79 11.6 916.4	97 11.0 1067.0	129 10.9 1406.1	199 9.3 1850.7	138 10.2 1407.6	22 9.0 198.0	3 8.8 26.4	3 8.5 26.1	8 8.8 64.0	Simple Flow Weighted	10.0 10.4	8.0

DO, Deep: Dissolved Oxygen, Historical Average of Below 33 ft Depth

BASELINE

Reach Section	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Average	Minimum
flow in cfs, concentration in mg/L																
Sixth Water Creek below Strawberry Tunnel Outlet	Flows 6th Water above 5th Water wt. factor	6	6	6	6	6	7	14	21	11	7	6	6	Simple	10.4	10.5
Measured		10.2 61.2	10.0 60.0	11.3 67.8	10.6 63.6	9.1 54.6	11.4 79.8	11.0 154.0	10.9 228.9	10.2 112.2	9.8 68.6	9.7 58.2	10.0 60.0	Flow Weighted	12.0	9.1
Sixth Water Creek below Sixth Water Aqueduct	Flows 6th Water above 5th Water + Strawberry Reservoir wt. factor	31	7	6	6	6	7	20	94	233	284	223	119	Simple	8.9	3.5
Measured		7.5 233.6	9.7 67.9	12.6 75.6	12.4 74.4	11.8 70.8	12.6 88.2	10.5 210.0	8.5 799.0	8.0 1864.0	5.1 1448.4	3.5 781.7	4.7 564.9	Flow Weighted	6.1	
Sixth Water Creek below Fifth Water Creek	Flows Sixth Water above 3 Forks wt. factor	34	10	9	8	9	11	35	121	242	288	225	122	Simple	9.0	5.6
Measured		9.1 309.4	10.7 107.0	9.5 85.5	8.2 65.6	5.6 50.4	9.7 106.7	9.3 325.5	9.9 1197.9	9.5 2299.0	8.9 2563.2	8.6 1935.0	8.8 1073.6	Flow Weighted	9.1	
Diamond Fork Creek below Three Forks	Flows Diamond Fork above 3 Forks + previous reach wt. factor	39	16	14	12	14	19	67	180	260	295	230	128	Simple	9.5	7.1
Measured		9.3 362.7	10.4 166.4	10.3 144.2	9.2 110.4	7.1 99.4	12.3 233.7	9.5 636.5	10.0 1800.0	9.7 2522.0	8.5 2507.5	8.3 1909.0	8.9 1139.2	Flow Weighted	9.1	
Diamond Fork Creek below Red Hollow	Flows Diamond Fork below Red Hollow wt. factor	39	16	14	12	14	19	67	180	260	295	230	128	Simple	10.0	8.5
Measured		9.2 358.8	11.2 179.2	10.4 145.6	11.4 136.8	10.8 151.2	12.0 228.0	9.2 616.4	9.9 1782.0	9.6 2496.0	8.6 2537.0	8.5 1955.0	8.9 1139.2	Flow Weighted	9.2	
Intermediate Point (Diamond Fork Creek at Mouth)	Flows Diamond Fork at Hayes wt. factor	39	16	14	12	14	19	67	180	260	293	230	128	Simple	10.1	8.7
Measured		9.4 366.6	11.0 176.0	10.2 142.8	11.3 135.6	10.7 149.8	11.5 218.5	9.2 616.4	10.3 1854.0	9.9 2574.0	8.9 2607.7	8.7 2001.0	9.3 1190.4	Flow Weighted	9.5	
Spanish Fork River at Castilla Gage	Flows Spanish Fork at Castilla wt. factor	93	70	68	67	82	113	247	465	405	363	283	178	Simple	9.8	8.5
Measured		8.8 818.4	10.0 700.0	10.8 734.4	11.3 757.1	10.7 877.4	10.8 1220.4	9.1 2247.7	10.1 4696.5	9.6 3888.0	8.8 3194.4	8.5 2405.5	8.8 1566.4	Flow Weighted	9.5	
Spanish Fork River at Lake Shore	Flows Spanish Fork at Lakeshore wt. factor	30	67	77	79	97	129	199	138	22	3	3	8	Simple	10.0	8.0
Measured		10.2 306.0	10.5 703.5	11.1 854.7	11.6 916.4	11.0 1067.0	10.9 1406.1	9.3 1850.7	10.2 1407.6	9.0 198.0	8.8 26.4	8.7 26.1	8.0 64.0	Flow Weighted	10.4	

ATTACHMENT C

**PROPOSED ACTION
WATER QUALITY ANALYSIS**

Selenium

PROPOSED ACTION

	Oct	May	Jun	Jul	Aug	Sep	
	Flow in cfs, Concentration in pH units						
Sixth Water Creek							
1 Sixth Water Creek below Strawberry Tunnel Outlet							
WQ from Strawberry Reservoir	28	27	26	27	28	28	
Measured	2.5	0.5	0.5	0.5	2.5	2.5	
Conc.	70	14	13	14	70	70	
Natural Gains: 6th above 5th Water Creek	6	21	11	7	6	6	
Measured	3.8	1.2	0.8	0.5	0.5	0.5	
Conc.	23	25	9	4	3	3	
Wt. Avg	34	48	37	34	34	34	
Wt. Avg	2.7	0.8	0.6	0.5	2.1	2.1	
Conc.	1.4	mean					
wt. factor	2.7	max					
2 Sixth Water Creek below Sixth Water Aqueduct							
WQ from 1	34	48	37	34	34	34	
Measured	2.7	0.8	0.6	0.5	2.1	2.1	
Conc.	93	39	22	17	73	73	
Wt. Avg	37	75	45	38	36	36	
Wt. Avg	2.8	0.9	0.6	0.5	2.1	2.1	
Conc.	1.4	mean					
wt. factor	2.8	max					
3 Sixth Water Creek below Fifth Water Creek							
Natural Gains: 5th Water Creek	3	27	8	4	2	2	
Measured	3.8	1.2	0.8	0.5	0.5	0.5	
Conc.	11	32	6	2	1	1	
WQ from 2	34	48	37	34	34	34	
Measured	2.7	0.8	0.6	0.5	2.1	2.1	
Conc.	93	39	22	17	73	73	
Wt. Avg	37	75	45	38	36	36	
Wt. Avg	2.8	0.9	0.6	0.5	2.1	2.1	
Conc.	1.4	mean					
wt. factor	2.8	max					
Diamond Fork Creek							
4 Diamond Fork Creek below Three Forks							
WQ from 3	37	75	45	38	36	36	
Measured	2.8	0.9	0.6	0.5	2.1	2.1	
Conc.	104	71	28	19	74	74	
Natural Gains: use DF above 3 Forks	5	59	19	7	6	6	
Measured	0.5	0.5	0.5	0.5	0.5	0.5	
Conc.	3	30	10	4	3	3	
Wt. Avg	42	134	64	45	42	42	
Wt. Avg	2.5	0.8	0.6	0.5	1.8	1.8	
Conc.	1.1	mean					
wt. factor	2.5	max					
5 Diamond Fork Creek Below Diamond Fork Creek Outlet							
Additions from Strawberry Reservoir for Minimum Flows	18	6	25	37	38	38	
Measured	2.5	0.5	0.5	0.5	2.5	2.5	
Conc.	45	31	13	19	95	95	
WQ from 4	42	134	64	45	42	42	
Measured	2.5	0.8	0.6	0.5	1.8	1.8	
Conc.	107	101	38	23	77	77	
Wt. Avg	60	140	89	82	80	80	
Wt. Avg	2.5	0.7	0.6	0.5	2.2	2.2	
Conc.	1.3	mean					
wt. factor	2.5	max					
5b Intermediate Point (Diamond Fork Creek at Mouth)							
WQ from 5	60	140	89	82	80	80	
Measured	2.5	0.7	0.6	0.5	2.2	2.2	
Conc.	152	104	50	41	172	172	
Natural Gains: Diamond Fork at Hayes	13	35	33	17	9	12	
Measured	0.8	0.8	1.4	0.5	0.5	0.5	
Conc.	10	26	46	8	5	6	
Wt. Avg	73	175	122	99	89	92	
Wt. Avg	2.2	0.7	0.8	0.5	2.0	1.9	
Conc.	1.2	mean					
wt. factor	2.2	max					
Spanish Fork River							
6 Spanish Fork River at Castilla Gage							
WQ from 5b	73	175	122	99	89	92	
Measured	2.2	0.7	0.8	0.5	2.0	1.9	
Conc.	162	130	96	50	177	178	
WQ from Strawberry Reservoir	21	243	349	345	247	119	
Measured	2.5	0.5	0.5	0.5	2.5	2.5	
Conc.	53	122	175	173	618	298	
Natural Gains: Spanish Fork at Castilla	41	249	112	52	44	38	
Measured	1.2	0.5	0.5	0.5	0.5	1.0	
Conc.	49	125	56	26	22	38	
Wt. Avg	135	667	583	496	380	249	
Wt. Avg	2.0	0.6	0.6	0.5	2.1	2.1	
Conc.	1.0	mean					
wt. factor	2.1	max					
7 Spanish Fork River Above East Bench Diversion Dam							
WQ from 6	43	292	222	165	119	81	
Measured	2.0	0.6	0.6	0.5	2.1	2.1	
Conc.	84	165	124	83	256	167	
Wt. Avg	43	292	222	165	119	81	
Conc.	1.0	mean					
8 Spanish Fork River Below East Bench Diversion Dam							
WQ from 7	37	243	165	118	85	62	
Measured	2.0	0.6	0.6	0.5	2.1	2.1	
Conc.	72	137	93	59	183	128	
Wt. Avg	37	243	165	118	85	62	
Conc.	0.9	mean					
9 Spanish Fork River Below Mill Race Diversion Dam							
WQ from 8	26	195	114	73	48	33	
Measured	2.0	0.6	0.6	0.5	2.1	2.1	
Conc.	51	110	64	37	103	68	
Natural Gains: Spanish Fork at Castilla	56	150	85	64	53	43	
Measured	1.2	0.5	0.5	0.5	0.5	1.0	
Conc.	67	75	43	32	27	43	
Wt. Avg	82	345	199	137	101	76	
Wt. Avg	1.4	0.5	0.5	0.5	1.3	1.5	
Conc.	0.8	mean					
wt. factor	1.5	max					
10 Spanish Fork River at Lake Shore							
WQ from 9	68	322	189	120	86	70	
Measured	1.4	0.5	0.5	0.5	1.3	1.5	
Conc.	98	173	101	60	110	102	
Natural Gains: Spanish Fork at Lakeshore WQ9	0	0	0	0	0	0	
Measured	1.6	1.4	1.2	1.1	1.4	1.5	
Conc.	0	0	0	0	0	0	
Wt. Avg	68	322	189	120	86	70	
Wt. Avg	1.4	0.5	0.5	0.5	1.3	1.5	
Conc.	0.8	mean					
wt. factor	1.5	max					

TDS: Total Dissolved Solids

PROPOSED ACTION

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Flow in cfs, Concentration in mg/L													
Sixth Water Creek													
1 Sixth Water Creek below Strawberry Tunnel Outlet													
WQ from Strawberry Reservoir	28	21	20	20	20	19	20	27	26	27	28	28	
Measured	147	150	151	130	107	170	105	152	142	147	152	143	
Conc. wt. factor	4116	3150	3020	2600	2136	3230	2100	4104	3692	3969	4256	4004	
Natural Gains: 6th above 5th Water Creek	6	6	6	6	6	7	14	21	11	7	6	6	
Measured	251	397	400	397	397	454	306	293	272	165	161	174	
Conc. wt. factor	1506	2582	2397	2382	2382	3178	4288	6153	2992	1155	966	1044	
Wt. Avg	34	27	26	26	26	26	34	48	37	34	34	34	
	165	205	208	192	174	246	188	214	181	151	154	148	mean 246 max
2 Sixth Water Creek below Sixth Water Aqueduct													
WQ from 1	34	27	26	26	26	34	48	37	34	34	34	34	
	165	205	208	192	174	246	188	214	181	151	154	148	
Conc. wt. factor	5622	5532	5417	4982	4518	6408	6388	10257	6684	5124	5222	5048	mean 246 max
3 Sixth Water Creek below Fifth Water Creek													
Natural Gains: 5th Water Creek	3	3	2	2	3	4	14	27	8	4	2	2	
Measured	251	397	400	397	397	454	306	293	272	165	161	174	
Conc. wt. factor	753	1191	799	1191	1191	1816	4288	7911	2176	660	322	348	
WQ from 2	34	27	26	26	26	34	48	37	34	34	34	34	
	165	205	208	192	174	246	188	214	181	151	154	148	
Conc. wt. factor	5622	5532	5417	4982	4518	6408	6388	10257	6684	5124	5222	5048	
Wt. Avg	37	30	28	28	29	30	48	75	45	38	36	36	
	172	224	222	206	197	274	222	242	197	152	154	150	mean 203 max
WQ from 3	37	30	28	28	29	30	48	75	45	38	36	36	
	172	224	222	206	197	274	222	242	197	152	154	150	
Conc. wt. factor	6375	6723	6216	5776	5709	8224	10675	18168	8860	5784	5544	5396	
Natural Gains: use DF above 3 Forks	5	6	5	4	5	8	32	59	19	7	6	6	
Measured	309	308	302	301	301	298	248	221	216	273	297	300	
Conc. wt. factor	1545	1848	1508	1204	1505	2384	7928	13039	4104	1911	1782	1800	
Wt. Avg	42	36	33	32	34	38	80	134	64	45	42	42	
	189	238	234	218	212	279	233	233	203	171	174	171	mean 215 max
5 Diamond Fork Creek Below Diamond Fork Creek Outlet													
Additions from Strawberry Reservoir for Minimum Flow	18	24	27	28	26	22	51	6	25	37	38	38	
Measured	147	150	151	130	107	170	105	152	142	147	152	143	
Conc. wt. factor	2646	3600	4077	3640	2777	3740	525	912	3550	5439	5778	5434	
WQ from 4	42	36	33	32	34	38	80	134	64	45	42	42	
	189	238	234	218	212	279	233	233	203	171	174	171	
Conc. wt. factor	7920	8571	7724	6980	7214	10608	18609	31207	12964	7695	7326	7196	
Wt. Avg	60	60	60	60	60	60	85	140	89	82	80	80	
	176	203	197	177	167	239	225	229	166	160	164	158	mean 192 max
5b Intermediate Point (Diamond Fork Creek at Mouth)													
WQ from 5	60	60	60	60	60	60	85	140	89	82	80	80	
	176	203	197	177	167	239	225	229	166	160	164	158	
Conc. wt. factor	10566	12171	11801	10620	9991	14348	19128	32119	16514	13134	13102	12630	
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	19	34	35	33	17	9	12	
Measured	268	358	311	362	379	371	302	284	279	195	191	200	
Conc. wt. factor	3484	3580	3110	3982	4927	7049	10268	9940	9207	3315	1719	2400	
Wt. Avg	73	70	70	71	73	79	119	175	122	99	89	92	
	192	225	213	206	204	271	247	240	211	166	167	163	mean 211 max
Spanish Fork River													
6 Spanish Fork River at Castilla Gage													
WQ from 5b	73	70	70	71	73	79	119	175	122	99	89	92	
	192	225	213	206	204	271	247	240	211	166	167	163	
Conc. wt. factor	14050	15751	14911	14602	14918	21397	29396	42059	25721	16449	14821	15030	
WQ from Strawberry Reservoir	21	56	67	79	94	105	143	243	349	345	247	119	
Measured	147	150	151	130	107	170	105	152	142	147	152	143	
Conc. wt. factor	3087	8400	10117	10270	10039	17850	15015	36936	49558	50715	37544	17017	
Natural Gains: Spanish Fork at Castilla	41	44	44	44	54	75	145	249	112	52	44	38	
Measured	417	482	466	476	456	500	396	326	274	264	259	309	
Conc. wt. factor	17097	21208	20519	20944	24624	37500	57420	81174	30688	13728	11396	11742	
Wt. Avg	135	170	181	194	221	259	407	667	583	496	380	249	
	254	267	252	236	224	296	250	240	182	163	168	176	mean 217 max
7 Spanish Fork River Above East Bench Diversion Dam													
WQ from 6	43	101	113	126	140	147	180	292	222	165	119	81	
	254	267	252	236	224	296	250	240	182	163	168	176	
Conc. wt. factor	10904	26949	28435	29757	31409	43559	45036	70119	40351	26910	19967	14245	mean 224 max
8 Spanish Fork River Below East Bench Diversion Dam													
WQ from 7	37	101	113	126	140	146	171	243	165	118	85	62	
	254	267	252	236	224	296	250	240	182	163	168	176	
Conc. wt. factor	9383	26949	28435	29757	31409	43263	42784	58352	29991	19244	14262	10903	mean 229 max
9 Spanish Fork River Below Mill Race Diversion Dam													
WQ from 8	26	101	113	126	140	147	160	195	114	73	48	33	
	254	267	252	236	224	296	250	240	182	163	168	176	
Conc. wt. factor	6593	26949	28435	29757	31409	43559	40032	46826	20721	11905	8054	5803	
Natural Gains: Spanish Fork at Castilla	56	69	68	67	81	111	181	150	85	64	53	43	
Measured	417	482	466	476	456	500	396	326	274	264	259	309	
Conc. wt. factor	23352	33258	31711	31892	36936	55500	71676	48900	23290	16896	13727	13287	
Wt. Avg	82	170	181	193	221	258	341	345	199	137	101	76	
	365	354	332	319	309	384	328	277	221	210	216	251	mean 304 max
10 Spanish Fork River at Lake Shore													
WQ from 9	68	168	181	193	221	258	341	322	189	120	86	70	
	365	354	332	319	309	384	328	277	221	210	216	251	
Conc. wt. factor	24833	59498	60146	61649	68345	99059	111708	89344	41799	25228	18546	17583	
Natural Gains: Spanish Fork at Lakeshore WQ9	0	0	9	12	15	18	11	0	0	0	0	0	
Measured	436	491	466	476	532	516	490	310	322	388	459	399	
Conc. wt. factor	0	0	4197	5712	7980	9288	5390	0	0	0	0	0	
Wt. Avg	68	168	190	205	236	276	352	322	189	120	86	70	
	365	354	339	328	323	393	333	277	221	210	216	251	mean 311 max

Temperature, Deep: Below 33 ft Depth

PROPOSED ACTION

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Overall	
	deg. C												Deg. C	Deg. F
Sixth Water Creek														
1 Sixth Water Creek below Strawberry Tunnel Outlet														
WO from Strawberry Reservoir	28	21	20	20	20	18	20	27	26	27	28	28		
Measured	Temp	10.0	8.4	2.3	2.3	2.3	4.1	9.6	9.2	11.4	12.2	13.0		
wt. factor	280	176	46	46	47	54	82	259	239	308	341	364		
Natural Gains: 6th above 5th Water Creek	6	6	6	6	6	7	14	21	11	7	6	6		
Measured	Temp	10.8	18.7	2.6	2.0	2.0	2.7	3.5	7.4	12.2	12.9	11.4		
wt. factor	65	112	16	12	12	19	49	155	134	80	77	68		
Tot. Flow	34	27	26	26	26	26	34	48	37	34	34	34		
Wt. Avg	10.1	10.7	2.4	2.2	2.3	2.8	3.9	8.6	10.1	11.7	12.3	12.7	Mean	7.9 46
Deg. F	50	51	36	36	36	37	39	48	50	53	54	55	Max	12.7 55
2 Sixth Water Creek below Sixth Water Aqueduct														
WO from 1	34	27	26	26	26	26	34	48	37	34	34	34		
Temp.	10.1	10.7	2.4	2.2	2.3	2.8	3.9	8.6	10.1	11.7	12.3	12.7		
wt. factor	345	289	62	58	59	73	131	415	373	398	418	432		
Deg. F	50	51	36	36	36	37	39	48	50	53	54	55	Mean	7.9 46
Max														12.7 55
3 Sixth Water Creek below Fifth Water Creek														
Natural Gains: 5th Water Creek	3	3	2	2	3	4	14	27	6	4	2	2		
Measured	Temp	10.8	18.7	2.6	2.0	2.0	2.7	3.5	7.4	12.2	12.9	11.4		
wt. factor	32	56	5	4	6	13	49	200	98	52	26	23		
WQ from 2	34	27	26	26	26	26	34	48	37	34	34	34		
Temp	10.1	10.7	2.4	2.2	2.3	2.8	3.9	8.6	10.1	11.7	12.3	12.7		
wt. factor	345	289	62	58	59	73	131	415	373	398	418	432		
Tot. Flow	37	30	28	28	29	30	48	75	45	38	36	36		
Wt. Avg	10.2	11.5	2.4	2.2	2.2	2.8	3.8	8.2	10.5	11.8	12.3	12.6	Mean	7.9 46
Deg. F	50	53	36	36	36	37	39	47	51	53	54	55	Max	12.6 55
Diamond Fork Creek														
4 Diamond Fork Creek below Three Forks														
6th Water: WQ from 3	37	30	28	28	29	30	48	75	45	38	36	36		
Temp	10.2	11.5	2.4	2.2	2.2	2.8	3.8	8.2	10.5	11.8	12.3	12.6		
wt. factor	377	345	67	62	65	84	180	614	471	450	444	455		
Natural Gains: use DF above 3 Forks	5	6	5	4	5	8	32	59	19	7	6	6		
Measured	Temp	9.7	3.7	1.7	2.0	2.0	3.5	9.0	6.8	11.2	13.9	14.5	13.3	
wt. factor	49	22	9	8	10	28	288	401	213	97	87	80		
Tot. Flow	42	36	33	32	34	38	80	134	64	45	42	42		
Wt. Avg	10.1	10.2	2.3	2.2	2.2	2.9	5.9	7.6	10.7	12.2	12.6	12.7	Mean	7.9 46
Deg. F	50	50	36	36	36	37	43	46	51	54	55	55	Max	12.7 55
5 Diamond Fork Creek Below Diamond Fork Creek Outlet														
Additions from Strawberry Reservoir for Minimum Flows	18	24	27	28	26	22	5	6	25	37	38	38		
Measured	Conc.	8.4	2.3	2.3	2.3	2.3	2.9	4.1	9.6	9.2	11.4	12.2	13.0	
wt. factor	180	202	62	64	61	63	21	58	230	422	462	494		
WQ from 4	42	36	33	32	34	38	80	134	64	45	42	42		
Temp	10.1	10.2	2.3	2.2	2.2	2.9	5.9	7.6	10.7	12.2	12.6	12.7		
wt. factor	426	367	75	70	75	112	468	1016	684	547	531	535		
Tot. Flow	60	60	60	60	60	60	65	140	89	82	80	80		
Wt. Avg	10.1	9.5	2.3	2.2	2.3	2.9	5.7	7.7	10.3	11.8	12.4	12.9	Mean	7.9 46
Deg. F	50	49	36	36	36	37	42	46	50	53	54	55	Max	12.6 55
5b Intermediate Point (Diamond Fork Creek at Mouth)														
WO from 5	60	60	60	60	60	60	85	140	89	82	80	80		
Temp	10.1	9.5	2.3	2.2	2.3	2.9	5.7	7.7	10.3	11.8	12.4	12.9		
wt. factor	606	569	138	134	136	175	489	1073	914	969	993	1029		
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	19	34	35	33	17	9	12		
Measured	Temp	9.0	4.4	6.4	2.6	4.7	4.6	9.0	8.2	10.5	12.8	12.6	10.5	
wt. factor	117	44	64	20	61	87	306	287	347	218	113	126		
Tot. Flow	73	70	70	71	73	79	119	175	122	96	89	92		
Wt. Avg	9.9	8.8	2.9	2.3	2.7	3.3	6.7	7.8	10.3	12.0	12.4	12.6	Mean	8.0 46
Deg. F	50	48	37	36	37	38	44	46	51	54	55	55	Max	12.6 55
Spanish Fork River														
6 Spanish Fork River at Castille Gage														
WO from 5b	73	70	70	71	73	79	119	175	122	99	89	92		
Temp	9.9	8.8	2.9	2.3	2.7	3.3	6.7	7.8	10.3	12.0	12.4	12.6		
wt. factor	723	613	202	163	197	262	795	1360	1260	1186	1107	1155		
WQ from Strawberry Reservoir	21	56	67	79	94	105	143	243	349	345	247	219		
Measured	Temp	10.0	8.4	2.3	2.3	2.3	2.9	4.1	9.6	9.2	11.4	12.2	13.0	
wt. factor	210	470	154	182	220	299	586	2333	3211	3933	3005	1547		
Natural Gains: Spanish Fork at Castille	41	41	44	44	54	75	145	249	112	52	44	38		
Measured	Temp	9.5	4.9	5.1	2.0	4.0	5.0	6.9	8.4	12.2	13.3	13.0	10.5	
wt. factor	390	216	224	88	216	375	1291	2092	1366	692	572	399		
Tot. Flow	135	170	181	194	221	259	407	667	583	496	380	249		
Wt. Avg	9.8	7.6	3.2	2.2	2.9	3.6	6.6	8.7	10.0	11.7	12.3	12.5	Mean	8.4 47
Deg. F	49.6	45.7	37.6	36.0	37.2	38.5	43.8	47.6	50.0	53.1	54.2	54.4	Max	12.5 54
7 Spanish Fork River Above East Bench Diversion Dam														
WO from 6	43	101	113	126	140	147	180	292	222	165	119	81		
Temp	9.8	7.6	3.2	2.2	2.9	3.6	6.6	7.8	10.3	11.7	12.3	12.5		
wt. factor	421	771	362	281	401	531	1181	2532	2223	1933	1467	1009		
Deg. F	50	46	38	36	37	39	44	48	50	53	54	54	Mean	7.6 46
Max														12.5 54
8 Spanish Fork River Below East Bench Diversion Dam														
WQ from 7	37	101	113	126	140	146	171	243	185	118	85	62		
Temp	9.8	7.6	3.2	2.2	2.9	3.6	6.6	7.8	10.3	11.7	12.3	12.5		
wt. factor	362	771	362	281	401	528	1122	2107	1652	1382	1048	772		
Deg. F	50	46	38	36	37	39	44	48	50	53	54	54	Mean	7.2 45
Max														12.5 54
9 Spanish Fork River Below Mill Race Diversion Dam														
WO from 8	26	101	113	126	140	147	180	195	114	73	48	33		
Temp	9.8	7.6	3.2	2.2	2.9	3.6	6.6	7.8	10.3	11.7	12.3	12.5		
wt. factor	255	771	362	281	401	531	1050	1691	1141	855	592	411		
Natural Gains: Spanish Fork at Castille	56	69	68	67	81	111	181	150	85	64	53	43		
Measured	Temp	9.5	4.9	5.1	2.0	4.0	5.0	6.9	8.4	12.2	13.3	13.0	10.5	
wt. factor	532	338	347	134	324	555	1611	1260	1037	851	689	452		
Tot. Flow	82	170	181	193	221	258	341	345	199	137	101	76		
Wt. Avg	9.6	6.5	3.9	2.2	3.3	4.2	7.8	8.6	10.9	12.5	12.7	11.3	Mean	7.1 45
Deg. F	49	44	39	36	38	40	46	47	52	54	55	52	Max	12.7 55
10 Spanish Fork River at Lake Shore														
WO from 9	68	168	181	193	221	258	341	322	189	120	86	70		
Temp	9.6	6.5	3.9	2.2	3.3	4.2	7.8	8.6	10.9	12.5	12.7	11.3	Mean	7.0 45
wt. factor	652	1097	709	415	725	1086	2661	2754	2069	1495	1091	794		
Natural Gains: Spanish Fork at Lakeshore WQ9	0	0	9	12	15	18	11	0	0	0	0	0		
Measured	Temp	9.5	4.9	5.8	3.3	5.9	5.2	6.6	10.1	16.5	16.3	14.7	16.3	
wt. factor	0	0	52	40	89	94								

Temperature, Minimum Deep: Below 33 ft Depth, Measured Minimum Monthly Average

PROPOSED ACTION

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		Overall
	deg. C												Deg. C	Deg. F
Sixth Water Creek														
1 Sixth Water Creek below Strawberry Tunnel Outlet														
WQ from Strawberry Reservoir	28	21	20	20	20	19	20	27	26	27	28	28		
Measured	7.6	8.4	2.3	2.3	2.3	2.3	3.7	9.6	9.2	6.6	8.8	6.8		
wt. factor	213	176	46	46	47	44	74	259	239	178	246	190		
Natural Gains: 6th above 5th Water Creek	6	6	6	6	6	7	14	21	11	7	6	6		
Measured	10.8	18.7	2.6	2.0	2.0	2.7	3.5	7.4	12.2	12.9	12.9	11.4		
wt. factor	65	112	16	12	12	19	49	155	134	90	77	68		
Tot. Flow	34	27	26	26	26	26	34	48	37	34	34	34		
Wt. Avg	8.2	10.7	2.4	2.2	2.3	2.4	3.6	8.6	10.1	7.9	9.5	7.6		
Deg. F	47	51	36	36	36	36	39	48	50	46	49	46		
Mean													6.7	44
Max													10.7	51
2 Sixth Water Creek below Sixth Water Aqueduct														
WQ from 1	34	27	26	26	26	26	34	48	37	34	34	34		
Temp.	8.2	10.7	2.4	2.2	2.3	2.4	3.6	8.6	10.1	7.9	9.5	7.6		
wt. factor	278	289	62	58	59	63	123	415	373	269	324	259		
Deg. F	47	51	36	36	36	36	39	48	50	46	49	46		
Mean													6.7	44
Max													10.7	51
3 Sixth Water Creek below Fifth Water Creek														
Natural Gains: 5th Water Creek	3	3	2	2	3	4	14	27	8	4	2	2		
Measured	10.8	18.7	2.6	2.0	2.0	2.7	3.5	7.4	12.2	12.9	12.9	11.4		
wt. factor	32	56	5	4	6	11	49	200	98	52	26	23		
WQ from 2	34	27	26	26	26	26	34	48	37	34	34	34		
Temp.	8.2	10.7	2.4	2.2	2.3	2.4	3.6	8.6	10.1	7.9	9.5	7.6		
wt. factor	278	289	62	58	59	63	123	415	373	269	324	259		
Tot. Flow	37	30	28	28	29	30	48	75	45	38	36	36		
Wt. Avg	8.4	11.5	2.4	2.2	2.2	2.4	3.6	8.2	10.5	8.4	9.7	7.8		
Deg. F	47	53	36	36	36	36	38	47	51	47	49	46		
Mean													6.8	44
Max													11.5	53
Diamond Fork Creek														
4 Diamond Fork Creek below Three Forks														
6th Water WQ from 3	37	30	28	28	29	30	48	75	45	38	36	36		
Temp.	8.4	11.5	2.4	2.2	2.2	2.4	3.6	8.2	10.5	8.4	9.7	7.8		
wt. factor	310	345	67	62	65	73	172	614	471	320	350	282		
Natural Gains: use DF above 3 Forks	5	6	5	4	5	8	32	59	19	7	6	6		
Measured	9.7	3.7	1.7	2.0	2.0	3.5	9.0	6.8	11.2	13.9	14.5	13.3		
wt. factor	49	22	9	8	10	28	288	401	213	97	87	80		
Tot. Flow	42	36	33	32	34	36	80	134	64	45	42	42		
Wt. Avg	8.5	10.2	2.3	2.2	2.2	2.7	5.8	7.6	10.7	9.3	10.4	8.6		
Deg. F	47	50	36	36	36	37	42	46	51	49	51	47		
Mean													7.1	45
Max													10.7	51
5 Diamond Fork Creek Below Diamond Fork Creek Outlet														
Additions from Strawberry Reservoir for Minimum Flow	18	24	27	28	26	22	5	6	25	37	38	38		
Measured	7.6	8.4	2.3	2.3	2.3	2.3	3.7	9.6	9.2	6.6	8.8	6.8		
wt. factor	137	202	62	64	61	51	19	58	230	244	334	258		
WQ from 4	42	36	33	32	34	38	80	134	64	45	42	42		
Temp.	8.5	10.2	2.3	2.2	2.2	2.7	5.8	7.6	10.7	9.3	10.4	8.6		
wt. factor	359	367	75	70	75	102	460	1016	684	417	437	361		
Tot. Flow	60	60	60	60	60	60	65	140	89	82	80	80		
Wt. Avg	8.3	9.5	2.3	2.2	2.3	2.5	5.6	7.7	10.3	8.1	9.6	7.7		
Deg. F	47	49	36	36	36	37	42	46	50	47	49	46		
Mean													6.7	44
Max													10.3	50
5b Intermediate Point (Diamond Fork Creek at Mouth)														
WQ from 5	60	60	60	60	60	60	85	140	89	82	80	80		
Temp.	8.3	9.5	2.3	2.2	2.3	2.5	5.6	7.7	10.3	8.1	9.6	7.7		
wt. factor	495	569	138	134	136	152	479	1073	914	662	771	620		
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	19	34	35	33	17	9	12		
Measured	9.0	4.4	6.4	2.6	4.7	4.6	9.0	8.2	10.5	12.8	12.6	10.5		
wt. factor	117	44	64	29	61	87	306	287	347	218	113	126		
Tot. Flow	73	70	70	71	73	79	119	175	122	99	89	92		
Wt. Avg	8.4	8.8	2.9	2.3	2.7	3.0	6.6	7.8	10.3	8.9	9.9	8.1		
Deg. F	47	49	37	36	37	37	44	46	51	48	50	47		
Mean													7.0	45
Max													10.3	57
Spanish Fork River														
6 Spanish Fork River at Castilla Gage														
WQ from 5b	73	70	70	71	73	79	119	175	122	98	89	82		
Temp.	8.4	8.8	2.9	2.3	2.3	3.0	6.6	7.8	10.3	8.9	9.9	8.1		
wt. factor	612	613	202	163	197	240	785	1360	1260	878	884	746		
WQ from Strawberry Reservoir	21	56	67	79	94	105	143	243	349	345	247	119		
Measured	7.6	8.4	2.3	2.3	2.3	2.3	3.7	9.6	9.2	6.6	8.8	6.8		
Natural Gains: Spanish Fork at Castilla	41	44	44	44	54	75	145	249	112	52	44	38		
Measured	9.5	4.9	5.1	2.0	4.0	5.0	8.9	8.4	12.2	13.3	13.0	10.5		
wt. factor	390	216	224	88	216	375	1291	2092	1366	692	572	399		
Tot. Flow	135	170	181	194	221	259	407	667	583	496	380	249		
Wt. Avg	8.6	7.6	3.2	2.2	2.9	3.3	6.4	8.7	10.0	7.8	9.6	7.8		
Deg. F	47.5	45.7	37.8	36.0	37.2	37.9	43.5	47.6	50.0	46.0	49.2	46.7		
Mean													7.3	45
Max													10.0	50
7 Spanish Fork River Above East Bench Diversion Dam														
WQ from 6	43	101	113	126	140	147	180	292	222	165	119	81		
Temp.	8.6	7.6	3.2	2.2	2.9	3.3	6.4	8.7	10.3	7.8	9.6	7.8		
wt. factor	370	771	362	261	401	486	1024	1691	1141	566	459	259		
Deg. F	47	46	38	36	37	38	44	48	50	46	49	46		
Mean													6.7	44
Max													10.0	50
8 Spanish Fork River Below East Bench Diversion Dam														
WQ from 7	37	101	113	126	140	146	171	243	165	118	85	62		
Temp.	8.6	7.6	3.2	2.2	2.9	3.3	6.4	8.7	10.0	7.8	9.6	7.8		
wt. factor	318	771	362	261	401	483	1094	2107	1652	915	812	487		
Deg. F	47	46	38	36	37	38	44	48	50	46	49	46		
Mean													6.4	44
Max													10.0	50
9 Spanish Fork River Below Mill Race Diversion Dam														
WQ from 8	26	101	113	126	140	147	160	195	114	73	48	33		
Temp.	8.6	7.6	3.2	2.2	2.9	3.3	6.4	8.7	10.0	7.8	9.6	7.8		
wt. factor	224	771	362	261	401	486	1024	1691	1141	566	459	259		
Natural Gains: Spanish Fork at Castilla	56	69	68	67	81	111	181	150	85	64	53	43		
Measured	9.5	4.9	5.1	2.0	4.0	5.0	8.9	8.4	12.2	13.3	13.0	10.5		
wt. factor	532	338	347	134	324	555	1611	1260	1037	851	689	452		
Tot. Flow	82	170	181	193	221	258	341	345	199	137	101	76		
Wt. Avg	9.2	6.5	3.9	2.2	3.3	4.0	7.7	8.6	10.9	10.3	11.4	9.3		
Deg. F	49	44	39	36	38	39	46							

TP, Mixed: Total Phosphorous, Measured Average of All Depths

PROPOSED ACTION

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
	Flow in cfs, Concentration in mg/L												
Sixth Water Creek													
1 Sixth Water Creek below Strawberry Tunnel Outlet													
WQ from Strawberry Reservoir	28	21	20	20	20	19	20	27	26	27	28	28	
Measured	Conc. 0.033 wt. factor 0.918	0.050 1.050	0.034 0.680	0.085 1.700	0.085 1.690	0.051 0.973	0.063 1.260	0.032 0.851	0.024 0.619	0.042 1.142	0.059 1.663	0.074 2.072	
Natural Gains: 6th above 5th Water Creek	6	6	6	6	6	7	14	21	11	7	6	6	
Measured	Conc. 0.063 wt. factor 0.378	0.035 0.210	0.004 0.021	0.012 0.072	0.003 0.018	0.006 0.042	0.189 2.646	0.108 2.268	0.102 1.122	0.069 0.483	0.079 0.474	0.120 0.720	
Wt. Avg	0.038	0.047	0.027	0.068	0.066	0.039	0.115	0.065	0.047	0.048	0.063	0.082	0.060 mean 0.115 max
2 Sixth Water Creek below Sixth Water Aqueduct													
WQ from 1	34	27	26	26	26	26	34	48	37	34	34	34	
Measured	Conc. 0.038 wt. factor 1.296	0.047 1.260	0.027 0.701	0.068 1.772	0.066 1.708	0.039 1.015	0.115 3.906	0.065 3.119	0.047 1.741	0.048 1.625	0.063 2.137	0.082 2.792	0.060 mean 0.115 max
3 Sbxth Water Creek below Fifth Water Creek													
Natural Gains: 5th Water Creek	3	3	2	2	3	4	14	27	8	4	2	2	
Measured	Conc. 0.063 wt. factor 0.189	0.035 0.105	0.004 0.007	0.012 0.024	0.003 0.009	0.006 0.024	0.189 2.646	0.108 2.916	0.102 0.816	0.069 0.276	0.079 0.158	0.120 0.240	
WQ from 2	34	27	26	26	26	26	34	48	37	34	34	34	
Measured	Conc. 0.038 wt. factor 1.296	0.047 1.260	0.027 0.701	0.068 1.772	0.066 1.708	0.039 1.015	0.115 3.906	0.065 3.119	0.047 1.741	0.048 1.625	0.063 2.137	0.082 2.792	0.060 mean 0.115 max
Wt. Avg	0.040	0.046	0.025	0.064	0.059	0.036	0.137	0.080	0.057	0.057	0.060	0.084	0.066 mean 0.137 max
Diamond Fork Creek													
4 Diamond Fork Creek below Three Forks													
WQ from 3	37	30	28	28	29	30	48	75	45	38	36	36	
Measured	Conc. 0.040 wt. factor 1.485	0.046 1.365	0.025 0.708	0.064 1.796	0.059 1.717	0.035 1.039	0.137 6.552	0.080 6.035	0.057 2.557	0.050 1.901	0.064 2.295	0.084 3.032	
Natural Gains: use DF above 3 Forks	5	6	5	4	5	8	32	59	19	7	6	6	
Measured	Conc. 0.018 wt. factor 0.090	0.037 0.222	0.006 0.031	0.086 0.344	0.003 0.015	0.010 0.080	0.206 6.578	0.092 5.428	0.036 0.684	0.029 0.203	0.032 0.192	0.092 0.552	
Wt. Avg	0.038	0.044	0.022	0.067	0.051	0.029	0.164	0.086	0.051	0.047	0.059	0.085	0.072 mean 0.164 max
5 Diamond Fork Creek Below Diamond Fork Creek Outlet													
Additions from Strawberry Reservoir for Minimum Flows	18	24	27	28	26	22	5	6	25	37	38	38	
Measured	Conc. 0.033 wt. factor 0.590	0.050 1.200	0.034 0.918	0.085 2.380	0.085 2.197	0.051 1.126	0.063 0.315	0.032 0.189	0.024 0.595	0.042 1.565	0.058 2.257	0.074 2.812	
WQ from 4	42	36	33	32	34	38	80	134	64	45	42	42	
Measured	Conc. 1.575 wt. factor 1.587	0.044 0.739	0.022 2.140	0.067 1.732	0.051 1.119	0.029 13.130	0.164 11.463	0.086 3.241	0.051 2.104	0.047 2.487	0.059 3.584	0.085 0.080	0.067 0.158 mean max
Wt. Avg	0.036	0.046	0.028	0.075	0.065	0.037	0.158	0.083	0.043	0.045	0.059	0.085	
5b Intermediate Point (Diamond Fork Creek at Mouth)													
WQ from 5	60	60	60	60	60	60	95	140	89	82	80	80	
Measured	Conc. 0.036 wt. factor 2.166	0.046 2.787	0.028 1.657	0.075 4.520	0.065 3.928	0.037 2.245	0.158 13.445	0.083 11.652	0.043 3.836	0.045 3.669	0.059 4.744	0.080 6.396	
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	19	34	35	33	17	9	12	
Measured	Conc. 0.044 wt. factor 0.572	0.042 0.420	0.000 0.000	0.015 0.165	0.020 0.260	0.018 0.342	0.200 6.800	0.221 7.735	0.136 4.488	0.095 1.615	0.115 1.035	0.172 2.064	
Wt. Avg	0.038	0.046	0.024	0.066	0.057	0.033	0.170	0.111	0.068	0.053	0.065	0.092	0.076 mean 0.170 max
Spanish Fork River													
6 Spanish Fork River at Castilia Gage													
WQ from 5b	73	70	70	71	73	79	119	175	122	99	89	92	
Measured	Conc. 0.038 wt. factor 2.738	0.046 3.207	0.024 1.657	0.066 4.685	0.057 4.189	0.033 2.587	0.170 20.245	0.111 19.387	0.068 8.324	0.053 5.284	0.065 5.779	0.092 8.460	
WQ from Strawberry Reservoir	21	56	67	78	94	105	143	243	349	345	247	119	
Measured	Conc. 0.033 wt. factor 0.689	0.050 2.800	0.034 2.278	0.085 6.715	0.085 7.943	0.051 5.376	0.063 9.009	0.032 7.655	0.024 8.306	0.042 14.594	0.059 14.672	0.074 8.806	
Natural Gains: Spanish Fork at Castilia	41	44	44	44	54	75	145	249	112	52	44	38	
Measured	Conc. 0.025 wt. factor 1.025	0.054 2.376	0.010 0.440	0.038 1.672	0.030 1.620	0.130 9.750	0.173 25.085	0.230 57.270	0.111 12.432	0.082 4.264	0.117 5.146	0.273 10.374	
Wt. Avg	0.033	0.049	0.024	0.067	0.062	0.068	0.134	0.126	0.050	0.049	0.067	0.111	0.078 mean 0.134 max
7 Spanish Fork River Above East Bench Diversion Dam													
WQ from 6	43	101	113	126	140	147	180	292	222	165	119	81	
Measured	Conc. 0.033 wt. factor 1.418	0.049 4.980	0.024 2.732	0.067 8.490	0.062 8.712	0.068 10.053	0.134 24.032	0.126 36.910	0.050 11.066	0.049 8.031	0.067 8.017	0.111 8.991	0.077 mean 0.134 max
8 Spanish Fork River Below East Bench Diversion Dam													
WQ from 7	37	101	113	126	140	146	171	243	165	118	85	62	
Measured	Conc. 0.033 wt. factor 1.220	0.049 4.980	0.024 2.732	0.067 8.490	0.062 8.712	0.068 9.985	0.134 22.831	0.126 30.716	0.050 8.225	0.049 5.743	0.067 5.726	0.111 6.882	0.077 mean 0.134 max
9 Spanish Fork River Below Mill Race Diversion Dam													
WQ from 8	26	101	113	126	140	147	160	195	114	73	48	33	
Measured	Conc. 0.033 wt. factor 0.857	0.049 4.980	0.024 2.732	0.067 8.490	0.062 8.712	0.068 10.053	0.134 21.362	0.126 24.649	0.050 5.683	0.049 3.553	0.067 3.234	0.092 3.663	
Natural Gains: Spanish Fork at Castilia	56	69	68	67	81	111	181	150	85	64	53	43	
Measured	Conc. 0.025 wt. factor 1.400	0.054 3.726	0.010 0.680	0.038 2.546	0.030 2.430	0.130 14.430	0.173 31.313	0.230 34.500	0.111 9.435	0.082 5.248	0.117 6.201	0.273 11.739	
Wt. Avg	0.028	0.051	0.019	0.057	0.050	0.095	0.154	0.171	0.076	0.064	0.093	0.203	0.077 mean 0.203 max
10 Spanish Fork River at Lake Shore													
WQ from 9	68	168	181	193	221	258	341	322	189	120	86	70	
Measured	Conc. 0.028 wt. factor 1.872	0.051 8.604	0.019 3.412	0.057 11.036	0.050 11.142	0.095 24.483	0.154 52.675	0.171 55.205	0.076 14.358	0.064 7.709	0.093 8.033	0.203 14.186	
Natural Gains: Spanish Fork at Lakeshore WQ9	0	0	9	12	15	18	11	0	0	0	0	0	
Measured	Conc. 0.035 wt. factor 0.000	0.054 0.000	0.020 0.180	0.038 0.456	0.030 0.450	0.242 4.350	0.146 1.610	0.230 0.000	0.111 0.000	0.058 0.000	0.593 0.000	0.273 0.000	
Wt. Avg	0.028	0.051	0.019	0.056	0.049	0.104	0.154	0.171	0.076	0.064	0.093	0.203	0.096 mean 0.203 max

TP, Deep: Total Phosphorous, Measured Average of Below 33 ft Depth

PROPOSED ACTION

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Flow in cfs, Concentration in mg/l.													
Sixth Water Creek													
1 Sixth Water Creek below Strawberry Tunnel Outlet													
WQ from Strawberry Reservoir	28	21	20	20	20	19	20	27	26	27	28	28	
Measured	0.140	0.040	0.070	0.100	0.250	0.220	0.160	0.130	0.110	0.140	0.140	0.140	
Conc. wt. factor	3.920	0.840	1.400	2.000	5.000	4.180	3.200	3.510	2.860	3.780	3.920	3.920	
Natural Gains: 6th above 5th Water Creek	6	6	6	6	6	7	14	21	11	7	6	6	
Measured	0.063	0.035	0.004	0.012	0.003	0.006	0.189	0.108	0.102	0.069	0.079	0.120	
Conc. wt. factor	0.378	0.210	0.021	0.072	0.018	0.042	2.646	2.268	1.122	0.483	0.474	0.720	
Wt. Avg	0.126	0.039	0.055	0.080	0.193	0.162	0.172	0.120	0.108	0.125	0.129	0.136	
													0.122 mean 0.193 max
2 Sixth Water Creek below Sixth Water Aqueduct													
WQ from 1	34	27	26	26	26	26	34	48	37	34	34	34	
Conc. wt. factor	0.126	0.039	0.055	0.080	0.193	0.162	0.172	0.120	0.108	0.125	0.129	0.136	
4.298	1.050	1.421	2.072	5.018	4.222	5.846	5.778	3.982	4.263	4.394	4.640		0.122 mean 0.193 max
3 Sixth Water Creek below Fifth Water Creek													
Natural Gains: 5th Water Creek	3	3	2	2	3	4	14	27	8	4	2	2	
Measured	0.063	0.035	0.004	0.012	0.003	0.006	0.189	0.108	0.102	0.069	0.079	0.120	
Conc. wt. factor	0.189	0.105	0.007	0.024	0.009	0.024	2.646	2.916	0.816	0.276	0.158	0.240	
WQ from 2	34	27	26	26	26	26	34	48	37	34	34	34	
Conc. wt. factor	0.126	0.039	0.055	0.080	0.193	0.162	0.172	0.120	0.108	0.125	0.129	0.136	
4.298	1.050	1.421	2.072	5.018	4.222	5.846	5.778	3.982	4.263	4.394	4.640		0.122 mean 0.193 max
Wt. Avg	0.121	0.039	0.051	0.075	0.173	0.142	0.177	0.116	0.107	0.119	0.126	0.136	
													0.118 mean 0.177 max
Diamond Fork Creek													
4 Diamond Fork Creek below Three Forks													
WQ from 3	37	30	28	28	29	30	48	75	45	38	36	36	
Conc. wt. factor	0.121	0.039	0.051	0.075	0.173	0.142	0.177	0.116	0.107	0.119	0.126	0.136	
4.487	1.155	1.428	2.096	5.027	4.246	8.492	8.694	4.798	4.539	4.552	4.880		
Natural Gains: use DF above 3 Forks	5	6	5	4	5	8	32	59	19	7	6	6	
Measured	0.018	0.037	0.006	0.086	0.003	0.010	0.206	0.092	0.036	0.029	0.032	0.092	
Conc. wt. factor	0.090	0.222	0.031	0.344	0.015	0.080	6.578	5.428	0.684	0.203	0.192	0.552	
Wt. Avg	0.109	0.038	0.044	0.076	0.148	0.114	0.188	0.105	0.086	0.105	0.113	0.129	
													0.118 mean 0.188 max
5 Diamond Fork Creek Below Diamond Fork Creek Outlet													
Additions from Strawberry Reservoir for Minimum Flows	18	24	27	28	26	22	5	6	25	37	38	38	
Measured	0.140	0.040	0.070	0.100	0.250	0.220	0.160	0.130	0.110	0.140	0.140	0.140	
Conc. wt. factor	2.520	0.960	1.890	2.800	6.500	4.840	8.800	0.780	2.750	5.180	5.320	5.320	
WQ from 4	42	36	33	32	34	38	80	134	64	45	42	42	
Conc. wt. factor	0.109	0.038	0.044	0.076	0.148	0.114	0.188	0.105	0.086	0.105	0.113	0.129	
4.577	1.377	1.459	2.440	5.042	4.326	15.070	14.122	5.482	4.742	4.744	5.432		
Wt. Avg	0.118	0.038	0.056	0.087	0.192	0.153	0.187	0.106	0.092	0.121	0.126	0.134	
													0.118 mean 0.192 max
5b Intermediate Point (Diamond Fork Creek at Mouth)													
WQ from 5	60	60	60	60	60	60	85	140	89	82	80	80	
Conc. wt. factor	0.118	0.039	0.056	0.087	0.192	0.153	0.187	0.106	0.092	0.121	0.126	0.134	
7.097	2.337	3.349	5.240	11.542	9.166	15.870	14.902	8.232	9.922	10.064	10.752		
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	19	34	35	33	17	9	12	
Measured	0.044	0.042	0.000	0.015	0.020	0.018	0.200	0.221	0.136	0.095	0.115	0.172	
Conc. wt. factor	0.572	0.420	0.000	0.165	0.260	0.342	6.800	7.735	4.486	1.615	1.035	2.064	
Wt. Avg	0.105	0.039	0.048	0.076	0.162	0.120	0.191	0.129	0.104	0.117	0.125	0.139	
													0.118 mean 0.191 max
Spanish Fork River													
6 Spanish Fork River at Castilles Gage													
WQ from 5b	73	70	70	71	73	79	119	175	122	99	89	92	
Conc. wt. factor	0.105	0.039	0.048	0.076	0.162	0.120	0.191	0.129	0.104	0.117	0.125	0.139	
7.669	2.757	3.349	5.405	11.802	9.508	22.670	22.637	12.720	11.537	11.099	12.816		
WQ from Strawberry Reservoir	21	56	67	79	94	105	143	243	349	345	247	119	
Measured	0.140	0.040	0.070	0.100	0.250	0.220	0.160	0.130	0.110	0.140	0.140	0.140	
Conc. wt. factor	2.940	2.240	4.690	7.900	23.500	23.100	22.880	31.580	38.390	48.300	34.580	16.660	
Natural Gains: Spanish Fork at Castilla	41	44	44	44	54	75	145	249	112	52	44	38	
Measured	0.025	0.054	0.010	0.038	0.030	0.130	0.173	0.230	0.111	0.082	0.117	0.273	
Conc. wt. factor	1.025	2.376	0.440	1.672	1.620	9.750	25.085	57.270	12.432	4.264	5.148	10.374	
Wt. Avg	0.086	0.043	0.047	0.077	0.167	0.164	0.174	0.167	0.109	0.129	0.134	0.160	
													0.132 mean 0.174 max
7 Spanish Fork River Above East Bench Diversion Dam													
WQ from 6	43	101	113	126	140	147	180	292	222	165	119	81	
Conc. wt. factor	0.086	0.043	0.047	0.077	0.167	0.164	0.174	0.167	0.109	0.129	0.134	0.160	
3.706	4.380	5.294	9.727	23.390	24.041	31.239	48.811	24.196	21.324	15.917	12.963		0.130 mean 0.174 max
8 Spanish Fork River Below East Bench Diversion Dam													
WQ from 7	37	101	113	126	140	146	171	243	165	118	85	62	
Conc. wt. factor	0.086	0.043	0.047	0.077	0.167	0.164	0.174	0.167	0.109	0.129	0.134	0.160	
3.189	4.380	5.294	9.727	23.390	23.877	29.677	40.620	17.984	15.250	11.369	9.922		0.129 mean 0.174 max
9 Spanish Fork River Below Mill Race Diversion Dam													
WQ from 8	26	101	113	126	140	147	160	195	114	73	48	33	
Conc. wt. factor	0.086	0.043	0.047	0.077	0.167	0.164	0.174	0.167	0.109	0.129	0.134	0.160	
2.241	4.380	5.294	9.727	23.390	24.041	27.768	32.597	12.425	9.434	6.420	5.281		
Natural Gains: Spanish Fork at Castilla	56	69	68	67	81	111	181	150	85	64	53	43	
Measured	0.025	0.054	0.010	0.038	0.030	0.130	0.173	0.230	0.111	0.082	0.117	0.273	
Conc. wt. factor	1.400	3.726	0.680	2.546	2.430	14.430	31.313	34.500	9.435	5.248	6.201	11.739	
Wt. Avg	0.044	0.048	0.033	0.064	0.117	0.149	0.173	0.194	0.110	0.107	0.125	0.224	
													0.124 mean 0.224 max
10 Spanish Fork River at Lake Shore													
WQ from 9	68	168	181	193	221	258	341	322	189	120	86	70	
Conc. wt. factor	0.044	0.048	0.033	0.064	0.117	0.149	0.173	0.194	0.110	0.107	0.125	0.224	
3.019	8.011	5.974	12.273	25.820	38.471	59.081	62.623	20.762	12.860	10.747	15.677		
Natural Gains: Spanish Fork at Lakeshore WQ9	0	0	9	12	15	18	11	0	0	0	0	0	
Measured	0.035	0.054	0.020	0.038	0.030	0.242	0.146	0.230	0.111	0.058	0.593	0.273	
Conc. wt. factor	0.000	0.000	0.180	0.456	0.450	4.350	1.610	0.000	0.000	0.000	0.000	0.000	
Wt. Avg	0.044	0.048	0.032	0.062	0.111	0.155	0.172	0.194	0.110	0.107	0.125	0.224	
													0.124 mean 0.224 max

Turbidity

PROPOSED ACTION

PROPOSED ACTION

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
	Flow in cfs, Concentration in mg/L												
Sixth Water Creek													
1 Sixth Water Creek below Strawberry Tunnel Outlet													
WQ from Strawberry Reservoir	28	21	20	20	20	19	20	27	26	27	28	28	
Measured	2	3	0	0	0	2	2	4	0	0	2	5	
Conc.	46	63	0	0	0	33	46	99	0	0	58	152	
wt. factor													
Natural Gains: 6th above 5th Water Creek	6	6	6	6	6	7	14	21	11	7	6	6	
Measured	3	0	5	5	0	4	58	80	149	9	13	4	
Conc.	17	0	30	30	0	29	830	1670	1641	65	77	25	
wt. factor													
Wt. Avg	34	27	26	26	26	26	34	48	37	34	34	34	
	2	2	1	1	0	2	28	37	44	2	4	5	
													13 mean 44 max
2 Sixth Water Creek below Sixth Water Aqueduct													
WQ from 1	34	27	26	26	26	26	34	48	37	34	34	34	
Measured	2	2	1	1	0	2	26	37	44	2	4	5	
Conc.	62	63	30	30	0	63	876	1768	1641	65	135	177	
wt. factor													
													13 mean 44 max
3 Sixth Water Creek below Fifth Water Creek													
Natural Gains: 5th Water Creek	3	3	2	2	3	4	14	27	8	4	2	2	
Measured	3	0	5	5	0	4	58	80	149	9	13	4	
Conc.	8	0	10	10	0	17	830	2147	1194	37	26	8	
wt. factor													
WQ from 2	34	27	26	26	26	26	34	48	37	34	34	34	
Measured	2	2	1	1	0	2	26	37	44	2	4	5	
Conc.	62	63	30	30	0	63	876	1768	1641	65	135	177	
wt. factor													
Wt. Avg	37	30	28	28	29	30	48	75	45	38	36	36	
	2	2	1	1	0	3	36	52	63	3	4	5	
													20 mean 63 max
Diamond Fork Creek													
4 Diamond Fork Creek below Three Forks													
WQ from 3	37	30	28	28	29	30	48	75	45	38	36	36	
Measured	2	2	1	1	0	3	36	52	63	3	4	5	
Conc.	71	63	40	40	0	79	1707	3915	2835	102	160	186	
wt. factor													
Natural Gains: use DF above 3 Forks	5	6	5	4	5	8	32	59	19	7	6	6	
Measured	5	3	6	100	0	10	174	90	40	21	30	14	
Conc.	23	19	30	400	0	81	5555	5859	766	149	182	83	
wt. factor													
Wt. Avg	42	36	33	32	34	38	80	134	64	45	42	42	
	2	2	2	14	0	4	91	73	56	6	8	6	
													36 mean 91 max
5 Diamond Fork Creek Below Diamond Fork Creek Outlet													
Additions from Strawberry Reservoir for Minimum Flows	18	24	27	28	26	22	5	6	25	37	38	38	
Measured	2	3	0	0	0	2	2	4	0	0	2	5	
Conc.	29	72	0	0	0	39	12	22	0	0	79	206	
wt. factor													
WQ from 4	42	36	33	32	34	38	80	134	64	45	42	42	
Measured	2	2	2	14	0	4	91	73	56	6	8	6	
Conc.	93	82	70	440	0	160	7262	9773	3601	251	343	268	
wt. factor													
Wt. Avg	60	60	60	60	60	60	85	140	89	82	80	80	
	2	3	1	7	0	3	86	70	40	3	5	5	
													25 mean 86 max
5b Intermediate Point (Diamond Fork Creek at Mouth)													
WQ from 5	60	60	60	60	60	60	85	140	89	82	80	80	
Measured	2	3	1	7	0	3	86	70	40	3	5	6	
Conc.	123	153	70	440	0	199	7273	9795	3601	251	421	475	
wt. factor													
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	19	34	35	33	17	9	12	
Measured	4	3	5	9	9	10	174	156	98	60	69	33	
Conc.	52	34	50	103	111	190	5923	5460	3218	1015	620	396	
wt. factor													
Wt. Avg	73	70	70	71	73	79	119	175	122	99	89	82	
	2	3	2	8	2	5	111	87	56	13	12	9	
													35 mean 111 max
Spanish Fork River													
6 Spanish Fork River at Castilia Gege													
WQ from 5b	73	70	70	71	73	79	119	175	122	99	89	82	
Measured	2	3	2	8	2	5	111	87	56	13	12	9	
Conc.	175	187	120	543	111	389	13196	15255	6818	1266	1042	871	
wt. factor													
WQ from Strawberry Reservoir	21	56	67	79	94	105	143	243	349	345	247	119	
Measured	2	3	0	0	0	2	2	4	0	0	2	5	
Conc.	34	167	0	0	0	184	330	887	0	0	511	646	
wt. factor													
Natural Gains: Spanish Fork at Castilia	41	44	44	44	54	75	145	249	112	52	44	38	
Measured	9	6	13	15	41	42	607	339	156	62	119	117	
Conc.	377	264	554	656	2214	3180	88015	84411	17472	3224	5236	4446	
wt. factor													
Wt. Avg	135	170	181	184	221	259	407	667	583	496	380	249	
	4	4	4	6	11	14	249	151	42	9	18	24	
													64 mean 249 max
7 Spanish Fork River Above East Bench Diversion Dam													
WQ from 6	43	101	113	126	140	147	180	292	222	165	119	81	
Measured	4	4	4	6	11	14	249	151	42	9	18	24	
Conc.	187	367	421	779	1473	2130	44908	44020	9249	1494	2126	1940	
wt. factor													
WQ from 7	37	101	113	126	140	146	171	243	165	118	85	62	
Measured	4	4	4	6	11	14	249	151	42	9	18	24	
Conc.	161	367	421	779	1473	2115	42662	36633	6875	1068	1519	1485	
wt. factor													
WQ from 8	26	101	113	126	140	147	160	195	114	73	48	33	
Measured	4	4	4	6	11	14	249	151	42	9	18	24	
Conc.	113	367	421	779	1473	2130	39918	29397	4750	661	858	790	
wt. factor													
Natural Gains: Spanish Fork at Castilia	56	69	68	67	81	111	181	150	85	64	53	43	
Measured	9	6	13	15	41	42	607	339	156	62	119	117	
Conc.	515	414	657	998	3321	4706	109867	50850	13260	3968	6307	5031	
wt. factor													
Wt. Avg	82	170	181	193	221	258	341	345	199	101	76		
	8	5	7	9	22	26	439	341	233	91	34	77	
													122 mean 439 max
9 Spanish Fork River Below Mill Race Diversion Dam													
WQ from 9	68	168	181	193	221	258	341	322	189	120	86	70	
Measured	8	5	7	9	22	26	439	341	233	91	34	77	
Conc.	521	772	1278	1777	4794	6836	149785	74897	17105	4054	6100	5362	
wt. factor													
Natural Gains: Spanish Fork at Lakeshore WQe	0	0	9	12	15	18	11	0	0	0	0	0	
Measured	96	6	20	20	74	220	1040	130	30	32	596	121	
Conc.	0	0	182	245	1104	3965	11440	0	0	0	0	0	
wt. factor													
Wt. Avg	68	168	190	205	236	276	352	322	189	120	86	70	
	8	5	8	10	25	39	458	233	91	34	71	77	
													127 mean 459 max

Nitrate

PROPOSED ACTION

PROPOSED ACTION

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep													
	Flow in cfs, Concentration in pH units																								
Sixth Water Creek																									
1 Sixth Water Creek below Strawberry Tunnel Outlet																									
WQ from Strawberry Reservoir	28	21	20	20	20	19	20	27	26	27	28	28													
Measured	Conc.	8.1	8.1	8.0	7.7	7.7	7.6	7.8	8.2	8.1	8.0	7.8	8.3												
	wt. factor	226	171	160	154	154	144	156	220	210	216	219	231												
Natural Gains: 6th above 5th Water Creek	6	6	6	6	6	7	14	21	11	7	6	6													
Measured	Conc.	8.4	8.5	8.4	8.5	8.5	8.4	8.3	8.4	8.2	8.3	8.2	8.2												
	wt. factor	50	51	50	51	51	59	116	176	90	58	49	49												
	Wt. Avg	8.1	8.2	8.1	7.9	7.9	7.8	8.0	8.3	8.1	8.1	7.9	8.2												
													8.1 mean 8.3 max												
2 Sixth Water Creek below Sixth Water Aqueduct																									
WQ from 1	34	27	26	26	26	26	34	48	37	34	34	34													
	Conc.	8.1	8.2	8.1	7.9	7.9	7.8	8.0	8.3	8.1	8.1	7.9	8.2												
	wt. factor	276	222	210	205	205	203	272	397	300	274	268	280												
													8.1 mean 8.3 max												
3 Sixth Water Creek below Fifth Water Creek																									
Natural Gains: 5th Water Creek	3	3	2	2	3	4	14	27	8	4	2	2													
Measured	Conc.	8.4	8.5	8.4	8.5	8.5	8.4	8.3	8.4	8.2	8.3	8.2	8.2												
	wt. factor	25	26	17	17	26	34	116	227	66	33	16	16												
WQ from 2	34	27	26	26	26	26	34	48	37	34	34	34													
	Conc.	8.1	8.2	8.1	7.9	7.9	7.8	8.0	8.3	8.1	8.1	7.9	8.2												
	wt. factor	276	222	210	205	205	203	272	397	300	274	268	280												
													8.1 mean 8.3 max												
Diamond Fork Creek																									
4 Diamond Fork Creek below Three Forks																									
WQ from 3	37	30	28	28	29	30	48	75	45	38	36	36													
	Conc.	8.2	8.2	8.1	7.9	7.9	7.9	8.1	8.3	8.1	8.1	7.9	8.2												
	wt. factor	302	247	227	222	230	237	388	624	365	308	285	297												
Natural Gains: use DF above 3 Forks	5	6	5	4	5	6	32	59	19	7	6	6													
Measured	Conc.	8.2	8.3	8.2	8.2	8.2	8.1	8.1	8.2	8.2	8.3	8.2	8.2												
	wt. factor	41	50	41	33	41	65	260	484	156	58	49	49												
													8.1 mean 8.3 max												
5 Diamond Fork Creek Below Diamond Fork Creek Outlet																									
Additions from Strawberry Reservoir for Minimum Flows	18	24	27	28	26	22	5	6	25	37	38	38													
Measured	Conc.	8.1	8.1	8.0	7.7	7.7	7.6	7.8	8.2	8.1	8.0	7.8	8.3												
	wt. factor	145	195	216	216	200	167	39	49	202	296	297	314												
WQ from 4	42	36	33	32	34	38	80	134	64	45	42	42													
	Conc.	8.2	8.3	8.1	8.0	8.0	7.9	8.1	8.3	8.1	8.1	7.9	8.2												
	wt. factor	343	297	268	255	271	301	648	1107	521	366	334	346												
													8.1 mean 8.3 max												
5b Intermediate Point (Diamond Fork Creek at Mouth)																									
WQ from 5	60	60	60	60	60	60	85	140	89	82	80	80													
	Conc.	8.1	8.2	8.1	7.8	7.8	7.8	8.1	8.3	8.1	8.1	7.9	8.2												
	wt. factor	488	493	484	470	471	468	687	1156	723	662	631	659												
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	19	34	35	33	17	9	12													
Measured	Conc.	8.0	8.2	8.3	8.5	8.4	8.0	8.5	8.5	8.3	8.3	8.1	8.0												
	wt. factor	104	82	83	94	109	152	289	298	274	141	73	96												
													8.1 mean 8.3 max												
Spanish Fork River																									
6 Spanish Fork River at Castilla Gage																									
WQ from 5b	73	70	70	71	73	79	119	175	122	99	89	92													
	Conc.	8.1	8.2	8.1	7.9	7.9	7.9	8.2	8.3	8.2	8.1	7.9	8.2												
	wt. factor	592	575	567	564	580	620	976	1454	997	803	704	755												
WQ from Strawberry Reservoir	21	58	67	79	94	105	143	243	349	345	247	119													
Measured	Conc.	8.1	8.1	8.0	7.7	7.7	7.6	7.8	8.2	8.1	8.0	7.8	8.3												
	wt. factor	169	456	535	608	722	797	1115	1983	2813	2763	1932	982												
Natural Gains: Spanish Fork at Castilla	41	44	44	44	54	75	145	249	112	52	44	38													
Measured	Conc.	7.8	7.7	8.4	8.4	8.4	8.0	8.6	8.2	8.0	8.2	7.8	7.7												
	wt. factor	320	338	370	454	600	1247	2042	896	426	343	293													
													8.1 mean 8.2 max												
													8.1 mean 8.2 max												
7 Spanish Fork River Above East Bench Diversion Dam																									
WQ from 6	43	101	113	126	140	147	180	292	222	165	119	81													
	Conc.	8.0	8.1	8.1	7.9	7.9	7.8	8.2	8.2	8.1	8.1	7.8	8.2												
	wt. factor	344	813	919	1001	1112	1145	1477	2398	1792	1328	933	660												
													8.1 mean 8.2 max												
8 Spanish Fork River Below East Bench Diversion Dam																									
WQ from 7	37	101	113	126	140	146	171	243	165	118	85	62													
	Conc.	8.0	8.1	8.1	7.9	7.9	7.8	8.2	8.2	8.1	8.1	7.8	8.2												
	wt. factor	296	813	919	1001	1112	1137	1403	1996	1332	950	666	505												
													8.0 mean 8.2 max												
9 Spanish Fork River Below Mill Race Diversion Dam																									
WQ from 8	26	101	113	126	140	147	160	195	114	73	48	33													
	Conc.	8.0	8.1	8.1	7.9	7.9	7.8	8.2	8.2	8.1	8.1	7.8	8.2												
	wt. factor	208	813	919	1001	1112	1145	1312	1602	920	588	376	269												
Natural Gains: Spanish Fork at Castilla	56	69	68	67	81	111	181	150	85	64	53	43													
Measured	Conc.	7.8	7.7	8.4	8.4	8.4	8.0	8.6	8.2	8.0	8.2	7.8	7.7												
	wt. factor	437	531	571	563	680	888	1557	1230	680	525	413	331												
													8.1 mean 8.2 max												
													8.1 mean 8.2 max												
10 Spanish Fork River at Lake Shore																									
WQ from 9	68	168	181	193	221	258	341	322	189	120	86	70													
	Conc.	7.9	7.9	8.2	8.1	8.1	7.9	8.4	8.2	8.0	8.1	7.8	7.9												
	wt. factor	535	1329	1490	1564	1792	2033	2869	2643	1520	974	672	553												
Natural Gains: Spanish Fork at Lakeshore	WQ9	0	0	9	12	15	18	11	0	0	0	0	0												
Measured	Conc.	8.3	8.4	8.5	8.3	8.4	8.8	8.7	9.2	8.2	8.0	8.1	8.1												
	wt. factor	0	0	77	100	126	159	95	0	0	0	0	0												
													8.1 mean 8.4 max												

Ammonia

PROPOSED ACTION

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Flow in cfs, Concentration in mg/l.													
Sixth Water Creek													
1 Sixth Water Creek below Strawberry Tunnel Outlet													
WQ from Strawberry Reservoir	28	21	20	20	20	19	20	27	26	27	26	28	28
Measured	Conc.	0.008	0.027	0.248	0.660	0.066	0.065	0.093	0.028	0.028	0.022	0.022	0.270
	wt. factor	0.214	0.557	4.960	13.200	1.328	1.231	1.864	0.761	0.728	0.594	0.624	7.546
Natural Gains: 5th above 5th Water Creek	6	6	6	6	6	7	14	21	11	7	6	6	6
Measured	Conc.	0.048	0.000	0.033	0.010	0.010	0.022	0.121	0.007	0.037	0.065	0.013	0.051
	wt. factor	0.288	0.000	0.195	0.060	0.060	0.154	1.700	0.147	0.407	0.455	0.078	0.306
	Wt. Avg	0.015	0.021	0.198	0.510	0.063	0.063	0.105	0.019	0.031	0.031	0.021	0.231
													0.097 mean 0.510 max
2 Sixth Water Creek below Sixth Water Aqueduct													
WQ from 1	34	27	26	26	26	26	34	48	37	34	34	34	34
	Conc.	0.015	0.021	0.198	0.510	0.053	0.053	0.105	0.019	0.031	0.031	0.021	0.231
	wt. factor	0.502	0.557	5.155	13.260	1.388	1.385	3.564	0.908	1.135	1.049	0.702	7.852
													0.097 mean 0.510 max
3 Sixth Water Creek below Fifth Water Creek													
Natural Gains: 5th Water Creek	3	3	2	2	3	4	14	27	8	4	2	2	2
Measured	Conc.	0.048	0.000	0.033	0.010	0.010	0.022	0.121	0.007	0.037	0.065	0.013	0.051
	wt. factor	0.144	0.000	0.065	0.020	0.030	0.088	1.700	0.189	0.296	0.260	0.026	1.020
WQ from 2	34	27	26	26	26	26	34	48	37	34	34	34	34
	Conc.	0.015	0.021	0.198	0.510	0.053	0.053	0.105	0.019	0.031	0.031	0.021	0.231
	wt. factor	0.502	0.557	5.155	13.260	1.388	1.385	3.564	0.908	1.135	1.049	0.702	7.852
	Wt. Avg	0.017	0.019	0.186	0.474	0.049	0.049	0.110	0.015	0.032	0.034	0.020	0.221
													0.088 mean 0.474 max
Diamond Fork Creek													
4 Diamond Fork Creek below Three Forks													
WQ from 3	37	30	28	28	29	30	48	75	45	38	36	36	36
	Conc.	0.017	0.019	0.186	0.474	0.049	0.049	0.110	0.015	0.032	0.034	0.020	0.221
	wt. factor	0.646	0.557	5.220	13.280	1.418	1.473	5.264	1.097	1.431	1.309	0.728	7.954
Natural Gains: use DF above 3 Forks	5	6	5	4	5	8	32	59	19	7	6	6	6
Measured	Conc.	0.018	0.000	0.010	0.010	0.010	0.023	0.043	0.006	0.026	0.010	0.017	0.010
	wt. factor	0.090	0.000	0.050	0.040	0.050	0.184	1.371	0.354	0.494	0.070	0.102	0.060
	Wt. Avg	0.018	0.015	0.160	0.416	0.043	0.044	0.083	0.011	0.030	0.031	0.020	0.191
													0.070 mean 0.416 max
5 Diamond Fork Creek Below Diamond Fork Creek Outlet													
Additions from Strawberry Reservoir for Minimum Flows	18	24	27	28	26	22	5	6	25	37	38	38	38
Measured	Conc.	0.008	0.027	0.248	0.660	0.066	0.065	0.093	0.028	0.028	0.022	0.022	0.270
	wt. factor	0.138	0.636	6.696	18.480	1.726	1.426	4.466	0.169	0.700	0.814	0.847	10.241
WQ from 4	42	36	33	32	34	38	80	134	64	45	42	42	42
	Conc.	0.018	0.015	0.160	0.416	0.043	0.044	0.083	0.011	0.030	0.031	0.020	0.191
	wt. factor	0.736	0.557	5.270	13.220	1.468	1.657	6.635	1.451	1.925	1.379	0.830	8.014
	Wt. Avg	0.015	0.020	0.199	0.530	0.053	0.051	0.084	0.012	0.029	0.027	0.021	0.228
													0.093 mean 0.530 max
5b Intermediate Point (Diamond Fork Creek at Mouth)													
WQ from 5	60	60	60	60	60	60	85	140	89	82	80	80	80
	Conc.	0.015	0.020	0.199	0.530	0.053	0.051	0.084	0.012	0.029	0.027	0.021	0.228
	wt. factor	0.874	1.193	11.966	31.800	3.194	3.083	7.101	1.621	2.625	2.193	1.678	18.255
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	19	34	35	33	17	9	12	12
Measured	Conc.	0.032	0.010	0.013	0.027	0.005	0.008	0.049	0.034	0.012	0.025	0.000	0.018
	wt. factor	0.416	0.100	0.130	0.297	0.065	0.152	1.666	1.190	0.396	0.425	0.000	0.216
	Wt. Avg	0.018	0.018	0.173	0.452	0.045	0.041	0.074	0.016	0.025	0.026	0.019	0.201
													0.080 mean 0.452 max
Spanish Fork River													
6 Spanish Fork River at Castilla Gage													
WC from 5b	73	70	70	71	73	79	119	175	122	99	89	92	92
	Conc.	0.018	0.018	0.173	0.452	0.045	0.041	0.074	0.016	0.025	0.026	0.019	0.201
	wt. factor	1.290	1.293	12.096	32.097	3.259	3.235	8.767	2.811	3.021	2.618	1.678	18.471
WC from Strawberry Reservoir	21	56	67	79	94	105	143	249	349	345	247	247	119
Measured	Conc.	0.008	0.027	0.248	0.660	0.066	0.065	0.093	0.026	0.028	0.022	0.022	0.270
	wt. factor	0.161	1.484	16.616	52.140	6.242	6.804	13.328	6.853	9.772	7.590	5.508	32.071
Natural Gains: Spanish Fork at Castilla	41	44	44	44	54	75	145	249	112	52	44	38	38
Measured	Conc.	0.034	0.026	0.036	0.046	0.005	0.012	0.234	0.010	0.048	0.000	0.000	0.020
	wt. factor	1.394	1.144	1.584	2.024	0.270	0.900	33.930	2.490	5.376	0.000	0.000	0.760
	Wt. Avg	0.021	0.023	0.167	0.445	0.044	0.042	0.138	0.018	0.031	0.021	0.019	0.206
													0.076 mean 0.445 max
7 Spanish Fork River Above East Bench Diversion Dam													
WQ from 6	43	101	113	126	140	147	180	292	222	165	119	81	81
	Conc.	0.021	0.023	0.167	0.445	0.044	0.042	0.138	0.018	0.031	0.021	0.019	0.206
	wt. factor	0.906	2.329	18.914	56.025	6.190	6.166	23.539	4.428	5.142	2.429	1.607	12.774
													0.087 mean 0.445 max
8 Spanish Fork River Below East Bench Diversion Dam													
WC from 7	37	101	113	126	140	146	171	243	165	118	85	62	62
	Conc.	0.021	0.023	0.167	0.445	0.044	0.042	0.138	0.018	0.031	0.021	0.019	0.206
	wt. factor	0.780	2.329	18.914	56.025	6.190	6.166	23.539	4.428	5.142	2.429	1.607	12.774
													0.093 mean 0.445 max
9 Spanish Fork River Below Mill Race Diversion Dam													
WC from 8	26	101	113	126	140	147	160	195	114	73	48	33	33
	Conc.	0.021	0.023	0.167	0.445	0.044	0.042	0.138	0.018	0.031	0.021	0.019	0.206
	wt. factor	0.548	2.329	18.914	56.025	6.190	6.209	22.025	3.553	3.553	1.502	0.908	6.789
Natural Gains: Spanish Fork at Castilla	56	69	68	67	81	111	181	243	150	85	64	53	43
Measured	Conc.	0.034	0.026	0.036	0.046	0.005	0.012	0.234	0.010	0.048	0.000	0.000	0.020
	wt. factor	1.904	1.794	2.448	3.082	0.405	1.332	42.354	1.500	4.080	0.000	0.000	0.860
	Wt. Avg	0.030	0.024	0.118	0.306	0.030	0.029	0.189	0.015	0.038	0.011	0.009	0.101
													0.082 mean 0.306 max
10 Spanish Fork River at Lake Shore													
WC from 9	68	168	181	193	221	258	341	322	189	120	86	70	70
	Conc.	0.030	0.024	0.118	0.306	0.030	0.029	0.189	0.015	0.038	0.011	0.009	0.101
	wt. factor	2.033	4.075	21.362	59.107	6.595	7.541	64.379	4.716	7.249	1.316	0.773	7.054
Natural Gains: Spanish Fork at Lakeshore	0	0	0	9	12	15	18	11	0	0	0	0	0
Measured	Conc.	0.069	0.026	0.060	0.066	0.018	0.776	0.418	0.010	0.020	0.251	0.020	0.140
	wt. factor	0.000	0.000	0.540	0.792	6.270	13.968	4.598	0.000	0.000	0.000	0.000	0.000
	Wt. Avg	0.030	0.024	0.115	0.292	0.055	0.078	0.196	0.015	0.038	0.011	0.009	0.101
													0.093 mean 0.292 max

DO, Mixed: Dissolved Oxygen, Measured Average of All Depths

PROPOSED ACTION

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Flow in cfs, Concentration in mg/L													
Sixth Water Creek													
1 Sixth Water Creek below Strawberry Tunnel Outlet													
WQ from Strawberry Reservoir	28	21	20	20	20	19	20	27	26	27	28	28	
Measured	7.9	5.2	5.9	5.5	8.1	6.4	5.0	4.4	4.8	6.2	7.3	9.3	
Conc.	221	109	119	109	162	122	100	118	126	167	205	262	
wt. factor													
Natural Gains: 6th above 5th Water Creek	6	6	6	6	6	7	14	21	11	7	6	6	
Measured	9.0	10.8	9.3	7.9	5.2	9.5	9.1	9.8	9.4	8.7	8.4	8.7	
Conc.	54	65	56	47	31	67	127	206	103	61	50	52	
wt. factor													
reserated	9.7	9.2	8.6	8.2	10.0	9.7	9.4	8.8	8.3	8.9	9.0	10.2	9.3 mean 8.3 min
2 Sixth Water Creek below Sixth Water Aqueduct	34	27	26	26	26	26	34	48	37	34	34	34	
WQ from 1	34	27	26	26	26	26	34	48	37	34	34	34	
Conc.	10.8	11.1	11.7	11.6	12.0	11.6	11.4	10.6	9.8	10.4	10.1	10.8	
wt. factor	358	290	291	288	300	290	370	484	349	341	335	363	10.9 mean 9.8 min
3 Sixth Water Creek below Fifth Water Creek	3	3	2	2	3	4	14	27	8	4	2	2	
Natural Gains: 5th Water Creek	3	3	2	2	3	4	14	27	8	4	2	2	
Measured	9.0	10.8	9.3	7.9	5.2	9.5	9.1	9.8	9.4	8.7	8.4	8.7	
Conc.	27	32	19	16	16	38	127	265	75	35	17	17	
wt. factor													
WO from 2	34	27	26	26	26	26	34	48	37	34	34	34	
Conc.	11.0	11.4	12.0	12.0	12.3	11.9	11.7	10.9	10.1	10.6	10.3	10.9	
wt. factor	373	308	312	313	320	310	399	524	374	360	350	371	
	37	30	28	28	29	30	48	75	45	38	36	36	10.8 mean 10.0 min
	10.8	11.4	11.9	11.8	11.7	11.7	11.1	10.6	10.0	10.4	10.2	10.8	
Diamond Fork Creek													
4 Diamond Fork Creek below Three Forks	37	30	28	28	29	30	48	75	45	38	36	36	
WQ from 3	37	30	28	28	29	30	48	75	45	38	36	36	
Conc.	10.9	11.4	12.0	11.9	11.7	11.7	11.2	10.7	10.1	10.5	10.3	10.8	
wt. factor	402	343	335	333	341	352	536	800	454	398	370	390	
Natural Gains: use DF above 3 Forks	5	6	5	4	5	8	32	59	19	7	6	6	
Measured	8.8	10.7	9.3	7.9	5.2	12.0	8.9	9.8	9.6	8.3	8.1	8.6	
Conc.	44	64	47	32	26	96	285	578	182	58	49	52	
wt. factor													
reserated	10.8	11.5	11.9	11.8	11.3	12.0	10.5	10.5	10.1	10.3	10.1	10.8	10.8 mean 10.1 min
5 Diamond Fork Creek Below Diamond Fork Creek Outlet	18	24	27	28	26	22	5	6	25	37	38	38	
Additions from Strawberry Reservoir for Minimum Flows	18	24	27	28	26	22	5	6	25	37	38	38	
Measured	7.9	5.2	5.9	5.5	8.1	6.4	5.0	4.4	4.8	6.2	7.3	9.3	
Conc.	142	124	160	153	211	142	25	26	121	229	278	355	
wt. factor													
WO from 4	42	36	33	32	34	36	80	134	64	45	42	42	
Conc.	10.9	11.6	12.2	12.1	11.6	12.2	10.8	10.6	10.3	10.5	10.2	10.7	
wt. factor	459	418	401	367	396	464	861	1421	656	471	430	450	
	60	60	60	60	60	60	85	140	89	82	80	80	9.8 mean 8.7 min
	10.1	9.3	9.7	9.3	10.4	10.3	10.6	10.4	8.9	8.7	9.0	10.1	
5b Intermediate Point (Diamond Fork Creek at Mouth)	60	60	60	60	60	60	85	140	89	82	80	80	
WQ from 5	60	60	60	60	60	60	85	140	89	82	80	80	
Conc.	10.2	9.5	9.9	9.6	10.6	10.5	10.7	10.5	9.0	8.9	9.1	10.2	
wt. factor	615	573	593	575	634	630	907	1470	804	729	730	817	
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	19	34	35	33	17	9	12	
Measured	9.1	10.8	10.0	11.1	10.5	11.4	9.0	10.2	9.8	8.7	8.5	9.1	
Conc.	118	108	100	122	137	217	306	357	323	148	77	109	
wt. factor													
reserated	10.7	10.9	11.2	11.3	11.7	11.7	11.7	12.1	10.6	10.2	9.9	10.7	11.1 mean 9.9 min
Spanish Fork River													
6 Spanish Fork River at Castille Gage	73	70	70	71	73	78	119	175	122	99	89	92	
WQ from 5b	73	70	70	71	73	78	119	175	122	11.0	10.8	10.4	11.0
Conc.	11.0	11.5	11.9	12.1	12.4	12.3	12.2	12.2	12.2	11.0	10.8	10.4	11.0
wt. factor	804	808	836	852	906	974	1453	2130	1346	1070	925	1008	
WO from Strawberry Reservoir	21	56	67	79	94	105	143	243	349	345	247	119	
Measured	7.9	5.2	5.9	5.5	8.1	6.4	5.0	4.4	4.8	6.2	7.3	9.3	
Conc.	165	290	397	431	763	676	712	1062	1689	2132	1806	1111	
wt. factor													
Natural Gains: Spanish Fork at Castille	41	44	44	44	54	75	145	249	112	52	44	38	
Measured	8.5	9.8	10.6	11.1	10.5	10.6	8.8	10.0	9.5	8.6	8.3	8.6	
Conc.	349	431	466	488	567	795	1276	2490	1064	447	365	327	
wt. factor													
reserated	9.9	9.3	9.6	9.4	10.3	9.6	8.7	8.7	7.2	7.6	8.3	9.9	8.7 mean 7.2 min
7 Spanish Fork River Above East Bench Diversion Dam	43	101	113	126	140	147	180	292	222	165	119	81	
WQ from 6	43	101	113	126	140	147	180	292	222	165	119	81	
Conc.	10.0	9.5	9.8	9.6	10.5	9.8	8.8	8.8	7.4	7.7	8.4	10.0	
wt. factor	430	955	1109	1216	1465	1441	1587	2567	1641	1275	1005	809	
													mean min
8 Spanish Fork River Below East Bench Diversion Dam	37	101	113	126	140	146	171	243	165	118	85	62	
WQ from 7	37	101	113	126	140	146	171	243	165	118	85	62	
Conc.	10.0	9.5	9.8	9.6	10.5	9.8	8.8	8.8	7.4	7.7	8.4	10.0	
wt. factor	370	955	1109	1216	1465	1432	1508	2136	1219	912	718	620	
													mean min
9 Spanish Fork River Below Mill Race Diversion Dam	26	101	113	126	140	147	160	195	114	73	48	33	
WQ from 8	26	101	113	126	140	147	160	195	114	73	48	33	
Conc.	10.0	9.5	9.8	9.6	10.5	9.8	8.8	8.8	7.4	7.7	8.4	10.0	
wt. factor	260	955	1109	1216	1465	1441	1511	1714	842	564	405	330	
Natural Gains: Spanish Fork at Castilla	56	69	68	67	81	111	151	150	85	64	53	43	
Measured	8.5	9.8	10.6	11.1	10.5	10.6	8.8	10.0	9.5	8.6	8.3	8.6	
Conc.	476	676	721	744	851	1177	1593	1500	808	550	440	370	
wt. factor													
wt avg	82	170	181	193	221	258	341	345	190	137	101	76	
	9.0	9.6	10.1	10.2	10.5	10.1	8.8	9.3	8.3	8.1	8.4	9.2	mean min
10 Spanish Fork River at Lake Shore	68	168	181	193	221	258	341	322	189	120	86	70	
WQ from 9	68	168	181	193	221	258	341	322	189	120	86	70	
Conc.	9.0	9.6	10.1	10.2	10.5	10.1	8.8	9.3	8.3	8.1	8.4	9.2	
wt. factor	611	1612	1830	1960	2315	2618	3004	3000	1567	976	720	644	
Natural Gains: Spanish Fork at Lakeshore	0	0	9	12	15	18	11	0	0	0	0	0	
Measured	9.7	9.8	10.6	11.1	10.5	10.3	8.6	9.8	8.6	8.2	8.0	7.1	
Conc.	0	0	95	133	158	186	94	0	0	0	0	0	
wt. factor													
reserated	9.7	10.3	10.7	10.8	11.0	10.7	9.4	9.8	8.8	8.9	9.0	9.8	10.0 mean 8.9 min

DO, Deep: Dissolved Oxygen, Measured Average of Below 33 ft Depth

PROPOSED ACTION

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Flow in cfs, Concentration in mg/l.													
Sixth Water Creek													
1 Sixth Water Creek below Strawberry Tunnel Outlet													
WQ from Strawberry Reservoir	28	21	20	20	20	19	20	27	26	27	28	28	
Measured	4.9	8.6	6.5	4.4	2.3	1.2	4.3	6.4	6.8	2.4	0.3	2.3	
wt. factor	137	181	130	88	46	23	86	173	177	65	8	64	
Natural Gains: 6th above 5th Water Creek	6	6	6	6	6	7	14	21	11	7	6	6	
Measured	9.0	10.8	9.3	7.9	5.2	9.5	9.1	9.8	9.4	8.7	8.4	8.7	
wt. factor	54	65	56	47	31	67	127	206	103	61	50	52	
recreated	8.3	10.1	10.1	8.7	7.4	7.6	9.1	9.4	9.3	7.0	6.0	6.9	8.3 mean 6.0 min
2 Sixth Water Creek below Sixth Water Aqueduct													
WQ from 1	34	27	26	26	26	26	34	48	37	34	34	34	
Measured	10.2	10.9	12.1	11.3	10.7	11.8	11.2	10.7	10.6	9.4	9.0	9.3	
wt. factor	331	289	304	279	259	261	363	495	380	300	282	298	10.4 mean 9.0 min
3 Sixth Water Creek below Fifth Water Creek													
Natural Gains: 5th Water Creek	3	3	2	2	3	4	14	27	8	4	2	2	
Measured	9.0	10.8	9.3	7.9	5.2	9.5	9.1	9.8	9.4	8.7	8.4	8.7	
wt. factor	27	32	19	16	16	38	127	265	75	35	17	17	
WQ from 2	34	27	26	26	26	26	34	48	37	34	34	34	
Measured	10.4	11.0	12.4	11.8	11.3	11.3	11.6	10.9	10.8	9.8	9.4	9.7	
wt. factor	355	296	322	306	293	293	394	525	396	333	321	329	
recreated	10.4	11.0	12.2	11.6	10.8	11.2	11.0	10.6	10.6	9.8	9.5	9.7	10.6 mean 9.5 min
Diamond Fork Creek													
4 Diamond Fork Creek below Three Forks													
WQ from 3	57	30	28	28	29	30	48	75	45	38	36	36	
Measured	10.4	11.0	12.3	11.7	10.9	11.3	11.1	10.7	10.6	9.8	9.6	9.8	
wt. factor	386	329	344	327	316	338	531	800	477	373	344	351	
Natural Gains: use DF above 3 Forks	5	6	5	4	5	8	32	59	19	7	6	6	
Measured	8.8	10.7	9.3	7.9	5.2	12.0	8.9	9.8	9.6	8.3	8.1	8.6	
wt. factor	44	64	47	32	26	96	285	578	182	58	49	52	
recreated	10.5	11.0	12.1	11.6	10.7	11.7	10.5	10.5	10.5	9.8	9.6	9.8	10.6 mean 9.6 min
5 Diamond Fork Creek Below Diamond Fork Creek Outlet													
Additions from Strawberry Reservoir for Minimum Flows	18	24	27	28	26	22	5	6	25	37	38	38	
Measured	4.9	8.6	6.5	4.4	2.3	1.2	4.3	6.4	6.8	2.4	0.3	2.3	
wt. factor	88	206	176	123	60	26	22	38	170	89	11	87	
WQ from 4	42	36	33	32	34	38	80	134	64	45	42	42	
Measured	10.6	11.1	12.4	11.9	11.1	12.0	10.7	10.6	10.6	10.0	9.9	10.0	
wt. factor	447	399	408	382	378	455	858	1418	677	452	414	420	
recreated	60	60	60	60	60	60	85	140	89	82	80	80	8.8 mean 5.7 min
5b Intermediate Point (Diamond Fork Creek at Mouth)													
WQ from 5	60	60	60	60	60	60	85	140	89	82	80	80	
Measured	9.3	10.3	10.2	9.1	8.1	8.7	10.6	10.6	9.8	7.2	6.1	7.0	
wt. factor	558	620	613	545	487	524	901	1477	868	589	487	557	
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	19	34	35	33	17	9	12	
Measured	9.1	10.8	10.0	11.1	10.5	11.4	9.0	10.2	9.8	8.7	8.5	9.1	
wt. factor	118	108	100	122	137	217	306	357	323	148	77	109	
recreated	73	70	70	71	73	79	119	175	122	99	89	92	10.7 mean 8.6 min
Spanish Fork River													
6 Spanish Fork River at Castilla Gage													
WQ from 5b	73	70	70	71	73	79	119	175	122	99	89	92	
Measured	10.7	11.2	12.1	11.9	11.6	12.0	12.2	12.1	11.3	10.4	9.8	10.0	
wt. factor	779	787	848	848	847	948	1452	2110	1380	1027	868	924	
WQ from Strawberry Reservoir	21	56	67	79	94	105	143	243	349	345	247	119	
Measured	4.9	8.6	6.5	4.4	2.3	1.2	4.3	6.4	6.8	2.4	0.3	2.3	
wt. factor	103	482	436	348	216	126	615	1555	2373	828	74	274	
Natural Gains: Spanish Fork at Castilla	41	44	44	44	54	75	145	249	112	52	44	38	
Measured	8.5	9.8	10.6	11.1	10.5	10.6	8.8	10.0	9.5	8.6	8.3	8.6	
wt. factor	349	431	466	488	567	795	1276	2490	1064	447	365	327	
recreated	9.3	10.1	9.9	9.0	7.7	7.6	8.4	9.3	8.4	5.0	3.9	6.5	7.7 mean 3.9 min
7 Spanish Fork River Above East Bench Diversion Dam													
WQ from 6	43	101	113	126	140	147	180	292	222	165	119	81	
Measured	9.4	10.3	10.1	9.2	8.0	7.8	8.6	9.4	8.5	5.3	4.2	6.7	
wt. factor	406	1036	1138	1159	1120	1149	1548	2754	1896	867	506	544	mean min
8 Spanish Fork River Below East Bench Diversion Dam													
WQ from 7	37	101	113	126	140	146	171	243	165	118	85	62	
Measured	9.4	10.3	10.1	9.2	8.0	7.8	8.6	9.4	8.5	5.3	4.2	6.7	
wt. factor	349	1036	1138	1159	1120	1142	1470	2292	1409	620	361	416	mean min
9 Spanish Fork River Below Mill Race Diversion Dam													
WQ from 8	26	101	113	126	140	147	160	195	114	73	48	33	
Measured	9.4	10.3	10.1	9.2	8.0	7.8	8.6	9.4	8.5	5.3	4.2	6.7	
wt. factor	245	1036	1138	1159	1120	1149	1376	1839	973	384	204	222	
Natural Gains: Spanish Fork at Castilla	56	69	68	67	81	111	181	150	85	64	53	43	
Measured	8.5	9.8	10.6	11.1	10.5	10.6	8.8	10.0	9.5	8.6	8.3	8.6	
wt. factor	476	676	721	744	851	1177	1593	1500	808	550	440	370	
wt avg	8.8	10.1	10.3	9.9	8.9	9.0	8.7	9.7	8.9	6.8	6.4	7.8	
10 Spanish Fork River at Lake Shore													
WQ from 9	68	168	181	193	221	258	341	322	189	120	86	70	
Measured	8.8	10.1	10.3	9.9	8.9	9.0	8.7	9.7	8.9	6.8	6.4	7.8	
wt. factor	598	1692	1859	1903	1971	2326	2968	3116	1691	818	548	545	
Natural Gains: Spanish Fork at Lakeshore WQ9	0	0	9	12	15	18	11	0	0	0	0	0	
Measured	9.7	9.8	10.6	11.1	10.5	10.3	8.6	9.8	8.6	8.2	8.0	7.1	
wt. factor	0	0	95	133	158	186	94	0	0	0	0	0	
recreated	9.4	10.5	11.6	11.4	12.1	12.0	11.2	10.0	9.4	7.7	7.3	8.5	10.6 mean 7.3 min

ATTACHMENT D

**NO ACTION ALTERNATIVE
WATER QUALITY ANALYSIS**

Selenium

NO ACTION ALTERNATIVE

		Oct	May	Jun	Jul	Aug	Sep	Overall
Flow in cfs, Concentration in mg/L								
Sixth Water Creek								
1	Sixth Water Creek below Strawberry Tunnel Outlet							
WQ from Strawberry Reservoir		28	27	26	27	27	28	
Historic	Conc.	2.5	0.5	0.5	0.5	2.5	2.5	
wt. factor		70	14	13	14	68	70	
Natural Gains: 6th above 5th Water Creek		6	21	11	7	6	6	
Historic	Conc.	3.8	1.2	0.8	0.5	0.5	0.5	
wt. factor		23	25	9	4	3	3	
Tot. Flow		34	48	37	34	33	34	
Wt. Avg.		2.7	0.8	0.6	0.5	2.1	2.1	1.4 Mean 2.7 Max
2	Sixth Water Creek below Sixth Water Aqueduct							
WQ from 1		34	48	37	34	33	34	
Historic	Conc.	2.7	0.8	0.6	0.5	2.1	2.1	
wt. factor		93	39	22	17	71	73	
Natural Gains: 6th above 5th Water Creek		0	0	0	0	1	0	
Historic	Conc.	3.8	1.2	0.8	0.5	0.5	0.5	
wt. factor		0	0	0	0	1	0	
WQ from Strawberry Reservoir		38	237	364	428	309	164	
Historic	Conc.	2.5	0.5	0.5	0.5	2.5	2.5	
wt. factor		95	119	182	214	773	410	
Tot. Flow		71	285	401	462	343	197	
Wt. Avg.		2.6	0.8	0.5	0.5	2.5	2.5	1.2 Mean 2.6 Max
3	Sixth Water Creek below Fifth Water Creek							
WQ from 2		71	285	401	462	343	197	
Historic	Conc.	2.6	0.6	0.5	0.5	2.5	2.5	
wt. factor		188	157	204	231	844	483	
Natural Gains: 5th Water Creek		3	27	8	3	2	3	
Historic	Conc.	3.8	1.2	0.8	0.5	0.5	0.5	
wt. factor		11	32	6	2	1	2	
Natural Gains: use DF above 3 Forks		6	59	18	7	5	6	
Historic	Conc.	0.5	0.5	0.5	0.5	0.5	0.5	
wt. factor		3	30	9	4	3	3	
Tot. Flow		79	371	427	472	350	206	
Wt. Avg.		2.6	0.6	0.5	0.5	2.4	2.4	1.2 Mean 2.6 Max
Diamond Fork Creek								
4	Diamond Fork Creek below Three Forks							
WQ from 3		60	139	87	80	80	80	
Historic	Conc.	2.6	0.6	0.5	0.5	2.4	2.4	
wt. factor		154	82	45	40	194	189	
								1.3 Mean 2.6 Max
5	Diamond Fork Creek Below Red Hollow							
WQ from 4		60	80	80	80	80	80	
Historic	Conc.	2.6	0.6	0.5	0.5	2.4	2.4	
wt. factor		154	47	41	40	194	189	
								1.4 Mean 2.6 Max
5b	Intermediate Point (Diamond Fork Creek at Mouth)							
WQ from 5		60	80	80	80	80	80	
Historic	Conc.	2.6	0.6	0.5	0.5	2.4	2.4	
wt. factor		154	47	41	40	194	189	
Natural Gains: Diamond Fork at Hayes		13	95	40	17	9	12	
Historic	Conc.	1.4	0.5	0.5	0.5	0.5	0.5	
wt. factor		18	48	20	9	5	6	
Tot. Flow		73	175	120	97	89	92	
Wt. Avg.		2.4	0.5	0.5	0.5	2.2	2.1	1.2 Mean 2.6 Max
Spanish Fork River								
6	Spanish Fork River at Castilla Gage							
WQ from 5b		73	175	120	97	89	82	
Historic	Conc.	2.4	0.5	0.5	0.5	2.2	2.1	
wt. factor		172	95	61	49	198	195	
WQ from 3		19	232	340	392	270	126	
Historic	Conc.	2.6	0.6	0.5	0.5	2.4	2.4	
wt. factor		49	137	175	196	653	298	
Natural Gains: Spanish Fork at Castilla		41	249	112	52	44	38	
Historic	Conc.	1.2	0.5	0.5	0.5	0.5	1.0	
wt. factor		49	125	56	26	22	38	
Tot. Flow		133	656	572	541	403	256	
Wt. Avg.		2.0	0.5	0.5	0.5	2.2	2.1	1.0 Mean 2.2 Max
7	Spanish Fork River Above East Bench Diversion Dam							
WQ from 6		34	275	164	127	97	76	
Historic	Conc.	2	1	1	1	2	2	
wt. factor		69	149	84	64	210	158	
WQ from 7		28	226	108	81	63	57	
Historic	Conc.	2	1	1	1	2	2	
WQ from 8		16	177	51	25	21	26	
Historic	Conc.	2.0	0.5	0.5	0.5	2.2	2.1	
wt. factor		32	96	26	13	46	54	
Natural Gains: Spanish Fork at Castilla		56	150	85	64	53	43	
Historic	Conc.	1.2	0.5	0.5	0.5	0.5	1.0	
wt. factor		67	75	43	32	27	43	
Tot. Flow		72	327	136	89	74	69	
Wt. Avg.		1.4	0.5	0.5	0.5	1.0	1.4	0.7 Mean 1.4 Max
10	Spanish Fork River at Lake Shore							
WQ from 9		72	328	140	99	79	70	
Historic	Conc.	1.4	0.5	0.5	0.5	1.0	1.4	
wt. factor		100	172	71	50	77	98	
Natural Gains: Spanish Fork at Lakeshore		0	0	0	0	0	0	
Historic	Conc.	1.6	1.4	1.2	1.1	1.4	1.5	
wt. factor		0	0	0	0	0	0	
Tot. Flow		57	303	121	65	55	62	
Wt. Avg.		1.4	0.5	0.5	0.5	1.0	1.4	0.9 Mean 1.4 Max

Temperature, Deep: Below 33 ft Depth

NO ACTION ALTERNATIVE

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Overall
	Flow in cfs, temperature in degrees C												Deg. C deg. F
Sixth Water Creek													
1 Sixth Water Creek below Strawberry Tunnel Outlet													
WQ from Strawberry Reservoir	28	21	20	20	20	19	27	26	27	27	27	26	26
Historic	10.0	8.4	2.3	2.3	2.3	2.9	4.1	8.6	9.2	11.4	12.2	13.0	
Temp.	10.0	8.4	2.3	2.3	2.3	2.9	4.1	8.6	9.2	11.4	12.2	13.0	
wt. factor	260	176	46	46	47	57	76	259	238	306	329	364	
Natural Gains: 8th above 5th Water Creek	6	6	6	6	6	6	14	21	11	7	6	6	6
Historic	10.8	18.7	2.6	2.6	2.6	2.7	3.5	7.4	12.2	12.6	12.9	11.4	
Temp.	10.8	18.7	2.6	2.6	2.6	2.7	3.5	7.4	12.2	12.6	12.9	11.4	
wt. factor	65	112	15	15	12	19	49	181	134	90	77	68	
Wt Avg	10.1	16.7	2.4	2.4	2.4	2.8	3.8	8.6	10.1	11.7	12.3	12.7	
deg. F	59	51	36	36	36	37	39	46	59	63	64	65	
2 Sixth Water Creek below Sixth Water Aqueduct													
WQ from 1	34	27	26	26	26	27	33	48	37	34	33	34	
Historic	10.1	10.7	2.4	2.2	2.3	2.8	3.8	8.6	10.1	11.7	12.3	12.7	
Temp.	10.1	10.7	2.4	2.2	2.3	2.8	3.8	8.6	10.1	11.7	12.3	12.7	
wt. factor	345	286	62	58	59	76	127	415	373	398	406	432	
Natural Gains: 8th above 5th Water Creek	0	0	1	1	1	0	0	0	0	0	1	0	
Historic	10.8	18.7	2.6	2.0	2.0	2.7	3.5	7.4	12.2	12.8	12.9	11.4	
Temp.	10.8	18.7	2.6	2.0	2.0	2.7	3.5	7.4	12.2	12.8	12.9	11.4	
wt. factor	0	0	3	2	2	0	0	0	0	0	1	0	
WQ from Strawberry Reservoir	38	136	108	119	134	141	161	237	354	428	309	164	
Historic	10.0	8.4	2.3	2.3	2.3	2.9	4.1	9.6	9.2	11.4	12.2	13.0	
Temp.	10.0	8.4	2.3	2.3	2.3	2.9	4.1	9.6	9.2	11.4	12.2	13.0	
wt. factor	380	1142	248	274	314	402	650	2275	3349	4879	3761	2132	
Wt Avg	10.2	8.8	2.3	2.3	2.3	2.8	4.1	9.4	9.3	11.4	12.2	13.0	
deg. F	59	44	36	36	36	37	39	49	49	53	54	55	
3 Sixth Water Creek below Fifth Water Creek													
WQ from 2	71	163	135	146	161	168	194	285	401	462	343	197	
Historic	10.2	8.6	2.3	2.3	2.3	2.8	4.1	9.4	9.3	11.4	12.2	13.0	
[TDS]	725	1431	313	334	374	478	787	2690	3722	5277	4179	2564	
Natural Gains: 5th Water Creek	3	3	2	2	2	4	15	27	8	3	2	3	
Historic	10.8	18.7	2.6	2.0	2.0	2.7	3.5	7.4	12.2	12.8	12.9	11.4	
Temp.	10.8	18.7	2.6	2.0	2.0	2.7	3.5	7.4	12.2	12.8	12.9	11.4	
wt. factor	32	56	5	4	4	11	53	200	98	36	26	34	
Wt Avg	10.3	8.8	2.3	2.3	2.3	2.8	4.7	8.9	8.4	11.5	12.2	13.0	
deg. F	51	46	36	36	36	37	40	49	49	53	54	55	
Diamond Fork Creek													
4 Diamond Fork Creek below Three Forks													
WQ from 3	60	60	60	60	60	60	85	139	97	80	80	80	
Temp.	10.3	8.8	2.3	2.3	2.4	2.9	4.7	8.9	9.4	11.5	12.2	13.0	
wt. factor	619	527	138	136	143	173	308	1233	819	918	976	1040	
deg. F	51	48	36	36	36	37	40	49	49	53	53	53	
5 Diamond Fork Creek Below Red Hollow													
WQ from 4	60	60	60	60	60	60	80	80	80	80	80	80	
Temp.	10.3	8.8	2.3	2.3	2.4	2.9	4.7	8.9	9.4	11.5	12.2	13.0	
wt. factor	619	527	138	136	143	173	374	710	753	918	976	1040	
deg. F	51	48	36	36	36	37	40	49	49	53	54	55	
6b Intermediate Point (Diamond Fork Creek at Mouth)													
WQ from 5	60	60	60	60	60	60	80	80	80	80	80	80	
Temp.	10.3	8.8	2.3	2.3	2.4	2.9	4.7	8.9	9.4	11.5	12.2	13.0	
wt. factor	619	527	138	136	143	173	374	710	753	918	976	1040	
Natural Gains: Diamond Fork at Hayes	13	10	11	13	20	39	95	40	17	9	12	12	
Historic	11.0	4.4	4.0	2.0	4.0	2.4	7.9	6.7	12.0	13.9	13.5	11.4	
Temp.	11.0	4.4	4.0	2.0	4.0	2.4	7.9	6.7	12.0	13.9	13.5	11.4	
wt. factor	143	44	40	22	52	48	309	637	480	236	122	137	
Wt Avg	10.4	8.3	2.5	2.2	2.7	2.8	6.7	7.7	10.3	11.8	12.4	12.8	
deg. F	51	47	37	36	37	39	44	47	50	53	54	55	
Spanish Fork River													
6 Spanish Fork River at Castle Gage													
WQ from 5b	73	70	70	71	73	80	119	175	120	97	89	92	
Temp.	10.4	8.2	2.5	2.2	2.7	2.6	5.7	7.7	10.3	11.9	12.4	12.8	
wt. factor	702	571	178	158	195	221	683	1346	1233	1154	1099	1177	
WQ from 3	19	112	92	92	108	119	156	232	340	392	270	226	
Temp.	10.3	8.8	2.3	2.3	2.4	2.9	4.7	8.9	9.4	11.5	12.2	13.0	
wt. factor	196	983	189	209	257	344	730	2058	3202	4498	3300	1638	
Natural Gains: Spanish Fork at Castle	41	44	44	43	55	75	145	249	112	52	44	38	
Historic	9.5	4.9	5.1	2.0	4.0	5.0	8.8	8.4	12.2	13.3	13.0	10.5	
Temp.	9.5	4.9	5.1	2.0	4.0	5.0	8.8	8.4	12.2	13.3	13.0	10.5	
wt. factor	390	216	224	98	220	375	1291	2092	1366	692	572	399	
Wt Avg	10.1	7.8	3.8	2.2	2.8	3.4	6.4	8.4	10.1	11.7	12.3	12.6	
deg. F	59	46	37	36	37	39	44	47	50	53	54	55	
7 Spanish Fork River above East Bench Diversion Dam													
WQ from 6	34	157	129	140	154	161	193	275	164	127	97	76	
Temp.	10.1	7.8	3.0	2.2	2.8	3.4	6.4	8.4	10.1	11.7	12.3	12.6	
wt. factor	345	1229	389	308	439	552	1242	2304	1663	1489	1197	954	
deg. F													
8 Spanish Fork River Below East Bench Diversion Dam													
WQ from 7	26	157	129	140	154	161	184	226	108	81	63	57	
Temp.	10.1	7.8	3.0	2.2	2.8	3.4	6.4	8.4	10.1	11.7	12.3	12.6	
wt. factor	0	0	0	12	16	18	10	0	0	0	0	0	
Wt Avg	9.6	6.9	3.7	2.1	3.2	4.1	7.7	8.4	11.4	12.9	12.6	11.3	
deg. F	49	44	39	36	38	39	46	47	53	55	56	52	
9 Spanish Fork River below Mill Race Diversion Dam													
WQ from 8	16	157	128	139	155	161	173	177	51	25	21	26	
Temp.	10.1	7.8	3.0	2.2	2.8	3.4	6.4	8.4	10.1	11.7	12.3	12.6	
wt. factor	162	1229	386	306	442	552	1114	1483	817	293	256	326	
Natural Gains: Spanish Fork at Castle	56	69	68	67	81	111	181	150	85	64	53	43	
Historic	9.5	4.9	5.1	2.0	4.0	5.0	8.8	8.4	12.2	13.3	13.0	10.5	
Temp.	9.5	4.9	5.1	2.0	4.0	5.0	8.8	8.4	12.2	13.3	13.0	10.5	
wt. factor	532	338	347	134	324	555	1611	1260	1022	851	685	452	
Wt Avg	9.6	6.9	3.7	2.1	3.2	4.1	7.7	8.4	11.4	12.9	12.6	11.3	
deg. F	49	44	39	36	38	39	46	47	53	55	56	52	
10 Spanish Fork River at Lake Shore													
WQ from 9	72	226	187	207	235	272	356	328	140	99	79	70	
Historic	9.6	6.9	3.7	2.1	3.2	4.1	7.7	8.4	11.4	12.9	12.6	11.3	
Temp.	9.6	6.9	3.7	2.1	3.2	4.1	7.7	8.4	11.4	12.9	12.6	11.3	
wt. factor	604	1567	142	42	762	1107	2732	2751	1600	1273	1012	789	
Natural Gains: Spanish Fork at Lakeshore	0	0	0	12	16	18	10	0	0	0	0	0	
Historic	9.5	4.9	5.6	3.3	5.9	5.2	8.8	10.1	15.5	16.3	14.7	16.3	
Temp.	9.5	4.9	5.6	3.3	5.9	5.2	8.8	10.1	15.5	16.3	14.7	16.3	
wt. factor	0	0	52	40	95	94	85	0	0	0	0	0	
Wt Avg	9.6	6.9	3.8	2.2	3.4	4.1	7.7	8.4					

Temperature, Minimum Deep: Below 33 ft Depth, Minimum Monthly Average

NO ACTION ALTERNATIVE

Temperature, Mixed: Average of All Depths

NO ACTION ALTERNATIVE

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		Overall
	Flow in cfs, temperature in degrees C												Deg. C	deg. F
Sixth Water Creek														
1 Sixth Water Creek below Strawberry Tunnel Outlet														
WO from Strawberry Reservoir	28	21	20	20	20	20	19	27	26	27	27	28		
Historic	9.4	2.8	2.8	2.0	2.0	4.0	4.0	7.3	11.8	10.0	12.5	11.0		
Temp. wt. factor	263	59	56	40	40	80	76	196	307	270	338	308		
Natural Gains: 6th above 5th Water Creek	6	6	6	6	7	14	21	11	7	6	6			
Historic	10.8	18.7	2.6	2.0	2.0	2.7	3.5	7.4	12.2	12.9	12.9	11.4		
Temp. wt. factor	65	112	16	12	12	19	49	155	134	90	77	68		
Wt Avg deg. F	9.6	6.3	2.8	2.0	2.0	3.7	3.8	7.3	11.9	10.6	12.6	11.1		
deg. F	49	43	37	36	36	39	39	45	53	51	55	52		
2 Sixth Water Creek below Sixth Water Aqueduct														
WO from 1	34	27	26	26	26	27	33	48	37	34	33	34		
Temp.	9.6	6.3	2.8	2.0	2.0	3.7	3.8	7.3	11.9	10.6	12.6	11.1		
wt. factor	328	171	72	52	52	96	125	351	441	360	415	376		
Natural Gains: 6th above 5th Water Creek	0	0	1	1	1	0	0	0	0	0	0	1		
Historic	10.8	18.7	2.6	2.0	2.0	2.7	3.5	7.4	12.2	12.9	12.9	11.4		
Temp. wt. factor	0	0	3	2	2	0	0	0	0	0	0	13		
WO from Strawberry Reservoir	38	136	108	119	134	141	161	237	364	428	309	164		
Historic	9.4	2.8	2.8	2.0	2.0	4.0	4.0	7.3	11.8	10.0	12.5	11.0		
Temp. wt. factor	357	381	302	238	268	564	644	1718	4295	4280	3863	1804		
Wt Avg deg. F	9.7	3.4	2.8	2.0	2.0	3.9	4.0	7.3	11.8	10.0	12.5	11.1		
deg. F	48	38	37	36	36	39	39	45	53	50	55	52		
3 Sixth Water Creek below Fifth Water Creek														
WO from 2	71	163	135	146	161	168	194	285	401	462	343	197		
[TDS]	9.7	3.4	2.8	2.0	2.0	3.9	4.0	7.3	11.8	10.0	12.5	11.1		
wt. factor	685	552	377	292	322	663	769	2069	4736	4540	4290	2180		
Natural Gains: 5th Water Creek	3	3	2	2	2	4	15	27	9	3	2	3		
Historic	10.8	18.7	2.6	2.0	2.0	2.7	3.5	7.4	12.2	12.9	12.9	11.4		
Temp. wt. factor	32	56	5	4	4	11	53	200	98	39	26	34		
Natural Gains: use DF above 3 Forks	6	6	5	4	5	8	32	59	18	7	5	6		
Historic	9.7	3.7	1.7	2.0	2.0	3.5	9.0	6.8	11.2	13.9	14.5	13.3		
Temp. wt. factor	58	22	9	8	10	28	288	401	202	97	73	80		
Wt Avg deg. F	9.8	3.7	2.7	2.0	2.1	3.9	4.6	7.2	11.8	10.1	12.5	11.1		
deg. F	50	39	37	36	36	39	40	45	53	50	55	52		
Diamond Fork Creek														
4 Diamond Fork Creek below Three Forks														
WO from 3	60	60	60	60	60	60	85	139	87	80	80	80		
Temp.	9.8	3.7	2.7	2.0	2.1	3.9	4.6	7.2	11.8	10.1	12.5	11.1		
wt. factor	589	220	165	120	124	235	391	1001	1026	810	1003	891		
deg. F	50	38	37	36	36	38	40	45	53	50	55	52		
5 Diamond Fork Creek Below Red Hollow														
WO from 4	60	60	60	60	60	60	80	80	80	80	80	80		
Temp.	9.8	3.7	2.7	2.0	2.1	3.9	4.6	7.2	11.8	10.1	12.5	11.1		
wt. factor	589	220	165	120	124	235	368	576	943	810	1003	891		
deg. F	50	39	37	36	36	38	40	45	53	50	55	52		
5b Intermediate Point (Diamond Fork Creek at Mouth)														
WO from 5	60	60	60	60	60	60	80	80	80	80	80	80		
Temp.	9.8	3.7	2.7	2.0	2.1	3.9	4.6	7.2	11.8	10.1	12.5	11.1		
wt. factor	589	220	165	120	124	235	368	576	943	810	1003	891		
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	20	39	95	- 40	17	9	12		
Historic	11.0	4.4	4.0	2.0	4.0	2.4	7.9	6.7	12.0	13.9	13.5	11.4		
Temp. wt. factor	143	44	40	22	52	48	309	637	480	236	122	137		
Wt Avg deg. F	73	70	70	71	73	80	119	175	120	97	89	92		
deg. F	50	39	37	36	36	38	42	44	53	51	55	52		
Spanish Fork River														
6 Spanish Fork River at Castille Gage														
WO from 5b	73	70	70	71	73	80	119	175	120	97	89	92		
Temp.	10.0	3.8	2.9	2.0	2.4	3.5	5.7	6.9	11.9	10.8	12.6	11.2		
wt. factor	732	264	205	142	176	285	678	1212	1423	1046	1125	1028		
WO from 3	19	112	82	92	108	119	156	232	340	392	270	126		
Temp.	9.8	3.7	2.7	2.0	2.1	3.9	4.6	7.2	11.8	10.1	12.5	11.1		
wt. factor	187	410	225	184	223	467	718	1670	4009	3967	3385	1403		
Natural Gains: Spanish Fork at Castille	41	44	44	43	55	75	145	249	112	52	44	38		
Historic	9.5	4.9	5.1	2.0	4.0	5.0	8.9	8.4	12.2	13.3	13.0	10.5		
Temp. wt. factor	390	216	224	86	220	375	1291	2092	1366	692	572	399		
Wt Avg deg. F	9.8	3.9	3.3	2.8	2.8	4.1	8.4	7.8	11.9	10.5	12.6	11.1		
deg. F	50	39	38	36	36	37	39	44	53	51	55	52		
7 Spanish Fork River Above East Bench Diversion Dam														
WO from 6	34	157	129	140	154	161	193	275	164	127	97	76		
Temp.	9.8	3.9	3.3	2.0	2.6	4.1	6.4	7.6	11.9	10.5	12.6	11.1		
wt. factor	334	618	431	280	403	661	1234	2085	1949	1339	1223	840		
deg. F	50	39	38	36	37	39	44	46	53	51	55	52		
8 Spanish Fork River Below East Bench Diversion Dam														
WO from 7	28	157	129	140	154	161	184	226	108	81	63	57		
Temp.	9.8	3.9	3.3	2.0	2.6	4.1	6.4	7.6	11.9	10.5	12.6	11.1		
deg. F	50	39	38	36	37	39	44	46	53	51	55	52		
9 Spanish Fork River Below Mill Race Diversion Dam														
WO from 8	16	157	128	139	155	161	173	177	51	25	21	26		
Temp.	9.8	3.9	3.3	2.0	2.6	4.1	6.4	7.6	11.9	10.5	12.6	11.1		
wt. factor	157	618	428	278	406	661	1106	1342	606	264	265	287		
Natural Gains: Spanish Fork at Castille	56	69	68	67	81	111	181	150	85	64	53	43		
Historic	9.5	4.9	5.1	2.0	4.0	5.0	8.9	8.4	12.2	13.3	13.0	10.5		
Temp. wt. factor	532	338	347	134	324	555	1611	1260	1037	851	689	452		
Wt Avg deg. F	9.6	4.2	4.0	2.0	3.1	4.5	7.7	8.0	12.1	12.5	12.8	10.7		
deg. F	49	40	39	36	38	40	46	46	54	55	55	51		
10 Spanish Fork River at Lake Shore														
WO from 9	72	226	197	207	235	272	355	328	140	99	79	70		
Temp.	9.6	4.2	4.0	2.0	3.1	4.5	7.7	8.0	12.1	12.5	12.9	10.7		
wt. factor	689	956	778	414	727	1216	2725	2610	1692	1240	1018	750		
Natural Gains: Spanish Fork at Lakeshore WO9	0	0	9	12	16	18	10	0	0	0	0	0		
Historic	9.5	4.9	5.8	3.3	5.9	5.2	8.8	10.1	16.5	16.3	14.7	16.3		
Temp. wt. factor	0	0	52	40	95	94	88	0	0	0	0	0		
Wt Avg deg. F	9.6	4.2	4.0	2.1	3.3	4.5	7.7	8.0	12.1	12.5	12.8	10.7		
deg. F	49	40	39	36	38	40	46	46	54	55	55	51		

Nitrate

NO ACTION ALTERNATIVE

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Overall
Flow in cfs, Concentration in mg/L													
Sixth Water Creek													
1) Sixth Water Creek below Strawberry Tunnel Outlet													
WO from Strawberry Reservoir	28	21	20	20	20	19	27	26	27	27	28		
Historic	0.147	0.150	0.182	0.270	0.271	0.191	0.153	0.048	0.061	0.066	0.148	0.141	
Conc. wt. factor	4.116	3.150	3.640	5.400	5.420	3.820	2.807	1.291	2.109	1.785	3.996	3.948	
Natural Gains: 6th above 5th Water Creek	6	6	6	6	6	7	14	21	11	7	6	6	
Historic	0.310	0.025	0.467	0.100	0.100	0.140	0.733	0.244	0.327	0.047	0.203	0.164	
Conc. wt. factor	1.860	0.150	2.800	0.600	0.600	0.980	10.262	5.124	3.597	0.329	1.218	0.984	
Tot. Flow	34	27	26	26	26	27	33	48	37	34	33	34	
Wt. Avg.	0.176	0.122	0.248	0.231	0.232	0.178	0.399	0.134	0.154	0.062	0.158	0.145	
													0.182 Mean 0.398 Max
2) Sixth Water Creek below Sixth Water Aqueduct													
WO from 1	34	27	26	26	26	27	33	48	37	34	33	34	
Historic	0.176	0.122	0.248	0.231	0.232	0.178	0.399	0.134	0.154	0.062	0.158	0.145	
Conc. wt. factor	5.976	3.300	6.440	6.000	6.020	4.800	13.168	6.415	5.706	2.114	5.214	4.932	
Natural Gains: 6th above 5th Water Creek	0	0	1	1	1	0	0	0	0	0	1	0	
Historic	0.310	0.025	0.467	0.100	0.100	0.140	0.733	0.244	0.327	0.047	0.203	0.164	
Conc. wt. factor	0.000	0.000	0.467	0.100	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
WO from Strawberry Reservoir	38	136	108	119	134	141	161	237	364	428	309	164	
Historic	0.147	0.150	0.182	0.270	0.273	0.191	0.153	0.048	0.061	0.066	0.148	0.141	
Conc. wt. factor	5.586	20.400	19.656	32.130	36.314	26.931	24.633	11.329	29.520	28.291	45.732	23.124	
Tot. Flow	71	163	135	146	161	168	194	285	401	462	343	197	
Wt. Avg.	0.163	0.145	0.197	0.262	0.264	0.189	0.195	0.062	0.088	0.066	0.149	0.142	
													0.137 Mean 0.264 Max
3) Sixth Water Creek below Fifth Water Creek													
WO from 2	71	163	135	146	161	168	194	285	401	462	343	197	
Historic	0.163	0.145	0.197	0.262	0.264	0.189	0.195	0.062	0.088	0.066	0.149	0.142	
Conc. wt. factor	11.562	23.700	26.563	38.230	42.434	31.731	37.802	17.743	35.226	30.405	51.149	28.056	
Natural Gains: 5th Water Creek	3	3	2	2	2	4	15	27	8	3	2	3	
Historic	0.310	0.025	0.467	0.100	0.100	0.140	0.733	0.244	0.327	0.047	0.203	0.164	
Conc. wt. factor	0.930	0.075	0.933	0.200	0.200	0.560	10.995	6.588	2.616	0.141	0.406	0.492	
Natural Gains: use DF above 3 Forks	6	6	5	4	5	8	32	59	18	7	5	6	
Historic	0.072	0.063	0.140	0.200	0.200	0.120	0.485	0.284	0.402	0.025	0.063	0.012	
Conc. wt. factor	0.432	0.378	0.700	0.800	1.000	0.960	15.520	16.756	7.236	0.175	0.315	0.072	
Tot. Flow	79	172	142	152	163	179	241	371	427	472	350	206	
Wt. Avg.	0.164	0.140	0.199	0.258	0.268	0.186	0.267	0.111	0.106	0.065	0.148	0.139	
													0.150 Mean 0.268 Max
Diamond Fork Creek													
4) Diamond Fork Creek below Three Forks													
WO from 3	60	60	60	60	60	60	85	139	87	80	80	80	
Historic	0.164	0.140	0.199	0.258	0.268	0.186	0.267	0.111	0.106	0.065	0.148	0.139	
Conc. wt. factor	9.816	8.425	11.914	15.486	16.062	11.145	22.684	15.394	9.185	5.207	11.856	11.115	
													0.163 Mean 0.268 Max
5) Diamond Fork Creek Below Red Hollow													
WO from 4	60	60	60	60	60	60	80	80	80	80	80	80	
Historic	0.164	0.140	0.199	0.258	0.268	0.186	0.267	0.111	0.106	0.065	0.148	0.139	
Conc. wt. factor	9.816	8.425	11.914	15.486	16.062	11.145	21.350	8.860	5.446	5.207	11.856	11.115	
													0.168 Mean 0.268 Max
5b) Intermediate Point (Diamond Fork Creek at Mouth)													
WO from 5	60	60	60	60	60	60	80	80	80	80	80	80	
Historic	0.164	0.140	0.199	0.258	0.268	0.186	0.267	0.111	0.106	0.065	0.148	0.139	
Conc. wt. factor	9.816	8.425	11.914	15.486	16.062	11.145	21.350	8.860	5.446	5.207	11.856	11.115	
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	20	39	95	40	17	9	12	
Historic	0.160	0.030	0.110	0.325	0.150	0.125	1.035	0.364	0.438	0.392	0.190	0.150	
Conc. wt. factor	2.080	0.300	1.100	3.575	1.950	2.500	40.365	34.580	17.520	6.664	1.710	1.800	
Tot. Flow	73	70	70	71	73	80	119	175	120	97	89	92	
Wt. Avg.	0.163	0.125	0.186	0.268	0.247	0.171	0.519	0.248	0.216	0.122	0.152	0.140	
													0.225 Mean 0.519 Max
Spanish Fork River													
6) Spanish Fork River at Castilla Gage													
WO from 5b	73	70	70	71	73	80	119	175	120	97	89	92	
Historic	0.163	0.125	0.186	0.268	0.247	0.171	0.519	0.248	0.216	0.122	0.152	0.140	
Conc. wt. factor	11.896	8.725	13.014	19.061	18.012	13.646	61.715	43.440	25.966	11.871	13.566	12.915	
WO from 3	19	112	82	92	108	119	156	232	340	392	270	126	
Historic	0.164	0.140	0.199	0.258	0.268	0.186	0.267	0.111	0.106	0.065	0.148	0.139	
Conc. wt. factor	3.108	15.728	16.282	23.744	28.911	22.105	41.633	25.693	35.893	25.514	40.014	17.505	
Natural Gains: Spanish Fork at Castilla	41	44	44	43	55	75	145	249	112	52	44	33	
Historic	1.557	0.115	0.115	0.372	0.100	0.120	0.670	0.470	0.190	0.113	0.183	0.238	
Conc. wt. factor	63.837	5.060	5.060	15.996	5.500	9.000	97.150	117.030	21.280	5.876	8.052	9.044	
Tot. Flow	133	226	196	206	236	274	420	656	572	541	403	256	
Wt. Avg.	0.993	0.131	0.175	0.285	0.222	0.163	0.477	0.284	0.145	0.080	0.153	0.154	
													0.222 Mean 0.593 Max
7) Spanish Fork River Above East Bench Diversion Dam													
WO from 6	34	157	129	140	154	161	193	275	164	127	97	76	
Historic	0.593	0.131	0.175	0.285	0.222	0.163	0.477	0.284	0.145	0.080	0.153	0.154	
Conc. wt. factor	20.155	20.502	22.612	39.962	34.208	26.295	92.133	78.041	23.837	10.155	14.835	11.716	
WO from 7	28	157	129	140	154	161	184	226	108	81	63	57	
Historic	0.593	0.131	0.175	0.285	0.222	0.163	0.477	0.284	0.145	0.080	0.153	0.154	
WO from 8	16	157	128	139	155	161	173	177	51	25	21	26	
Historic	0.593	0.131	0.175	0.285	0.222	0.163	0.477	0.284	0.145	0.080	0.153	0.154	
Conc. wt. factor	9.485	20.502	22.437	39.676	34.430	26.295	82.586	50.230	7.413	1.999	3.212	4.008	
Natural Gains: Spanish Fork at Castilla	56	69	68	67	81	111	181	150	85	64	53	43	
Historic	1.557	0.115	0.115	0.372	0.100	0.120	0.670	0.470	0.190	0.113	0.183	0.238	
Conc. wt. factor	87.192	7.935	7.820	24.924	8.100	13.320	121.270	70.500	16.150	7.232	9.699	10.234	
Tot. Flow	72	226	196	206	236	272	354	327	136	89	74	69	
Wt. Avg.	1.343	0.126	0.154	0.314	0.180	0.146	0.576	0.369	0.173	0.104	0.174	0.206	
													0.304 Mean 1.343 Max
10) Spanish Fork River at Lake Shore													
WO from 9	72	226	197	207	235	272	355	328	140	99	79	70	
Historic	1.343	0.126	0.154	0.314	0.180	0.146	0.576	0.369	0.173	0.104	0.174	0.206	
Conc. wt. factor	96.677	28.437	30.411	64.914	42.350	39.615	204.432	121.099	24.256	10.268	13.763	14.448	
Natural Gains: Spanish Fork at Lakeshore	0	0	9	12	16	18	310	0	0	0	0	0	
Historic	0.460	0.115	0.355	0.420	0.370	0.320	0.305	0.470	0.160	0.350	0.183	3.300	
Conc. wt. factor	0.000	0.000	3.195	5.040	5.920	5.760</td							

DO, Mixed: Dissolved Oxygen, Historical Average of All Depths

NO ACTION ALTERNATIVE

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Overall
Flow in cfs, Concentration in mg/L													
Sixth Water Creek													
1 Sixth Water Creek below Strawberry Tunnel Outlet													
WQ from Strawberry Reservoir	28	21	20	20	20	20	19	27	26	27	27	28	
Historic	7.9	5.2	5.9	5.5	8.1	6.4	5.0	4.4	4.8	6.2	7.3	9.3	
wt. factor	221	109	119	109	162	129	85	118	126	167	197	262	
Natural Gains: 6th above 5th Water Creek	6	6	6	6	6	7	14	21	11	7	6	6	
Historic	9.0	10.8	9.3	7.9	5.2	9.5	9.1	9.8	9.4	8.7	8.4	8.7	
wt. factor	54	65	56	47	31	67	127	206	103	61	50	52	
reserated	9.7	9.2	9.6	9.2	10.0	9.7	9.4	8.8	8.3	8.9	9.0	10.2	
													9.3 8.3 Min
2 Sixth Water Creek below Sixth Water Aqueduct													
WQ from 1	34	27	26	26	26	27	33	48	37	34	33	34	
[DO]	10.5	10.7	11.2	11.1	11.5	11.1	10.9	10.1	9.4	10.0	9.9	10.7	
wt. factor	358	290	291	288	300	300	361	484	349	341	326	363	
Natural Gains: 6th above 5th Water Creek	0	0	1	1	1	0	0	0	0	0	1	0	
Historic	9.0	10.6	9.3	7.9	5.2	9.5	9.1	9.8	9.4	8.7	8.4	8.7	
wt. factor	0	0	9	8	5	0	0	0	0	0	8	0	
WQ from Strawberry Reservoir	38	136	108	119	134	141	161	237	364	428	309	164	
Historic	7.9	5.2	5.8	5.5	8.1	6.4	5.0	4.4	4.8	6.2	7.3	9.3	
wt. factor	299	704	640	649	1088	908	802	1036	1762	2645	2259	1532	
reserated	9.8	11.1	11.7	11.6	12.0	11.6	11.4	10.7	10.3	11.0	10.3	10.8	
													10.9 Mean 9.8 Min
3 Sixth Water Creek below Fifth Water Creek													
WQ from 2	71	163	135	146	161	168	194	285	401	462	343	197	
Historic	10.2	11.4	12.0	12.0	12.3	11.9	11.8	11.1	10.7	11.3	10.5	10.9	
wt. factor	725	1854	1620	1755	1981	2000	2289	3167	4274	5216	3600	2151	
Natural Gains: 5th Water Creek	3	3	2	2	2	4	15	27	8	3	2	3	
Historic	9.0	10.8	9.3	7.8	5.2	9.5	9.1	9.8	9.4	8.7	8.4	8.7	
wt. factor	27	32	19	16	10	38	137	265	75	26	17	26	
Natural Gains: use DF above 3 Forks	6	6	5	4	5	8	32	59	18	7	5	6	
Historic	8.8	10.7	9.3	7.9	5.2	12.0	8.9	9.8	9.6	8.3	8.1	8.6	
wt. factor	53	64	47	32	26	96	285	578	173	58	41	52	
at Three Forks	79	172	142	152	163	179	241	371	427	472	350	206	
reserated	10.3	11.4	11.9	11.9	12.4	12.0	11.3	11.0	10.7	11.3	10.5	10.8	
													11.2 Mean 10.3 Min
Diamond Fork Creek													
4 Diamond Fork Creek below Three Forks													
WQ from 3	60	60	60	60	60	60	85	139	87	80	80	80	
[DO]	10.5	11.7	12.2	12.2	12.6	12.2	11.6	11.2	10.8	11.4	10.6	10.9	
wt. factor	619	691	721	721	749	722	971	1539	934	909	842	869	
													11.4 Mean 10.5 Min
5 Diamond Fork Creek Below Red Hollow													
WQ from 4	60	60	60	60	60	60	60	80	80	80	80	80	
[DO]	10.7	12.0	12.4	12.5	12.8	12.4	11.8	11.3	10.8	11.4	10.6	11.0	
wt. factor	639	715	741	744	766	738	938	900	865	911	849	876	
													11.6 Mean 10.6 Min
5B Intermediate Point (Diamond Fork Creek at Mouth)													
WQ from 5	60	60	60	60	60	60	80	80	80	80	80	80	
[DO]	10.8	12.1	12.5	12.6	12.9	12.4	11.9	11.4	10.8	11.4	10.6	11.0	
wt. factor	647	725	750	754	772	744	949	910	867	911	852	878	
Natural Gains: Diamond Fork at Hayes	13	10	10	11	13	20	39	95	40	17	9	12	
Historic	9.0	10.9	10.0	11.1	10.5	11.8	9.0	9.8	9.6	8.5	8.4	8.6	
wt. factor	117	109	100	122	137	236	351	931	384	145	76	106	
reserated	73	70	70	71	73	80	119	175	120	97	89	92	
													11.0 Mean 10.5 Min
Spanish Fork River													
6 Spanish Fork River at Castille Gage													
WQ from 5b	73	70	70	71	73	80	119	175	120	97	89	92	
[DO]	10.7	12.1	12.4	12.6	12.4	11.2	10.8	10.5	11.0	10.5	10.8		
wt. factor	779	849	865	892	993	1335	1891	1266	1064	935	993		
WQ from 3	19	112	82	92	108	119	156	232	340	392	270	126	
[DO]	10.3	11.5	12.0	12.0	12.5	12.0	11.4	11.1	10.7	11.4	10.5	10.9	
wt. factor	196	1289	985	1105	1349	1432	1782	2569	3651	4453	2842	1368	
Natural Gains: Spanish Fork at Castilla	41	44	44	43	55	75	145	249	112	52	44	38	
Historic	8.5	9.8	10.6	11.1	10.5	10.6	8.8	10.0	9.5	8.6	8.3	8.6	
wt. factor	349	431	465	477	578	795	1276	2490	1064	447	365	327	
reserated	10.1	11.5	11.9	12.1	12.2	11.8	10.8	10.7	10.5	11.0	10.3	10.5	
													11.0 Mean 10.1 Min
7 Spanish Fork River Above East Bench Diversion Dam													
WQ from 6	34	157	129	140	154	161	183	275	164	127	97	76	
[DO]	10.2	11.6	12.0	12.2	12.2	11.9	10.6	10.7	10.5	11.1	10.3	10.6	
wt. factor	346	1814	1544	1705	1881	1913	2053	2945	1723	1404	1003	805	
8 Spanish Fork Below East Bench Diversion Dam													
WQ from 7	28	157	129	140	154	161	184	226	108	81	63	57	
[DO]	10.2	11.6	12.0	12.2	12.2	11.9	10.6	10.7	10.5	11.1	10.3	10.6	
9 Spanish Fork River Below Mill Race Diversion Dam													
WQ from 8	16	157	128	139	155	161	173	177	51	25	21	26	
[DO]	10.2	11.6	12.0	12.2	12.2	11.9	10.6	10.7	10.5	11.1	10.3	10.6	
wt. factor	163	1814	1532	1693	1893	1913	1840	1896	536	276	217	275	
Natural Gains: Spanish Fork at Castilla	56	69	68	67	81	111	181	150	85	64	53	43	
Historic	8.5	9.8	10.6	11.1	10.5	10.6	8.8	10.0	9.5	8.6	8.3	8.6	
wt. factor	476	676	721	744	851	1177	1593	1500	808	550	440	370	
reserated	72	226	196	206	236	272	354	327	136	89	74	69	
													Mean Min
10 Spanish Fork River at Lake Shore													
WQ from 9	72	226	197	207	235	272	355	328	140	99	79	70	
[DO]	8.9	11.0	11.5	11.8	11.6	11.4	9.7	10.4	9.9	9.3	8.9	9.3	
wt. factor	639	2490	2265	2449	2732	3090	3443	3406	1383	920	701	654	
Natural Gains: Spanish Fork at Lakeshore WQ9	0	0	0	8	12	16	18	10	0	0	0	0	
Historic	9.7	9.8	10.6	11.1	10.5	10.3	8.6	9.8	8.6	8.2	8.0	7.1	
wt. factor	0	0	95	133	168	186	86	0	0	0	0	0	
reserated	57	224	206	219	251	290	365	303	121	65	55	62	
													10.1 Mean 9.4 Min

ATTACHMENT E

REAERATION PARAMETERS

BASELINE REAERATION COEFFICIENTS - DEEP TEMPERATURE, DEEP INITIAL DO CONCENTRATION

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
	Sixth Water Creek: Strawberry Tunnel to Sixth Water Aqueduct	velocity depth k	2.42 0.6916 10.48	2.42 0.6916 12.62	2.42 0.6916 8.64	2.42 0.6916 8.52	2.42 0.6916 8.52	2.43 0.6963 8.63	2.50 0.7287 8.54	2.58 0.7609 9.10	2.47 0.7148 10.60	2.43 0.6963 10.97	2.42 0.6916 11.01	2.42 0.6916 10.63
1	Sixth Water Creek: Sixth Water Aqueduct to Fifth Water Creek	velocity depth k	2.39 0.9054 6.74	1.93 0.8884 6.91	1.91 0.8875 4.90	1.91 0.8875 4.84	1.91 0.8875 4.84	1.93 0.8884 4.96	2.18 0.8983 5.58	3.55 0.9227 10.06	5.82 0.8206 21.64	6.55 0.7346 32.16	5.67 0.8344 23.36	3.98 0.9186 13.65
1	Sixth Water Creek: Fifth Water Creek to Three Forks	velocity depth k	2.54 0.9098 7.66	2.10 0.8954 7.80	2.06 0.8939 5.25	2.03 0.8924 5.09	2.06 0.8939 5.18	2.16 0.8976 5.48	3.06 0.9202 7.65	5.00 0.8823 14.48	6.21 0.7783 23.82	6.70 0.7127 29.37	5.77 0.8248 20.82	4.14 0.9156 12.54
3	Diamond Fork Creek: Three Forks to Red Hollow	velocity depth k	5.44 1.0011 14.51	3.04 0.7963 9.40	2.83 0.7780 8.94	2.62 0.7597 8.16	2.83 0.7780 8.94	3.35 0.8236 9.46	8.35 1.2376 15.62	19.94 2.0486 18.54	27.98 2.4838 22.81	31.46 2.6380 24.76	24.98 2.3341 22.92	14.64 1.7039 19.42
5	Diamond Fork Creek: Red Hollow to Spanish Fork River	velocity depth k	1.75 1.0011 4.46	1.53 0.7963 4.72	1.51 0.7780 5.04	1.48 0.7597 4.69	1.51 0.7780 4.84	1.56 0.8236 4.63	2.02 1.2376 3.87	2.93 2.0486 2.82	3.41 2.4838 2.69	3.58 2.6298 2.76	3.25 2.3341 2.92	2.54 1.7039 3.30
6	Intermediate Point (Diamond Fork Creek at Mouth)	velocity depth k	1.83 3.0158 1.09	1.66 2.9395 0.91	1.64 2.9328 0.91	1.63 2.9295 0.84	1.75 2.9793 0.93	1.98 3.0817 1.03	2.98 3.5132 1.42	4.52 4.1768 1.70	4.11 3.9989 1.79	3.81 3.8722 1.78	3.24 3.6261 1.64	2.47 3.2933 1.34
7	Spanish Fork River: Diamond Fork Creek to Spanish Fork Diversion Dam	velocity depth k	1.15 2.7209 0.79	1.11 2.7039 0.69	1.11 2.7039 0.69	1.11 2.7039 0.64	1.11 2.7039 0.67	1.11 2.7039 0.69	1.31 2.7886 0.85	1.88 3.0389 1.08	1.53 2.8860 1.03	1.44 2.8458 1.01	1.36 2.8122 0.96	1.25 2.7616 0.85
13	Spanish Fork River: Spanish Fork Diversion Dam to Utah Lake	velocity depth k	1.35 2.8055 0.88	1.63 2.9295 0.90	1.71 2.9627 0.95	1.72 2.9694 0.90	1.86 3.0290 1.01	2.10 3.1342 1.07	2.63 3.3607 1.33	2.17 3.1636 1.23	1.29 2.7785 1.00	1.14 2.7141 0.91	1.14 2.7141 0.88	1.18 2.7311 0.93

BASELINE REAERATION COEFFICIENTS - MIXED TEMPERATURE, MIXED INITIAL DO CONCENTRATION

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Sixth Water Creek: Strawberry Tunnel to Sixth Water Aqueduct	velocity depth k	2.42 0.6916 10.48	2.42 0.6916 12.62	2.42 0.6916 8.64	2.42 0.6916 8.52	2.42 0.6916 8.52	2.43 0.6963 8.63	2.50 0.7287 8.54	2.58 0.7609 9.10	2.47 0.7148 10.60	2.43 0.6963 10.97	2.42 0.6916 11.01	2.42 0.6916 10.63
Sixth Water Creek: Sixth Water Aqueduct to Fifth Water Creek	velocity depth k	2.39 0.9054 7.06	1.93 0.8884 6.85	1.91 0.8875 4.90	1.91 0.8875 4.84	1.91 0.8875 4.84	1.93 0.8884 4.96	2.18 0.8983 5.65	3.55 0.9227 9.66	5.82 0.8206 20.60	6.55 0.7346 25.80	5.67 0.8344 19.95	3.98 0.9186 11.91
Sixth Water Creek: Fifth Water Creek to Three Forks	velocity depth k	2.54 0.9098 7.66	2.10 0.8954 7.80	2.06 0.8939 5.25	2.03 0.8924 5.09	2.06 0.8939 5.18	2.16 0.8976 5.48	3.06 0.9202 7.65	5.00 0.8823 14.48	6.21 0.7783 23.82	6.70 0.7127 29.37	5.77 0.8248 20.82	4.14 0.9156 12.54
Diamond Fork Creek: Three Forks to Red Hollow	velocity depth k	5.44 1.0011 14.51	3.04 0.7963 9.40	2.83 0.7780 8.94	2.62 0.7597 8.16	2.83 0.7780 8.94	3.35 0.8236 9.46	8.35 1.2376 15.62	19.94 2.0486 18.54	27.98 2.4838 22.81	31.46 2.6380 24.76	24.98 2.3341 22.92	14.64 1.7039 19.42
Diamond Fork Creek: Red Hollow to Spanish Fork River	velocity depth k	1.75 1.0011 4.46	1.53 0.7963 4.72	1.51 0.7780 5.04	1.48 0.7597 4.69	1.51 0.7780 4.84	1.56 0.8236 4.63	2.02 1.2376 3.87	2.93 2.0486 2.82	3.41 2.4838 2.69	3.58 2.6298 2.76	3.25 2.3341 2.92	2.54 1.7039 3.30
Intermediate Point (Diamond Fork Creek at Mouth)	velocity depth k	1.83 3.0158 1.09	1.66 2.9395 0.91	1.64 2.9328 0.91	1.63 2.9295 0.84	1.75 2.9793 0.93	1.98 3.0817 1.03	2.98 3.5132 1.42	4.52 4.1768 1.70	4.11 3.9989 1.79	3.81 3.8722 1.78	3.24 3.6261 1.64	2.47 3.2933 1.34
Spanish Fork River: Diamond Fork Creek to Spanish Fork Diversion Dam	velocity depth k	1.15 2.7209 0.79	1.11 2.7039 0.69	1.11 2.7039 0.69	1.11 2.7039 0.64	1.11 2.7039 0.67	1.11 2.7039 0.69	1.31 2.7886 0.85	1.88 3.0389 1.08	1.53 2.8860 1.03	1.44 2.8458 1.01	1.36 2.8122 0.96	1.25 2.7616 0.85
Spanish Fork River: Spanish Fork Diversion Dam to Utah Lake	velocity depth k	1.35 2.8055 0.88	1.63 2.9295 0.90	1.71 2.9627 0.95	1.72 2.9694 0.90	1.86 3.0290 1.01	2.10 3.1342 1.07	2.63 3.3607 1.33	2.17 3.1636 1.23	1.29 2.7785 1.00	1.14 2.7141 0.91	1.14 2.7141 0.88	1.18 2.7311 0.93

PROPOSED ACTION REAERATION COEFFICIENTS - DEEP TEMPERATURE, DEEP INITIAL DO CONCENTRATION

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
	Sixth Water Creek: Strawberry Tunnel to Sixth Water Aqueduct	velocity depth k	2.72 0.8198 9.27	2.64 0.7882 9.47	2.63 0.7837 9.15	2.63 0.7837 7.93	2.63 0.7837 7.93	2.63 0.7837 7.93	2.72 0.8198 7.81	2.87 0.8822 7.69	2.75 0.8333 9.06	2.72 0.8198 9.07	2.72 0.8198 9.55	2.72 0.8198 9.72
1	Sixth Water Creek: Sixth Water Aqueduct to Fifth Water Creek	velocity depth k	2.45 0.9071 7.29	2.31 0.9030 7.03	2.30 0.9023 5.74	2.30 0.9023 5.72	2.30 0.9023 5.72	2.30 0.9023 5.80	2.45 0.9071 6.29	2.71 0.9140 7.72	2.50 0.9088 7.43	2.45 0.9071 7.56	2.45 0.9071 7.67	2.45 0.9071 7.75
1	Sixth Water Creek: Fifth Water Creek to Three Forks	velocity depth k	2.50 0.9088 7.45	2.37 0.9048 7.32	2.33 0.9036 5.82	2.33 0.9036 5.80	2.35 0.9042 5.84	2.37 0.9048 5.96	2.71 0.9140 6.88	3.21 0.9217 8.93	2.65 0.9127 7.90	2.52 0.9093 7.80	2.48 0.9082 7.78	2.48 0.9082 7.84
3	Diamond Fork Creek: Three Forks to Diamond Fork Creek Outlet	velocity depth k	5.75 1.0271 14.53	5.13 0.9749 13.89	4.81 0.9486 11.23	4.71 0.9398 11.10	4.92 0.9574 11.32	5.34 0.9924 11.91	9.70 1.3426 15.50	15.25 1.7462 17.90	8.04 1.2129 16.48	6.06 1.0530 15.54	5.75 1.0271 15.41	5.75 1.0271 15.44
5	Diamond Fork Creek: Diamond Fork Creek Outlet to Spanish Fork River	velocity depth k	1.95 1.1798 4.10	1.95 1.1798 4.04	1.95 1.1798 3.41	1.95 1.1798 3.41	1.95 1.1798 3.41	1.95 1.1798 3.46	2.18 1.3822 3.35	2.63 1.7878 3.00	2.22 1.4135 3.67	2.15 1.3585 3.90	2.14 1.3426 3.99	2.14 1.3426 4.03
6	Intermediate Point (Diamond Fork Creek at Mouth)	velocity depth k	1.68 2.9494 4.57	1.66 2.9395 4.22	1.66 2.9395 4.22	1.66 2.9428 4.33	1.68 2.9494 4.57	1.72 2.9694 5.36	2.03 3.1014 15.25	2.45 3.2836 63.68	2.05 3.1113 16.47	1.88 3.0356 9.07	1.80 3.0025 6.98	1.82 3.0125 7.55
7	Spanish Fork River: Diamond Fork Creek to Spanish Fork Diversion Dam	velocity depth k	2.15 3.1538 1.21	2.41 3.2675 1.23	2.49 3.3029 1.13	2.59 3.3447 1.13	2.79 3.4309 1.19	3.07 3.5510 1.28	4.12 4.0049 1.57	5.87 4.7493 1.87	5.32 4.5162 1.87	4.74 4.2673 1.87	3.93 3.9237 1.76	2.99 3.5195 1.55
13	Spanish Fork River: Spanish Fork Diversion Dam to Utah Lake	velocity depth k	1.64 2.9328 0.81	2.40 3.2610 1.03	2.56 3.3319 3.65	2.67 3.3799 2.77	2.90 3.4785 9.19	3.19 3.6042 10.97	3.74 3.8387 12.54	3.52 3.7469 1.25	2.55 3.3286 1.06	2.04 3.1047 0.93	1.78 2.9926 0.85	1.66 2.9395 0.81

PROPOSED ACTION REAERATION COEFFICIENTS - MIXED TEMPERATURE, MIXED INITIAL DO CONCENTRATION

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
	Sixth Water Creek: Strawberry Tunnel to Sixth Water Aqueduct	velocity depth k	2.72 0.8198 9.16	2.64 0.7882 9.33	2.63 0.7837 8.02	2.63 0.7837 8.02	2.63 0.7837 7.87	2.63 0.7837 7.87	2.72 0.8198 8.02	2.87 0.8822 7.67	2.75 0.8333 8.57	2.72 0.8198 9.64	2.72 0.8198 9.24	2.72 0.8198 9.80
1	Sixth Water Creek: Sixth Water Aqueduct to Fifth Water Creek	velocity depth k	2.45 0.9071 7.21	2.31 0.9030 6.34	2.30 0.9023 5.79	2.30 0.9023 5.69	2.30 0.9023 5.69	2.30 0.9023 5.91	2.45 0.9071 6.28	2.71 0.9140 7.48	2.50 0.9088 7.76	2.45 0.9071 7.37	2.45 0.9071 7.72	2.45 0.9071 7.45
1	Sixth Water Creek: Fifth Water Creek to Three Forks	velocity depth k	2.50 0.9088 7.37	2.37 0.9048 6.67	2.33 0.9036 5.87	2.33 0.9036 5.77	2.35 0.9042 5.81	2.37 0.9048 6.07	2.71 0.9140 6.87	3.21 0.9217 8.76	2.65 0.9127 8.19	2.52 0.9093 7.62	2.48 0.9082 7.83	2.48 0.9082 7.56
3	Diamond Fork Creek: Three Forks to Diamond Fork Creek Outlet	velocity depth k	5.75 1.0271 14.39	5.13 0.9749 12.87	4.81 0.9486 11.32	4.71 0.9398 11.05	4.92 0.9574 11.26	5.34 0.9924 12.07	9.70 1.3426 15.49	15.25 1.7462 17.70	8.04 1.2129 16.90	6.06 1.0530 15.23	5.75 1.0271 15.49	5.75 1.0271 14.97
5	Diamond Fork Creek: Diamond Fork Creek Outlet to Spanish Fork River	velocity depth k	1.95 1.1798 4.06	1.95 1.1798 3.66	1.95 1.1798 3.44	1.95 1.1798 3.39	1.95 1.1798 3.39	1.95 1.1798 3.53	2.18 1.3822 3.34	2.63 1.7878 2.96	2.22 1.4135 3.80	2.15 1.3585 3.80	2.14 1.3426 4.01	2.14 1.3426 3.87
6	Intermediate Point (Diamond Fork Creek at Mouth)	velocity depth k	1.68 2.9494 4.57	1.66 2.9395 4.22	1.66 2.9395 4.22	1.66 2.9428 4.33	1.68 2.9494 4.57	1.72 2.9694 5.36	2.03 3.1014 15.25	2.45 3.2836 63.68	2.05 3.1113 16.47	1.88 3.0356 9.07	1.80 3.0025 6.98	1.82 3.0125 7.55
7	Spanish Fork River: Diamond Fork Creek to Spanish Fork Diversion Dam	velocity depth k	2.15 3.1538 1.20	2.41 3.2675 1.14	2.49 3.3029 1.14	2.59 3.3447 1.12	2.79 3.4309 1.19	3.07 3.5510 1.30	4.12 4.0049 1.57	5.87 4.7493 1.83	5.32 4.5162 1.95	4.74 4.2673 1.82	3.93 3.9237 1.77	2.99 3.5195 1.50
13	Spanish Fork River: Spanish Fork Diversion Dam to Utah Lake	velocity depth k	1.64 2.9328 1.01	2.40 3.2610 1.14	2.56 3.3319 1.18	2.67 3.3799 1.15	2.90 3.4785 1.23	3.19 3.6042 1.33	3.74 3.8387 1.55	3.52 3.7469 1.51	2.55 3.3286 1.41	2.04 3.1047 1.23	1.78 2.9926 1.15	1.66 2.9395 1.05

NO ACTION ALTERNATIVE REAERATION COEFFICIENTS - DEEP TEMPERATURE, DEEP INITIAL DO CONCENTRATION

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
	Sixth Water Creek: Strawberry Tunnel to Sixth Water Aqueduct	velocity depth k	2.72 0.8198 9.27	2.64 0.7882 9.47	2.63 0.7837 9.15	2.63 0.7837 7.93	2.63 0.7837 7.93	2.64 0.7882 7.90	2.71 0.8153 7.83	2.87 0.8822 7.69	2.75 0.8333 9.06	2.72 0.8198 9.07	2.71 0.8153 9.58	2.72 0.8198 9.72
1	Sixth Water Creek: Sixth Water Aqueduct to Fifth Water Creek	velocity depth k	3.13 0.9210 9.16	4.72 0.8962 13.84	4.26 0.9127 10.46	4.44 0.9071 11.00	4.69 0.8976 11.79	4.80 0.8924 12.32	5.22 0.8687 14.27	6.57 0.7327 25.56	8.04 0.4392 61.63	8.71 0.2309 165.10	7.34 0.6028 39.51	5.27 0.8656 17.87
1	Sixth Water Creek: Fifth Water Creek to Three Forks	velocity depth k	3.28 0.9222 9.60	4.87 0.8892 14.42	4.37 0.9093 10.80	4.54 0.9036 11.30	4.72 0.8962 11.91	4.98 0.8832 12.96	5.93 0.8088 18.11	7.69 0.5280 45.66	8.34 0.3550 85.07	8.82 0.1932 211.98	7.43 0.5848 41.66	5.41 0.8555 18.62
3	Diamond Fork Creek: Three Forks to Red Hollow	velocity depth k	7.62 1.1798 16.08	7.62 1.1798 15.51	7.62 1.1798 13.32	7.62 1.1798 13.31	7.62 1.1798 13.34	7.62 1.1798 13.50	10.21 1.3822 15.28	15.76 1.7809 18.58	10.42 1.3979 17.17	9.70 1.3426 17.69	9.70 1.3426 18.01	9.70 1.3426 18.34
5	Diamond Fork Creek: Red Hollow to Spanish Fork River	velocity depth k	1.95 1.1798 4.12	1.95 1.1798 3.97	1.95 1.1798 3.41	1.95 1.1798 3.41	1.95 1.1798 3.42	1.95 1.1798 3.46	2.14 1.3426 3.32	2.14 1.3426 3.67	2.14 1.3426 3.71	2.14 1.3426 3.90	2.14 1.3426 3.97	2.14 1.3426 4.04
6	Intermediate Point (Diamond Fork Creek at Mouth)	velocity depth k	1.68 2.9494 1.05	1.66 2.9395 0.99	1.66 2.9395 0.86	1.66 2.9428 0.86	1.68 2.9494 0.87	1.73 2.9727 0.89	2.03 3.1014 1.06	2.45 3.2836 1.24	2.04 3.1047 1.18	1.86 3.0290 1.16	1.80 3.0025 1.15	1.82 3.0125 1.17
7	Spanish Fork River: Diamond Fork Creek to Spanish Fork Diversion Dam	velocity depth k	2.13 3.1473 1.22	2.83 3.4468 1.35	2.60 3.3511 1.15	2.68 3.3831 1.15	2.90 3.4785 1.22	3.18 3.5980 1.29	4.21 4.0437 1.58	5.80 4.7191 1.85	5.25 4.4851 1.87	5.04 4.3970 1.91	4.10 3.9929 1.79	3.05 3.5415 1.57
13	Spanish Fork River: Spanish Fork Diversion Dam to Utah Lake	velocity depth k	1.56 2.8961 0.98	2.81 3.4404 1.32	2.68 3.3831 1.19	2.77 3.4245 1.17	3.01 3.5258 1.26	3.29 3.6479 1.34	3.83 3.8783 1.56	3.39 3.6882 1.50	2.04 3.1080 1.22	1.62 2.9228 1.08	1.54 2.8894 1.05	1.59 2.9128 1.03

NO ACTION ALTERNATIVE REAERATION COEFFICIENTS - MIXED TEMPERATURE, MIXED INITIAL DO CONCENTRATION

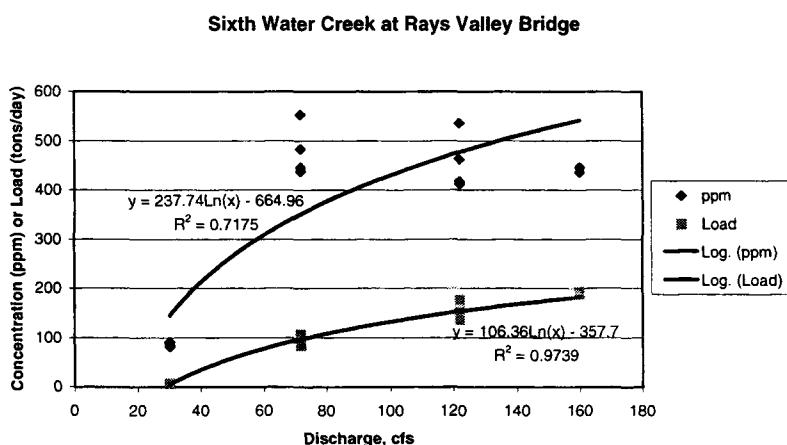
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Sixth Water Creek: Strawberry Tunnel to Sixth Water Aqueduct	velocity depth k	2.72 0.8198 9.16	2.64 0.7882 9.33	2.63 0.7837 8.02	2.63 0.7837 8.02	2.63 0.7837 7.87	2.64 0.7882 7.84	2.71 0.8153 8.05	2.87 0.8822 7.67	2.75 0.8333 8.57	2.72 0.8198 9.64	2.71 0.8153 9.27	2.72 0.8198 9.80
1 Sixth Water Creek: Sixth Water Aqueduct to Fifth Water Creek	velocity depth k	3.13 0.9210 9.04	4.72 0.8962 12.20	4.26 0.9127 10.58	4.44 0.9071 10.92	4.69 0.8976 11.70	4.80 0.8924 12.64	5.22 0.8687 14.24	6.57 0.7327 24.29	8.04 0.4392 65.40	8.71 0.2309 159.84	7.34 0.6028 39.81	5.27 0.8656 17.06
1 Sixth Water Creek: Fifth Water Creek to Three Forks	velocity depth k	3.28 0.9222 9.48	4.87 0.8892 12.79	4.37 0.9093 10.92	4.54 0.9036 11.23	4.72 0.8962 11.82	4.98 0.8832 13.28	5.93 0.8088 18.08	7.69 0.5280 43.90	8.34 0.3550 89.95	8.82 0.1932 205.35	7.43 0.5848 41.98	5.41 0.8555 17.82
3 Diamond Fork Creek: Three Forks to Red Hollow	velocity depth k	7.62 1.1700 16.00	7.62 1.1700 13.76	7.62 1.1700 13.40	7.62 1.1700 13.22	7.62 1.1700 13.24	7.62 1.1700 13.83	10.21 1.3822 16.20	15.76 1.7800 17.00	10.42 1.3070 18.10	9.70 1.3420 17.14	9.70 1.3420 18.14	9.70 1.3420 17.50
5 Diamond Fork Creek: Red Hollow to Spanish Fork River	velocity depth k	1.95 1.1798 4.07	1.95 1.1798 3.52	1.95 1.1798 3.45	1.95 1.1798 3.39	1.95 1.1798 3.39	1.95 1.1798 3.55	2.14 1.3426 3.32	2.14 1.3426 3.53	2.14 1.3426 3.93	2.14 1.3426 3.78	2.14 1.3426 4.00	2.14 1.3426 3.87
6 Intermediate Point (Diamond Fork Creek at Mouth)	velocity depth k	1.68 2.9494 1.04	1.66 2.9395 0.89	1.66 2.9395 0.87	1.66 2.9428 0.86	1.68 2.9494 0.87	1.73 2.9727 0.91	2.03 3.1014 1.06	2.45 3.2836 1.22	2.04 3.1047 1.23	1.86 3.0290 1.13	1.80 3.0025 1.16	1.82 3.0125 1.13
7 Spanish Fork River: Diamond Fork Creek to Spanish Fork Diversion Dam	velocity depth k	2.13 3.1473 1.21	2.83 3.4468 1.23	2.60 3.3511 1.16	2.68 3.3831 1.14	2.90 3.4785 1.21	3.18 3.5980 1.31	4.21 4.0437 1.57	5.80 4.7191 1.82	5.25 4.4851 1.94	5.04 4.3970 1.86	4.10 3.9929 1.80	3.05 3.5415 1.51
13 Spanish Fork River: Spanish Fork Diversion Dam to Utah Lake	velocity depth k	1.56 2.8961 0.98	2.81 3.4404 1.24	2.68 3.3831 1.20	2.77 3.4245 1.17	3.01 3.5258 1.25	3.29 3.6479 1.35	3.83 3.8783 1.56	3.39 3.6882 1.48	2.04 3.1080 1.24	1.62 2.9228 1.07	1.54 2.8894 1.05	1.59 2.9128 1.02

ATTACHMENT F

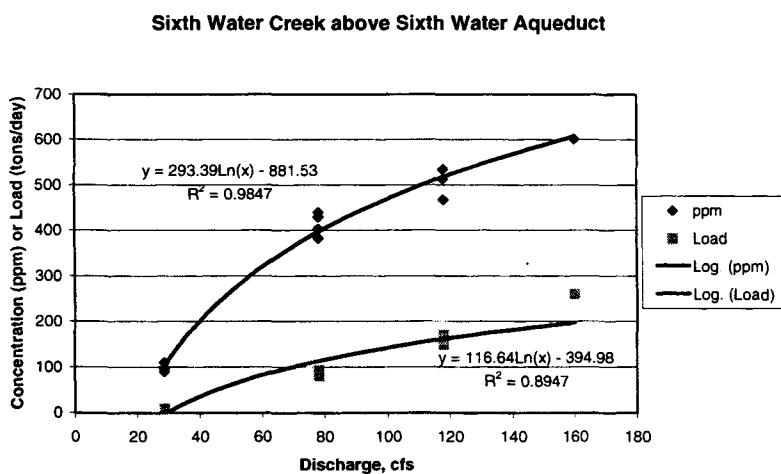
**SEDIMENT TRANSPORT DISCHARGE
RELATIONSHIPS AND ANALYSIS**

DATA (CUWCD, 1998)

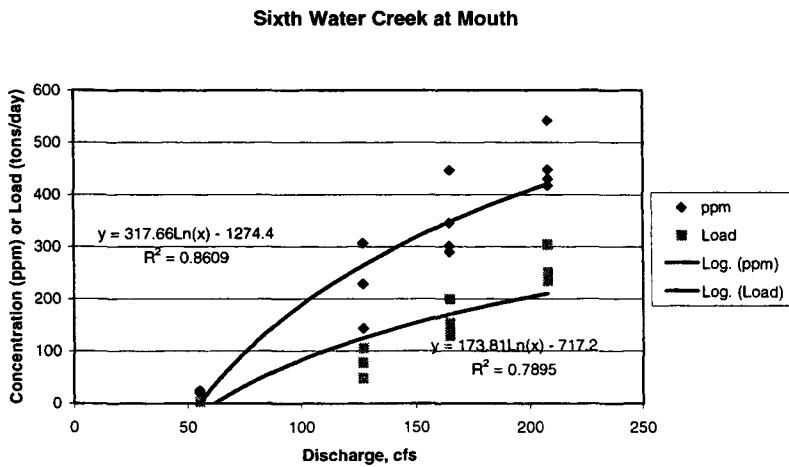
Sixth Water Creek at Rays Valley Bridge		
Discharge cfs	Conc. ppm	load tons/day
30.2	91	7.4
30.2	89	7.3
30.2	82	6.7
30.2	84	6.8
71.8	553	107.2
71.8	483	93.6
71.8	438	84.9
71.8	446	86.5
122	536	176.6
122	463	152.5
122	418	137.7
122	412	135.7
160	436	188.4
160	446	192.7



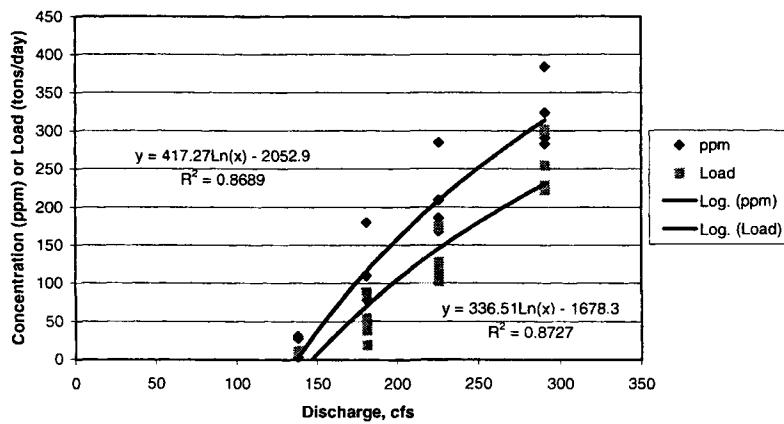
Sixth Water Creek above Sixth Water Aqueduct		
Discharge cfs	Conc. ppm	load tons/day
28.7	110	8.5
28.7	98	7.6
28.7	89	6.9
28.7	96	7.4
78.2	440	91.9
78.2	429	90.6
78.2	403	85.1
78.2	383	80.9
118	535	170.5
118	513	163.4
118	468	149.1
160	601	259.6



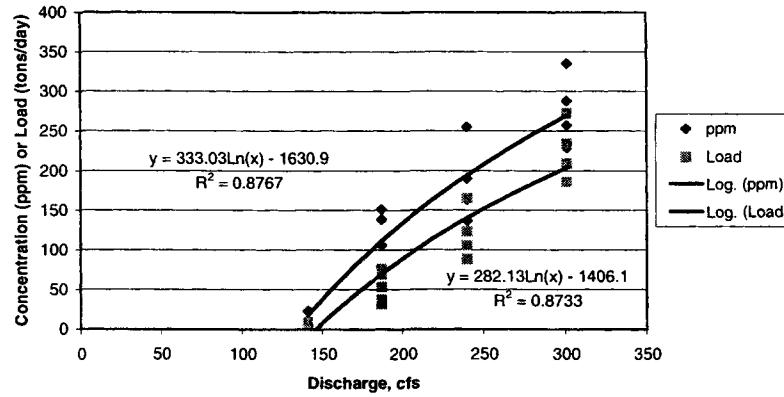
Sixth Water Creek at Mouth		
Discharge cfs	Conc. ppm	load tons/day
55.3	25	3.7
55.3	20	3
55.3	20	3
55.3	25	3.7
127	307	105.3
127	229	78.5
127	143	49
127	143	49
165	447	199.1
165	345	153.7
165	301	134.1
165	290	129.2
208	542	304.4
208	448	251.6
208	418	234.7
208	430	241.5



Diamond Fork Creek at Redford Bridge		
Discharge cfs	Conc. ppm	load tons/day
138	31	11.6
138	28	10.4
138	3	11.2
181	180	88
181	40	19.5
181	110	53.8
181	84	42.5
181	78	38.1
226	285	173.9
226	209	127.8
226	186	113.5
226	168	102.5
291	384	301.7
291	324	254.6
291	291	228.6
291	283	222.4

Diamond Fork Creek at Redford Bridge

Diamond Fork Creek at Mouth (assume equal to Spanish Fork River)		
Discharge cfs	Conc. ppm	load tons/day
141	22	8.4
141	22	8.4
141	23	8.8
141	23	8.8
187	151	76.2
187	106	53.5
187	138	69.7
187	74	37.4
187	69	31.8
240	255	165.2
240	190	123.1
240	163	105.6
240	136	88.1
301	335	272.3
301	288	234.1
301	257	208.9
301	229	186.1

Spanish Fork River

Calculated Sediment Transport

BASELINE

Reach Section	Concentration Source	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Type of Average	Total
flow in cfs, concentration in ppm, load in tons/day															
Sixth Water Creek above Sixth Water Aqueduct Caculated Caculated	Flows Concentration Load	2.1 0.1 0.0	2.4 0.1 0.0	2.1 0.1 0.0	1.9 0.1 0.0	2.2 0.1 0.0	2.8 0.1 0.0	9.3 0.4 0.0	16.6 0.9 0.0	7.8 0.4 0.0	2.6 0.1 0.0	1.8 0.1 0.0	2 0.1 0.0	Avg. Conc. (ppm) Yearly Load (tons)	0.2 4.0
Sixth Water Creek below Sixth Water Aqueduct Caculated Caculated	Flows Concentration Load	31 124.2 6.8	7 0.3 0.0	6 0.3 0.0	6 0.3 0.0	7 0.3 0.0	20 1.1 0.1	94 449.2 136.6	233 715.2 242.8	284 773.1 265.9	223 702.3 237.6	119 518.3 164.2	Avg. Conc. (ppm) Yearly Load (tons)	273.7 32058.5	
Sixth Water Creek below Fifth Water Creek Caculated Caculated	Flows Concentration Load	34 151.2 17.6	10 0.2 0.0	9 0.2 0.0	8 0.2 0.0	9 0.2 0.0	11 0.2 0.0	35 159.7 21.0	121 523.2 166.1	242 726.3 247.2	288 777.2 267.6	225 704.9 238.7	122 525.6 167.1	Avg. Conc. (ppm) Yearly Load (tons)	297.4 34228.4
Diamond Fork Creek below Three Forks Caculated Caculated	Flows Concentration Load	39 0.6 0.1	16 0.2 0.0	14 0.2 0.0	12 0.1 0.0	14 0.2 0.0	19 0.2 0.1	67 63.1 14.6	180 377.4 186.6	260 494.3 250.6	295 534.5 272.5	230 455.3 229.2	128 268.9 127.3	Avg. Conc. (ppm) Yearly Load (tons)	182.9 32883.7
Diamond Fork Creek below Red Hollow Caculated Caculated	Flows Concentration Load	39 0.6 0.1	16 0.2 0.0	14 0.2 0.0	12 0.1 0.0	14 0.2 0.0	19 0.2 0.1	67 63.1 14.6	180 377.4 186.6	260 494.3 250.6	295 534.5 272.5	230 455.3 229.2	128 268.9 127.3	Avg. Conc. (ppm) Yearly Load (tons)	182.9 32883.7
Intermediate point (Diamond Fork Creek at Mouth) Caculated Caculated	Flows Concentration Load	39 0.2 0.1	16 0.1 0.0	14 0.1 0.0	12 0.1 0.0	14 0.1 0.0	19 0.1 0.1	67 0.4 0.2	180 112.5 66.8	260 265.8 190.4	293 315.6 230.5	230 214.7 149.2	128 0.9 0.5	Avg. Conc. (ppm) Yearly Load (tons)	75.9 19408.5
Spanish Fork River at Castilla Gage Caculated Caculated	Flows Concentration Load	93 6.1 0.4	70 4.4 0.3	68 4.2 0.3	67 4.2 0.2	82 5.3 0.3	113 7.7 0.5	247 203.6 147.6	465 414.3 326.1	405 368.3 287.1	363 331.8 256.2	283 248.9 186.0	178 94.5 55.3	Avg. Conc. (ppm) Yearly Load (tons)	141.1 38331.5
Intermediate point (Spanish Fork River below East Bench Diversion Dam) Caculated Caculated	Flows Concentration Load	5 0.2 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	25 1.3 0.1	100 6.7 0.4	54 3.2 0.2	42 2.4 0.1	32 1.7 0.1	17 0.8 0.0	Avg. Conc. (ppm) Yearly Load (tons)	1.4 29.9
Spanish Fork River at Lake Shore Caculated Caculated	Flows Concentration Load	30 1.6 0.1	67 4.2 0.2	77 4.9 0.3	79 5.1 0.3	97 6.4 0.4	129 9.0 0.5	199 131.7 86.7	138 9.8 0.6	22 1.1 0.1	3 0.1 0.0	3 0.1 0.0	8 0.3 0.0	Avg. Conc. (ppm) Yearly Load (tons)	14.5 2715.3

Yearly load does not include 10% bedload adjustment

nnn = Method 1

nnn = Method 2

Calculated Sediment Transport

PROPOSED ACTION

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
Flow in cfs, Concentration in ppm, Load in tons/day															
Sixth Water Creek															
1 Sixth Water Creek above Sixth Water Aqueduct															
	Flow	34	27	26	26	26	27	33	48	37	34	33	34		
	Conc.	174	116	107	107	107	116	164	252	191	171	164	171	153	Avg. Conc.
	Load	16	0	0	0	0	0	13	52	25	16	13	16	4567	Yearly Load
2 Sixth Water Creek below Sixth Water Aqueduct															
	Flow	34	27	26	26	26	27	33	48	37	34	33	34		
	Conc.	151	84	73	73	73	84	142	252	176	151	142	151	129	Avg. Conc.
	Load	18	0	0	0	0	0	14	58	27	18	14	18	5072	Yearly Load
3 Sixth Water Creek below Fifth Water Creek															
	Flow	36	30	29	28	29	31	48	75	45	37	36	36		
	Conc.	168	115	105	94	105	124	252	383	233	176	168	168	174	Avg. Conc.
	Load	24	3	0	0	0	7	58	110	50	27	24	24	9999	Yearly Load
Diamond Fork Creek															
4 Diamond Fork Creek below Three Forks															
	Flow	42	36	33	32	34	38	80	134	64	45	42	42		
	Conc.	0	0	0	0	0	0	119	284	49	0	0	0	38	Avg. Conc.
	Load	1	1	0	0	0	1	45	135	7	1	1	1	5854	Yearly Load
5 Diamond Fork Creek Below Diamond Fork Creek Outlet															
	Flow	61	60	60	60	60	60	85	140	89	82	81	80		
	Conc.	33	28	28	28	28	28	139	297	153	127	123	119	94	Avg. Conc.
	Load	12	11	11	11	11	11	56	143	64	50	48	45	14412	Yearly Load
5b Intermediate Point (Diamond Fork Creek at Mouth)															
	Flow	73	70	70	71	73	79	119	175	122	99	89	92		
	Conc.	90	77	77	82	90	115	246	368	254	187	153	164	159	Avg. Conc.
	Load	30	22	22	25	30	43	115	182	119	83	64	70	24426	Yearly Load
Spanish Fork River															
6 Spanish Fork River at Castilla Gage															
	Flow	135	170	181	193	221	259	407	667	583	496	380	249		
	Conc.	2	79	100	121	167	219	370	534	490	436	347	206	256	Avg. Conc.
	Load	4	42	60	78	116	161	288	428	390	344	269	150	70913	Yearly Load
10 Spanish Fork River at Lake Shore															
	Flow	68	168	190	205	236	276	352	322	189	120	86	70		
	Conc.	1	75	116	142	188	241	322	292	115	2	1	1	125	Avg. Conc.
	Load	1	39	74	95	135	179	248	222	72	4	2	1	32612	Yearly Load

Calculated Sediment Transport

PROPOSED ACTION

Yearly load does not include 10% bedload adjustment

nnn = Method 1

nnn = Method 2

Calculated Sediment Transport

NO ACTION ALTERNATIVE

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Overall
flow in cfs, concentration in mg/L, load in tons/day													
Sixth Water Creek													
1 Sixth Water Creek above Sixth Water Aqueduct													
Flow	34	27	26	26	26	26	34	48	37	34	34	34	34
Conc.	174	116	107	107	107	107	171	252	191	171	171	171	154
Load	16	0	0	0	0	0	16	52	25	16	16	16	4760
2 Sixth Water Creek below Sixth Water Aqueduct													
Flow	71	163	135	146	161	168	194	285	401	462	343	197	
Conc.	367	610	555	578	607	619	661	774	874	916	828	666	671
Load	104	201	179	188	200	205	221	266	306	323	288	223	82238
3 Sixth Water Creek below Fifth Water Creek													
Flow	74	166	137	148	163	171	209	312	409	465	345	200	
Conc.	95	352	291	315	346	361	425	552	638	679	584	411	421
Load	32	172	139	153	169	178	213	282	329	352	300	205	76759
Diamond Fork Creek													
4 Diamond Fork Creek below Three Forks													
Flow	60	60	60	60	60	60	85	139	87	80	80	80	
Conc.	28	28	28	28	28	28	139	295	146	119	119	119	92
Load	0	0	0	0	0	0	56	142	60	45	45	45	12027
volume RO	3683	3564	3683	3683	3326	3683	5049	8532	5168	4910	4910	4752	
vol. Basin/RO	0.209	0.216	0.209	0.209	0.231	0.209	0.153	0.090	0.149	0.157	0.157	0.162	529
3 Diamond Fork Creek below Red Hollow													
Flow	60	60	60	60	60	60	85	139	87	80	80	80	
Conc.	27	27	27	27	27	27	133	283	140	115	115	115	89
Load	0	0	0	0	0	0	54	136	58	44	44	44	11546
5b Intermediate Point (Diamond Fork Creek at Mouth)													
Flow	73	70	70	71	73	80	119	175	120	97	89	92	
Conc.	90	77	77	82	90	119	246	368	248	181	153	164	158
Load	30	22	22	25	30	45	115	182	116	79	64	70	24297
Spanish Fork River													
6 Spanish Fork River at Castilla Gage													
Flow	133	226	196	206	236	274	420	656	572	541	403	256	
Conc.	26.5	174	127	143	188	238	380	529	483	465	367	216	278
Load	40.7	123	82	96	135	177	297	423	384	369	286	158	78201
10 Spanish Fork River at Lake Shore													
Flow	57	224	206	219	251	290	365	303	121	65	55	62	
Conc.	7.0	171	143	164	209	257	334	272	24	9	7	8	134
Load	10.4	120	96	114	152	193	258	205	35	13	10	12	37057

Yearly load does not include 10% bedload adjustment

nnn = Method 1 nnn = Method 1

nnn = Method 2 nnn = Method 2

ATTACHMENT G

TEMPERATURE MIXING MODEL ANALYSIS AT SPANISH FORK DIVERSION

BASELINE

Mixing Distance Required for Deep Releases From Strawberry Reservoir to Equilibrate With Ambient Air Conditions: Freezing Potential

Month	Tot Q	Tot velocity	climate center 1997, 1998		Twater	Min Tair	Tdewpt	e saturated	e ambient	Tm	B	f(u)	k	kr
			Max u	Min RH										
Oct	93	0.54	22.20	11.30	9.50	9.80	-7.83	14.02	1.58	0.83	0.36	2085.70	763.60	7.89
Nov	70	0.50	32.80	13.90	4.90	-0.11	-7.52	10.18	1.42	-1.31	0.33	4552.95	1518.92	15.69
Dec	68	0.49	18.50	17.10	5.10	-3.44	-6.45	10.25	1.75	-0.68	0.34	1448.40	498.60	5.15
Jan	67	0.49	28.00	16.60	2.00	-7.00	-6.57	10.32	1.71	-2.28	0.32	3317.89	1073.77	11.09
Feb	82	0.52	36.40	17.00	4.00	-4.90	-6.47	10.27	1.75	-1.23	0.33	5607.23	1874.38	19.36
Mar	113	0.58	21.20	12.30	5.00	0.72	-7.27	14.25	1.75	-1.13	0.33	1902.03	641.87	6.63
Apr	247	0.81	25.40	12.50	8.90	8.10	-7.25	14.07	1.76	0.82	0.36	2730.32	997.35	10.30
May	465	1.05	17.80	8.99	8.40	11.60	-9.12	13.98	1.26	-0.36	0.34	1340.87	467.98	4.83
Jun	405	1.00	31.40	9.07	12.20	17.50	-9.13	13.85	1.26	1.54	0.38	4172.58	1574.27	16.26
Jul	363	0.96	23.40	8.06	13.30	23.00	-9.83	13.73	1.11	1.74	0.38	2317.27	885.77	9.15
Aug	283	0.86	26.90	8.40	13.00	21.70	-9.59	13.76	1.16	1.71	0.38	3062.32	1166.83	12.05
Sep	178	0.70	22.40	9.73	10.50	15.20	-8.72	13.90	1.35	0.89	0.36	2123.45	779.43	8.05

Baseline - assume mixing with ambient temperatures

Water temperature as a function of mixing distance:

x (m)	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
0.2	9.679	0.671	1.292	-4.481	-4.130	2.721	8.335	9.762	16.729	19.609	19.518	13.391
0.4	9.751	0.012	-0.818	-6.295	-4.833	1.656	8.169	10.545	17.388	21.815	21.153	14.504
0.6	9.780	-0.091	-1.987	-6.803	-4.894	1.157	8.120	10.994	17.484	22.586	21.563	14.932
0.8	9.792	-0.107	-2.635	-6.945	-4.900	0.925	8.106	11.252	17.498	22.855	21.666	15.097
1.0	9.797	-0.110	-2.994	-6.985	-4.900	0.816	8.102	11.400	17.500	22.949	21.691	15.160
2.0	9.800	-0.110	-3.417	-7.000	-4.900	0.722	8.100	11.588	17.500	23.000	21.700	15.200
3.0	9.800	-0.110	-3.439	-7.000	-4.900	0.720	8.100	11.599	17.500	23.000	21.700	15.200
4.0	9.800	-0.110	-3.440	-7.000	-4.900	0.720	8.100	11.600	17.500	23.000	21.700	15.200
5.0	9.800	-0.110	-3.440	-7.000	-4.900	0.720	8.100	11.600	17.500	23.000	21.700	15.200

used max monthly daily windspeed based on 97/98 data at spanish fork

used minimum average monthly temperatue (historical) for air temp

used minimum monthly daily relative humidity based on 97/98 data at spanish fork

assumed river depth of 0.30 m (conservative)

used monthly avg cfs and acre-ft to determine river velocity above strawberry diversion.

used cfs/velocity relationships from sediment transport to determine velocity

PROPOSED ACTION
Mixing Distance Required for Deep Releases From Strawberry Reservoir to Equilibrate With Ambient Air Conditions:
Freezing Potential

Month	climate center 1997, 1998			center historical	Min Tair	Tdewpt	e saturated	e ambient	Tm	B	f(u)	k	kr
	Tot Q	Tot velocity	Max u		Min RH	Twater							
	cfs	m/s	m/s		wt avg t, C	C	calc						
Oct	135	0.63	22.20	11.30	8.60	9.80	-7.83	14.02	1.58	0.38	0.36	2085.70	747.63
Nov	170	0.69	32.80	13.90	7.64	-0.11	-7.52	10.18	1.42	0.06	0.35	4552.95	1602.72
Dec	181	0.71	18.50	17.10	3.20	-3.44	-6.45	10.25	1.75	-1.62	0.33	1448.40	481.23
Jan	193	0.73	28.00	16.60	2.23	-7.00	-6.57	10.32	1.71	-2.17	0.32	3317.89	1077.00
Feb	221	0.77	36.40	17.00	2.86	-4.90	-6.47	10.27	1.75	-1.80	0.33	5607.23	1837.75
Mar	259	0.83	21.20	12.30	3.31	0.72	-7.27	14.25	1.75	-1.98	0.32	1902.03	623.21
Apr	407	1.00	25.40	12.50	6.40	8.10	-7.25	14.07	1.76	-0.43	0.34	2730.32	944.05
May	667	1.11	17.80	8.99	8.67	11.60	-9.12	13.98	1.26	-0.23	0.35	1340.87	470.31
Jun	583	1.10	31.40	9.07	10.01	17.50	-9.13	13.85	1.26	0.44	0.36	4172.58	1494.60
Jul	496	1.07	23.40	8.06	7.76	23.00	-9.83	13.73	1.11	-1.03	0.34	2317.27	783.45
Aug	380	0.98	26.90	8.40	9.55	21.70	-9.59	13.76	1.16	-0.02	0.35	3062.32	1076.43
Sep	249	0.82	22.40	9.73	7.85	15.20	-8.72	13.90	1.35	-0.44	0.34	2123.45	735.11

Prop. action

Water temperature as a function of mixing distance: above strawberry diversion

x (m)	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
0.2	9.699	-0.046	-1.807	-6.565	-4.843	1.269	7.857	10.381	17.046	19.659	20.454	14.056
0.4	9.791	-0.109	-3.039	-6.979	-4.900	0.836	8.065	11.092	17.473	22.268	21.572	15.022
0.6	9.799	-0.110	-3.341	-6.999	-4.900	0.745	8.095	11.389	17.498	22.839	21.687	15.172
0.8	9.800	-0.110	-3.416	-7.000	-4.900	0.725	8.099	11.512	17.500	22.965	21.699	15.196
1.0	9.800	-0.110	-3.434	-7.000	-4.900	0.721	8.100	11.563	17.500	22.992	21.700	15.199
2.0	9.800	-0.110	-3.440	-7.000	-4.900	0.720	8.100	11.600	17.500	23.000	21.700	15.200
3.0	9.800	-0.110	-3.440	-7.000	-4.900	0.720	8.100	11.600	17.500	23.000	21.700	15.200
4.0	9.800	-0.110	-3.440	-7.000	-4.900	0.720	8.100	11.600	17.500	23.000	21.700	15.200
5.0	9.800	-0.110	-3.440	-7.000	-4.900	0.720	8.100	11.600	17.500	23.000	21.700	15.200

NOTES:

- used max monthly daily windspeed based on 97/98 data at spanish fork
- used minimum average monthly temperatue (historical) for air temp
- used minimum monthly daily relative humidity based on 97/98 data at spanish fork
- assumed river depth of 0.30 m (conservative)
- used monthly avg cfs and cfs v. velocity regressions (same as DO reaeration)

NO ACTION ALTERNATIVE

Mixing Distance Required for Deep Releases From Strawberry Reservoir to Equilibrate With Ambient Air Conditions: Freezing Potential

Month	Tot Q	Tot velocity	climate center 1997, 1998		Twater	Min Tair	Tdewpt	e saturatec	e ambient	Tm	B	f(u)	k	kr
			Max u	Min RH										
	cfs	m/s	m/s	wt avg t, C	C	calc								
Oct	223	0.78	22.20	11.30	8.94	9.80	-7.83	14.02	1.58	0.56	0.36	2085.70	753.45	7.78
Nov	223	0.78	32.80	13.90	7.83	-0.11	-7.52	10.18	1.42	0.15	0.35	4552.95	1609.32	16.62
Dec	245	0.81	18.50	17.10	3.01	-3.44	-6.45	10.25	1.75	-1.72	0.33	1448.40	479.75	4.95
Jan	224	0.78	28.00	16.60	2.20	-7.00	-6.57	10.32	1.71	-2.18	0.32	3317.89	1076.56	11.12
Feb	223	0.78	36.40	17.00	2.85	-4.90	-6.47	10.27	1.75	-1.81	0.33	5607.23	1837.32	18.97
Mar	276	0.85	21.20	12.30	3.11	0.72	-7.27	14.25	1.75	-2.08	0.32	1902.03	621.29	6.42
Apr	228	0.78	25.40	12.50	6.27	8.10	-7.25	14.07	1.76	-0.49	0.34	2730.32	941.50	9.72
May	244	0.81	17.80	8.99	8.38	11.60	-9.12	13.98	1.26	-0.37	0.34	1340.87	467.33	4.83
Jun	162	0.68	31.40	9.07	10.14	17.50	-9.13	13.85	1.26	0.51	0.36	4172.58	1498.79	15.48
Jul	160	0.67	23.40	8.06	7.68	23.00	-9.83	13.73	1.11	-1.07	0.34	2317.27	782.20	8.08
Aug	163	0.68	26.90	8.40	9.53	21.70	-9.59	13.76	1.16	-0.03	0.35	3062.32	1075.67	11.11
Sep	181	0.71	22.40	9.73	7.91	15.20	-8.72	13.90	1.35	-0.41	0.34	2123.45	735.92	7.60

No-action alt.

Water temperature as a function of mixing distance

x (m)	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
0.200	9.684	0.000	-1.539	-6.471	-4.842	1.251	7.947	10.623	17.425	21.618	21.243	14.348
0.400	9.784	-0.108	-2.880	-6.970	-4.900	0.838	8.087	11.304	17.499	22.875	21.683	15.100
0.600	9.798	-0.110	-3.275	-6.998	-4.900	0.746	8.099	11.510	17.500	22.989	21.699	15.188
0.800	9.800	-0.110	-3.391	-7.000	-4.900	0.726	8.100	11.573	17.500	22.999	21.700	15.199
1.000	9.800	-0.110	-3.426	-7.000	-4.900	0.721	8.100	11.592	17.500	23.000	21.700	15.200
2.000	9.800	-0.110	-3.440	-7.000	-4.900	0.720	8.100	11.600	17.500	23.000	21.700	15.200
3.000	9.800	-0.110	-3.440	-7.000	-4.900	0.720	8.100	11.600	17.500	23.000	21.700	15.200
4.000	9.800	-0.110	-3.440	-7.000	-4.900	0.720	8.100	11.600	17.500	23.000	21.700	15.200
5.000	9.800	-0.110	-3.440	-7.000	-4.900	0.720	8.100	11.600	17.500	23.000	21.700	15.200
10.000	9.800	-0.110	-3.440	-7.000	-4.900	0.720	8.100	11.600	17.500	23.000	21.700	15.200

NOTES:

used max monthly daily windspeed based on 97/98 data at spanish fork

used minimum average monthly temperature (historical) for air temp

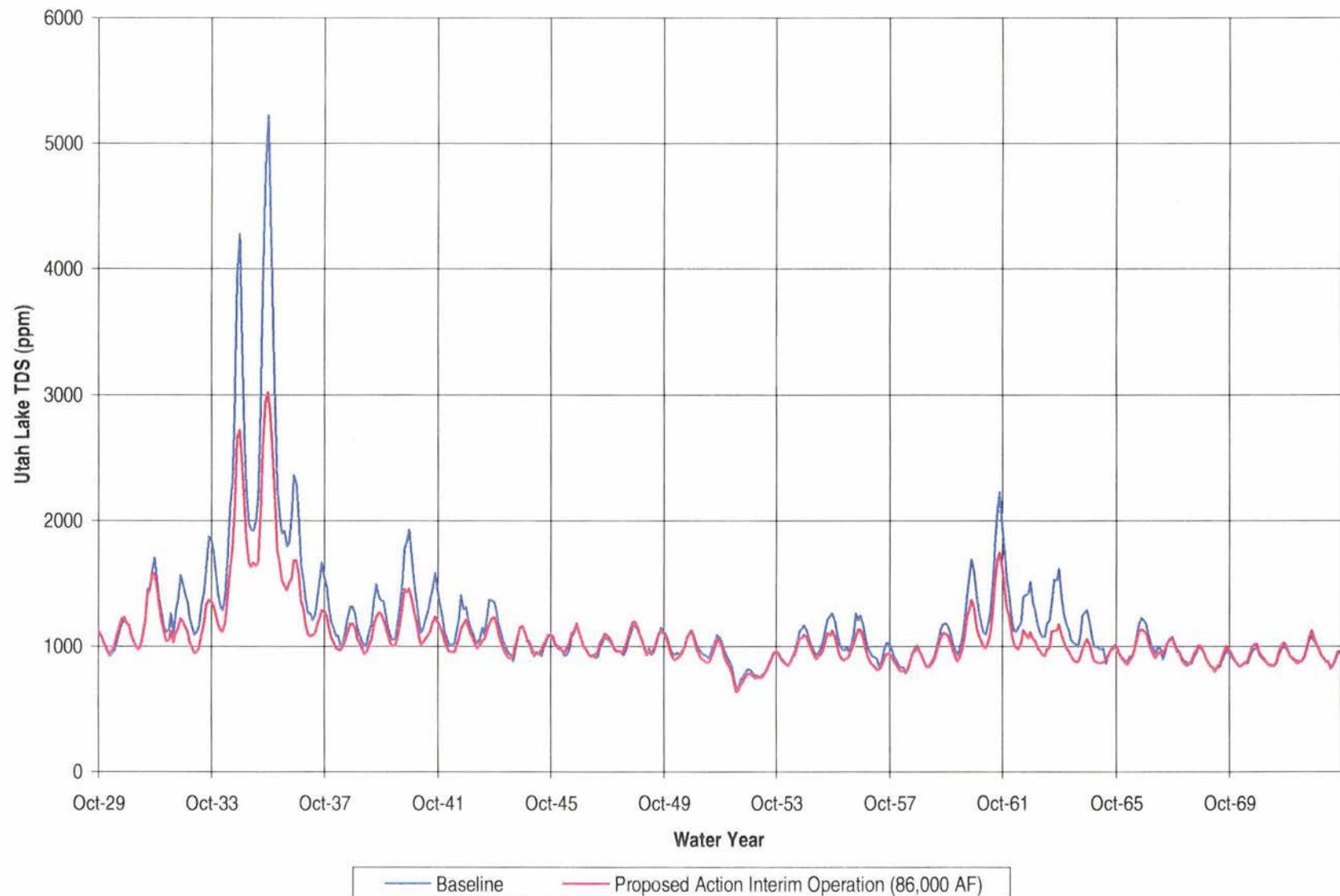
used minimum monthly daily relative humidity based on 97/98 data at spanish fork

assumed river depth of 0.30 m (conservative)

used monthly avg cfs regressions from DO reaeration for cfs v. velocity

ATTACHMENT H

**UTAH LAKE WATER QUALITY
SIMULATION MODEL**



Utah Lake TDS
Baseline and Proposed Action Interim Operation

TABLE UTAH LAKE SIMULATION-- RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

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TABLE UTAH LAKE SIMULATION-- RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)

No	Mon	Year	Water	EOM				Total Lake				Quality - all in mg/l												
				Stage	Precip	Evap	Inflow	Tot.	Dis.	Solids			Sodium			Potassium			Chloride			Sulfate		
					Ft	af	af			Main	PB	GB	Main	PB	GB	Main	PB	GB	Main	PB	GB	Main	PB	GB
37	Oct	1933	4482.30	4233	20059	36686	-6079	1202	469	1383	280	49	340	29	7	36	363	49	445	391	138	469		
38	Nov	1933	4482.70	3275	10106	36818	0	1155	491	1314	266	51	318	28	7	33	344	49	415	371	135	437		
39	Dec	1933	4483.00	6011	684	18118	-726	1115	479	1280	256	46	307	27	6	32	332	45	402	355	126	419		
40	Jan	1933	4483.60	6083	908	41502	0	1033	475	1244	232	46	296	24	6	31	300	45	388	323	123	401		
41	Feb	1933	4484.10	3589	6867	43037	0	982	478	1240	219	48	293	23	6	30	281	47	386	305	125	392		
42	Mar	1933	4484.70	4335	14632	59134	0	942	472	1197	207	47	277	22	6	28	266	46	365	290	124	370		
43	Apr	1933	4484.90	6520	24975	37282	-2359	956	458	1160	212	44	264	22	6	27	272	44	346	294	123	354		
44	May	1933	4484.80	12086	37983	29800	-12158	978	458	1179	219	45	267	23	6	27	281	47	349	302	139	359		
45	Jun	1933	4484.80	165	56029	14516	-39649	1088	479	1245	252	52	289	26	8	30	323	55	378	345	163	391		
46	Jul	1933	4482.90	6991	58671	28302	-46699	1181	475	1317	280	55	317	29	8	33	360	63	413	384	164	431		
47	Aug	1933	4482.10	1348	54704	19184	-25731	1329	435	1463	326	46	368	33	7	38	418	51	478	447	147	501		
48	Sep	1933	4481.90	1339	40513	35208	-10670	1365	441	1580	339	45	407	34	7	42	434	47	527	466	142	555		
Water yr tot				Year average:				1110	468	1300	257	48	312	27	7	32	331	49	407	356	138	423		
Tot. Sys. Av.Stage				55982	326138	399592	-144071																	
Main Lake				4483.40	41648	233501	292652	-144070																
Provo Bay				4483.40	907	5176	71187	0																
Goshen Bay				4483.40	13427	87461	35753	0																
Water yr tot				Year average:																				
Tot. Sys. Av.Stage				76797	332134	197287	-65619																	
Main Lake				4482.18	67061	246181	116008	-65618																
Provo Bay				4482.18	290	1326	59596	0																
Goshen Bay				4482.18	9446	84627	21684	0																
Water yr tot				Year average:				1500	468	1755	391	48	460	39	7	46	499	51	596	525	137	610		
Tot. Sys. Av.Stage				73826	291804	272559	-54580																	
Main Lake				4481.23	57222	219530	184107	-54579																
Provo Bay				4481.23	66	199	63862	0																
Goshen Bay				4481.23	16537	72075	24590	0																
Water yr tot				Year average:				2085	464	2506	590	49	714	57	7	69	753	52	921	770	132	924		

TABLE UTAH LAKE SIMULATION-- RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)

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 TABLE UTAH LAKE SIMULATION-- RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)

No	Mon	Year	Water EOM Stage	Total Lake				Quality - all in mg/l															
				Ft	Precip af	Evap af	Inflow af	Outflow af	Tot. Dis. Solids			Sodium			Potassium			Chloride					
									Main	PB	GB	Main	PB	GB	Main	PB	GB	Main	PB	GB			
109	Oct	1939	4483.70	18648	19833	15585	-14400		1181	478	1251	286	53	318	29	8	32	369	54	412	379	140	419
110	Nov	1939	4484.10	8884	8172	31120	0		1147	494	1215	275	54	303	28	7	31	355	52	393	363	133	398
111	Dec	1939	4484.80	9933	4545	51662	0		1065	485	1184	249	50	291	26	7	29	322	49	377	331	125	381
112	Jan	1939	4485.30	8164	4277	37820	0		1022	480	1172	237	49	285	24	7	29	306	48	372	314	123	372
113	Feb	1939	4485.90	5132	5601	51534	0		976	482	1165	224	50	282	23	7	28	288	49	368	297	123	364
114	Mar	1939	4486.60	4283	15394	71999	0		935	483	1143	211	51	272	22	7	27	272	50	355	282	126	350
115	Apr	1939	4486.60	4656	31991	38434	-11100		958	483	1137	218	52	266	22	7	27	281	52	347	290	132	344
116	May	1939	4485.90	5989	47282	24104	-43700		1008	486	1180	233	55	275	24	8	28	300	57	359	308	148	357
117	Jun	1939	4485.30	4210	55782	39306	-38800		1051	504	1217	246	62	290	25	9	29	317	65	378	325	170	378
118	Jul	1939	4484.30	1152	58189	23623	-49200		1149	522	1260	276	70	310	28	10	31	356	78	402	364	185	405
119	Aug	1939	4483.50	2654	56985	36199	-45700		1229	487	1326	301	60	337	30	9	34	388	67	437	399	171	442
120	Sep	1939	4483.00	7307	38137	29579	-37500		1266	462	1377	313	53	355	31	8	36	404	56	461	415	150	467
Water yr tot				Year average:				1082	487	1219	256	55	299	26	8	30	330	56	388	339	144	390	
Tot. Sys. Av.Stage				81019 346193 450970 -240401																			
Main Lake				4484.92 60097 239875 336682 -240400																			
Provo Bay				4484.92 2608 12000 80601 0																			
Goshen Bay				4484.92 18314 94317 33687 0																			
121	Oct	1940	4483.10	16093	21077	20642	-7900		1260	470	1345	311	51	346	31	8	35	402	52	449	412	136	455
122	Nov	1940	4483.50	0	12507	43500	0		1212	496	1321	296	53	335	30	8	34	382	53	435	391	136	439
123	Dec	1940	4483.90	3562	6895	35000	0		1160	489	1315	280	49	330	28	7	33	362	50	429	370	128	431
124	Jan	1940	4484.50	19745	4572	33174	0		1086	472	1260	259	46	313	26	7	31	335	47	408	342	119	407
125	Feb	1940	4485.20	16714	7074	48416	0		1021	470	1211	240	46	297	24	6	30	310	47	388	317	118	383
126	Mar	1940	4485.60	7119	14986	41636	0		1002	475	1207	234	48	294	24	7	29	301	48	384	309	123	377
127	Apr	1940	4485.80	11038	25106	37366	-6200		1008	468	1179	235	47	283	24	7	28	303	48	369	310	125	364
128	May	1940	4485.10	70	47367	29815	-41800		1062	483	1251	252	52	299	25	8	30	325	56	389	331	149	385
129	Jun	1940	4484.10	5740	54567	9754	-42900		1169	490	1320	285	57	323	29	8	32	368	62	421	372	163	418
130	Jul	1940	4483.00	2481	56707	17388	-49600		1309	488	1416	329	62	360	33	10	36	425	72	468	429	165	466
131	Aug	1940	4482.10	645	55304	27072	-39900		1451	439	1581	375	50	418	37	8	42	484	56	543	490	144	543
132	Sep	1940	4481.90	8557	28675	33082	-27600		1424	441	1619	368	47	434	36	7	43	475	51	563	483	138	564
Water yr tot				Year average:				1180	473	1335	289	51	336	29	7	34	372	53	437	380	137	436	
Tot. Sys. Av.Stage				91769 334843 376852 -215900																			
Main Lake				4483.98 69020 237162 275617 -215899																			
Provo Bay				4483.98 2396 7390 74618 0																			
Goshen Bay				4483.98 20352 90291 26617 0																			
133	Oct	1941	4481.90	6555	19762	18906	-5700		1454	468	1604	378	53	430	37	8	43	487	53	558	494	132	559
134	Nov	1941	4482.30	11003	8393	27806	-1000		1377	491	1514	353	54	399	35	8	40	455	52	519	460	130	517
135	Dec	1941	4482.80	6784	5132	35883	0		1277	486	1471	321	50	384	32	7	38	414	50	499	419	125	494
136	Jan	1941	4483.30	8088	3247	33564	0		1196	482	1432	297	50	370	30	7	37	383	49	483	387	122	474
137	Feb	1941	4484.10	15209	7178	55170	0		1082	479	1366	262	50	350	26	7	34	336	49	457	344	121	444
138	Mar	1941	4484.80	18683	14661	53028	0		1014	470	1304	240	49	329	24	7	32	308	48	431	316	118	417
139	Apr	1941	4485.00	14801	22237	23944	0		1033	457	1249	246	46	310	24	6	30	316	47	405	321	118	394
140	May	1941	4484.70	4946	41111	41843	-30400		1056	462	1292	253	49	317	25	7	31	325	51	412	329	136	403
141	Jun	1941	4484.40	11201	50198	39896	-25500		1087	464	1309	261	53	324	26	8	32	336	56	421	340	149	414
142	Jul	1941	4483.90	11194	54900	47650	-44200		1122	468	1302	270	58	327	27	9	33	349	66	424	353	154	421
143	Aug	1941	4483.20	4462	50216	35351	-44500		1189	447	1342	289	53	345	29	9	35	374	59	448	378	148	447
144	Sep	1941	4482.70	6614	37491	28342	-35700		1234	447	1395	301	50	364	30	8	37	390	53	472	394	140	472
Water yr tot				Year average:				1176	468	1381	289	51	354	29	8	35	373	53	461	378	133	455	
Tot. Sys. Av.Stage				119547 314532 441390 -187000																			
Main Lake				4483.59 89180 222956 327694 -186999																			
Provo Bay				4483.59 2384 6505 85755 0																			

TABLE UTAH LAKE SIMULATION-- RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)

===== TABLE UTAH LAKE SIMULATION-- RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)

TABLE UTAH LAKE SIMULATION-- RUN.044 ULWS 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)

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 TABLE UTAH LAKE SIMULATION-- RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)

No	Mon	Year	Stage	Water EOM					Total Lake					Quality - all in mg/l													
				Precip	Evap	Inflow	Outflow		Tot.	Dis.	Solids			Sodium			Potassium			Chloride			Sulfate				
				Ft	af	af	af	Main		PB	GB	Main			Main	PB	GB	Main	PB	GB	Main	PB	GB	Main	PB	GB	
253	Oct	1951	4483.60	3674	23196	28896	-17300	1113	478	1174	251	54	278	27	8	30	329	56	367	342	138	377					
254	Nov	1951	4484.00	13039	11564	36692	-6500	1068	487	1141	237	52	265	26	8	29	311	53	349	324	129	358					
255	Dec	1951	4484.70	8917	3358	57470	-6100	983	480	1108	212	48	253	23	7	28	278	49	334	292	121	341					
256	Jan	1951	4485.20	8229	4560	38879	-1000	946	475	1094	202	48	248	22	7	27	264	49	328	278	119	332					
257	Feb	1951	4485.80	4173	6801	56095	-2600	901	478	1093	189	49	246	21	7	26	247	50	327	263	121	326					
258	Mar	1951	4486.10	5894	13150	38902	-5800	892	475	1089	187	49	244	21	7	26	244	50	324	259	121	321					
259	Apr	1951	4486.50	16270	27548	62062	-16000	874	462	1046	183	47	228	20	7	25	237	49	302	252	120	304					
260	May	1951	4486.50	11506	42664	63458	-32300	870	461	1036	181	49	222	20	7	24	236	53	294	249	133	298					
261	Jun	1951	4486.10	3597	53366	60485	-45500	884	481	1051	184	57	227	20	9	25	240	62	300	256	155	307					
262	Jul	1951	4485.30	4448	62072	40082	-50800	944	508	1045	201	66	231	22	10	25	262	76	304	279	175	315					
263	Aug	1951	4484.70	7048	54902	38732	-40800	988	497	1059	214	63	241	24	10	27	278	72	317	298	173	331					
264	Sep	1951	4483.90	386	44885	24443	-44800	1057	492	1106	233	60	257	26	10	29	304	66	338	325	164	355					
Water yr tot				Year average:				960	481	1087	206	54	245	23	8	27	269	57	323	285	139	330					
Tot. Sys. Av.Stage				87186	348072	546201	-269501																				
Main Lake				4485.20	63520	238803	405773																				
Provo Bay				4485.20	3594	14239	87515																				
Goshen Bay				4485.20	20073	95031	52913																				
265	Oct	1952	4484.10	12042	16556	35633	-15100	1032	447	1080	226	48	250	25	7	28	294	50	327	315	123	344					
266	Nov	1952	4484.50	10354	8963	36937	-6000	1002	449	1052	217	44	238	24	7	26	283	45	312	302	111	327					
267	Dec	1952	4485.30	27505	1566	46490	-6000	916	424	990	193	37	221	22	5	24	253	38	291	270	95	303					
268	Jan	1952	4486.00	8472	5152	62315	-6000	870	422	971	179	36	214	20	5	24	234	38	282	252	94	292					
269	Feb	1952	4486.70	5261	6858	68742	-6000	836	422	949	170	37	206	19	5	23	221	38	273	239	95	279					
270	Mar	1952	4487.00	18033	11808	77740	-12800	794	408	915	158	35	195	18	5	21	205	36	259	223	90	264					
271	Apr	1952	4489.00	8749	30337	174846	-15100	729	397	852	138	33	174	16	5	19	179	35	229	198	90	239					
272	May	1952	4490.80	10510	52919	297921	-81386	633	420	780	108	44	150	12	6	17	141	50	197	162	107	211					
273	Jun	1952	4489.70	7007	63051	82457	-133795	653	424	786	113	49	149	13	7	17	146	55	195	169	120	211					
274	Jul	1952	4488.80	4393	67974	35424	-57300	698	446	760	125	57	145	14	8	17	163	66	191	186	138	210					
275	Aug	1952	4488.20	9081	65695	52781	-51800	726	470	748	133	62	148	15	9	17	173	71	194	197	154	215					
276	Sep	1952	4487.60	261	49369	33580	-39200	758	502	761	142	65	154	16	10	18	185	75	202	210	166	225					
Water yr tot				Year average:				804	436	887	158	46	187	18	7	21	206	50	246	227	115	260					
Tot. Sys. Av.Stage				121673	3802551004872	430482																					
Main Lake				4487.35	86315	248503	757570																				
Provo Bay				4487.35	6400	25510	129476																				
Goshen Bay				4487.35	28958	106242	117826																				
277	Oct	1953	4487.50	0	29302	35318	-15100	780	533	773	147	66	156	17	10	18	192	73	205	218	169	229					
278	Nov	1953	4487.80	4686	10827	39348	-6000	781	539	775	148	62	153	17	9	18	194	67	201	217	159	223					
279	Dec	1953	4488.40	4612	4207	60588	-6000	763	526	782	142	58	153	16	8	18	186	61	202	210	147	222					
280	Jan	1953	4489.00	11307	6298	56946	-6000	746	506	787	138	54	153	16	8	18	181	57	202	204	137	221					
281	Feb	1953	4489.00	1710	8049	26453	-20114	752	501	806	141	53	158	16	7	18	184	55	210	206	135	224					
282	Mar	1953	4489.00	8594	15674	53178	-46098	745	491	820	139	52	161	16	7	18	181	54	214	204	131	226					
283	Apr	1953	4489.00	10132	25672	38997	-23457	755	479	823	142	50	160	16	7	18	186	53	212	207	129	225					
284	May	1953	4488.60	4157	42195	42857	-42200	775	473	850	148	53	163	17	7	18	193	56	216	215	139	231					
285	Jun	1953	4487.70	522	60314	25482	-48300	821	490	880	160	59	172	18	9	19	210	64	227	232	159	245					
286	Jul	1953	4486.90	4571	65606	46614	-57300	861	522	888	171	70	180	19	10	20	224	78	237	248	182	257					
287	Aug	1953	4486.10	9462	63729	36015	-51800	903	539	910	183	73	192	21	11	22	240	82	253	266	195	276					
288	Sep	1953	4485.50	819	46686	33551	-39200	945	552	943	195	72	204	22	11	23	255	81	269	283	197	294					
Water yr tot				Year average:				802	513	836	155	60	167	18	9	19	202	65	221	226	157	239					
Tot. Sys. Av.Stage																											

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TABLE UTAH LAKE SIMULATION-- RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)

No	Mon	Year	Water Stage	Total Lake				Quality - all in mg/l														
				Main	PB	GB	Main	Dis.	Solids	Main	PB	GB	Main	PB	GB	Main	PB	GB	Main			
289	Oct	1954	4485.40	5679	23616	24623	-15100	961	531	959	200	65	209	23	10	24	261	70	275	289	168	300
290	Nov	1954	4485.70	5813	10560	36300	-6000	947	520	965	196	59	207	22	9	23	256	61	273	282	146	297
291	Dec	1954	4486.20	5490	6220	49811	-6000	911	504	966	186	54	205	21	8	23	243	56	271	268	133	293
292	Jan	1954	4486.60	7986	5920	38838	-6000	889	490	965	180	52	204	20	7	23	236	53	270	260	126	289
293	Feb	1954	4487.10	2656	6632	54198	-6000	861	487	975	174	52	206	20	7	23	226	53	273	251	124	288
294	Mar	1954	4487.50	10639	13484	47616	-9000	845	479	970	170	51	205	19	7	23	221	52	271	245	122	284
295	Apr	1954	4487.50	5594	31447	40952	-15100	860	478	976	174	52	203	19	7	22	227	54	268	250	127	283
296	May	1954	4486.70	3177	48278	16135	-42200	910	482	1023	189	56	212	21	8	23	246	59	280	268	142	296
297	Jun	1954	4486.20	6673	52331	50225	-48300	928	491	1041	194	62	220	22	9	24	252	66	289	276	158	308
298	Jul	1954	4485.20	5060	64589	36008	-61900	989	519	1065	211	71	232	24	11	26	275	81	305	301	178	328
299	Aug	1954	4484.20	1264	58778	31520	-56300	1061	507	1121	233	68	255	26	11	28	303	77	335	332	176	361
300	Sep	1954	4483.80	10683	40886	41865	-43700	1062	473	1150	235	57	267	26	9	30	305	63	350	336	151	378
Water yr tot				Year average:				935	497	1015	195	58	219	22	8	24	254	62	288	280	146	309
Tot. Sys. Av. Stage				70722 362748 468097 -315601																		
Main Lake				4486.01 49948 246936 353238 -315600																		
Provo Bay				4486.01 3509 16520 82713 0																		
Goshen Bay				4486.01 17264 99292 32146 0																		
301	Oct	1955	4483.70	4903	22083	22292	-13000	1089	479	1149	242	54	267	27	8	30	315	57	350	346	138	378
302	Nov	1955	4484.00	5793	12733	32381	-1700	1072	493	1135	237	53	261	26	8	29	308	54	341	338	132	367
303	Dec	1955	4484.50	2822	5890	45089	-1600	1021	487	1128	222	50	256	25	7	28	289	51	335	317	125	359
304	Jan	1955	4485.00	8267	222	33584	-400	980	474	1104	212	47	249	23	7	27	274	49	327	301	119	347
305	Feb	1955	4485.60	13421	5987	43562	-400	934	470	1086	199	47	244	22	7	27	258	48	321	284	116	337
306	Mar	1955	4486.30	1394	13828	73250	-500	896	476	1064	189	50	235	21	7	26	243	51	309	270	122	323
307	Apr	1955	4486.40	3648	23331	29889	-1500	917	472	1055	195	49	230	21	7	25	252	51	302	277	125	318
308	May	1955	4486.10	7839	45195	41078	-29800	935	475	1091	200	53	236	22	8	26	259	57	310	284	140	328
309	Jun	1955	4485.60	10582	47797	31070	-36800	967	479	1105	209	57	243	23	9	27	271	63	318	296	153	338
310	Jul	1955	4484.70	2642	61414	39154	-55700	1028	508	1131	227	68	257	25	10	28	294	78	335	322	173	359
311	Aug	1955	4483.80	3542	54100	29975	-52200	1103	485	1166	250	62	274	27	10	30	323	71	356	354	165	385
312	Sep	1955	4483.50	12179	40292	47971	-43600	1081	460	1195	245	54	286	27	9	31	315	59	371	349	145	402
Water yr tot				Year average:				1002	480	1117	219	54	253	24	8	28	283	57	331	312	138	353
Tot. Sys. Av. Stage				77038 332880 469301 -237201																		
Main Lake				4484.93 53236 230232 352319 -237200																		
Provo Bay				4484.93 2621 11870 81014 0																		
Goshen Bay				4484.93 21181 90778 35968 0																		
313	Oct	1956	4483.30	3581	20562	13266	-11800	1125	476	1198	258	52	287	28	8	31	332	56	373	366	138	404
314	Nov	1956	4483.70	10526	7118	28760	-800	1080	486	1153	245	50	271	27	7	30	316	52	352	347	130	380
315	Dec	1956	4484.30	8204	4822	45196	-600	1008	481	1125	223	47	262	24	7	28	288	49	340	317	123	366
316	Jan	1956	4485.10	14962	5034	56299	-400	929	470	1081	200	45	248	22	6	27	258	47	324	287	118	345
317	Feb	1956	4485.60	7551	6074	40806	-100	897	471	1074	192	46	244	21	6	26	246	48	319	275	118	337
318	Mar	1956	4485.90	201	16594	42161	-100	889	478	1086	190	48	245	21	7	26	243	51	321	271	125	336
319	Apr	1956	4485.50	4397	23565	37929	-53000	901	470	1071	194	48	238	21	7	26	248	51	311	276	126	328
320	May	1956	4485.20	2716	37798	44882	-35000	915	470	1093	198	50	240	22	7	26	253	55	313	281	140	333
321	Jun	1956	4484.40	0	57897	35248	-43500	971	490	1151	214	57	260	23	9	28	274	64	337	304	161	361
322	Jul	1956	4483.60	3564	59741	48980	-56800	1019	487	1181	228	61	275	25	10	30	292	72	355	325	164	384
323	Aug	1956	4482.80	397	53628	46382	-55000	1077	451	1220	246	53	292	27	8	32	314	61	378	351	148	412
324	Sep	1956	4482.10	285	39857	32855	-45600	1131	444	1303	262	49	320	28	8	35	334	55	413	375	137	452
Water yr tot				Year average:				995	473	1145	221	50	265	24	7	29	283	55	345	314	136	370
Tot. Sys. Av. Stage				56389 332697 472771 -302701																		
Main Lake				4484.29 39840 234348 363527 -302700																		
Provo Bay				4484.29 1549 8185 75586 0																		
Goshen Bay				4484.29 15000 90164 33658 0																		

TABLE UTAH LAKE SIMULATION-- RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT. 1)

TABLE UTAH LAKE SIMULATION-- RUN 044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)

TABLE UTAH LAKE SIMULATION-- RUN.044 ULWMSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)

TABLE UTAH LAKE SIMULATION-- RUN .044 ULWST 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)

No	Mon	Year	Stage	Water EOM				Total Lake				Quality - all in mg/l											
				Ft	af	af	af	Main	PB	GB	Main	Sodium	Potassium	Chloride	Sulfate	Main	PB	GB	Main	PB	GB	Main	PB
433	Oct	1966	4484.70	1071	24878	33106	-9300	1001	494	1028	219	58	237	25	9	27	285	62	310	301	146	32	
434	Nov	1966	4485.30	8451	9737	52406	-1200	958	499	1008	206	55	228	23	8	25	268	57	298	285	134	31	
435	Dec	1966	4485.90	12948	767	40184	-1300	918	483	977	195	50	217	22	7	24	254	52	285	269	122	29	
436	Jan	1966	4486.30	1448	7585	44184	-3400	899	487	990	189	51	219	21	7	24	247	53	288	262	124	29	
437	Feb	1966	4486.80	7726	7134	55061	-11800	867	482	990	180	50	218	20	7	24	235	52	288	250	122	29	
438	Mar	1966	4487.20	3981	18129	58511	-8800	852	484	999	176	52	218	20	7	24	229	53	287	245	125	29	
439	Apr	1966	4487.00	3263	33948	21277	-8500	890	486	1015	188	53	219	21	7	24	244	56	288	258	131	29	
440	May	1966	4486.50	7709	53335	43329	-41800	920	489	1052	196	57	225	22	8	25	255	61	296	269	146	30	
441	Jun	1966	4485.70	375	58250	35617	-46900	969	507	1095	210	64	241	23	9	27	273	71	317	288	166	32	
442	Jul	1966	4484.60	989	65281	25949	-53800	1059	526	1147	236	72	262	26	11	29	308	84	343	323	180	35	
443	Aug	1966	4483.80	3957	60595	45410	-53300	1119	489	1191	254	63	281	28	10	31	331	74	368	349	165	38	
444	Sep	1966	4483.40	6166	41054	44490	-41100	1132	463	1219	258	55	292	29	9	33	336	62	382	357	145	40	
Water yr tot				Year average:				965	491	1059	209	57	238	23	8	26	272	61	313	288	142	32	
Tot. Sys. Av.Stage				58089	380700	499530	-281201																
Main Lake				4485.60	41126	261251	366485																
Provo Bay				4485.60	2624	15490	86800																
Goshen Bay				4485.60	14340	103958	46245																
445	Oct	1967	4483.50	7235	20889	35111	-13700	1121	468	1196	255	53	285	28	8	32	331	56	373	353	130	39	
446	Nov	1967	4483.80	3743	8867	31964	-3100	1097	485	1172	248	53	275	28	8	31	322	55	360	342	125	37	
447	Dec	1967	4484.40	15548	3758	37592	-1200	1029	473	1116	228	48	260	25	7	29	297	50	340	315	115	35	
448	Jan	1967	4485.00	16919	4664	38466	-1400	970	464	1084	212	46	251	24	7	28	275	48	329	292	111	33	
449	Feb	1967	4485.60	651	7958	60002	-2100	932	473	1071	201	49	244	22	7	27	260	51	321	278	117	32	
450	Mar	1967	4486.10	6508	16655	57992	-4900	903	471	1066	193	50	239	21	7	26	249	51	316	267	118	32	
451	Apr	1967	4485.90	4418	27216	9321	-3800	950	466	1075	207	49	239	23	7	26	268	52	314	283	120	32	
452	May	1967	4485.80	16486	41322	54666	-38400	944	457	1065	205	50	233	23	8	26	265	55	306	280	129	31	
453	Jun	1967	4485.70	11127	49321	56665	-27000	952	468	1040	207	56	226	23	9	25	269	63	296	283	145	30	
454	Jul	1967	4485.10	5439	62177	58184	-52200	976	499	1050	214	68	235	24	11	26	277	78	307	293	165	32	
455	Aug	1967	4484.30	3625	63668	50315	-56100	1024	495	1079	228	67	250	25	11	28	295	77	326	314	167	34	
456	Sep	1967	4483.80	4679	41041	39272	-43000	1050	475	1100	235	59	259	26	10	29	304	66	337	325	150	35	
Water yr tot				Year average:				996	474	1093	219	54	250	24	8	28	284	58	327	302	133	33	
Tot. Sys. Av.Stage				96386	347542	529555	-246901																
Main Lake				4484.92	61475	239890	377699																
Provo Bay				4484.92	3028	12772	86478																
Goshen Bay				4484.92	31883	94880	65379																
457	Oct	1968	4483.80	3142	20845	28202	-10500	1061	471	1107	238	54	261	26	8	29	308	57	339	328	133	35	
458	Nov	1968	4484.30	7128	9232	43294	-1100	1018	482	1079	224	52	249	25	8	28	291	53	324	311	125	34	
459	Dec	1968	4484.90	11905	4572	42927	-1100	961	471	1054	208	47	241	23	7	27	269	49	314	289	116	32	
460	Jan	1968	4485.30	2867	6541	38427	-1300	938	471	1053	202	48	238	23	7	26	261	49	311	280	116	32	
461	Feb	1968	4486.00	13155	7613	55593	-1500	890	465	1032	188	47	231	21	7	25	243	48	303	263	113	31	
462	Mar	1968	4486.50	11716	18549	59823	-9500	860	462	1027	180	47	227	20	7	25	231	49	299	252	114	30	
463	Apr	1968	4486.80	25364	25120	48697	-22500	844	442	984	175	44	214	19	6	23	225	46	280	245	109	28	
464	May	1968	4486.60	11628	41795	46854	-34300	855	442	995	179	47	213	20	7	23	229	51	279	249	122	28	
465	Jun	1968	4486.10	11730	55571	38530	-38300	887	457	1012	188	54	218	21	8	24	241	59	284	261	140	29	
466	Jul	1968	4485.40	4691	66121	52401	-50900	933	491	1007	201	65	222	22	10	25	258	75	289	280	163	30	
467	Aug	1968	4484.90	17493	52732	35672	-42300	962	470	1003	209	61	228	23	10	25	269	70	295	293	155	31	
468	Sep	1968	4484.30	1427	42478	30990	-39100	1006	477	1042	222	59	242	25	10	27	285	66	313	311	152	33	
Water yr tot				Year average:				935	467	1033	201	52	232	22	8	26	259	56	303	280	130	31	
Tot. Sys. Av.Stage				122252	351176	521414	-252401																
Main Lake				4485.41	84113	239996	373595																
Provo Bay				4485.41	5527	15217	98243																
Goshen Bay				4485.41	32612	95963	49577																

TABLE UTAH LAKE SIMULATION-- RUN .044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)

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 TABLE UTAH LAKE SIMULATION-- RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel. (CONT.)
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Water No	EOM Mon	Year	Total Lake				Quality - all in mg/l																
			Stage Ft	Precip af	Evap af	Inflow af	Outflow af	Tot. Dis.	Solids	Sodium			Potassium			Chloride			Sulfate				
			Main	PB	GB	Main	PB	GB	Main	PB	GB	Main	PB	GB	Main	PB	GB	Main	PB	GB			
505	Oct	1972	4485.10	15970	16779	32576	-15100	1014	482	985	223	55	223	25	8	25	293	60	293	303	139	304	
506	Nov	1972	4485.80	5003	9229	69506	-6000	964	497	982	205	54	218	23	8	24	270	57	287	282	133	297	
507	Dec	1972	4486.50	8176	4851	63305	-6000	916	489	962	192	51	210	21	7	23	252	54	278	264	125	286	
508	Jan	1972	4486.90	2442	6846	45673	-6000	900	486	968	187	50	210	21	7	23	246	53	278	258	124	284	
509	Feb	1972	4487.40	1052	9175	58722	-6000	877	486	982	181	51	213	20	7	23	238	54	283	250	124	284	
510	Mar	1972	4487.80	4076	19356	60441	-9000	862	484	996	177	51	215	20	7	23	232	54	285	244	125	285	
511	Apr	1972	4487.90	9867	26693	41009	-15100	871	473	984	181	50	210	20	7	23	237	53	278	246	124	279	
512	May	1972	4487.60	180	50864	65677	-42200	882	478	1023	182	55	216	20	8	23	240	60	287	249	139	289	
513	Jun	1972	4487.00	6214	57361	45638	-48300	918	490	1037	192	61	222	21	9	24	252	68	294	263	155	298	
514	Jul	1972	4485.90	1516	67069	26696	-57300	996	523	1066	214	72	236	24	11	26	282	84	312	292	177	318	
515	Aug	1972	4485.00	6187	62113	31461	-51800	1069	521	1098	235	71	251	26	11	28	310	84	332	320	179	340	
516	Sep	1972	4484.40	4756	43535	28657	-39200	1121	500	1139	249	63	265	27	10	29	329	73	351	340	163	360	
Water yr tot								Year average:	949	492	1018	201	57	224	22	8	24	265	63	297	276	142	302
Tot. Sys. Av.	Stage	65444	373878	569366	-302001																		
Main Lake		4486.44	40058	251826	416663	-302000																	
Provo Bay		4486.44	2854	19409	97842	0																	
Goshen Bay		4486.44	22532	102642	54861	0																	
517	Oct	1973	4484.80	26443	17626	39096	-15100	1065	457	1092	233	51	252	26	8	28	309	56	333	319	123	341	
518	Nov	1973	4485.40	11494	5714	50340	-6000	1012	466	1057	218	50	238	24	8	26	288	52	315	298	115	322	
519	Dec	1973	4485.90	6802	3997	45846	-6000	971	461	1044	206	46	233	23	7	26	272	49	309	282	109	314	
520	Jan	1973	4486.50	9783	1254	49531	-6000	925	449	1029	194	44	229	22	7	25	255	46	304	266	104	306	
521	Feb	1973	4487.00	4001	6377	52473	-6000	902	451	1021	188	45	225	21	7	24	247	47	300	258	105	299	
522	Mar	1973	4487.60	7314	13734	69229	-9000	874	446	1004	180	45	218	20	6	24	236	47	291	247	105	289	
523	Apr	1973	4488.00	8779	25591	68203	-15100	863	436	975	177	44	208	20	6	23	233	46	276	243	105	277	
524	May	1973	4488.40	9668	51457	120815	-42200	826	435	952	165	47	198	18	7	22	217	51	264	227	117	267	
525	Jun	1973	4487.90	4312	60718	58795	-48300	854	450	965	172	54	200	19	8	22	227	61	265	237	134	271	
526	Jul	1973	4487.00	6676	65080	34688	-57300	903	478	968	186	65	206	21	10	23	245	75	273	256	152	281	
527	Aug	1973	4486.20	8615	65577	38589	-51800	955	497	971	200	69	213	22	11	24	264	81	282	276	164	292	
528	Sep	1973	4485.90	11121	41937	44032	-39200	960	495	987	202	65	221	23	11	25	265	75	292	279	157	303	
Water yr tot								Year average:	926	460	1005	193	52	220	21	8	24	255	57	292	266	124	297
Tot. Sys. Av.	Stage	115013	359069	671643	-302001																		
Main Lake		4486.72	73374	239097	489546	-302000																	
Provo Bay		4486.72	5168	21115	113481	0																	
Goshen Bay		4486.72	36472	98856	68616	0																	

44 Yr Avg 1063 474 1215 244 52 290 26 8 30 316 55 380 332 136 388

(Avgs. based on reducing max monthly TDS to 2000 mg/l in the Main lake,
and 2500 mg/l in Goshen bay -- all ions reduced proportionately)

Tot. Sys. 87995 340691 493513 -238520
 Main Lake 4484.67 63020 236853 363369 -238520
 Provo Bay 4484.67 2921 11615 86072 0
 Goshen Bay 4484.67 22053 92223 44072 0

Sum water check:

Total lake: 87995 340691 493513 -238520

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TABLE UTAH LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.
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***RUN DESCRIPTION

Information on this simulation run--

Time period --Begin Oct 1929 and end Sep 1973 (44 yrs)
Input data --Based on actual and correlated data as
 updated and correlated in 1994.
Evaporation --Updated 1992 data using Morton's model.
Outflow qual. --Jordan River at Lake quality during simulation.
--Months in this simulation = 528
--Time period key is = 0

*** Beginning Stages in the Lake system are

Bay	Stage
1	4484.70
2	4484.70
3	4484.70

*** SIMULATION SETUP AND INITIALIZATION DATA--

Ions to be carried in the simulation=	Tds	Na	Ca	Mg	K	C1	HCO3	SO4
	1	2	3	4	5	6	7	8

***Quality outflow factor = 1.

0. Historical Jordan River quality is used.
1. Simulated Lake quality is used for the Jordan River outflow

***Evaporation factor = 0.

0. Given evaporation is used
1. Evap. is calc. as unknown in the water balance
(unless unmeas inflow (Trib 69) is calculated--then given evap. is used)

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TABLE UTAH LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.
=====

***INITIAL WATER QUALITY--

Bay	Quality	
No.	F.C.	Conc. (mg/l)
1	Tds	1084.00
1	Na	201.00
1	Ca	58.00
1	Mg	69.00
1	K	24.00
1	Cl	286.00
1	HCO	244.00
1	SO4	300.00
2	Tds	450.00
2	Na	50.00
2	Ca	45.00
2	Mg	35.00
2	K	7.00
2	Cl	50.00
2	HCO	220.00
2	SO4	145.00
3	Tds	1300.00
3	Na	241.00
3	Ca	53.00
3	Mg	83.00
3	K	29.00
3	Cl	342.00
3	HCO	275.00
3	SO4	360.00

***No. of subareas in the Lake system = 3

Code nos. are--
1 MAIN_LK
2 PROVO B
3 GOSHEN B

***Multipliers applied to the input data are--

Flows . . 1.000
Precip . . 1.000
Evap . . 1.080

***Following trib will be changed by the factor given--

Trib. factor
1 1.000 8 1.000

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TABLE UTAH LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.
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***Bay - Tributary assignment data

Bay	No. of Tributary code numbers
	Tribs

1	54	1	3	4	5	6	7	8	9	10	11
		12	13	14	15	16	17	18	19	20	21
		22	23	24	25	26	27	28	29	48	49
		50	51	53	54	84	55	85	56	86	57
		87	66	67	68	69	70	71	72	75	76
		81	30	80	78						
2	19	31	32	33	34	35	36	37	38	39	40
		41	42	43	44	45	46	47	73	74	
3	8	52	58	88	60	61	62	64	63		

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 TABLE UTAH LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.
 =====
 HISTORICAL PRECIPITATION (FT), AS DETERMINED FROM ALL NEARBY RECORDS USING THE THIESSEN POLYGON METHOD
 Bay No. 1 (MAIN_LK)

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Total	Cum Total
1930	0.020	0.025	0.054	0.117	0.076	0.062	0.052	0.167	0.027	0.065	0.227	0.095	0.985	0.985
1931	0.104	0.140	0.046	0.058	0.062	0.038	0.025	0.000	0.004	0.112	0.042	0.690	1.675	
1932	0.050	0.129	0.102	0.152	0.068	0.052	0.137	0.035	0.102	0.071	0.144	0.000	1.042	2.717
1933	0.056	0.047	0.085	0.087	0.048	0.053	0.077	0.157	0.002	0.092	0.020	0.018	0.742	3.459
1934	0.684	0.025	0.048	0.118	0.175	0.012	0.012	0.001	0.022	0.032	0.064	0.046	1.239	4.698
1935	0.048	0.192	0.171	0.028	0.061	0.140	0.218	0.172	0.000	0.027	0.022	0.008	1.087	5.785
1936	0.000	0.090	0.047	0.245	0.221	0.092	0.027	0.037	0.111	0.169	0.102	0.044	1.187	6.972
1937	0.155	0.105	0.214	0.116	0.104	0.107	0.053	0.122	0.017	0.142	0.027	0.080	1.244	8.216
1938	0.159	0.053	0.151	0.026	0.129	0.169	0.113	0.240	0.016	0.012	0.047	0.022	1.137	9.353
1939	0.254	0.118	0.136	0.107	0.067	0.055	0.057	0.070	0.052	0.007	0.033	0.095	1.051	10.404
1940	0.225	0.000	0.049	0.267	0.215	0.088	0.133	0.001	0.077	0.035	0.007	0.122	1.220	11.624
1941	0.092	0.159	0.094	0.112	0.205	0.247	0.191	0.060	0.136	0.147	0.054	0.092	1.589	13.212
1942	0.285	0.121	0.067	0.117	0.112	0.080	0.105	0.135	0.012	0.098	0.029	0.054	1.214	14.426
1943	0.041	0.112	0.057	0.073	0.183	0.093	0.034	0.037	0.186	0.028	0.077	0.002	0.925	15.351
1944	0.192	0.015	0.128	0.182	0.073	0.158	0.335	0.176	0.163	0.009	0.000	0.004	1.437	16.787
1945	0.029	0.182	0.117	0.061	0.205	0.236	0.101	0.123	0.155	0.027	0.235	0.091	1.560	18.348
1946	0.043	0.094	0.142	0.067	0.003	0.110	0.122	0.146	0.010	0.056	0.253	0.000	1.045	19.393
1947	0.449	0.171	0.115	0.084	0.063	0.067	0.120	0.088	0.189	0.008	0.091	0.029	1.474	20.867
1948	0.138	0.115	0.043	0.062	0.039	0.102	0.061	0.002	0.102	0.054	0.097	0.012	0.827	21.695
1949	0.072	0.097	0.198	0.156	0.089	0.092	0.007	0.237	0.045	0.036	0.018	0.059	1.106	22.801
1950	0.217	0.034	0.149	0.175	0.077	0.080	0.050	0.117	0.016	0.047	0.005	0.071	1.038	23.839
1951	0.050	0.180	0.123	0.105	0.054	0.067	0.206	0.136	0.040	0.046	0.086	0.005	1.098	24.937
1952	0.162	0.128	0.340	0.104	0.062	0.223	0.099	0.122	0.076	0.046	0.100	0.003	1.465	26.402
1953	0.000	0.052	0.053	0.142	0.022	0.102	0.114	0.040	0.005	0.041	0.112	0.010	0.693	27.095
1954	0.072	0.077	0.066	0.091	0.031	0.116	0.068	0.036	0.082	0.062	0.016	0.138	0.854	27.949
1955	0.058	0.073	0.038	0.102	0.164	0.010	0.047	0.092	0.130	0.018	0.030	0.163	0.926	28.875
1956	0.047	0.137	0.104	0.184	0.100	0.002	0.042	0.028	0.000	0.052	0.000	0.002	0.700	29.575
1957	0.095	0.007	0.045	0.173	0.060	0.147	0.159	0.298	0.105	0.019	0.064	0.017	1.190	30.764
1958	0.080	0.082	0.130	0.080	0.128	0.169	0.078	0.040	0.028	0.006	0.047	0.091	0.960	31.724
1959	0.000	0.101	0.049	0.113	0.184	0.035	0.122	0.087	0.080	0.011	0.141	0.160	1.082	32.806
1960	0.018	0.005	0.074	0.090	0.210	0.132	0.054	0.031	0.017	0.000	0.037	0.076	0.745	33.551
1961	0.155	0.076	0.061	0.000	0.053	0.221	0.067	0.012	0.000	0.072	0.095	0.203	1.015	34.565
1962	0.197	0.101	0.161	0.035	0.227	0.152	0.125	0.181	0.062	0.047	0.000	0.049	1.335	35.901
1963	0.074	0.030	0.001	0.118	0.035	0.187	0.281	0.052	0.105	0.001	0.066	0.107	1.056	36.957
1964	0.053	0.135	0.049	0.105	0.007	0.112	0.252	0.265	0.237	0.015	0.021	0.000	1.250	38.206
1965	0.003	0.108	0.278	0.099	0.007	0.018	0.088	0.062	0.098	0.058	0.077	0.173	1.072	39.278
1966	0.014	0.112	0.157	0.017	0.090	0.051	0.038	0.092	0.002	0.012	0.042	0.077	0.706	39.985
1967	0.086	0.047	0.177	0.210	0.005	0.071	0.047	0.177	0.108	0.041	0.050	0.050	1.070	41.054
1968	0.039	0.089	0.152	0.032	0.144	0.142	0.306	0.124	0.139	0.043	0.213	0.018	1.442	42.496
1969	0.113	0.122	0.197	0.136	0.152	0.004	0.140	0.002	0.302	0.051	0.022	0.018	1.262	43.758
1970	0.302	0.072	0.116	0.157	0.061	0.092	0.198	0.057	0.156	0.072	0.103	0.211	1.594	45.353
1971	0.124	0.281	0.138	0.053	0.179	0.008	0.188	0.097	0.032	0.039	0.061	0.111	1.312	46.665
1972	0.177	0.051	0.081	0.014	0.008	0.048	0.105	0.001	0.062	0.017	0.065	0.054	0.684	47.349
1973	0.335	0.134	0.072	0.117	0.038	0.058	0.056	0.103	0.037	0.071	0.093	0.137	1.253	48.601
Avg. values	0.127	0.096	0.111	0.107	0.098	0.098	0.112	0.097	0.076	0.046	0.073	0.065	1.105	

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 TABLE UTAH LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.
 =====
 HISTORICAL PRECIPITATION (FT), AS DETERMINED FROM ALL NEARBY RECORDS USING THE THIESSEN POLYGON METHOD

Bay No. 2 (PROVO B)

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Total	Cum Total
1930	0.020	0.025	0.054	0.117	0.076	0.062	0.052	0.167	0.027	0.065	0.227	0.095	0.985	0.985
1931	0.104	0.140	0.046	0.058	0.058	0.062	0.038	0.025	0.000	0.004	0.112	0.042	0.690	1.675
1932	0.050	0.129	0.102	0.152	0.068	0.052	0.137	0.035	0.102	0.071	0.144	0.000	1.042	2.717
1933	0.056	0.047	0.085	0.087	0.048	0.053	0.077	0.090	0.002	0.092	0.020	0.018	0.676	3.393
1934	0.684	0.025	0.048	0.118	0.175	0.012	0.012	0.001	0.022	0.032	0.064	0.046	1.239	4.631
1935	0.048	0.192	0.171	0.028	0.061	0.140	0.218	0.172	0.000	0.027	0.022	0.008	1.087	5.719
1936	0.000	0.090	0.047	0.245	0.221	0.092	0.027	0.037	0.111	0.169	0.102	0.044	1.187	6.906
1937	0.155	0.105	0.214	0.116	0.104	0.107	0.053	0.122	0.017	0.142	0.027	0.080	1.244	8.149
1938	0.159	0.053	0.151	0.026	0.129	0.169	0.113	0.240	0.016	0.012	0.047	0.022	1.137	9.286
1939	0.254	0.118	0.136	0.107	0.067	0.055	0.057	0.070	0.052	0.007	0.033	0.095	1.051	10.338
1940	0.225	0.000	0.049	0.267	0.215	0.088	0.133	0.001	0.077	0.035	0.007	0.122	1.220	11.557
1941	0.092	0.159	0.094	0.112	0.205	0.247	0.191	0.060	0.136	0.147	0.054	0.092	1.589	13.146
1942	0.285	0.121	0.067	0.117	0.112	0.080	0.105	0.135	0.012	0.098	0.029	0.054	1.214	14.359
1943	0.041	0.112	0.057	0.073	0.183	0.093	0.034	0.037	0.186	0.028	0.077	0.002	0.925	15.284
1944	0.192	0.015	0.128	0.182	0.073	0.158	0.335	0.176	0.163	0.009	0.000	0.004	1.437	16.721
1945	0.029	0.182	0.117	0.061	0.205	0.236	0.101	0.123	0.155	0.027	0.235	0.091	1.560	18.281
1946	0.043	0.094	0.142	0.067	0.003	0.110	0.122	0.146	0.010	0.056	0.253	0.000	1.045	19.326
1947	0.449	0.171	0.115	0.084	0.063	0.067	0.120	0.088	0.189	0.008	0.091	0.029	1.474	20.801
1948	0.138	0.115	0.043	0.062	0.039	0.102	0.061	0.002	0.102	0.054	0.097	0.012	0.827	21.628
1949	0.072	0.097	0.198	0.156	0.089	0.092	0.007	0.237	0.045	0.036	0.018	0.059	1.106	22.734
1950	0.217	0.034	0.149	0.175	0.077	0.080	0.050	0.117	0.016	0.047	0.005	0.071	1.038	23.772
1951	0.050	0.180	0.123	0.105	0.054	0.067	0.206	0.136	0.040	0.046	0.086	0.005	1.098	24.870
1952	0.162	0.128	0.340	0.104	0.062	0.223	0.099	0.122	0.076	0.046	0.100	0.003	1.465	26.335
1953	0.000	0.052	0.053	0.142	0.022	0.102	0.114	0.040	0.005	0.041	0.112	0.010	0.693	27.028
1954	0.072	0.077	0.066	0.091	0.031	0.116	0.068	0.036	0.082	0.062	0.016	0.138	0.854	27.882
1955	0.058	0.073	0.038	0.102	0.164	0.010	0.047	0.092	0.130	0.018	0.030	0.163	0.926	28.808
1956	0.047	0.137	0.104	0.184	0.100	0.002	0.042	0.028	0.000	0.052	0.000	0.002	0.700	29.508
1957	0.095	0.007	0.045	0.173	0.060	0.147	0.159	0.298	0.105	0.019	0.064	0.017	1.190	30.698
1958	0.080	0.082	0.130	0.080	0.128	0.169	0.078	0.040	0.028	0.006	0.047	0.091	0.960	31.657
1959	0.000	0.101	0.049	0.113	0.184	0.035	0.122	0.087	0.080	0.011	0.141	0.160	1.082	32.739
1960	0.018	0.005	0.074	0.090	0.210	0.132	0.054	0.031	0.017	0.000	0.037	0.076	0.745	33.484
1961	0.155	0.076	0.061	0.000	0.053	0.221	0.067	0.012	0.000	0.072	0.095	0.203	1.015	34.499
1962	0.197	0.101	0.161	0.035	0.227	0.152	0.125	0.181	0.062	0.047	0.000	0.049	1.335	35.834
1963	0.074	0.030	0.001	0.118	0.035	0.187	0.281	0.052	0.105	0.001	0.058	0.107	1.049	36.883
1964	0.053	0.135	0.049	0.105	0.007	0.112	0.252	0.265	0.237	0.015	0.021	0.000	1.250	38.132
1965	0.003	0.108	0.278	0.099	0.007	0.018	0.088	0.062	0.098	0.058	0.077	0.173	1.072	39.204
1966	0.014	0.112	0.157	0.017	0.090	0.051	0.038	0.092	0.002	0.012	0.042	0.077	0.706	39.911
1967	0.086	0.047	0.177	0.210	0.005	0.071	0.047	0.177	0.108	0.041	0.050	0.050	1.070	40.980
1968	0.039	0.089	0.152	0.032	0.144	0.142	0.306	0.124	0.139	0.043	0.213	0.018	1.442	42.422
1969	0.113	0.122	0.197	0.136	0.152	0.004	0.140	0.002	0.302	0.051	0.022	0.018	1.262	43.684
1970	0.302	0.072	0.116	0.157	0.061	0.092	0.198	0.057	0.156	0.072	0.103	0.211	1.594	45.279
1971	0.124	0.281	0.138	0.053	0.179	0.008	0.188	0.097	0.032	0.039	0.061	0.111	1.312	46.591
1972	0.177	0.051	0.081	0.014	0.008	0.048	0.105	0.001	0.062	0.017	0.065	0.054	0.684	47.274
1973	0.335	0.134	0.072	0.117	0.038	0.058	0.056	0.103	0.037	0.071	0.093	0.137	1.253	48.527
Avg. values	0.127	0.096	0.111	0.107	0.098	0.098	0.112	0.096	0.076	0.046	0.073	0.065	1.103	

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 TABLE UTAH LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.
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 HISTORICAL PRECIPITATION (FT), AS DETERMINED FROM ALL NEARBY RECORDS USING THE THIESSEN POLYGON METHOD

Bay No. 3 (GOSHEN B)

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Total	Cum Total
1930	0.021	0.029	0.021	0.091	0.062	0.062	0.041	0.158	0.014	0.098	0.208	0.105	0.911	0.911
1931	0.085	0.103	0.021	0.033	0.059	0.042	0.048	0.025	0.015	0.049	0.120	0.040	0.641	1.553
1932	0.052	0.130	0.088	0.107	0.079	0.086	0.105	0.041	0.113	0.075	0.140	0.004	1.020	2.573
1933	0.062	0.033	0.062	0.056	0.037	0.053	0.085	0.126	0.001	0.085	0.012	0.018	0.631	3.204
1934	0.012	0.028	0.048	0.083	0.112	0.012	0.010	0.001	0.028	0.048	0.069	0.045	0.498	3.702
1935	0.048	0.189	0.166	0.027	0.046	0.103	0.168	0.154	0.000	0.027	0.025	0.008	0.962	4.664
1936	0.000	0.087	0.047	0.240	0.190	0.091	0.046	0.026	0.109	0.182	0.100	0.052	1.170	5.833
1937	0.127	0.084	0.169	0.091	0.104	0.089	0.044	0.107	0.013	0.197	0.025	0.065	1.115	6.949
1938	0.133	0.058	0.105	0.040	0.103	0.129	0.085	0.229	0.028	0.042	0.076	0.032	1.061	8.010
1939	0.187	0.093	0.085	0.072	0.041	0.033	0.042	0.065	0.043	0.033	0.033	0.092	0.822	8.832
1940	0.167	0.000	0.034	0.187	0.167	0.073	0.117	0.001	0.052	0.022	0.012	0.102	0.935	9.768
1941	0.086	0.123	0.080	0.086	0.159	0.183	0.146	0.059	0.140	0.117	0.064	0.072	1.315	11.083
1942	0.256	0.087	0.127	0.058	0.089	0.091	0.092	0.081	0.014	0.057	0.032	0.030	1.014	12.097
1943	0.042	0.102	0.040	0.045	0.129	0.056	0.042	0.062	0.197	0.051	0.087	0.008	0.863	12.960
1944	0.166	0.015	0.103	0.132	0.043	0.148	0.219	0.183	0.127	0.010	0.000	0.012	1.159	14.119
1945	0.028	0.117	0.072	0.035	0.165	0.149	0.096	0.107	0.155	0.024	0.216	0.080	1.245	15.364
1946	0.049	0.062	0.136	0.077	0.007	0.086	0.121	0.137	0.004	0.061	0.160	0.001	0.901	16.265
1947	0.378	0.159	0.092	0.068	0.060	0.070	0.148	0.071	0.147	0.020	0.073	0.027	1.314	17.580
1948	0.142	0.097	0.072	0.040	0.042	0.130	0.074	0.002	0.112	0.037	0.062	0.011	0.818	18.398
1949	0.067	0.073	0.172	0.126	0.042	0.079	0.012	0.211	0.052	0.029	0.015	0.041	0.920	19.317
1950	0.159	0.030	0.090	0.144	0.053	0.050	0.042	0.094	0.011	0.062	0.004	0.059	0.800	20.117
1951	0.037	0.122	0.074	0.083	0.036	0.070	0.133	0.117	0.044	0.068	0.082	0.004	0.872	20.989
1952	0.121	0.127	0.310	0.086	0.056	0.146	0.084	0.074	0.062	0.047	0.092	0.002	1.206	22.195
1953	0.000	0.050	0.042	0.068	0.009	0.062	0.091	0.056	0.007	0.077	0.097	0.008	0.569	22.764
1954	0.055	0.044	0.057	0.092	0.027	0.126	0.046	0.035	0.061	0.052	0.014	0.121	0.731	23.495
1955	0.072	0.072	0.026	0.097	0.147	0.032	0.028	0.082	0.104	0.067	0.081	0.131	0.938	24.433
1956	0.042	0.128	0.098	0.176	0.062	0.004	0.075	0.042	0.000	0.023	0.019	0.007	0.677	25.110
1957	0.077	0.012	0.056	0.143	0.041	0.145	0.185	0.224	0.082	0.009	0.087	0.007	1.068	26.178
1958	0.077	0.091	0.087	0.082	0.107	0.161	0.060	0.027	0.022	0.002	0.166	0.039	0.921	27.099
1959	0.000	0.086	0.031	0.061	0.135	0.064	0.079	0.075	0.062	0.015	0.134	0.147	0.889	27.988
1960	0.019	0.002	0.098	0.060	0.158	0.098	0.037	0.037	0.017	0.017	0.039	0.047	0.630	28.618
1961	0.141	0.122	0.020	0.000	0.044	0.146	0.064	0.037	0.010	0.057	0.140	0.146	0.927	29.545
1962	0.167	0.090	0.095	0.044	0.197	0.102	0.125	0.168	0.052	0.057	0.002	0.029	1.130	30.674
1963	0.054	0.028	0.018	0.093	0.072	0.120	0.202	0.031	0.176	0.007	0.051	0.146	0.998	31.672
1964	0.071	0.172	0.047	0.076	0.009	0.082	0.190	0.222	0.168	0.003	0.033	0.022	1.096	32.769
1965	0.007	0.084	0.252	0.080	0.013	0.031	0.091	0.064	0.072	0.122	0.120	0.137	1.074	33.842
1966	0.010	0.072	0.139	0.017	0.082	0.028	0.032	0.072	0.009	0.010	0.067	0.081	0.619	34.461
1967	0.111	0.047	0.237	0.194	0.015	0.088	0.062	0.228	0.187	0.127	0.028	0.081	1.405	35.866
1968	0.041	0.088	0.128	0.039	0.180	0.114	0.237	0.151	0.120	0.085	0.197	0.015	1.396	37.263
1969	0.105	0.082	0.095	0.192	0.182	0.033	0.084	0.010	0.227	0.088	0.092	0.045	1.235	38.497
1970	0.225	0.074	0.108	0.095	0.069	0.115	0.160	0.072	0.105	0.102	0.049	0.197	1.373	39.870
1971	0.148	0.224	0.175	0.078	0.125	0.047	0.209	0.067	0.036	0.036	0.098	0.132	1.376	41.246
1972	0.230	0.081	0.129	0.063	0.021	0.037	0.117	0.005	0.089	0.017	0.094	0.067	0.950	42.196
1973	0.290	0.147	0.101	0.098	0.063	0.142	0.203	0.110	0.072	0.082	0.109	0.103	1.521	43.718
Avg. values	0.099	0.085	0.097	0.088	0.083	0.087	0.100	0.090	0.072	0.057	0.078	0.060	0.994	

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 TABLE UTAH LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.
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 EVAPORATION (FT), AS CALCULATED BY MORTONS EVAPORATION MODEL

Bay No. 1 (entire lake)

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Total	Cum Total
1930	0.225	0.125	0.008	0.015	0.078	0.165	0.293	0.310	0.630	0.656	0.530	0.438	3.473	3.473
1931	0.246	0.127	0.008	0.008	0.076	0.163	0.295	0.516	0.576	0.705	0.657	0.479	3.858	7.330
1932	0.203	0.115	0.008	0.008	0.077	0.164	0.287	0.483	0.571	0.626	0.631	0.506	3.681	11.011
1933	0.252	0.125	0.008	0.011	0.080	0.167	0.280	0.425	0.641	0.698	0.676	0.513	3.875	14.887
1934	0.290	0.148	0.084	0.076	0.090	0.204	0.352	0.538	0.594	0.703	0.676	0.491	4.247	19.133
1935	0.257	0.123	0.071	0.083	0.086	0.164	0.252	0.385	0.625	0.696	0.635	0.491	3.868	23.002
1936	0.253	0.102	0.074	0.039	0.083	0.173	0.337	0.553	0.586	0.651	0.676	0.493	4.023	27.024
1937	0.244	0.136	0.063	0.006	0.068	0.183	0.306	0.501	0.571	0.621	0.686	0.496	3.882	30.906
1938	0.243	0.111	0.072	0.076	0.067	0.148	0.300	0.459	0.604	0.681	0.671	0.498	3.930	34.836
1939	0.232	0.095	0.052	0.047	0.061	0.163	0.336	0.501	0.606	0.652	0.662	0.456	3.863	38.700
1940	0.254	0.149	0.081	0.052	0.079	0.164	0.272	0.517	0.616	0.669	0.682	0.363	3.899	42.599
1941	0.252	0.106	0.063	0.039	0.084	0.167	0.248	0.460	0.568	0.631	0.592	0.454	3.664	46.263
1942	0.202	0.134	0.064	0.008	0.077	0.163	0.315	0.417	0.611	0.655	0.656	0.499	3.802	50.065
1943	0.221	0.089	0.079	0.062	0.077	0.171	0.324	0.464	0.565	0.659	0.679	0.513	3.903	53.968
1944	0.227	0.117	0.063	0.008	0.081	0.136	0.224	0.460	0.511	0.688	0.696	0.476	3.687	57.654
1945	0.245	0.084	0.079	0.077	0.072	0.140	0.244	0.412	0.479	0.593	0.573	0.478	3.477	61.131
1946	0.264	0.095	0.061	0.069	0.084	0.178	0.352	0.491	0.665	0.677	0.659	0.498	4.093	65.224
1947	0.165	0.087	0.049	0.023	0.076	0.173	0.254	0.506	0.525	0.666	0.614	0.466	3.604	68.827
1948	0.230	0.081	0.029	0.070	0.067	0.134	0.231	0.456	0.545	0.673	0.678	0.476	3.669	72.497
1949	0.235	0.103	0.037	0.008	0.053	0.142	0.343	0.471	0.613	0.698	0.688	0.481	3.873	76.370
1950	0.193	0.140	0.053	0.055	0.084	0.137	0.313	0.461	0.614	0.647	0.690	0.422	3.810	80.180
1951	0.272	0.135	0.038	0.051	0.074	0.141	0.292	0.449	0.565	0.671	0.611	0.513	3.812	83.992
1952	0.192	0.102	0.017	0.056	0.072	0.122	0.305	0.507	0.598	0.663	0.656	0.501	3.793	87.785
1953	0.301	0.111	0.042	0.062	0.079	0.154	0.252	0.417	0.608	0.676	0.671	0.503	3.878	91.662
1954	0.258	0.115	0.067	0.062	0.069	0.139	0.323	0.501	0.551	0.699	0.661	0.473	3.919	95.582
1955	0.258	0.148	0.067	0.002	0.066	0.148	0.247	0.479	0.514	0.679	0.620	0.473	3.702	99.284
1956	0.244	0.084	0.056	0.057	0.067	0.179	0.255	0.415	0.649	0.691	0.642	0.494	3.833	103.116
1957	0.212	0.135	0.071	0.055	0.081	0.124	0.241	0.434	0.616	0.686	0.611	0.496	3.762	106.878
1958	0.221	0.090	0.057	0.070	0.077	0.167	0.300	0.581	0.644	0.696	0.701	0.488	4.093	110.971
1959	0.282	0.101	0.070	0.072	0.070	0.157	0.312	0.446	0.552	0.668	0.656	0.432	3.818	114.788
1960	0.243	0.140	0.075	0.029	0.075	0.156	0.326	0.504	0.632	0.711	0.670	0.486	4.048	118.836
1961	0.241	0.096	0.080	0.086	0.078	0.141	0.252	0.424	0.646	0.652	0.626	0.383	3.704	122.539
1962	0.203	0.093	0.054	0.008	0.083	0.153	0.309	0.436	0.609	0.683	0.684	0.518	3.834	126.374
1963	0.262	0.100	0.047	0.021	0.087	0.160	0.172	0.491	0.541	0.688	0.664	0.461	3.693	130.066
1964	0.249	0.094	0.030	0.013	0.076	0.140	0.241	0.412	0.459	0.714	0.684	0.520	3.632	133.698
1965	0.276	0.107	0.052	0.047	0.079	0.170	0.267	0.441	0.567	0.671	0.643	0.412	3.733	137.431
1966	0.280	0.108	0.008	0.081	0.075	0.188	0.352	0.557	0.621	0.721	0.696	0.483	4.171	141.602
1967	0.247	0.104	0.043	0.052	0.087	0.179	0.291	0.444	0.532	0.681	0.716	0.474	3.852	145.453
1968	0.243	0.107	0.052	0.072	0.082	0.197	0.263	0.437	0.587	0.714	0.583	0.480	3.818	149.271
1969	0.269	0.096	0.041	0.052	0.072	0.189	0.332	0.600	0.577	0.715	0.711	0.506	4.161	153.432
1970	0.205	0.124	0.042	0.061	0.088	0.172	0.260	0.471	0.522	0.629	0.670	0.477	3.721	157.153
1971	0.215	0.085	0.078	0.057	0.080	0.171	0.272	0.438	0.623	0.714	0.676	0.474	3.882	161.035
1972	0.187	0.101	0.052	0.072	0.095	0.198	0.272	0.519	0.591	0.707	0.678	0.490	3.961	164.996
1973	0.199	0.063	0.043	0.013	0.067	0.142	0.261	0.518	0.612	0.668	0.688	0.447	3.722	168.717
Avg. values	0.238	0.110	0.052	0.045	0.077	0.161	0.285	0.471	0.585	0.676	0.657	0.477	3.834	

===== TABLE UTAH LK SIMULATION--RUN 044 ULWSM 10/12/98 DPT Interim Operation - 86,000 a.f. Strawberry Rel. =====

***These factors modify evap values each year of this simulation run if .NE. 1

Bay No. 1 (MAIN_LK)

Bay No. 2 (PROVO B)

Bay No. 3 (GOSHEN B)

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 TABLE UTAH LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.
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 ***STAGE - AREA - VOLUME TABLES FOR DPR DIKE LOCATION

Main Lake				Provo Bay				Goshen Bay				Entire Lake--W/O diking				
Bay No	Stage ft.	Area W/R Comp	Volume acres ac.ft.	Bay No	Area acres	Volume ac.ft.	Bay No	Area acres	Volume ac.ft.	Bay No	Area acres	Volume ac.ft.	Bay No	Area acres	Volume ac.ft.	
1	4476.0	-13.34	15.0	0.0	!	2	0.1	0.0	!	3	0.1	0.0	!	11	15.0	0.0
1	4476.5	-12.84	5461.0	766.0	!	2	0.1	0.0	!	3	138.0	14.0	!	11	5599.0	780.0
1	4477.0	-12.34	15829.0	6395.0	!	2	0.1	0.0	!	3	2065.0	421.0	!	11	17894.0	6816.0
1	4477.5	-11.84	22653.0	16063.0	!	2	0.1	0.0	!	3	4798.0	2168.0	!	11	27451.0	18231.0
1	4478.0	-11.34	28555.0	28897.0	!	2	0.1	0.0	!	3	6970.0	5127.0	!	11	35525.0	34024.0
1	4478.5	-10.84	37306.0	45527.0	!	2	0.1	0.0	!	3	8801.0	9082.0	!	11	46107.0	54609.0
1	4479.0	-10.34	43045.0	65707.0	!	2	0.1	0.0	!	3	10400.0	13890.0	!	11	53445.0	79597.0
1	4479.5	-9.84	46567.0	88162.0	!	2	2.0	0.0	!	3	12280.0	19572.0	!	11	58849.0	107734.0
1	4480.0	-9.34	49076.0	112107.0	!	2	6.0	2.0	!	3	13923.0	26131.0	!	11	63005.0	138240.0
1	4480.5	-8.84	50912.0	137128.0	!	2	10.0	6.0	!	3	15383.0	33464.0	!	11	66305.0	170598.0
1	4481.0	-8.34	52355.0	162942.0	!	2	15.0	12.0	!	3	16623.0	41490.0	!	11	68993.0	204444.0
1	4481.5	-7.84	53367.0	189353.0	!	2	19.0	21.0	!	3	17842.0	50142.0	!	11	71228.0	239516.0
1	4482.0	-7.34	54101.0	216216.0	!	2	23.0	31.0	!	3	18992.0	59367.0	!	11	73116.0	275614.0
1	4482.5	-6.84	54751.0	243430.0	!	2	345.0	120.0	!	3	19807.0	69071.0	!	11	74903.0	312621.0
1	4483.0	-6.34	55387.0	270965.0	!	2	727.0	386.0	!	3	20533.0	79159.0	!	11	76647.0	350510.0
1	4483.5	-5.84	55995.0	298812.0	!	2	1171.0	858.0	!	3	21185.0	89592.0	!	11	78351.0	389261.0
1	4484.0	-5.34	56568.0	326954.0	!	2	1678.0	1567.0	!	3	21774.0	100334.0	!	11	80020.0	428855.0
1	4484.5	-4.84	57098.0	355373.0	!	2	2248.0	2546.0	!	3	22310.0	111357.0	!	11	81656.0	469276.0
1	4485.0	-4.34	57577.0	384043.0	!	2	2883.0	3826.0	!	3	22810.0	122637.0	!	11	83261.0	510506.0
1	4485.5	-3.84	58004.0	412940.0	!	2	3582.0	5440.0	!	3	23253.0	134152.0	!	11	84839.0	552532.0
1	4486.0	-3.34	58736.0	442038.0	!	2	4346.0	7419.0	!	3	23670.0	145884.0	!	11	86390.0	595341.0
1	4486.5	-2.84	59141.0	471314.0	!	2	4810.0	9709.0	!	3	24034.0	157808.0	!	11	87580.0	638831.0
1	4487.0	-2.34	59578.0	500781.0	!	2	5243.0	12224.0	!	3	24431.0	169923.0	!	11	88815.0	682928.0
1	4487.5	-1.84	59578.0	530459.0	!	2	5650.0	14948.0	!	3	24864.0	182246.0	!	11	90092.0	727653.0
1	4488.0	-1.34	60048.0	560365.0	!	2	6033.0	17870.0	!	3	25332.0	193793.0	!	11	91413.0	773028.0
1	4488.5	-0.84	60543.0	590511.0	!	2	6395.0	20978.0	!	3	25838.0	207584.0	!	11	92776.0	819073.0
1	4489.0	-0.34	61061.0	620912.0	!	2	6738.0	24262.0	!	3	26382.0	220637.0	!	11	94181.0	865811.0
1	4489.5	0.16	61598.0	651576.0	!	2	7064.0	27713.0	!	3	26967.0	233973.0	!	11	95629.0	913262.0
1	4490.0	0.66	62149.0	682513.0	!	2	7375.0	31323.0	!	3	27593.0	247611.0	!	11	97117.0	961447.0
1	4490.5	1.16	62671.0	713717.0	!	2	7683.0	35088.0	!	3	27924.0	261489.0	!	11	98278.0	1010294.0
1	4491.0	1.66	63213.0	745187.0	!	2	7987.0	39005.0	!	3	28280.0	275539.0	!	11	99480.0	1059731.0
1	4491.5	2.16	63773.0	776933.0	!	2	8287.0	43074.0	!	3	28662.0	289733.0	!	11	100722.0	1109780.0
1	4492.0	2.66	64349.0	808963.0	!	2	8585.0	47292.0	!	3	29070.0	304205.0	!	11	102004.0	1160460.0
1	4492.5	3.16	64941.0	841285.0	!	2	8880.0	51658.0	!	3	29506.0	318848.0	!	11	103327.0	1211791.0
1	4493.0	3.66	65548.0	873906.0	!	2	9171.0	56171.0	!	3	29971.0	333716.0	!	11	104690.0	1263793.0
1	4493.5	4.16	66167.0	906835.0	!	2	9461.0	60829.0	!	3	30466.0	348824.0	!	11	106094.0	1316488.0
1	4494.0	4.66	66800.0	940076.0	!	2	9747.0	65631.0	!	3	30991.0	364187.0	!	11	107538.0	1369894.0
1	4494.5	5.16	67433.0	973317.0	!	210033.0	70433.0	!	3	31516.0	379550.0	!	11	108982.0	1423300.0	

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 TABLE UTAH LK SIMULATION--RUN.044 ULWMSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.
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Lake Stage Data - Feet MSL - end of the month

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.
1930	4484.60	4485.00	4485.30	4485.80	4486.40	4486.80	4486.60	4486.10	4485.00	4484.20	4483.40	4483.10
1931	4483.30	4483.50	4484.00	4484.40	4484.90	4485.30	4485.30	4484.40	4483.40	4482.10	4481.70	4481.30
1932	4481.30	4481.70	4482.20	4482.80	4483.50	4484.10	4484.30	4483.70	4483.90	4483.10	4482.60	4482.10
1933	4482.30	4482.70	4483.00	4483.60	4484.10	4484.70	4484.90	4484.80	4483.80	4482.90	4482.10	4481.90
1934	4481.90	4482.20	4482.60	4483.00	4483.40	4483.60	4483.20	4482.40	4481.70	4481.30	4480.70	4480.10
1935	4480.10	4480.40	4480.90	4481.40	4481.90	4482.10	4482.20	4482.00	4481.10	4480.40	4480.10	
1936	4480.10	4480.30	4480.70	4481.30	4482.10	4482.50	4483.10	4483.00	4482.90	4482.50	4482.20	4481.70
1937	4481.70	4482.20	4483.00	4483.40	4484.20	4484.90	4485.40	4485.20	4484.90	4484.30	4483.60	4483.00
1938	4483.10	4483.50	4484.10	4484.80	4485.30	4485.90	4486.30	4486.40	4485.80	4485.20	4484.40	4483.70
1939	4483.70	4484.10	4484.80	4485.30	4485.90	4486.60	4486.60	4485.90	4485.30	4484.30	4483.50	4483.00
1940	4483.10	4483.50	4483.90	4484.50	4485.20	4485.60	4485.80	4485.10	4484.10	4483.00	4482.10	4481.90
1941	4481.90	4482.30	4482.80	4483.30	4484.10	4484.80	4485.00	4484.70	4484.40	4483.90	4483.20	4482.70
1942	4483.10	4483.50	4484.00	4484.60	4485.20	4485.80	4486.20	4486.20	4485.60	4484.80	4483.90	4483.30
1943	4483.20	4483.70	4484.20	4484.60	4485.20	4485.70	4485.70	4485.20	4485.10	4484.30	4483.60	4483.00
1944	4483.00	4483.40	4484.10	4484.70	4485.30	4486.00	4486.70	4486.90	4486.60	4485.60	4484.60	4483.80
1945	4483.80	4484.30	4484.80	4485.20	4485.80	4486.50	4486.70	4486.70	4486.40	4485.70	4485.10	4484.50
1946	4484.60	4484.90	4485.60	4485.90	4486.30	4486.80	4487.30	4486.70	4486.00	4485.00	4484.40	4483.70
1947	4484.20	4484.90	4485.60	4486.00	4486.70	4487.20	4487.50	4487.20	4486.90	4485.90	4485.30	4484.70
1948	4484.90	4485.30	4485.80	4486.40	4486.80	4487.00	4487.30	4486.90	4486.30	4485.20	4484.40	4483.70
1949	4483.70	4484.10	4484.70	4485.10	4485.90	4486.50	4486.60	4486.60	4486.10	4485.20	4484.30	4483.80
1950	4483.90	4484.30	4484.80	4485.60	4486.20	4486.50	4486.50	4486.30	4485.70	4485.10	4484.30	4483.70
1951	4483.60	4484.00	4484.70	4485.20	4485.80	4486.10	4486.50	4486.50	4486.10	4485.30	4484.70	4483.90
1952	4484.10	4484.50	4485.30	4486.00	4486.70	4487.50	4489.00	4490.80	4489.70	4488.80	4488.20	4487.60
1953	4487.50	4487.80	4488.40	4489.00	4489.00	4489.00	4489.00	4488.60	4487.70	4486.90	4486.10	4485.50
1954	4485.40	4485.70	4486.20	4486.60	4487.10	4487.50	4487.50	4487.50	4486.70	4486.20	4485.20	4483.80
1955	4483.70	4484.00	4484.50	4485.00	4485.60	4486.30	4486.40	4486.10	4485.60	4484.70	4483.80	4483.50
1956	4483.30	4483.70	4484.30	4485.10	4485.60	4485.90	4485.50	4485.20	4484.40	4483.60	4482.80	4482.10
1957	4482.10	4482.60	4483.30	4483.90	4484.40	4484.90	4485.50	4485.90	4485.80	4485.00	4484.20	4483.70
1958	4483.80	4484.20	4484.80	4485.20	4485.80	4486.30	4486.70	4486.60	4486.00	4485.00	4484.20	4483.70
1959	4483.50	4483.90	4484.40	4484.90	4485.60	4485.90	4485.90	4485.40	4484.60	4483.70	4482.90	4482.40
1960	4482.50	4482.70	4483.20	4483.80	4484.40	4485.00	4485.00	4484.30	4483.30	4482.10	4481.40	4480.90
1961	4481.10	4481.90	4482.30	4482.70	4483.10	4483.40	4483.40	4482.80	4481.80	4481.00	4480.50	4480.40
1962	4480.70	4481.20	4481.70	4482.10	4482.90	4483.50	4484.00	4484.00	4483.40	4482.50	4482.10	4481.90
1963	4481.90	4482.40	4482.60	4483.10	4483.50	4483.90	4484.30	4483.80	4483.60	4482.50	4482.00	4481.90
1964	4481.80	4482.40	4482.80	4483.30	4483.70	4484.30	4484.90	4485.20	4485.30	4484.60	4483.80	4483.20
1965	4483.20	4483.70	4484.50	4485.20	4485.50	4485.90	4486.30	4486.20	4485.90	4485.30	4484.80	4484.70
1966	4484.70	4485.30	4485.90	4486.30	4486.80	4487.20	4487.00	4486.50	4485.70	4484.60	4483.80	4483.40
1967	4483.50	4483.80	4484.40	4485.00	4485.60	4486.10	4485.90	4485.80	4485.70	4485.10	4484.30	4483.80
1968	4483.80	4484.30	4484.90	4485.30	4486.00	4486.50	4486.80	4486.60	4486.10	4485.40	4484.90	4484.30
1969	4484.40	4484.90	4485.50	4486.10	4486.70	4487.10	4487.70	4487.00	4486.60	4485.80	4485.00	4484.50
1970	4484.80	4485.30	4485.80	4486.30	4486.90	4487.20	4487.20	4486.90	4486.50	4485.60	4484.80	4484.40
1971	4484.50	4485.40	4485.80	4486.30	4486.90	4487.40	4487.80	4487.60	4487.10	4486.10	4485.30	4484.90
1972	4485.10	4485.80	4486.50	4486.90	4487.40	4487.80	4487.90	4487.60	4487.00	4485.90	4485.00	4484.40
1973	4484.80	4485.40	4485.90	4486.50	4487.00	4487.60	4488.00	4488.40	4487.90	4487.00	4486.20	4485.90

Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
 ***Intermixing fractions for bay 2 are 0.005 0.002 0.002 0.002 0.002 0.005 0.010 0.020 0.050 0.020 0.010

Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
 ***Intermixing fractions for bay 3 are 0.300 0.300 0.100 0.050 0.050 0.100 0.250 0.200 0.200 0.300 0.250 0.200

***All data have now been read in

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TABLE UTAH LAKE SIMULATION(1930-73)--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.
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***Final tributary assignment for this simulation

Bay 1 MAIN_LK

Trib. No.	Description
1	T1 Drain--6900 North and Saratoga Road.
3	T3 Dry Creek--0.1 mi East of 9950 West and 7350 North.
4	T4 Drain--0.7 mi East of 9550 West and 7350 North.
5	T5 Drain--approx. 200 feet West of 8730 West and 7350 North.
6	T6 Drain--approx. 200 feet South of 8350 West and 7350 North.
7	T7 Drain--800 West and 7350 North.
8	T8 Minnie Creek.
9	T9 Mill Pond--7400 West and 7550 North.
10	T10 Drain--1.25 mi South of 6500 West and 7750 North.
11	T11 American Fork WWTP Effluent. (closed in 1980)
12	T12 Drain--02 mi West, thence 1 mi So. of 6500 West and 7750 No.
13	T13 American Fork River--0.75 mile N of Am. Fork Boat Harbor on 100 W.
14	T14 Drain--0.1 mi West of 6400 North and 5750 West.
15	T15 Drain--0.1 mi East of 6400 North and 5750 West.
16	T16 Drain--0.1 mi South of 6400 North and 5300 West.
17	T17 Drain--0.25 mi West thence 0.15 mile South of 4850 & 6400 N.
18	T18 Geneva Cannery Drain--4250 West and 5600 North.
19	T19 Drain--0.15 mile N of Geneva effluent recording station on W Geneva Rd.
20	T20 Geneva Steel Drain--Geneva effluent recording station.
21	T21 Drain--0.2 mile S of Geneva effluent recording station on W Geneva Rd.
22	T22 Drain--0.5 mile S of Geneva effluent recording station on W Geneva Rd.
23	T23 Drain--0.9 mile S of Geneva effluent recording station on W Geneva Rd.
24	T24 Drain--1.3 miles S of Geneva effluent recording station on W Geneva Rd.
25	T25 Drain--West Geneva Rd. and 4000 North.
26	T26 Orem WWTP Effluent.
27	T27 Powell Slough--Large area below Orem City WWTP.
28	T28 Drain--on N Boat Harbor Dr. 1.0 mi W of Geneva Rd. & N. Boat Harbor Dr.
29	T29 Provo River--Provo River Flows under MCAPD
48	T48 Spanish Fork River--Historical flows for 1930-91----1992 changes
49	T49 Drain--0.8 mile North of 3200 West and 5200 South.
50	T50 Drain--4000 West and 5200 South.
51	T51 Benjamin Slough--0.2 mile East of 6000 West and 6400 South.
53	T53 Jordan River outflow with Welby Jacob release included
54	T54 Main Lake--Saratoga Mineral Springs.
84	T84 Main Lake--Saratoga quality grouped unknown mineral springs.
55	T55 Main Lake--Mineral springs at Lincoln Point - East Springs.
85	T85 Main Lake--Lincoln-Point-East-quality grouped unknown mineral springs.
56	T56 Main Lake: Mineral Springs at Lincoln Point - West Springs.
86	T86 Main Lake: Lincoln-Point-West-quality grouped unknown mineral springs.
57	T57 Main Lake: Mineral Springs at Bird Island.
87	T87 Main Lake: Bird-Island-quality grouped unknown mineral springs.
66	T66 Main Lake: Surface wash and very shallow seepage around the shoreline.
67	T67 Main Lake: Fresh GW inflow, Spanish Fk to Jordan R (Northwest quad).
68	T68 Main Lake: Fresh GW inflow Spanish Fk to West Mtn (Southwest quad).
69	T69 Total Lake: Unmeasured inflow--assigned to Main Lake during Hist. calib.
70	T70 Lehi WWTP Effluent. (closed in 1980)
71	T71 Timpanogos WWTP Effluent. (North end Utah Valley)
72	T72 Pleasant Grove WWTP Effluent. (closed in 1980)
75	T75 Salem WWTP Effluent.
76	T76 Payson WWTP Effluent
81	T81 Total Lake: Unmeas. Inflow (to get balance during misc. simulation runs.
30	T30 CUP Inflow from Strawberry Lake--Utah Lake demands, M&I exchange
80	T80 Return flow: Irrig & M & I -- Span Fk and Peteetneet (No Mosida/Elberta)
78	T78 Irrig. Return flow---Utah County Return Flows QX26 ULWSM

Bay 2 PROVO B
Trib. No.

Description

31 T31 Little Dry Cr.--0.1 mile W thence 0.25 mile S of 560 S and 2470 W.
32 T32 Drain--0.25 mi S and 250 ft W of 1600 W and 1150 S.
33 T33 Flowing well--0.5 M S of 1600 W & 1150 S & 50' N of culv. at Big Dry Cr.
34 T34 Big Dry Creek--0.5 mile South of 1600 West and 1150 South.
35 T35 11th West Ditch--in pasture approx 600 ft SE of 1100 W & 1560 S.
36 T36 5th West Ditch--1560 South and 500 West.
37 T37 University Ditch--0.25 mi SSE of 1420 S and Univ. Ave.
38 T38 Mill Race--350 East and 1500 South.
39 T39 Provo WWTP Effluent.
40 T40 Drain--0.35 mi South of Provo WWTP thence 0.27 mi East.
41 T41 Rat Farm Drain--0.35 mi South of Provo WWTP thence 0.3 mi East.
42 T42 Steel Mill Drain--2770 South 1050 East near Kuhni Packing Plant.
43 T43 Spring Creek--0.55 mi South of Kuhni Packing Plant.
44 T44 Hobble Creek--0.4 mi East of 750 East and 2800 South.
45 T45 Packard Drain--on Frontage Rd. 0.85 mi North of 3900 South.
46 T46 Drain--0.35 mile West of Freeway on 3900 South.
47 T47 Dry Creek--0.85 mile West of Freeway on 4000 South.
73 T73 Springville WWTP Effluent.
74 T74 Spanish Fork WWTP Effluent.

Bay 3 GOSHEN B

	Trib. No.	Description
52	T52	White Lake--Overflow into Goshen Bay.
58	T58	Goshen Bay: Mineral Springs on East side of Goshen Bay.
88	T88	Goshen Bay: East-side-quality grouped unknown mineral springs.
60	T60	Goshen Bay: Surface wash and very shallow seepage around the shoreline.
61	T61	Goshen Bay: Groundwater-- Westside Smith Property Area.
62	T62	Goshen Bay: Groundwater--Westside Mosida Bay N.(Fitzgerald well #2 quality)
64	T64	Goshen Bay: Groundwater-- Westside - Southend (Elberta Church well).
63	T63	Return flows from Elberta Area

Precip, Evap, and Flowrates have been multiplied by the following factors

Precip Factor= 1.00
Evap. factor = 1.08
Flow factor = 1.00

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 TABLE UTAH LAKE SIMULATION(1930-73)--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.
 Evaporation (ft), as calculated by Mortons Evaporation Model

+ Bay No. 1 (Entire lake)

Water Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Total	Cum Total
1930	0.243	0.135	0.009	0.016	0.085	0.178	0.317	0.335	0.680	0.708	0.572	0.473	3.751	3.751
1931	0.265	0.138	0.009	0.009	0.082	0.176	0.318	0.558	0.623	0.761	0.710	0.517	4.166	7.917
1932	0.220	0.124	0.009	0.009	0.084	0.177	0.309	0.522	0.616	0.677	0.682	0.547	3.976	11.892
1933	0.272	0.135	0.009	0.012	0.086	0.180	0.302	0.459	0.692	0.754	0.731	0.554	4.185	16.077
1934	0.313	0.160	0.091	0.082	0.097	0.220	0.380	0.581	0.641	0.759	0.731	0.531	4.586	20.664
1935	0.278	0.133	0.076	0.090	0.093	0.177	0.272	0.416	0.675	0.752	0.686	0.531	4.178	24.842
1936	0.273	0.111	0.080	0.042	0.090	0.187	0.364	0.597	0.633	0.703	0.731	0.533	4.344	29.186
1937	0.264	0.147	0.068	0.006	0.074	0.198	0.330	0.542	0.616	0.671	0.741	0.535	4.192	33.378
1938	0.263	0.120	0.078	0.082	0.073	0.160	0.324	0.496	0.652	0.735	0.724	0.538	4.245	37.623
1939	0.251	0.103	0.056	0.051	0.066	0.176	0.363	0.542	0.654	0.704	0.715	0.492	4.173	41.795
1940	0.274	0.161	0.087	0.057	0.085	0.177	0.293	0.559	0.666	0.722	0.737	0.392	4.211	46.007
1941	0.272	0.114	0.068	0.042	0.091	0.180	0.268	0.497	0.614	0.682	0.640	0.490	3.958	49.964
1942	0.219	0.145	0.069	0.009	0.084	0.176	0.340	0.451	0.659	0.707	0.708	0.539	4.106	54.070
1943	0.238	0.096	0.085	0.067	0.083	0.184	0.350	0.501	0.610	0.712	0.733	0.554	4.215	58.285
1944	0.245	0.126	0.068	0.009	0.087	0.147	0.242	0.497	0.552	0.743	0.752	0.514	3.982	62.267
1945	0.264	0.091	0.085	0.084	0.077	0.151	0.264	0.445	0.517	0.641	0.619	0.516	3.755	66.022
1946	0.285	0.103	0.066	0.075	0.091	0.193	0.380	0.530	0.718	0.731	0.712	0.538	4.420	70.442
1947	0.178	0.094	0.053	0.025	0.082	0.187	0.274	0.547	0.567	0.719	0.663	0.503	3.892	74.334
1948	0.248	0.087	0.031	0.076	0.072	0.145	0.249	0.493	0.588	0.727	0.732	0.514	3.963	78.297
1949	0.254	0.112	0.040	0.009	0.058	0.154	0.371	0.508	0.662	0.754	0.743	0.519	4.183	82.480
1950	0.209	0.151	0.058	0.059	0.091	0.148	0.338	0.498	0.663	0.699	0.745	0.456	4.115	86.595
1951	0.294	0.146	0.041	0.055	0.080	0.152	0.315	0.485	0.610	0.725	0.659	0.554	4.117	90.712
1952	0.207	0.111	0.019	0.060	0.078	0.132	0.329	0.548	0.646	0.716	0.708	0.542	4.096	94.808
1953	0.325	0.120	0.046	0.067	0.085	0.166	0.273	0.451	0.657	0.731	0.724	0.543	4.188	98.995
1954	0.279	0.124	0.072	0.067	0.075	0.150	0.349	0.541	0.596	0.755	0.714	0.511	4.233	103.228
1955	0.279	0.160	0.073	0.003	0.071	0.160	0.266	0.517	0.555	0.733	0.669	0.511	3.998	107.226
1956	0.264	0.091	0.060	0.061	0.072	0.193	0.275	0.448	0.701	0.747	0.694	0.533	4.139	111.366
1957	0.229	0.146	0.076	0.059	0.087	0.134	0.260	0.469	0.666	0.740	0.660	0.536	4.063	115.428
1958	0.238	0.097	0.061	0.076	0.084	0.181	0.324	0.627	0.695	0.752	0.757	0.527	4.420	119.848
1959	0.305	0.109	0.076	0.077	0.076	0.170	0.336	0.481	0.596	0.722	0.708	0.467	4.123	123.971
1960	0.263	0.151	0.081	0.031	0.081	0.168	0.352	0.544	0.683	0.768	0.723	0.525	4.371	128.343
1961	0.260	0.103	0.086	0.093	0.085	0.152	0.272	0.458	0.697	0.704	0.676	0.414	4.000	132.342
1962	0.220	0.101	0.058	0.009	0.090	0.166	0.334	0.471	0.658	0.738	0.739	0.560	4.141	136.483
1963	0.283	0.108	0.050	0.022	0.094	0.173	0.185	0.531	0.584	0.743	0.717	0.498	3.988	140.472
1964	0.269	0.102	0.032	0.014	0.082	0.151	0.260	0.445	0.496	0.771	0.739	0.561	3.922	144.394
1965	0.298	0.115	0.057	0.051	0.085	0.184	0.289	0.477	0.613	0.724	0.695	0.444	4.031	148.425
1966	0.302	0.117	0.009	0.087	0.081	0.203	0.380	0.602	0.671	0.779	0.751	0.522	4.504	152.930
1967	0.267	0.112	0.047	0.057	0.094	0.193	0.314	0.480	0.575	0.735	0.774	0.512	4.160	157.090
1968	0.263	0.115	0.056	0.078	0.089	0.212	0.284	0.472	0.634	0.771	0.630	0.518	4.123	161.213
1969	0.291	0.103	0.044	0.056	0.078	0.204	0.359	0.648	0.623	0.772	0.768	0.547	4.494	165.706
1970	0.221	0.134	0.046	0.066	0.095	0.185	0.281	0.508	0.564	0.679	0.723	0.515	4.019	169.725
1971	0.232	0.092	0.085	0.061	0.086	0.184	0.293	0.473	0.673	0.771	0.730	0.512	4.192	173.917
1972	0.202	0.109	0.056	0.077	0.103	0.214	0.293	0.560	0.639	0.764	0.732	0.529	4.278	178.195
1973	0.215	0.068	0.047	0.014	0.072	0.153	0.282	0.560	0.661	0.722	0.743	0.483	4.020	182.215
Avg.Values	0.258	0.119	0.056	0.049	0.083	0.174	0.308	0.508	0.632	0.730	0.710	0.515	4.141	

Flowrates for trib 1 have been multipiled by factor 1.000

Flowrates for trib 8 have been multipiled by factor 1.000

RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

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*** MODIFIED MINERAL SPRING INFLOWS --AC. FT. ***

Water Year	This Year	Prev. Yr.	This Yr.	Mult factor	Trib 54 Old	Trib 54 New	Trib 55 Old	Trib 55 New	Trib 56 Old	Trib 56 New	Trib 57 Old	Trib 57 New	Trib 58 Old	Trib 58 New	
1 1930	8.8	21.0	0.69	27360.	18960.										
2 1931	5.3	22.8	0.75	27360.	20608.										
3 1932	9.5	21.1	0.70	27360.	19053.										
4 1933	5.9	23.6	0.78	27360.	21314.										
5 1934	11.9	20.7	0.68	27360.	18679.										
6 1935	10.0	27.3	0.90	27360.	24627.										
7 1936	11.2	27.8	0.92	27360.	25114.										
8 1937	11.9	33.2	1.09	27360.	29933.										
9 1938	10.6	33.2	1.10	27360.	29987.										
10 1939	9.6	33.8	1.12	27360.	30529.										
11 1940	11.6	32.2	1.06	27360.	29058.										
12 1941	16.1	31.9	1.05	27360.	28796.										
13 1942	11.6	37.3	1.23	27360.	33688.										
14 1943	8.1	39.3	1.30	27360.	35448.										
15 1944	14.2	35.7	1.18	27360.	32253.										
16 1945	15.7	33.9	1.12	27360.	30610.										
17 1946	9.5	38.1	1.26	27360.	34365.										
18 1947	14.7	39.5	1.30	27360.	35673.										
19 1948	6.9	40.0	1.32	27360.	36079.										
20 1949	10.3	31.2	1.03	27360.	28137.										
21 1950	9.5	31.9	1.05	27360.	28796.										
22 1951	10.2	26.7	0.88	27360.	24067.										
23 1952	14.6	29.9	0.99	27360.	27000.										
24 1953	5.3	34.2	1.13	27360.	30890.										
25 1954	7.2	30.1	0.99	27360.	27154.										
26 1955	8.1	27.1	0.90	27360.	24509.										
27 1956	5.4	20.7	0.68	27360.	18670.										
28 1957	11.3	20.8	0.69	27360.	18742.										
29 1958	8.5	24.8	0.82	27360.	22379.										
30 1959	10.0	25.2	0.83	27360.	22740.										
31 1960	5.9	29.8	0.98	27360.	26883.										
32 1961	9.2	24.4	0.81	27360.	22063.										
33 1962	13.0	25.1	0.83	27360.	22659.										
34 1963	9.7	28.1	0.93	27360.	25403.										
35 1964	12.0	31.9	1.05	27360.	28778.										
36 1965	9.9	34.7	1.14	27360.	31323.										
37 1966	5.5	31.5	1.04	27360.	28471.										
38 1967	9.8	27.3	0.90	27360.	24681.										
39 1968	14.3	25.2	0.83	27360.	22731.										
40 1969	12.1	29.6	0.98	27360.	26738.										
41 1970	16.1	36.3	1.20	27360.	32758.										
42 1971	12.7	42.6	1.41	27360.	38444.										
43 1972	5.2	41.0	1.35	27360.	37036.										
44 1973	12.0	34.1	1.12	27360.	30773.										
Cummulative:					1203840.	1206601.									
Average:	10.25		1.00		27360.	27423.									

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====
0***Begin the simulation---

=====
***Run Desc: Information on this simulation run--
Time period --Begin Oct 1929 and end Sep 1973 (44 yrs)
Input data --Based on actual and correlated data as
 updated and correlated in 1994.
Evaporation --Updated 1992 data using Morton's model.
Outflow qual. --Jordan River at Lake quality during simulation.

0 ***Initial Concentrations

	Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4
MAIN_LK	1	1084.	201.	58.	69.	24.	286.	244.	300.
PROVO B	2	450.	50.	45.	35.	7.	50.	220.	145.
GOSHEN B	3	1300.	241.	53.	83.	29.	342.	275.	360.

0 Bay No. Stage Area Volume
MAIN_LK 1 4484.70 57290. 366852.
PROVO B 2 4484.70 2502. 3059.
GOSHEN B 3 4484.70 22510. 115873.
0 Total Lake 4484.70 82299. 485784. diked areas, if any, excluded from total lake values

=====
***Run Desc: Information on this simulation run--
Time period --Begin Oct 1929 and end Sep 1973 (44 yrs)
Input data --Based on actual and correlated data as
 updated and correlated in 1994.
Evaporation --Updated 1992 data using Morton's model.
Outflow qual. --Jordan River at Lake quality during simulation.

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 1 -- Month Oct 1929
=====

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4484.70	0.24	2.91 0.00
PROVO B	2	4484.70	0.24	2.91 0.50
GOSHEN B	3	4484.70	0.25	2.91 30.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r Comp.	Area ac	Vol ac-ft		
MAIN_LK	1	1144.	13904.	8311.	-8377.	354026.	-7086.	4484.60	-4.74	57194.	361113.	
PROVO B	2	49.	592.	6388.	0.	8902.	6100.	4484.60	-4.74	2375.	2802.	
GOSHEN B	3	468.	5456.	3716.	0.	114601.	986.	4484.60	-4.74	22410.	113615.	
T.SYS.This Mo		1661.	19952.	18414.	-8377.	Lake excl diked bays:	4484.60	-4.74	81977.	477530.		
Water Yr Cumm		1661.	19952.	18414.	-8377.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

	CALCIUM CARBONATE PRECIPITATION-----/															
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	mg/l	Tons	mg/l	Tons	mg/l	Tons	#/Ft2	Acc
MAIN_LK	1	1122.	210.	58.	72.	25.	298.	244.	312.	2.	1081.	12.	6082.	15.	7163. 0.006	0.01
PROVO B	2	493.	55.	58.	36.	8.	54.	240.	151.	24.	90.	72.	274.	95.	363. 0.007	0.01
GOSHEN B	3	1213.	237.	43.	81.	28.	336.	208.	352.	15.	2319.	70.	10765.	85.	13084. 0.027	0.03
Jordan R. est.																
Hist. Qual.		1047.	196.	58.	68.	23.	278.	244.	293.							

***Water yr tot. water bal. flow is -44175. (trib 81)

1

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 12 -- Month Sep 1930

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4483.40	1.14	5.68 0.00
PROVO B	2	4483.40	1.14	5.68 1.00
GOSHEN B	3	4483.40	1.26	5.68 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	5289.	26354.	19390.	-37055.	254506.	-22034.	4483.10	-6.24	55509.	276540.	
W.Yr.Tot:	1	56850.	215812.	249405.	-269664.		Avg EOM stage	4485.19				
PROVO B	2	90.	449.	5501.	0.	5906.	5425.	4483.10	-6.24	816.	480.	
W.Yr.Tot:	2	3063.	10906.	73476.	0.		Avg EOM stage	4485.19				
GOSHEN B	3	2189.	9871.	18034.	0.	97856.	16609.	4483.10	-6.24	20664.	81248.	
W.Yr.Tot:	3	20686.	84937.	50322.	0.		Avg EOM stage	4485.19				
T.SYS.This Mo		7568.	36673.	42925.	-37055.	Lake excl diked bays:	4483.10	-6.24		76988.	358268.	
Water Yr Cumm		80599.	311654.	373203.	-269664.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/															
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA mg/l	Del HCO3 Tons	Del CACO3 mg/l	#/Ft2	Acc		
MAIN_LK	1	1230.	252.	58.	86.	28.	345.	244.	368.	3.	1024.	9.	3306.	12.	4331. 0.004 0.08
W.Yr.Avg:		1068.	204.	58.	71.	24.	283.	244.	301.						
PROVO B	2	459.	49.	46.	36.	7.	51.	220.	151.	47.	31.	105.	69.	152.	99. 0.006 0.08
W.Yr.Avg:		498.	55.	61.	36.	8.	55.	242.	151.						
GOSHEN B	3	1184.	247.	43.	84.	28.	341.	205.	359.	12.	1293.	25.	2768.	37.	4061. 0.009 0.09
W.Yr.Avg:		1173.	230.	52.	77.	27.	324.	231.	333.						
Jordan R. est.															
Hist. Qual.		1138.	215.	58.	73.	25.	307.	244.	323.						

***Water yr tot. water bal. flow is -10942. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

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=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 24 -- Month Sep 1931
=====
0 *** Period data
      Bay  Hist beg  Hist precip  Model evap
      Name No.  Stage ft    In.     In. % Intermix
      MAIN_LK 1   4481.70  0.50    6.21    0.00
      PROVO B 2   4481.70  0.50    6.21    1.00
      GOSHEN B 3   4481.70  0.48    6.21   20.00
-----
0 *** Period flows and interflows
0
      Bay  Precip  Evap  Sum trib  Jordan  Vol before  Interflow  F  I  N  A  L
      Name No. ac-ft  ac-ft Inflow ac-ft River  Interflow Vol ac-ft Stage w/r Comp. Area ac  Vol ac-ft
      ----
      MAIN_LK 1   2220.  27578.  10688. -11683.  173757. -5021.  4481.30 -8.04  52962.  178778.
      W.Yr.Tot: 1 38563. 231667. 228970. -198969.          Avg EOM stage 4483.63
      PROVO B 2   1.    10.    4931.    0.    4947.    4929.  4481.30 -8.04   17.    17.
      W.Yr.Tot: 2 958.   5215.   69146.    0.          Avg EOM stage 4483.63
      GOSHEN B 3   713.   9222.   1444.    0.    46770.    92.   4481.30 -8.04  17354.  46678.
      W.Yr.Tot: 3 13375. 85942.  37989.    0.          Avg EOM stage 4483.63
0 T.SYS.This Mo 2934.  36810.  17063. -11683. Lake excl diked bays: 4481.30 -8.04  70333.  225474.
0 Water Yr Cumm 52895. 322825. 336105. -198969.
-----
0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)
+           /-----CALCIUM CARBONATE PRECIPITATION-----/
      Bay  Tds  Na  Ca  Mg  K  Cl  HCO3  SO4  mg/l  Del CA  Del HCO3  Del CACO3
      ----
      MAIN_LK 1   1573. 375. 58. 124. 39. 495. 244. 528. 11.    2757. 46.   11174. 57.   13931. 0.012  0.18
      W.Yr.Avg: 1178. 251. 58. 85. 27. 337. 244. 360.
      PROVO B 2   440.  45. 46. 33. 7.   48. 220. 141. 48.    1.    96.    2.   144.   3.  0.009  0.16
      W.Yr.Avg: 473.  49. 61. 33. 7.   50. 242. 139.
      GOSHEN B 3   1757. 422. 43. 140. 45. 567. 205. 593. 16.   1039. 59.   3732. 75.   4771. 0.013  0.16
      W.Yr.Avg: 1289. 278. 53. 92. 31. 379. 235. 391.
      Jordan R. est.
      Hist. Qual. 1246. 237. 58. 80. 28. 343. 244. 358.
-----
***Water yr tot. water bal. flow is 4199. (trib 81)
```

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 36 -- Month Sep 1932

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4482.60	0.00	6.56 0.00
PROVO B	2	4482.60	0.00	6.56 1.00
GOSHEN B	3	4482.60	0.05	6.56 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	0.	29840.	20197.	-24215.	215084.	-6580.	4482.10	-7.24	54231.	221664.	
W.Yr.Tot:	1	57496.	221008.	352447.	-179468.		Avg EOM stage	4482.94				
PROVO B	2	0.	139.	5201.	0.	5235.	5186.	4482.10	-7.24	87.	49.	
W.Yr.Tot:	2	849.	4101.	79250.	0.		Avg EOM stage	4482.94				
GOSHEN B	3	81.	10696.	2227.	0.	62704.	1394.	4482.10	-7.24	19155.	61310.	
W.Yr.Tot:	3	20632.	82210.	33661.	0.		Avg EOM stage	4482.94				
0 T.SYS.This Mo		81.	40675.	27625.	-24215.	Lake excl diked bays:	4482.10	-7.24	73474.	283023.		
0 Water Yr Cumm		78978.	307318.	465358.	-179468.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/												
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA	Del HCO3	Del CACO3	
									mg/l	Tons	mg/l	Tons
MAIN_LK	1	1216.	285.	58.	98.	30.	369.	244.	396.	9.	2755.	34.
W.Yr.Avg:		1196.	274.	58.	93.	29.	358.	244.	384.			
PROVO B	2	437.	47.	46.	34.	7.	48.	220.	138.	47.	3.	106.
W.Yr.Avg:		452.	47.	61.	32.	7.	47.	242.	127.			
GOSHEN B	3	1463.	363.	43.	122.	38.	475.	205.	499.	16.	1329.	55.
W.Yr.Avg:		1434.	339.	53.	111.	35.	451.	233.	465.			
Jordan R. est.												
Hist. Qual.		1198.	227.	58.	77.	27.	327.	244.	342.			

***Water yr tot. water bal. flow is -3615. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 48 -- Month Sep 1933

0 *** Period data

Bay	Hist beg	Hist precip	Model evap		
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4482.10	0.22	6.65	0.00
PROVO B	2	4482.10	0.22	6.65	1.00
GOSHEN B	3	4482.10	0.22	6.65	20.00

0 *** Period flows and interflows

Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft
MAIN_LK	1	991.	29977.	28970.	-10670.	210979.	140.	4481.90	-7.44	53954.	210838.
W.Yr.Tot:	1	41648.	233501.	292652.	-144071.		Avg EOM stage	4483.40			
PROVO B	2	1.	30.	4936.	0.	4955.	4926.	4481.90	-7.44	22.	29.
W.Yr.Tot:	2	907.	5176.	71187.	0.		Avg EOM stage	4483.40			
GOSHEN B	3	347.	10506.	1303.	0.	52453.	-5067.	4481.90	-7.44	18762.	57520.
W.Yr.Tot:	3	13427.	87461.	35753.	0.		Avg EOM stage	4483.40			
T.SYS.This Mo		1340.	40514.	35209.	-10670.	Lake excl diked bays:	4481.90	-7.44		72738.	268387.
Water Yr Cumm		55982.	326138.	399592.	-144071.						

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	CALCIUM CARBONATE PRECIPITATION-----/								
									Del mg/l	CA Tons	Del mg/l	HCO3 Tons	Del mg/l	CACO3 Tons	#/Ft2	Acc	
MAIN_LK	1	1365.	339.	58.	115.	34.	434.	244.	466.	10.	2730.	38.	10918.	48.	13648.	0.012	0.34
W.Yr.Avg:		1110.	257.	58.	89.	27.	331.	244.	356.								
PROVO B	2	441.	45.	46.	33.	7.	47.	220.	142.	48.	2.	98.	4.	146.	6.	0.012	0.28
W.Yr.Avg:		468.	48.	61.	33.	7.	49.	242.	138.								
GOSHEN B	3	1579.	407.	43.	138.	42.	527.	205.	555.	17.	1331.	60.	4725.	77.	6057.	0.015	0.32
W.Yr.Avg:		1300.	312.	52.	104.	32.	407.	234.	423.								
Jordan R. est.																	
Hist. Qual.		1210.	230.	58.	78.	27.	331.	244.	346.								

***Water yr tot. water bal. flow is -6667. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 60 -- Month Sep 1934

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4480.70	0.55	6.37 0.00
PROVO B	2	4480.70	0.55	6.37 1.00
GOSHEN B	3	4480.70	0.54	6.37 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow	ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft
MAIN_LK	1	2312.	26787.	-13266.	0.	109722.	-7394.	4480.10	-9.24	49444.	117116.	
W.Yr.Tot:	1	67061.	246181.	116008.	-65619.		Avg EOM stage	4482.18				
PROVO B	2	0.	5.	4357.	0.	4361.	4358.	4480.10	-9.24	7.	3.	
W.Yr.Tot:	2	290.	1326.	59596.	0.		Avg EOM stage	4482.18				
GOSHEN B	3	677.	7987.	1267.	0.	30635.	3036.	4480.10	-9.24	14215.	27599.	
W.Yr.Tot:	3	9446.	84627.	21684.	0.		Avg EOM stage	4482.18				
T.SYS.This Mo		2989.	34779.	-7642.	0.	Lake excl diked bays:	4480.10	-9.24	63666.	144718.		
Water Yr Cumm		76797.	332134.	197287.	-65619.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	CALCIUM CARBONATE PRECIPITATION-----/								
									Del CA	Del HCO3	Del CACO3						
									mg/l	Tons	mg/l	Tons	mg/l	Tons	#/Ft2	Acc	
MAIN_LK	1	2659.	770.	58.	242.	74.	980.	244.	1019.	12.	1980.	51.	8200.	64.	10180.	0.009	0.43
W.Yr.Avg:		1439.	373.	58.	122.	37.	477.	242.	502.								
PROVO B	2	451.	49.	46.	34.	7.	53.	220.	146.	48.	0.	96.	0.	144.	1.	0.004	0.33
W.Yr.Avg:		468.	48.	61.	33.	7.	51.	242.	137.								
GOSHEN B	3	2799.	802.	43.	257.	79.	1032.	205.	1062.	19.	712.	70.	2636.	89.	3348.	0.011	0.40
W.Yr.Avg:		1738.	455.	53.	147.	45.	590.	238.	604.								
Jordan R. est.																	
Hist. Qual.		1319.	252.	58.	84.	29.	366.	244.	382.								

***Water yr tot. water bal. flow is 32953. (trib 81)

1

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 72 -- Month Sep 1935
=====

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4480.40	0.10	6.37 0.00
PROVO B	2	4480.40	0.10	6.37 1.00
GOSHEN B	3	4480.40	0.10	6.37 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	416.	26536.	8528.	0.	114527.	-2589.	4480.10	-9.24	49444.	117116.	
W.Yr.Tot:	1	57222.	219530.	184107.	-54580.		Avg EOM stage	4481.23				
PROVO B	2	0.	4.	4626.	0.	4627.	4624.	4480.10	-9.24	7.	3.	
W.Yr.Tot:	2	66.	199.	63862.	0.		Avg EOM stage	4481.23				
GOSHEN B	3	122.	7778.	1223.	0.	25564.	-2035.	4480.10	-9.24	14215.	27599.	
W.Yr.Tot:	3	16537.	72075.	24590.	0.		Avg EOM stage	4481.23				
T.SYS.This Mo		539.	34318.	14377.	0.	Lake excl diked bays:	4480.10	-9.24		63666.	144718.	
Water Yr Cumm		73826.	291804.	272559.	-54580.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/																	
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del mg/l	CA Tons	Del mg/l	HCO3 Tons	Del mg/l	CACO3 Tons	#/Ft2	Acc	
MAIN_LK	1	2938.	871.	58.	263.	83.	1113.	244.	1120.	17.	2680.	67.	10655.	84.	13335.	0.012	0.51
W.Yr.Avg:		1841.	519.	58.	160.	50.	662.	244.	677.								
PROVO B	2	448.	50.	46.	34.	8.	54.	220.	142.	47.	0.	100.	0.	147.	1.	0.004	0.39
W.Yr.Avg:		464.	49.	61.	33.	7.	52.	242.	132.								
GOSHEN B	3	3435.	1026.	43.	313.	99.	1319.	205.	1322.	23.	865.	86.	3223.	109.	4088.	0.013	0.47
W.Yr.Avg:		2351.	669.	53.	205.	64.	862.	238.	864.								
Jordan R. est.																	
Hist. Qual.		1319.	252.	58.	84.	29.	366.	244.	382.								

***Water yr tot. water bal. flow is 28543. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

```
=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 84 -- Month Sep 1936
=====
0 *** Period data
      Bay   Hist beg   Hist precip   Model evap
      Name No.   Stage ft    In.     In. % Intermix
      MAIN_LK 1    4482.20  0.53    6.39    0.00
      PROVO B 2    4482.20  0.53    6.39    1.00
      GOSHEN B 3    4482.20  0.63    6.39   20.00
-----
0 *** Period flows and interflows
0
      Bay   Precip   Evap   Sum trib   Jordan   Vol before   Interflow   F   I   N   A   L
      Name No.   ac-ft   ac-ft   Inflow ac-ft   River   Interflow   Vol ac-ft   Stage w/r Comp.   Area ac   Vol ac-ft
      ----  ----  ----  ----  ----  ----  ----  ----  ----  ----  ----  ----  ----  ----  ----
      MAIN_LK 1    2385.  28766.  12760. -20900.  192591. -7518.  4481.70 -7.64  53661.  200109.
      W.Yr.Tot: 1  63553. 235846. 366211. -138200.          Avg EOM stage 4481.87
      PROVO B 2    4.    46.    4977.    0.    5002.    4977.  4481.70 -7.64   21.    25.
      W.Yr.Tot: 2  271.   1735.   72112.    0.          Avg EOM stage 4481.87
      GOSHEN B 3   987.  10018.  2155.    0.    56377.  2541.  4481.70 -7.64  18302.  53836.
      W.Yr.Tot: 3  21491. 83777. 45171.    0.          Avg EOM stage 4481.87
0  T.SYS.This Mo 3375. 38830. 19892. -20900. Lake excl diked bays: 4481.70 -7.64  71984.  253969.
0  Water Yr Cumm 85315. 321358. 483494. -138200.
-----
0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)
+
      /-----CALCIUM CARBONATE PRECIPITATION-----/
      Del CA   Del HCO3   Del CACO3
      Bay   Tds   Na   Ca   Mg   K   Cl   HCO3   SO4   mg/l   Tons   mg/l   Tons   mg/l   Tons #/Ft2   Acc
      ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---
      MAIN_LK 1   1679. 455. 58. 144. 44. 581. 244. 596. 10. 2808. 40. 10784. 50. 13592. 0.012 0.60
      W.Yr.Avg: 1714. 477. 58. 147. 46. 610. 244. 616.
      PROVO B 2   447. 47. 46. 34. 7. 50. 220. 144. 48. 2. 101. 3. 149. 5. 0.011 0.44
      W.Yr.Avg: 462. 47. 61. 33. 7. 49. 242. 133.
      GOSHEN B 3   2085. 593. 43. 185. 58. 761. 205. 768. 16. 1173. 55. 3991. 71. 5164. 0.013 0.54
      W.Yr.Avg: 2213. 633. 52. 191. 61. 816. 233. 808.
      Jordan R. est.
      Hist. Qual. 1222. 232. 58. 78. 27. 335. 244. 350.
-----
***Water yr tot. water bal. flow is -2155. (trib 81)
```

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 96 -- Month Sep 1937

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4483.60	0.96	6.42 0.00
PROVO B	2	4483.60	0.96	6.42 1.00
GOSHEN B	3	4483.60	0.78	6.42 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	4458.	29841.	22277.	-40000.	261338.	-9627.	4483.00	-6.34	55387.	270965.	
W.Yr.Tot:	1	69450.	237608.	419208.	-206800.		Avg EOM stage	4483.82				
PROVO B	2	80.	535.	5453.	0.	5998.	5612.	4483.00	-6.34	727.	386.	
W.Yr.Tot:	2	1701.	8619.	80979.	0.		Avg EOM stage	4483.82				
GOSHEN B	3	1359.	11197.	1269.	0.	83174.	4015.	4483.00	-6.34	20533.	79159.	
W.Yr.Tot:	3	23493.	91556.	46293.	0.		Avg EOM stage	4483.82				
T.SYS.This Mo		5897.	41574.	28999.	-40000.	Lake excl diked bays:	4483.00	-6.34	76647.	350510.		
Water Yr Cumm		94644.	337783.	546480.	-206800.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	CALCIUM CARBONATE PRECIPITATION-----/								
									Del CA	Del HCO3	Del CACO3						
									mg/l	Tons	mg/l	Tons	mg/l	Tons	#/Ft2	Acc	
MAIN_LK	1	1282.	322.	58.	105.	32.	413.	244.	426.	7.	2679.	27.	9971.	34.	12650.	0.010	0.68
W.Yr.Avg:		1259.	319.	58.	102.	32.	408.	244.	418.								
PROVO B	2	466.	52.	46.	37.	8.	55.	220.	154.	46.	24.	106.	56.	151.	80.	0.005	0.51
W.Yr.Avg:		469.	49.	61.	34.	7.	52.	242.	137.								
GOSHEN B	3	1466.	390.	43.	126.	39.	503.	205.	512.	13.	1372.	43.	4629.	56.	6001.	0.013	0.62
W.Yr.Avg:		1516.	400.	53.	125.	39.	516.	234.	517.								
Jordan R. est.																	
Hist. Qual.		1144.	216.	58.	74.	25.	309.	244.	325.								

***Water yr tot. water bal. flow is 14811. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====

0 ***SUMMARY INFORMATION FOR TIME PERIOD 108 -- Month Sep 1938

=====

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4484.40	0.26	6.46 0.00
PROVO B	2	4484.40	0.26	6.46 1.00
GOSHEN B	3	4484.40	0.38	6.46 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	1226.	30454.	20782.	-42900.	298337.	-11742.	4483.70	-5.64	56224.	310079.	
W.Yr.Tot:	1	65419.	245152.	417146.	-221500.		Avg EOM stage	4484.88				
PROVO B	2	38.	944.	5839.	0.	7284.	6142.	4483.70	-5.64	1374.	1142.	
W.Yr.Tot:	2	3369.	13542.	86017.	0.		Avg EOM stage	4484.88				
GOSHEN B	3	690.	11734.	1386.	0.	99493.	5600.	4483.70	-5.64	21421.	93893.	
W.Yr.Tot:	3	24047.	97032.	35832.	0.		Avg EOM stage	4484.88				
0 T.SYS.This Mo		1954.	43132.	28008.	-42900.	Lake excl diked bays:	4483.70	-5.64		79019.	405114.	
0 Water Yr Cumm		92834.	355726.	538996.	-221500.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

	CALCIUM CARBONATE PRECIPITATION-----/														
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del mg/l	CA Tons	Del HCO3 mg/l	Del CACO3 Tons	#/Ft2	Acc	
MAIN_LK	1	1174.	284.	58.	94.	29.	365.	244.	379.	7.	2899.	26.	10988.	33.	13887. 0.011 0.77
W.Yr.Avg:		1085.	259.	58.	85.	26.	333.	244.	343.						
PROVO B	2	497.	59.	46.	41.	9.	63.	220.	171.	42.	65.	104.	162.	146.	227. 0.008 0.60
W.Yr.Avg:		480.	53.	61.	35.	7.	54.	242.	142.						
GOSHEN B	3	1286.	330.	43.	108.	33.	426.	205.	435.	12.	1579.	41.	5297.	54.	6876. 0.015 0.71
W.Yr.Avg:		1263.	316.	52.	101.	32.	410.	233.	412.						
Jordan R. est.															
Hist. Qual.		1102.	207.	58.	71.	25.	295.	244.	311.						

***Water yr tot. water bal. flow is -882. (trib 81)

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TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 120 -- Month Sep 1939
=====

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4483.50	1.14	5.91 0.00
PROVO B	2	4483.50	1.14	5.91 1.00
GOSHEN B	3	4483.50	1.11	5.91 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	5289.	27406.	22322.	-37500.	261516.	-9449.	4483.00	-6.34	55387.	270965.	
W.Yr.Tot:	1	60097.	239875.	336682.	-240401.		Avg EOM stage	4484.92				
PROVO B	2	90.	467.	5696.	0.	6177.	5791.	4483.00	-6.34	727.	386.	
W.Yr.Tot:	2	2608.	12000.	80601.	0.		Avg EOM stage	4484.92				
GOSHEN B	3	1929.	10265.	1561.	0.	82817.	3658.	4483.00	-6.34	20533.	79159.	
W.Yr.Tot:	3	18314.	94317.	33687.	0.		Avg EOM stage	4484.92				
T.SYS.This Mo		7307.	38137.	29579.	-37500.	Lake excl diked bays:	4483.00	-6.34	76647.	350510.		
Water Yr Cumm		81019.	346193.	450970.	-240401.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

/-----CALCIUM CARBONATE PRECIPITATION-----/												
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	mg/l	Del CA	Del HCO3	Del CACO3
									Tons	mg/l	Tons	mg/l
MAIN_LK	1	1266.	313.	58.	102.	31.	404.	244.	415.	7.	2477.	26.
W.Yr.Avg:		1082.	256.	58.	84.	26.	330.	244.	339.			9428.
PROVO B	2	462.	52.	46.	36.	8.	56.	220.	150.	45.	24.	106.
W.Yr.Avg:		487.	55.	61.	35.	8.	56.	242.	144.			56.
GOSHEN B	3	1377.	355.	43.	116.	36.	461.	205.	467.	12.	1304.	40.
W.Yr.Avg:		1219.	299.	53.	96.	30.	388.	235.	390.			4303.
Jordan R. est.												52.
Hist. Qual.		1144.	216.	58.	74.	25.	309.	244.	325.			11906.
										#/Ft2		0.010
										Acc		0.86

***Water yr tot. water bal. flow is -83. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 132 -- Month Sep 1940

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4482.10	1.47	4.71 0.00
PROVO B	2	4482.10	1.47	4.71 1.00
GOSHEN B	3	4482.10	1.22	4.71 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	6624.	21217.	26399.	-27600.	205869.	-4969.	4481.90	-7.44	53954.	210838.	
W.Yr.Tot:	1	69020.	237162.	275617.	-215900.		Avg EOM stage	4483.98				
PROVO B	2	7.	22.	5367.	0.	5401.	5372.	4481.90	-7.44	22.	29.	
W.Yr.Tot:	2	2396.	7390.	74618.	0.		Avg EOM stage	4483.98				
GOSHEN B	3	1927.	7436.	1317.	0.	57117.	-403.	4481.90	-7.44	18762.	57520.	
W.Yr.Tot:	3	20352.	90291.	26617.	0.		Avg EOM stage	4483.98				
T.SYS.This Mo		8557.	28675.	33083.	-27600.	Lake excl diked bays:	4481.90	-7.44		72738.	268387.	
Water Yr Cumm		91769.	334843.	376852.	-215900.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

-----CALCIUM CARBONATE PRECIPITATION-----												
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA	Del HCO3	Del CACO3	
									mg/l	Tons	mg/l	Tons
MAIN_LK	1	1424.	368.	58.	116.	36.	474.	244.	483.	7.	2012.	25.
W.Yr.Avg:		1180.	289.	58.	93.	29.	372.	244.	380.			
PROVO B	2	440.	47.	46.	33.	7.	51.	220.	138.	47.	2.	100.
W.Yr.Avg:		473.	51.	61.	33.	7.	53.	242.	137.			
GOSHEN B	3	1619.	434.	43.	137.	43.	563.	205.	564.	12.	951.	39.
W.Yr.Avg:		1335.	336.	52.	107.	34.	437.	233.	436.			
Jordan R. est.												
Hist. Qual.		1210.	230.	58.	78.	27.	331.	244.	346.			

***Water yr tot. water bal. flow is 2785. (trib 81)

1

TABLE UT LK SIMULATION--RUN.044 ULWMSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 144 -- Month Sep 1941

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4483.20	1.10	5.88 0.00
PROVO B	2	4483.20	1.10	5.88 1.00
GOSHEN B	3	4483.20	0.87	5.88 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r Comp.	Area ac	Vol ac-ft		
MAIN_LK	1	5069.	27123.	20947.	-35700.	245307.	-9148.	4482.70	-6.64	55006.	254455.	
W.Yr.Tot:	1	89180.	222956.	327694.	-187000.		Avg EOM stage	4483.59				
PROVO B	2	64.	344.	6154.	0.	6450.	6223.	4482.70	-6.64	498.	227.	
W.Yr.Tot:	2	2384.	6505.	85755.	0.		Avg EOM stage	4483.59				
GOSHEN B	3	1482.	10025.	1242.	0.	76035.	2925.	4482.70	-6.64	20098.	73110.	
W.Yr.Tot:	3	27983.	85071.	27940.	0.		Avg EOM stage	4483.59				
T.SYS.This Mo		6615.	37491.	28342.	-35700.	Lake excl diked bays:	4482.70	-6.64	75601.	327791.		
Water Yr Cumm		119547.	314532.	441390.	-187000.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/																	
	Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA	Del HCO3	Del CACO3					
										mg/l	Tons	mg/l	Tons	mg/l	Tons	#/Ft2	Acc
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MAIN_LK	1	1233.	301.	58.	96.	30.	390.	244.	394.	7.	2442.	25.	8574.	32.	11015.	0.009	1.02
W.Yr.Avg:		1176.	289.	58.	92.	29.	373.	244.	378.								
PROVO B	2	447.	50.	46.	35.	8.	53.	220.	140.	45.	14.	109.	34.	154.	48.	0.004	0.82
W.Yr.Avg:		468.	51.	61.	33.	8.	53.	242.	133.								
GOSHEN B	3	1395.	364.	43.	115.	37.	472.	205.	472.	13.	1244.	42.	4134.	54.	5377.	0.012	0.93
W.Yr.Avg:		1381.	354.	52.	110.	35.	461.	232.	455.								
Jordan R. est.																	
Hist. Qual.		1162.	220.	58.	75.	26.	315.	244.	331.								

***Water yr tot. water bal. flow is 1866. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

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0 ***SUMMARY INFORMATION FOR TIME PERIOD 156 -- Month Sep 1942

=====

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4483.90	0.65	6.47 0.00
PROVO B	2	4483.90	0.65	6.47 1.00
GOSHEN B	3	4483.90	0.36	6.47 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	3038.	30233.	28791.	-45100.	277816.	-9847.	4483.30	-6.04	55752.	287662.	
W.Yr.Tot:	1	69085.	236090.	388635.	-218800.		Avg EOM stage	4484.68				
PROVO B	2	70.	692.	6277.	0.	7080.	6411.	4483.30	-6.04	993.	669.	
W.Yr.Tot:	2	2789.	11928.	91225.	0.		Avg EOM stage	4484.68				
GOSHEN B	3	638.	11473.	1501.	0.	88850.	3436.	4483.30	-6.04	20924.	85415.	
W.Yr.Tot:	3	22268.	92886.	31657.	0.		Avg EOM stage	4484.68				
T.SYS.This Mo		3746.	42398.	36569.	-45100.	Lake excl diked bays:	4483.30	-6.04		77669.	373745.	
Water Yr Cunn		94141.	340904.	511517.	-218800.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/												
Bay	Tds	Na	Ca	Mg	K	Cl	HCO ₃	SO ₄	Del CA	Del HCO ₃	Del CaCO ₃	
									mg/l	Tons	mg/l	Tons
MAIN_LK	1	1176.	281.	58.	91.	29.	365.	244.	371.	8.	2966.	28.
W.Yr.Avg:		1058.	246.	58.	79.	25.	319.	244.		323.		
PROVO B	2	471.	53.	46.	37.	8.	58.	220.	156.	45.	41.	106.
W.Yr.Avg:		474.	51.	61.	34.	7.	53.	242.		139.		
GOSHEN B	3	1310.	332.	43.	106.	34.	433.	205.	433.	13.	1511.	44.
W.Yr.Avg:		1209.	294.	52.	92.	30.	385.	233.		379.	5113.	57.
Jordan R. est.											6625.	0.015
Hist. Qual.		1126.	212.	58.	73.	25.	303.	244.	319.			1.01

***Water yr tot. water bal. flow is 3228. (trib 81)

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TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 168 -- Month Sep 1943

0 *** Period data

Bay	Hist beg	Hist precip	Model evap		
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4483.60	0.03	6.65	0.00
PROVO B	2	4483.60	0.03	6.65	1.00
GOSHEN B	3	4483.60	0.10	6.65	20.00

0 *** Period flows and interflows

Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L	Area ac	Vol ac-ft
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r Comp.					
MAIN_LK	1	139.	30895.	31425.	-43700.	261415.	-9550.	4483.00	-6.34	55387.	270965.		
W.Yr.Tot:	1	52861.	240543.	374139.	-234001.		Avg EOM stage	4484.46					
PROVO B	2	2.	554.	5420.	0.	5868.	5482.	4483.00	-6.34	727.	386.		
W.Yr.Tot:	2	2291.	10069.	76462.	0.		Avg EOM stage	4484.46					
GOSHEN B	3	174.	11592.	2902.	0.	83226.	4067.	4483.00	-6.34	20533.	79159.		
W.Yr.Tot:	3	19313.	93845.	30156.	0.		Avg EOM stage	4484.46					
T.SYS.This Mo		316.	43041.	39747.	-43700.	Lake excl diked bays:	4483.00	-6.34	76647.	350510.			
Water Yr Cumm		74465.	344457.	480757.	-234001.								

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/															
Bay	Tds	Na	Ca	Mg	K	Cl	HCO ₃	SO ₄	Del CA mg/l	Del HCO ₃ mg/l	Del CACO ₃ Tons	#/Ft ²	Acc		
MAIN_LK	1	1216.	293.	58.	93.	30.	383.	244.	383.	9.	3170.	32.	11743.	40.	14913. 0.012 1.20
W.Yr.Avg:		1093.	256.	58.	81.	26.	335.	244.	334.						
PROVO B	2	478.	55.	46.	36.	8.	60.	220.	159.	47.	25.	108.	57.	156.	82. 0.005 0.98
W.Yr.Avg:		490.	54.	61.	34.	8.	57.	242.	145.						
GOSHEN B	3	1372.	350.	43.	110.	36.	459.	205.	452.	15.	1582.	49.	5241.	63.	6824. 0.015 1.09
W.Yr.Avg:		1255.	306.	53.	95.	31.	402.	235.	393.						
Jordan R. est.															
Hist. Qual.		1144.	216.	58.	74.	25.	309.	244.	325.						

***Water yr tot. water bal. flow is -11054. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

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=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 180 -- Month Sep 1944
=====
0 *** Period data
      Bay   Hist beg   Hist precip   Model evap
      Name No.   Stage ft     In.     In. % Intermix
      MAIN_LK 1    4484.60  0.05    6.16    0.00
      PROVO B 2    4484.60  0.05    6.16    1.00
      GOSHEN B 3    4484.60  0.15    6.16    20.00
-----
0 *** Period flows and interflows
      Bay   Precip   Evap   Sum trib   Jordan   Vol before   Interflow   F   I   N   A   L
      Name No.   ac-ft   ac-ft   Inflow ac-ft   River   Interflow   Vol ac-ft   Stage w/r Comp.   Area ac   Vol ac-ft
      -----  -----  -----  -----  -----  -----
      MAIN_LK 1    236.  29161.  15164. -45800.  301552. -14134.  4483.80  -5.54  56339.  315686.
      W.Yr.Tot: 1  83222. 231211. 367836. -216000.          Avg EOM stage 4485.06
      PROVO B 2    8.    989.   5675.   0.    7497.   6214.   4483.80  -5.54  1475.   1283.
      W.Yr.Tot: 2  4869.  14140.  84480.   0.          Avg EOM stage 4485.06
      GOSHEN B 3   275.  11288.  1351.   0.    103953.  7920.   4483.80  -5.54  21538.  96033.
      W.Yr.Tot: 3  26578. 92079.  48938.   0.          Avg EOM stage 4485.06
0 T.SYS.This Mo 519.  41437. 22190. -45800. Lake excl diked bays: 4483.80  -5.54  79352.  413002.
0 Water Yr Cumm 114669. 337431. 501254. -216000.
-----
0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)
+                               /-----CALCIUM CARBONATE PRECIPITATION-----/
      Bay   Tds   Na   Ca   Mg   K   Cl   HCO3   SO4   mg/l   Del CA   Del HCO3   Del CACO3
      -----  -----  -----  -----  -----  -----  -----  -----  -----  -----  -----  -----  -----  -----  -----
      MAIN_LK 1   1148. 272.  58.  87.  28.  356.  244.  357.   7.    2823.  25.   10742.  32.   13565.  0.011  1.28
      W.Yr.Avg: 1033. 238.  58.  76.  24.  312.  244.  311.
      PROVO B 2   499.  61.  46.  42.  10.  68.  220.  169.   39.   68.   100.   175.   139.   243.  0.008  1.07
      W.Yr.Avg: 464.  49.  61.  33.  7.   53.  242.  132.
      GOSHEN B 3   1198. 298.  43.  95.  31.  391.  205.  387.   12.   1579.  40.   5269.   52.   6848.  0.015  1.16
      Jordan R. est.
      Hist. Qual. 1095. 206.  58.  71.  24.  294.  244.  309.
-----
***Water yr tot. water bal. flow is 7126. (trib 81)
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TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 192 -- Month Sep 1945

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4485.10	1.09	6.20 0.00
PROVO B	2	4485.10	1.09	6.20 1.00
GOSHEN B	3	4485.10	0.96	6.20 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	5210.	29631.	21049.	-43300.	343156.	-12217.	4484.50	-4.84	57098.	355373.	
W.Yr.Tot:	1	90698.	218873.	341390.	-212500.		Avg EOM stage	4485.46				
PROVO B	2	239.	1361.	6282.	0.	9310.	6764.	4484.50	-4.84	2248.	2546.	
W.Yr.Tot:	2	5614.	14212.	90414.	0.		Avg EOM stage	4485.46				
GOSHEN B	3	1808.	11673.	1733.	0.	116810.	5453.	4484.50	-4.84	22310.	111357.	
W.Yr.Tot:	3	28985.	87655.	32414.	0.		Avg EOM stage	4485.46				
T.SYS.This Mo		7257.	42664.	29064.	-43300.	Lake excl diked bays:	4484.50	-4.84		81656.	469276.	
Water Yr Cumm		125296.	320740.	464218.	-212500.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	CALCIUM CARBONATE PRECIPITATION-----/								
									Del CA	Del HCO3	Del CACO3	mg/l	Tons	mg/l	Tons	mg/l	Tons
MAIN_LK	1	1087.	252.	58.	81.	26.	329.	244.	333.	5.	2638.	21.	10067.	26.	12705.	0.010	1.35
W.Yr.Avg:		1024.	234.	58.	75.	24.	306.	244.	308.								
PROVO B	2	490.	59.	46.	40.	9.	65.	220.	164.	34.	119.	90.	313.	125.	432.	0.009	1.15
W.Yr.Avg:		471.	51.	61.	34.	8.	54.	242.	135.								
GOSHEN B	3	1140.	279.	43.	89.	29.	366.	205.	365.	11.	1695.	36.	5453.	47.	7148.	0.015	1.24
Jordan R. est.																	
Hist. Qual.		1053.	198.	58.	68.	23.	280.	244.	295.								

***Water yr tot. water bal. flow is -32691. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 204 -- Month Sep 1946
=====

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap	
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4484.40	0.00	6.46	0.00
PROVO B	2	4484.40	0.00	6.46	1.00
GOSHEN B	3	4484.40	0.01	6.46	20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	0.	30454.	26292.	-47100.	298422.	-11658.	4483.70	-5.64	56224.	310079.	
W.Yr.Tot:	1	60897.	257286.	358650.	-263701.		Avg EOM stage	4485.60				
PROVO B	2	0.	944.	6294.	0.	7700.	6558.	4483.70	-5.64	1374.	1142.	
W.Yr.Tot:	2	3902.	16264.	89658.	0.		Avg EOM stage	4485.60				
GOSHEN B	3	18.	11734.	1558.	0.	98992.	5099.	4483.70	-5.64	21421.	93893.	
W.Yr.Tot:	3	21123.	102922.	41781.	0.		Avg EOM stage	4485.60				
T.SYS.This Mo		18.	43132.	34144.	-47100.	Lake excl diked bays:	4483.70	-5.64		79019.	405114.	
Water Yr Cumm		85922.	376472.	490089.	-263701.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	-----CALCIUM CARBONATE PRECIPITATION-----								
									mg/l	Del CA	mg/l	Del HCO3	mg/l	Del CACO3	Tons	Tons	Tons
MAIN_LK	1	1176.	278.	58.	89.	29.	364.	244.	366.	8.	3173.	28.	11941.	36.	15114.	0.012	1.45
W.Yr.Avg:		1042.	238.	58.	76.	24.	312.	244.	313.								
PROVO B	2	487.	57.	46.	39.	9.	63.	220.	163.	42.	66.	104.	162.	147.	228.	0.008	1.25
W.Yr.Avg:		488.	54.	61.	35.	8.	57.	242.	145.								
GOSHEN B	3	1277.	318.	43.	101.	33.	419.	205.	416.	13.	1637.	43.	5532.	56.	7170.	0.015	1.32
Jordan R. est.																	
Hist. Qual.	1102.	207.	58.	71.	25.	295.	244.	311.									

***Water yr tot. water bal. flow is 26298. (trib 81)

1

TABLE UT LK SIMULATION--RUN.044 ULWMSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 216 -- Month Sep 1947
=====

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4485.30	0.35	6.03 0.00
PROVO B	2	4485.30	0.35	6.03 1.00
GOSHEN B	3	4485.30	0.32	6.03 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	1678.	28948.	25217.	-43900.	355418.	-11434.	4484.70	-4.64	57290.	366852.	
W.Yr.Tot:	1	85506.	228568.	403934.	-248701.		Avg EOM stage	4486.01				
PROVO B	2	85.	1460.	6414.	0.	9832.	6774.	4484.70	-4.64	2502.	3058.	
W.Yr.Tot:	2	5103.	16976.	91168.	0.		Avg EOM stage	4486.01				
GOSHEN B	3	608.	11463.	1847.	0.	120534.	4660.	4484.70	-4.64	22510.	115873.	
W.Yr.Tot:	3	30466.	92647.	51385.	0.		Avg EOM stage	4486.01				
T.SYS.This Mo		2370.	41870.	33478.	-43900.	Lake excl diked bays:	4484.70	-4.64		82299.	485784.	
Water Yr Cumum		121074.	338191.	546487.	-248701.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	CALCIUM CARBONATE PRECIPITATION-----/								
									Del CA	Del HCO3	Del CACO3						
									mg/l	Tons	mg/l	Tons	mg/l	Tons	#/Ft2	Acc	
MAIN_LK	1	1097.	250.	58.	81.	26.	329.	244.	335.	6.	3010.	23.	11275.	29.	14284.	0.011	1.53
W.Yr.Avg:		998.	224.	58.	72.	23.	294.	243.	296.								
PROVO B	2	511.	65.	46.	43.	10.	72.	220.	173.	34.	140.	93.	385.	126.	525.	0.010	1.35
W.Yr.Avg:		482.	55.	61.	35.	8.	57.	242.	139.								
GOSHEN B	3	1145.	276.	43.	89.	29.	364.	205.	365.	12.	1816.	37.	5887.	49.	7703.	0.016	1.40
Jordan R. est.																	
Hist. Qual.		1041.	195.	58.	68.	23.	276.	244.	291.								

***Water yr tot. water bal. flow is 6715. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 228 -- Month Sep 1948

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4484.40	0.14	6.16 0.00
PROVO B	2	4484.40	0.14	6.16 1.00
GOSHEN B	3	4484.40	0.13	6.16 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	660.	29079.	24444.	-48100.	297608.	-12472.	4483.70	-5.64	56224.	310079.	
W.Yr.Tot:	1	48272.	230996.	365147.	-299501.		Avg EOM stage	4485.83				
PROVO B	2	20.	901.	6263.	0.	7732.	6591.	4483.70	-5.64	1374.	1142.	
W.Yr.Tot:	2	3184.	14971.	87275.	0.		Avg EOM stage	4485.83				
GOSHEN B	3	236.	11205.	1592.	0.	99774.	5881.	4483.70	-5.64	21421.	93893.	
W.Yr.Tot:	3	19242.	92590.	34267.	0.		Avg EOM stage	4485.83				
T.SYS.This Mo		917.	41185.	32298.	-48100.	Lake excl diked bays:	4483.70	-5.64		79019.	405114.	
Water Yr Cumm		70699.	338558.	486689.	-299501.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/													
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA mg/l	Del HCO3 mg/l	Del CACO3 mg/l	#/Ft2	Acc
---	---	---	---	---	---	---	---	---	---	---	---	---	---
MAIN_LK	1	1191.	277.	58.	89.	29.	366.	244.	369.	7.	3024.	26.	11123.
W.Yr.Avg:		1035.	232.	58.	75.	24.	305.	244.	309.				
PROVO B	2	489.	58.	46.	39.	9.	64.	220.	163.	41.	64.	103.	160.
W.Yr.Avg:		492.	56.	61.	35.	8.	59.	242.	145.				
GOSHEN B	3	1273.	311.	43.	100.	33.	413.	205.	412.	12.	1589.	42.	5299.
W.Yr.Avg:		1132.	263.	52.	83.	27.	349.	233.	345.				
Jordan R. est.													
Hist. Qual.		1102.	207.	58.	71.	25.	295.	244.	311.				

***Water yr tot. water bal. flow is -13533. (trib 81)

1

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 240 -- Month Sep 1949

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4484.30	0.71	6.23 0.00
PROVO B	2	4484.30	0.71	6.23 1.00
GOSHEN B	3	4484.30	0.49	6.23 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r Comp.	Area ac	Vol ac-ft		
MAIN_LK	1	3348.	29387.	32967.	-45500.	305422.	-10264.	4483.80	-5.54	56339.	315686.	
W.Yr.Tot:	1	63951.	242830.	404254.	-280201.		Avg EOM stage	4485.22				
PROVO B	2	103.	907.	6192.	0.	7543.	6260.	4483.80	-5.54	1475.	1283.	
W.Yr.Tot:	2	3535.	14614.	87170.	0.		Avg EOM stage	4485.22				
GOSHEN B	3	890.	11325.	3528.	0.	100037.	4004.	4483.80	-5.54	21538.	96033.	
W.Yr.Tot:	3	21097.	96668.	62193.	0.		Avg EOM stage	4485.22				
T.SYS.This Mo		4342.	41619.	42687.	-45500.	Lake excl diked bays:	4483.80	-5.54	79352.	413002.		
Water Yr Cumum		88583.	354111.	553617.	-280201.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	CALCIUM CARBONATE PRECIPITATION-----/							
									Del mg/l	CA Tons	Del mg/l	HCO3 Tons	Del mg/l	CACO3 Tons	#/Ft2	Acc
MAIN_LK	1	1116.	254.	58.	85.	27.	332.	244.	345.	7.	2846.	25.	10728.	32.	13574. 0.011	1.71
W.Yr.Avg:		1042.	233.	58.	76.	25.	307.	244.	313.							
PROVO B	2	481.	58.	46.	39.	9.	64.	220.	157.	40.	71.	104.	182.	145.	253. 0.008	1.54
W.Yr.Avg:		482.	55.	61.	35.	8.	58.	242.	139.							
GOSHEN B	3	1205.	289.	43.	95.	31.	382.	205.	389.	13.	1711.	42.	5435.	55.	7147. 0.015	1.56
W.Yr.Avg:		1161.	271.	52.	86.	29.	359.	230.	356.							
Jordan R. est.																
Hist. Qual.		1095.	206.	58.	71.	24.	294.	244.	309.							

***Water yr tot. water bal. flow is -18446. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====

0 ***SUMMARY INFORMATION FOR TIME PERIOD 252 -- Month Sep 1950

=====

0 *** Period data

Bay	Hist beg	Hist precip	Model evap		
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4484.30	0.85	5.47	0.00
PROVO B	2	4484.30	0.85	5.47	1.00
GOSHEN B	3	4484.30	0.71	5.47	20.00

0 *** Period flows and interflows

Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft
MAIN_LK	1	4004.	25796.	14855.	-39500.	297558.	-12522.	4483.70	-5.64	56224.	310079.
W.Yr.Tot:	1	59842.	238389.	400479.	-282801.		Avg EOM stage	4485.24			
PROVO B	2	120.	774.	6327.	0.	7827.	6686.	4483.70	-5.64	1374.	1142.
W.Yr.Tot:	2	3142.	13845.	90222.	0.		Avg EOM stage	4485.24			
GOSHEN B	3	1287.	9924.	1423.	0.	99729.	5836.	4483.70	-5.64	21421.	93893.
W.Yr.Tot:	3	18226.	94764.	49999.	0.		Avg EOM stage	4485.24			
T.SYS.This Mo		5411.	36494.	22605.	-39500.	Lake excl diked bays:	4483.70	-5.64		79019.	405114.
Water Yr Cumm		81211.	346998.	540700.	-282801.						

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	-----CALCIUM CARBONATE PRECIPITATION-----								
									Del CA	Del HCO3	Del CACO3						
		mg/l	Tons	mg/l	Tons	mg/l	Tons	#/Ft2	Acc								
MAIN_LK	1	1098.	247.	58.	83.	27.	324.	244.	337.	5.	2125.	19.	7931.	24.	10056.	0.008	1.80
W.Yr.Avg:		987.	215.	58.	73.	23.	282.	244.	294.								
PROVO B	2	474.	56.	46.	38.	9.	62.	220.	154.	39.	61.	97.	151.	136.	212.	0.007	1.63
W.Yr.Avg:		478.	53.	61.	34.	8.	56.	242.	138.								
GOSHEN B	3	1167.	277.	43.	93.	30.	365.	205.	375.	11.	1415.	36.	4576.	47.	5991.	0.013	1.64
W.Yr.Avg:		1114.	255.	52.	83.	27.	337.	233.	340.								
Jordan R. est.																	
Hist. Qual.		1102.	207.	58.	71.	25.	295.	244.	311.								

***Water yr tot. water bal. flow is -13244. (trib 81)

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TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 264 -- Month Sep 1951
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0 *** Period data

	Bay	Hist beg	Hist precip	Model evap	
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4484.70	0.06	6.65	0.00
PROVO B	2	4484.70	0.06	6.65	1.00
GOSHEN B	3	4484.70	0.05	6.65	20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	284.	31517.	14317.	-44800.	305136.	-16184.	4483.90	-5.44	56453.	321320.	
W.Yr.Tot:	1	63520.	238803.	405773.	-269501.		Avg EOM stage	4485.20				
PROVO B	2	10.	1130.	6290.	0.	8228.	6803.	4483.90	-5.44	1577.	1425.	
W.Yr.Tot:	2	3594.	14239.	87515.	0.		Avg EOM stage	4485.20				
GOSHEN B	3	92.	12238.	3836.	0.	107564.	9380.	4483.90	-5.44	21656.	98184.	
W.Yr.Tot:	3	20073.	95031.	52913.	0.		Avg EOM stage	4485.20				
T.SYS.This Mo		386.	44885.	24443.	-44800.	Lake excl diked bays:	4483.90	-5.44		79686.	420928.	
Water Yr Cumm		87186.	348072.	546201.	-269501.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

/-----CALCIUM CARBONATE PRECIPITATION-----/												
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA	Del HCO3	Del CACO3	
									mg/l	Tons	mg/l	
MAIN_LK	1	1057.	233.	58.	82.	26.	304.	244.	325.	7.	2943.	27.
W.Yr.Avg:		960.	206.	58.	71.	23.	269.	244.	285.			
PROVO B	2	492.	60.	46.	40.	10.	66.	220.	164.	39.	76.	103.
W.Yr.Avg:		481.	54.	61.	35.	8.	57.	242.	139.			
GOSHEN B	3	1106.	257.	43.	89.	29.	338.	205.	355.	13.	1798.	43.
W.Yr.Avg:		1087.	245.	53.	82.	27.	323.	233.	330.			
Jordan R. est.												
Hist. Qual.		1089.	205.	58.	70.	24.	292.	244.	307.			

***Water yr tot. water bal. flow is -28086. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 276 -- Month Sep 1952

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4488.20	0.04	6.50 0.00
PROVO B	2	4488.20	0.04	6.50 1.00
GOSHEN B	3	4488.20	0.02	6.50 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	200.	32473.	21337.	-39200.	522899.	-13547.	4487.60	-1.74	59672.	536646.	
W.Yr.Tot:	1	86315.	248503.	757570.	-430482.		Avg EOM stage	4487.35				
PROVO B	2	20.	3224.	7209.	0.	23120.	7587.	4487.60	-1.74	5727.	15533.	
W.Yr.Tot:	2	6400.	25510.	129476.	0.		Avg EOM stage	4487.35				
GOSHEN B	3	42.	13673.	5034.	0.	190718.	6161.	4487.60	-1.74	24958.	184558.	
W.Yr.Tot:	3	28958.	106242.	117826.	0.		Avg EOM stage	4487.35				
T.SYS.This Mo		262.	49369.	33581.	-39200.	Lake excl diked bays:	4487.60	-1.74		90356.	736737.	
Water Yr Cumm		121673.	380255.	1004872.	-430482.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	CALCIUM CARBONATE PRECIPITATION-----/								
									Del	CA	Del	HCO3	Del	CACO3	mg/l	Tons	mg/l
MAIN_LK	1	758.	142.	58.	56.	16.	184.	244.	210.	4.	2833.	16.	11743.	20.	14575.	0.011	1.94
W.Yr.Avg:		804.	158.	58.	59.	18.	206.	243.	227.								
PROVO B	2	502.	65.	46.	43.	10.	74.	220.	166.	16.	335.	53.	1115.	69.	1450.	0.012	1.83
W.Yr.Avg:		436.	46.	61.	31.	7.	50.	242.	115.								
GOSHEN B	3	761.	154.	43.	59.	18.	202.	205.	225.	11.	2745.	33.	8372.	44.	11117.	0.020	1.81
Jordan R. est.																	
Hist. Qual.		866.	160.	58.	57.	19.	219.	244.	234.								

***Water yr tot. water bal. flow is -16167. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 288 -- Month Sep 1953

0 *** Period data

Bay	Hist beg	Hist precip	Model evap		
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4486.10	0.12	6.52	0.00
PROVO B	2	4486.10	0.12	6.52	1.00
GOSHEN B	3	4486.10	0.10	6.52	20.00

0 *** Period flows and interflows

Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft
MAIN_LK	1	584.	31739.	22485.	-39200.	400029.	-12911.	4485.50	-3.84	58004.	412940.
W.Yr.Tot:	1	41846.	250501.	342119.	-361570.		Avg EOM stage	4487.88			
PROVO B	2	40.	2179.	6426.	0.	12164.	6724.	4485.50	-3.84	3582.	5440.
W.Yr.Tot:	2	4252.	23452.	91192.	0.		Avg EOM stage	4487.88			
GOSHEN B	3	196.	12768.	4641.	0.	140339.	6187.	4485.50	-3.84	23253.	134152.
W.Yr.Tot:	3	14480.	104612.	62041.	0.		Avg EOM stage	4487.88			
T.SYS.This Mo		820.	46687.	33552.	-39200.	Lake excl diked bays:	4485.50	-3.84		84839.	552532.
Water Yr Cumm		60578.	378564.	495352.	-361570.						

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	CALCIUM CARBONATE PRECIPITATION-----/							
									Del mg/l	CA Tons	Del mg/l	HCO3 Tons	Del mg/l	CACO3 Tons	#/Ft2	Acc
MAIN_LK	1	945.	195.	58.	72.	22.	255.	244.	283.	6.	3169.	22.	12606.	28.	15776. 0.012	2.04
W.Yr.Avg:		802.	155.	58.	59.	18.	202.	244.	226.							
PROVO B	2	552.	72.	46.	47.	11.	81.	220.	197.	29.	216.	84.	622.	113.	838. 0.011	1.93
W.Yr.Avg:		513.	60.	61.	39.	9.	65.	242.	157.							
GOSHEN B	3	943.	204.	43.	76.	23.	269.	205.	294.	12.	2234.	38.	6980.	51.	9214. 0.018	1.90
W.Yr.Avg:		836.	167.	52.	62.	19.	221.	232.	239.							
Jordan R. est.																
Hist. Qual.		993.	185.	58.	65.	22.	260.	244.	275.							

***Water yr tot. water bal. flow is 7623. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

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0 ***SUMMARY INFORMATION FOR TIME PERIOD 300 -- Month Sep 1954
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0 *** Period data
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	Bay	Hist beg	Hist precip	Model evap	
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4484.20	1.66	6.13	0.00
PROVO B	2	4484.20	1.66	6.13	1.00
GOSHEN B	3	4484.20	1.45	6.13	20.00

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0 *** Period flows and interflows
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	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	7821.	28902.	34526.	-43700.	308078.	-7609.	4483.80	-5.54	56339.	315686.	
W.Yr.Tot:	1	49948.	246936.	353238.	-315601.		Avg EOM stage	4486.01				
PROVO B	2	234.	864.	5990.	0.	7319.	6036.	4483.80	-5.54	1475.	1283.	
W.Yr.Tot:	2	3509.	16520.	82713.	0.		Avg EOM stage	4486.01				
GOSHEN B	3	2629.	11121.	1350.	0.	97606.	1573.	4483.80	-5.54	21538.	96033.	
W.Yr.Tot:	3	17264.	99292.	32146.	0.		Avg EOM stage	4486.01				
T.SYS.This Mo		10683.	40886.	41866.	-43700.	Lake excl diked bays:	4483.80	-5.54		79352.	413002.	
Water Yr Cumm		70722.	362748.	468097.	-315601.							

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0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)
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-----CALCIUM CARBONATE PRECIPITATION-----												
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA	Del HCO3	Del CACO3	
									mg/l	Tons	mg/l	
MAIN_LK	1	1062.	235.	58.	84.	26.	305.	244.	336.	6.	2451.	23.
W.Yr.Avg:		935.	195.	58.	71.	22.	254.	244.	280.			
PROVO B	2	473.	57.	46.	38.	9.	63.	220.	151.	39.	68.	101.
W.Yr.Avg:		497.	58.	61.	37.	8.	62.	242.	146.			
GOSHEN B	3	1150.	267.	43.	95.	30.	350.	205.	378.	11.	1466.	37.
W.Yr.Avg:		1015.	219.	52.	78.	24.	288.	233.	309.			
Jordan R. est.												
Hist. Qual.		1095.	206.	58.	71.	24.	294.	244.	309.			

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***Water yr tot. water bal. flow is 9003. (trib 81)
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TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====0 ***SUMMARY INFORMATION FOR TIME PERIOD 312 -- Month Sep 1955=====

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4483.80	1.96	6.13 0.00
PROVO B	2	4483.80	1.96	6.13 1.00
GOSHEN B	3	4483.80	1.57	6.13 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	9170.	28701.	40825.	-43600.	293380.	-5432.	4483.50	-5.84	55995.	298811.	
W.Yr.Tot:	1	53236.	230232.	352319.	-237201.		Avg EOM stage	4484.93				
PROVO B	2	216.	676.	5924.	0.	6747.	5889.	4483.50	-5.84	1171.	858.	
W.Yr.Tot:	2	2621.	11870.	81014.	0.		Avg EOM stage	4484.93				
GOSHEN B	3	2794.	10916.	1223.	0.	89134.	-458.	4483.50	-5.84	21185.	89592.	
W.Yr.Tot:	3	21181.	90778.	35968.	0.		Avg EOM stage	4484.93				
T.SYS.This Mo		12180.	40293.	47972.	-43600.	Lake excl diked bays:	4483.50	-5.84	78351.	389261.		
Water Yr Cumm		77038.	332880.	469301.	-237201.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/											
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA mg/l	Del HCO3 mg/l	Del CACO3 mg/l
									Tons	Tons	Tons #/Ft2 Acc
MAIN_LK	1	1081.	245.	58.	87.	27.	315.	244.	349.	6.	2571. 0.010 2.22
W.Yr.Avg:		1002.	219.	58.	78.	24.	283.	244.	312.		
PROVO B	2	460.	53.	46.	36.	9.	59.	220.	145.	42.	49. 0.007 2.12
W.Yr.Avg:		480.	54.	61.	34.	8.	57.	242.	138.		
GOSHEN B	3	1195.	286.	43.	100.	31.	371.	205.	402.	12.	1408. 0.013 2.06
W.Yr.Avg:		1117.	253.	52.	88.	28.	331.	233.	353.		
Jordan R. est.											
Hist. Qual.		1114.	210.	58.	72.	25.	299.	244.	315.		

***Water yr tot. water bal. flow is -17929. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

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0 ***SUMMARY INFORMATION FOR TIME PERIOD 324 -- Month Sep 1956
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0 *** Period data

Bay	Hist beg	Hist precip	Model evap		
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4482.80	0.03	6.40	0.00
PROVO B	2	4482.80	0.03	6.40	1.00
GOSHEN B	3	4482.80	0.09	6.40	20.00

0 *** Period flows and interflows

Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft
MAIN_LK	1	137.	29172.	26105.	-45600.	211410.	-10254.	4482.10	-7.24	54231.	221664.
								Avg EOM stage	4484.29		
W.Yr.Tot:	1	39840.	234348.	363527.	-302701.						
PROVO B	2	1.	176.	5536.	0.	5640.	5591.	4482.10	-7.24	87.	49.
								Avg EOM stage	4484.29		
W.Yr.Tot:	2	1549.	8185.	75586.	0.						
GOSHEN B	3	148.	10509.	1214.	0.	65973.	4663.	4482.10	-7.24	19155.	61310.
								Avg EOM stage	4484.29		
W.Yr.Tot:	3	15000.	90164.	33658.	0.						
T.SYS.This Mo		285.	39857.	32855.	-45600.	Lake excl diked bays:	4482.10	-7.24		73474.	283023.
Water Yr Cumm		56389.	332697.	472771.	-302701.						

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	CALCIUM CARBONATE PRECIPITATION-----/								
									mg/l	Tons	mg/l	Tons	mg/l	Tons	#/Ft2	Acc	
MAIN_LK	1	1131.	262.	58.	95.	28.	334.	244.	375.	9.	2673.	34.	10228.	43.	12900.	0.011	2.31
W.Yr.Avg:		995.	221.	58.	79.	24.	283.	244.	314.								
PROVO B	2	444.	49.	46.	33.	8.	55.	220.	137.	46.	3.	104.	7.	151.	10.	0.005	2.19
W.Yr.Avg:		473.	50.	61.	33.	7.	55.	242.	136.								
GOSHEN B	3	1303.	320.	43.	114.	35.	413.	205.	452.	15.	1217.	51.	4271.	66.	5489.	0.013	2.14
W.Yr.Avg:		1145.	265.	52.	92.	29.	345.	233.	370.								
Jordan R. est.																	
Hist. Qual.		1198.	227.	58.	77.	27.	327.	244.	342.								

***Water yr tot. water bal. flow is -9811. (trib 81)

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TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 336 -- Month Sep 1957
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0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4484.20	0.21	6.43 0.00
PROVO B	2	4484.20	0.21	6.43 1.00
GOSHEN B	3	4484.20	0.09	6.43 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	988.	30296.	28951.	-39100.	298876.	-11204.	4483.70	-5.64	56224.	310079.	
W.Yr.Tot:	1	67996.	232823.	425773.	-211200.		Avg EOM stage	4484.27				
PROVO B	2	29.	879.	5952.	0.	7060.	5918.	4483.70	-5.64	1374.	1142.	
W.Yr.Tot:	2	3078.	11087.	86140.	0.		Avg EOM stage	4484.27				
GOSHEN B	3	163.	11638.	5905.	0.	99178.	5285.	4483.70	-5.64	21421.	93893.	
W.Yr.Tot:	3	23792.	91179.	61602.	0.		Avg EOM stage	4484.27				
T.SYS.This Mo		1180.	42813.	40808.	-39100.	Lake excl diked bays:	4483.70	-5.64		79019.	405114.	
Water Yr Cumm		94866.	335089.	573515.	-211200.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds.	Na	Ca	Mg	K	Cl	HCO3	SO4	CALCIUM CARBONATE PRECIPITATION-----/							
									Del mg/l	CA Tons	Del mg/l	HCO3 Tons	Del mg/l	CACO3 Tons	#/Ft2	Acc
MAIN_LK	1	937.	205.	58.	77.	23.	259.	244.	295.	6.	2576.	25.	10531.	31.	13107. 0.011	2.38
W.Yr.Avg:		916.	198.	58.	73.	22.	252.	244.	284.							
PROVO B	2	466.	56.	46.	37.	9.	63.	220.	147.	41.	63.	109.	170.	150.	233. 0.008	2.26
W.Yr.Avg:		454.	49.	61.	32.	7.	53.	242.	125.							
GOSHEN B	3	1007.	234.	43.	86.	26.	300.	205.	335.	14.	1814.	44.	5621.	58.	7434. 0.016	2.22
W.Yr.Avg:		1065.	243.	52.	86.	26.	314.	233.	341.							
Jordan R. est.																
Hist. Qual.		1102.	207.	58.	71.	25.	295.	244.	311.							

***Water yr tot. water bal. flow is 9487. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 348 -- Month Sep 1958

0 *** Period data

Bay	Hist beg	Hist precip	Model evap		
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4484.20	1.09	6.33	0.00
PROVO B	2	4484.20	1.09	6.33	1.00
GOSHEN B	3	4484.20	0.47	6.33	20.00

0 *** Period flows and interflows

Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft
MAIN_LK	1	5130.	29787.	30478.	-43200.	300953.	-9127.	4483.70	-5.64	56224.	310079.
W.Yr.Tot:	1	55376.	256412.	419469.	-271401.		Avg EOM stage	4485.19			
PROVO B	2	149.	865.	6634.	0.	7877.	6735.	4483.70	-5.64	1374.	1142.
W.Yr.Tot:	2	2961.	15210.	95036.	0.		Avg EOM stage	4485.19			
GOSHEN B	3	850.	11442.	2129.	0.	96284.	2391.	4483.70	-5.64	21421.	93893.
W.Yr.Tot:	3	20984.	101987.	51184.	0.		Avg EOM stage	4485.19			
T.SYS.This Mo		6129.	42095.	39241.	-43200.	Lake excl diked bays:	4483.70	-5.64		79019.	405114.
Water Yr Cumm		79321.	373610.	565689.	-271401.						

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/												
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA	Del HCO3	Del CaCO3	
								mg/l	Tons	mg/l	Tons	mg/l
MAIN_LK	1	960.	210.	58.	79.	23.	266.	244.	304.	6.	2614.	25.
W.Yr.Avg:		869.	183.	58.	69.	20.	233.	244.		265.		
PROVO B	2	465.	55.	46.	37.	9.	61.	220.	148.	40.	63.	102.
W.Yr.Avg:		470.	52.	61.	34.	8.	56.	242.	134.		159.	143.
GOSHEN B	3	1028.	239.	43.	89.	27.	306.	205.	342.	13.	1612.	42.
W.Yr.Avg:		970.	215.	52.	78.	24.	277.	233.	303.		5336.	54.
Jordan R. est.												
Hist. Qual.		1102.	207.	58.	71.	25.	295.	244.	311.			

***Water yr tot. water bal. flow is -18535. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWMSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 360 -- Month Sep 1959

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4482.90	1.92	5.60 0.00
PROVO B	2	4482.90	1.92	5.60 1.00
GOSHEN B	3	4482.90	1.76	5.60 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r Comp.	Area ac	Vol ac-ft		
MAIN_LK	1	8787.	25652.	15267.	-37300.	226554.	-11428.	4482.40	-6.94	54621.	237982.	
W.Yr.Tot:	1	61648.	234358.	304965.	-274001.		Avg EOM stage	4484.43				
PROVO B	2	74.	217.	6405.	0.	6595.	6493.	4482.40	-6.94	281.	102.	
W.Yr.Tot:	2	2553.	9056.	85965.	0.		Avg EOM stage	4484.43				
GOSHEN B	3	2934.	9346.	1335.	0.	72063.	4935.	4482.40	-6.94	19644.	67128.	
W.Yr.Tot:	3	19600.	90689.	33470.	0.		Avg EOM stage	4484.43				
T.SYS.This Mo		11796.	35215.	23007.	-37300.	Lake excl diked bays:	4482.40	-6.94	74545.	305212.		
Water Yr Cumm		83801.	334103.	424401.	-274001.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/															
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA mg/l	Del HCO3 Tons	Del CACO3 mg/l	#/Ft2	Acc		
MAIN_LK	1	1103.	256.	58.	92.	28.	325.	244.	365.	6.	1850.	22.	7078.	28.	8927. 0.008 2.56
W.Yr.Avg:		938.	204.	58.	75.	23.	259.	244.	293.						
PROVO B	2	435.	48.	46.	32.	8.	54.	220.	131.	44.	6.	103.	14.	148.	21. 0.003 2.43
W.Yr.Avg:		470.	51.	61.	33.	8.	55.	242.	132.						
GOSHEN B	3	1177.	284.	43.	103.	31.	365.	205.	403.	11.	1042.	37.	3391.	49.	4433. 0.010 2.38
W.Yr.Avg:		1050.	237.	53.	86.	26.	305.	235.	334.						
Jordan R. est.															
Hist. Qual.		1180.	223.	58.	76.	26.	321.	244.	336.						

***Water yr tot. water bal. flow is -8383. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 372 -- Month Sep 1960

0 *** Period data

Bay	Hist beg	Hist precip	Model evap		
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4481.40	0.91	6.30	0.00
PROVO B	2	4481.40	0.91	6.30	1.00
GOSHEN B	3	4481.40	0.56	6.30	20.00

0 *** Period flows and interflows

Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft
MAIN_LK	1	3988.	27644.	20925.	-30800.	150536.	-7239.	4480.90	-8.44	52066.	157774.
W.Yr.Tot:	1	41717.	241719.	299477.	-234501.			Avg EOM stage	4483.22		
PROVO B	2	1.	8.	5692.	0.	5704.	5693.	4480.90	-8.44	14.	11.
W.Yr.Tot:	2	1138.	4647.	75786.	0.			Avg EOM stage	4483.22		
GOSHEN B	3	792.	8924.	1150.	0.	41428.	1545.	4480.90	-8.44	16375.	39883.
W.Yr.Tot:	3	13262.	88621.	30562.	0.			Avg EOM stage	4483.22		
T.SYS.This Mo		4782.	36576.	27768.	-30800.	Lake excl diked bays:	4480.90	-8.44		68455.	197668.
Water Yr Cumm		56117.	334987.	405826.	-234501.						

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

-----CALCIUM CARBONATE PRECIPITATION-----															
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del mg/l	CA Tons	Del HCO3 mg/l	Del CACO3 Tons	#/Ft2	Acc	
MAIN_LK	1	1363.	344.	58.	116.	36.	439.	244.	472.	12.	2544.	45.	9590.	57.	12134. 0.011 2.66
W.Yr.Avg:		1068.	248.	58.	87.	27.	316.	244.	347.						
PROVO B	2	439.	47.	46.	32.	8.	54.	220.	135.	46.	1.	99.	1.	146.	2. 0.007 2.49
W.Yr.Avg:		468.	49.	61.	32.	7.	54.	242.	133.						
GOSHEN B	3	1637.	428.	43.	146.	46.	551.	205.	588.	17.	918.	61.	3293.	78.	4210. 0.012 2.46
W.Yr.Avg:		1220.	292.	53.	101.	31.	376.	235.	403.						
Jordan R. est.															
Hist. Qual.		1271.	242.	58.	81.	28.	350.	244.	366.						

***Water yr tot. water bal. flow is -7222. (trib 81)

1

TABLE UT LK SIMULATION--RUN .044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

O ***SUMMARY INFORMATION FOR TIME PERIOD 384 -- Month Sep 1961

8 *** Period data

Period Data		Bay	Hist beg	Hist precip	Model evap	
Name	No.	Stage ft	In.	In.	% Intermix	
MAIN_LK	1	4480.50	2.44	4.97	0.00	
PROVO B	2	4480.50	2.44	4.97	1.00	
GOSHEN B	3	4480.50	1.75	4.97	20.00	

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L	
	Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r Comp.	Area ac	Vol ac-ft		
MAIN_LK	1	10311.	20993.	7254.	-5600.	128100.	-4019.	4480.40	-8.94	50544.	132119.		
W.Yr.Tot:	1	54112.	213850.	199279.	-119000.		Avg EOM stage	4482.03					
PROVO B	2	2.	4.	5544.	0.	5548.	5543.	4480.40	-8.94	9.	5.		
W.Yr.Tot:	2	343.	1155.	73821.	0.		Avg EOM stage	4482.03					
GOSHEN B	3	2221.	6306.	1092.	0.	30472.	-1524.	4480.40	-8.94	15091.	31996.		
W.Yr.Tot:	3	16618.	72736.	29020.	0.		Avg EOM stage	4482.03					
0 T.SYS.This Mo		12534.	27303.	13891.	-5600.	Lake excl diked bays:	4480.40	-8.94	65644.	164120.			
0 Water Yr Cumm		71073.	287741.	302120.	-119000.								

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

/-----CALCIUM CARBONATE PRECIPITATION-----

***Water yr tot. water bal. flow is 15239. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 396 -- Month Sep 1962

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4482.10	0.59	6.71 0.00
PROVO B	2	4482.10	0.59	6.71 1.00
GOSHEN B	3	4482.10	0.35	6.71 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	2658.	30269.	53157.	-40100.	207110.	-3728.	4481.90	-7.44	53954.	210838.	
W.Yr.Tot:	1	72571.	227875.	417934.	-207600.		Avg EOM stage	4482.50				
PROVO B	2	3.	31.	6083.	0.	6104.	6075.	4481.90	-7.44	22.	29.	
W.Yr.Tot:	2	833.	3079.	85618.	0.		Avg EOM stage	4482.50				
GOSHEN B	3	553.	10609.	3919.	0.	55173.	-2347.	4481.90	-7.44	18762.	57520.	
W.Yr.Tot:	3	21830.	83051.	27086.	0.		Avg EOM stage	4482.50				
T.SYS.This Mo		3214.	40908.	63159.	-40100.	Lake excl diked bays:	4481.90	-7.44		72738.	268387.	
Water Yr Cumm		95234.	314005.	530638.	-207600.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

-----CALCIUM CARBONATE PRECIPITATION-----												
Bay	Tds	Na	Ca	Mg	K	Cl	HCO ₃	SO ₄	Del CA	Del HCO ₃	Del CACO ₃	
									mg/l	Tons	mg/l	Tons
MAIN_LK	1	1063.	251.	58.	87.	26.	318.	244.	349.	12.	3403.	42.
W.Yr.Avg:		1166.	293.	58.	95.	30.	371.	244.	393.			
PROVO B	2	429.	46.	46.	32.	8.	52.	220.	128.	45.	2.	103.
W.Yr.Avg:		448.	46.	61.	31.	7.	51.	242.	122.			
GOSHEN B	3	1449.	385.	43.	127.	40.	492.	205.	518.	19.	1482.	61.
W.Yr.Avg:		1452.	383.	53.	121.	39.	491.	233.	504.		4797.	80.
Jordan R. est.												
Hist. Qual.		1210.	230.	58.	78.	27.	331.	244.	346.			

***Water yr tot. water bal. flow is -568. (trib 81)

1

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 408 -- Month Sep 1963

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4482.00	1.29	5.97 0.00
PROVO B	2	4482.00	1.29	5.97 1.00
GOSHEN B	3	4482.00	1.75	5.97 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r Comp.	Area ac	Vol ac-ft		
MAIN_LK	1	5806.	26879.	32156.	-25200.	202099.	-8739.	4481.90	-7.44	53954.	210838.	
W.Yr.Tot:	1	58810.	220550.	314559.	-193500.		Avg EOM stage	4482.96				
PROVO B	2	2.	11.	5826.	0.	5849.	5820.	4481.90	-7.44	22.	29.	
W.Yr.Tot:	2	1124.	3191.	75561.	0.		Avg EOM stage	4482.96				
GOSHEN B	3	2752.	9391.	7712.	0.	60440.	2919.	4481.90	-7.44	18762.	57520.	
W.Yr.Tot:	3	20626.	81218.	27781.	0.		Avg EOM stage	4482.96				
T.SYS.This Mo		8560.	36281.	45695.	-25200.	Lake excl diked bays:	4481.90	-7.44	72738.	268387.		
Water Yr Cumm		80560.	304960.	417901.	-193500.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/																	
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	mg/l	Tons	mg/l	Tons	mg/l	Tons	#/Ft2	Acc	
MAIN_LK	1	1128.	262.	58.	90.	28.	338.	244.	362.	9.	2511.	29.	8440.	38.	10951.	0.009	2.90
W.Yr.Avg:		1028.	238.	58.	81.	25.	304.	244.	326.								
PROVO B	2	439.	47.	46.	32.	8.	53.	220.	135.	47.	2.	100.	4.	146.	6.	0.012	2.68
W.Yr.Avg:		468.	48.	61.	32.	7.	53.	242.	134.								
GOSHEN B	3	1309.	330.	43.	110.	35.	426.	205.	447.	16.	1284.	45.	3521.	61.	4804.	0.012	2.67
Jordan R. est.																	
Hist. Qual.		1210.	230.	58.	78.	27.	331.	244.	346.								

***Water yr tot. water bal. flow is -19655. (trib 81)

1

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 420 -- Month Sep 1964

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4483.80	0.00	6.74 0.00
PROVO B	2	4483.80	0.00	6.74 1.00
GOSHEN B	3	4483.80	0.27	6.74 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	0.	31428.	25453.	-38400.	271310.	-10804.	4483.20	-6.14	55630.	282114.	
W.Yr.Tot:	1	70754.	222581.	382515.	-193300.		Avg EOM stage	4483.77				
PROVO B	2	0.	668.	5965.	0.	6580.	6005.	4483.20	-6.14	905.	575.	
W.Yr.Tot:	2	2554.	8219.	81463.	0.		Avg EOM stage	4483.77				
GOSHEN B	3	476.	11882.	3508.	0.	88135.	4799.	4483.20	-6.14	20794.	83336.	
W.Yr.Tot:	3	23571.	85983.	46866.	0.		Avg EOM stage	4483.77				
T.SYS.This Mo		476.	43978.	34926.	-38400.	Lake excl diked bays:	4483.20	-6.14		77329.	366026.	
Water Yr Cumm		96878.	316784.	510844.	-193300.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/															
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA		Del HCO3		Del CACO3		
									mg/l	Tons	mg/l	Tons	mg/l	Tons	#/Ft2
MAIN_LK	1	1030.	233.	58.	79.	26.	301.	244.	319.	8.	2953.	29.	11047.	36.	14000. 0.012 2.98
W.Yr.Avg:		978.	217.	58.	73.	24.	281.	244.	297.						
PROVO B	2	464.	54.	46.	36.	9.	62.	220.	146.	44.	35.	113.	88.	157.	123. 0.006 2.75
W.Yr.Avg:		462.	49.	61.	32.	8.	54.	242.	129.						
GOSHEN B	3	1124.	270.	43.	91.	30.	351.	205.	367.	14.	1641.	47.	5316.	61.	6957. 0.015 2.74
W.Yr.Avg:		1123.	263.	52.	86.	28.	343.	233.	352.						
Jordan R. est.															
Hist. Qual.		1132.	214.	58.	73.	25.	305.	244.	321.						

***Water yr tot. water bal. flow is 8399. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 432 -- Month Sep 1965

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4484.80	2.08	5.33 0.00
PROVO B	2	4484.80	2.08	5.33 1.00
GOSHEN B	3	4484.80	1.65	5.33 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	9935.	25482.	24786.	-21900.	359902.	-6950.	4484.70	-4.64	57290.	366852.	
W.Yr.Tot:	1	61591.	233526.	435122.	-204500.		Avg EOM stage	4485.10				
PROVO B	2	445.	1140.	6663.	0.	9281.	6222.	4484.70	-4.64	2502.	3058.	
W.Yr.Tot:	2	2989.	13686.	90904.	0.		Avg EOM stage	4485.10				
GOSHEN B	3	3101.	10026.	5406.	0.	116601.	728.	4484.70	-4.64	22510.	115873.	
W.Yr.Tot:	3	24357.	92833.	49341.	0.		Avg EOM stage	4485.10				
T.SYS.This Mo		13480.	36648.	36855.	-21900.	Lake excl diked bays:	4484.70	-4.64	82299.	485784.		
Water Yr Cumm		88937.	340045.	575368.	-204500.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/															
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	mg/l	Del CA	Del HCO3	Del CACO3	#/Ft2	Acc	
MAIN_LK	1	980.	213.	58.	73.	24.	278.	244.	294.	4.	1998.	14.	6857.	18.	8855. 0.007 3.06
W.Yr.Avg:		927.	200.	58.	68.	22.	260.	244.	274.						
PROVO B	2	473.	58.	46.	38.	9.	65.	220.	150.	33.	139.	87.	362.	121.	501. 0.009 2.85
W.Yr.Avg:		478.	54.	61.	34.	8.	58.	242.	135.						
GOSHEN B	3	1020.	236.	43.	80.	26.	309.	205.	323.	11.	1772.	32.	4996.	43.	6768. 0.014 2.82
W.Yr.Avg:		1042.	237.	52.	79.	26.	310.	231.	319.						
Jordan R. est.															
Hist. Qual.		1041.	195.	58.	68.	23.	276.	244.	291.						

***Water yr tot. water bal. flow is 1748. (trib 81)

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TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86.000 a.f. Strawberry Rel.

=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 444 -- Month Sep 1966
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0 *** Period data

Bay	Hist beg	Hist precip	Model evap		
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4483.80	0.93	6.26	0.00
PROVO B	2	4483.80	0.93	6.26	1.00
GOSHEN B	3	4483.80	0.97	6.26	20.00

0 *** Period flows and interflows

Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft
MAIN_LK	1	4346.	29276.	33377.	-41100.	283034.	-10204.	4483.40	-5.94	55873.	293236.
W.Yr.Tot:	1	41126.	261251.	366485.	-281201.		Avg EOM stage	4485.60			
PROVO B	2	99.	667.	6448.	0.	7163.	6400.	4483.40	-5.94	1082.	764.
W.Yr.Tot:	2	2624.	15490.	86800.	0.		Avg EOM stage	4485.60			
GOSHEN B	3	1721.	11112.	4665.	0.	91307.	3803.	4483.40	-5.94	21054.	87503.
W.Yr.Tot:	3	14340.	103958.	46245.	0.		Avg EOM stage	4485.60			
0 T.SYS.This Mo		6166.	41055.	44490.	-41100.	Lake excl diked bays:	4483.40	-5.94		78010.	381503.
0 Water Yr Cumm		58089.	380700.	499530.	-281201.						

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

/-----CALCIUM CARBONATE PRECIPITATION-----/												
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA	Del HCO3	Del CACO3	
									mg/l	Tons	mg/l	Tons
MAIN_LK	1	1132.	258.	58.	88.	29.	336.	244.	357.	7.	2876.	27.
W.Yr.Avg:		965.	209.	58.	72.	23.	272.	244.	288.			
PROVO B	2	463.	55.	46.	35.	9.	62.	220.	145.	43.	45.	107.
W.Yr.Avg:		491.	57.	61.	35.	8.	61.	242.	142.			
GOSHEN B	3	1219.	292.	43.	99.	33.	382.	205.	400.	14.	1639.	43.
W.Yr.Avg:		1059.	238.	53.	80.	26.	313.	234.	322.			
Jordan R. est.												
Hist. Qual.		1120.	211.	58.	72.	25.	301.	244.	317.			

***Water yr tot. water bal. flow is -28025. (trib 81)

1

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 456 -- Month Sep 1967
=====

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4484.30	0.60	6.14 0.00
PROVO B	2	4484.30	0.60	6.14 1.00
GOSHEN B	3	4484.30	0.97	6.14 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	2829.	28980.	27847.	-43000.	302692.	-12995.	4483.80	-5.54	56339.	315686.	
W.Yr.Tot:	1	61475.	239890.	377699.	-246901.		Avg EOM stage	4484.92				
PROVO B	2	87.	894.	6266.	0.	7613.	6330.	4483.80	-5.54	1475.	1283.	
W.Yr.Tot:	2	3027.	12772.	86478.	0.		Avg EOM stage	4484.92				
GOSHEN B	3	1763.	11168.	5159.	0.	102697.	6664.	4483.80	-5.54	21538.	96033.	
W.Yr.Tot:	3	31883.	94880.	65379.	0.		Avg EOM stage	4484.92				
T.SYS.This Mo		4680.	41042.	39273.	-43000.	Lake excl diked bays:	4483.80	-5.54		79352.	413002.	
Water Yr Cumm		96386.	347542.	529555.	-246901.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/												
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	mg/l	Del CA	Del HCO3	Del CACO3
									Tons			
MAIN_LK	1	1050.	235.	58.	81.	26.	304.	244.	324.	6.	2521.	23.
W.Yr.Avg:		996.	219.	58.	75.	24.	284.	244.	302.			9687.
PROVO B	2	475.	59.	46.	38.	9.	66.	220.	150.	40.	69.	107.
W.Yr.Avg:		474.	54.	61.	34.	8.	58.	242.	133.			186.
GOSHEN B	3	1100.	259.	43.	89.	29.	337.	205.	356.	13.	1698.	39.
W.Yr.Avg:		1093.	250.	52.	84.	28.	327.	229.	339.			5130.
Jordan R. est.												52.
Hist. Qual.		1095.	206.	58.	71.	24.	294.	244.	309.			6829.
										#/Ft2		0.010
										Acc		3.24

***Water yr tot. water bal. flow is -2028. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 468 -- Month Sep 1968
=====

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap	
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4484.90	0.22	6.22	0.00
PROVO B	2	4484.90	0.22	6.22	1.00
GOSHEN B	3	4484.90	0.18	6.22	20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r Comp.	Area ac	Vol ac-ft		
MAIN_LK	1	1048.	29632.	20795.	-39100.	331414.	-12580.	4484.30	-5.04	56886.	343994.	
W.Yr.Tot:	1	84113.	239996.	373595.	-252401.		Avg EOM stage	4485.41				
PROVO B	2	44.	1237.	7026.	0.	9402.	7248.	4484.30	-5.04	2020.	2154.	
W.Yr.Tot:	2	5527.	15217.	98243.	0.		Avg EOM stage	4485.41				
GOSHEN B	3	336.	11609.	3170.	0.	112276.	5332.	4484.30	-5.04	22095.	106943.	
W.Yr.Tot:	3	32612.	95963.	49577.	0.		Avg EOM stage	4485.41				
T.SYS.This Mo		1428.	42478.	30991.	-39100.	Lake excl diked bays:	4484.30	-5.04	81001.	453092.		
Water Yr Cumm		122252.	351176.	521414.	-252401.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

-----CALCIUM CARBONATE PRECIPITATION-----																	
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	Del CA	Del HCO3	Del CACO3						
									mg/l	Tons	mg/l	Tons	mg/l	Tons	#/Ft2	Acc	
MAIN_LK	1	1006.	222.	58.	79.	25.	285.	244.	311.	6.	2972.	26.	12153.	32.	15124.	0.012	3.33
W.Yr.Avg:		935.	201.	58.	71.	22.	259.	244.	280.								
PROVO B	2	477.	59.	46.	38.	10.	66.	220.	152.	37.	108.	101.	296.	138.	404.	0.009	3.13
W.Yr.Avg:		467.	52.	61.	33.	8.	56.	242.	130.								
GOSHEN B	3	1042.	242.	43.	85.	27.	313.	205.	336.	13.	1838.	41.	5925.	53.	7763.	0.016	3.07
Jordan R. est.																	
Hist. Qual.		1065.	200.	58.	69.	24.	284.	244.	299.								

***Water yr tot. water bal. flow is -43462. (trib 81)

1

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 480 -- Month Sep 1969
=====

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4485.00	0.22	6.56 0.00
PROVO B	2	4485.00	0.22	6.56 1.00
GOSHEN B	3	4485.00	0.54	6.56 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r Comp.	Area ac	Vol ac-ft		
MAIN_LK	1	1051.	31363.	26390.	-39200.	340921.	-14452.	4484.50	-4.84	57098.	355373.	
W.Yr.Tot:	1	73849.	263486.	422030.	-302001.		Avg EOM stage	4485.94				
PROVO B	2	47.	1403.	7374.	0.	9844.	7298.	4484.50	-4.84	2248.	2546.	
W.Yr.Tot:	2	5122.	18889.	108552.	0.		Avg EOM stage	4485.94				
GOSHEN B	3	1015.	12340.	7198.	0.	118510.	7153.	4484.50	-4.84	22310.	111357.	
W.Yr.Tot:	3	29097.	106496.	68406.	0.		Avg EOM stage	4485.94				
T.SYS.This Mo		2113.	45106.	40963.	-39200.	Lake excl diked bays:	4484.50	-4.84	81656.	469276.		
Water Yr Cumm		108067.	388871.	598989.	-302001.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

	CALCIUM CARBONATE PRECIPITATION-----/											
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	mg/l	Del CA	Del HCO3	Del CACO3
									Tons	mg/l	Tons	mg/l
MAIN_LK	1	1001.	218.	58.	78.	24.	281.	244.	308.	7.	3157.	26.
W.Yr.Avg:		897.	189.	58.	68.	21.	243.	244.	267.			
PROVO B	2	493.	62.	46.	40.	10.	70.	220.	161.	37.	12457.	32.
W.Yr.Avg:		467.	52.	61.	33.	8.	56.	242.	131.		15614.	0.013
GOSHEN B	3	1003.	229.	43.	82.	26.	296.	205.	322.	13.	353.	482.
W.Yr.Avg:		982.	217.	52.	75.	24.	282.	231.	299.		139.	0.010
Jordan R. est.												3.23
Hist. Qual.		1053.	198.	58.	68.	23.	280.	244.	295.			
												3.15

***Water yr tot. water bal. flow is 16435. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

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=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 492 -- Month Sep 1970
=====
0 *** Period data
      Bay Hist beg Hist precip Model evap
      Name No. Stage ft   In.     In. % Intermix
      MAIN_LK 1 4484.80 2.53    6.19    0.00
      PROVO B 2 4484.80 2.53    6.19    1.00
      GOSHEN B 3 4484.80 2.37    6.19    20.00
-----
0 *** Period flows and interflows
0
      Bay Precip Evap Sum trib Jordan Vol before Interflow F I N A L
      Name No. ac-ft ac-ft Inflow ac-ft River Interflow Vol ac-ft Stage w/r Comp. Area ac Vol ac-ft
      ----
      MAIN_LK 1 12052. 29480. 20581. -39200. 336517. -13167. 4484.40 -4.94 56992. 349684.
      W.Yr.Tot: 1 93015. 235136. 360281. -302001. Avg EOM stage 4485.98
      PROVO B 2 502. 1228. 7704. 0. 10292. 7942. 4484.40 -4.94 2134. 2350.
      W.Yr.Tot: 2 6116. 16279. 106393. 0. Avg EOM stage 4485.98
      GOSHEN B 3 4423. 11550. 3381. 0. 114375. 5225. 4484.40 -4.94 22203. 109150.
      W.Yr.Tot: 3 32226. 94743. 42035. 0. Avg EOM stage 4485.98
0 T.SYS.This Mo 16978. 42258. 31667. -39200. Lake excl diked bays: 4484.40 -4.94 81328. 461184.
0 Water Yr Cumm 131358. 346159. 508709. -302001.
-----
0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)
+
      /-----CALCIUM CARBONATE PRECIPITATION-----/
      Bay Tds Na Ca Mg K Cl HCO3 SO4 Del CA Del HCO3 Del CACO3
      mg/l Tons mg/l Tons mg/l Tons #/Ft2 Acc
      ----
      MAIN_LK 1 1018. 225. 58. 77. 25. 291. 244. 311. 5. 2189. 17. 8249. 22. 10437. 0.008 3.50
      W.Yr.Avg: 911. 193. 58. 68. 21. 250. 244. 269.
      PROVO B 2 462. 56. 46. 36. 9. 64. 220. 142. 34. 109. 90. 286. 124. 395. 0.009 3.32
      W.Yr.Avg: 470. 54. 61. 33. 8. 58. 242. 130.
      GOSHEN B 3 1051. 244. 43. 84. 27. 318. 205. 336. 11. 1612. 33. 4832. 43. 6445. 0.013 3.23
      W.Yr.Avg: 988. 218. 52. 75. 24. 285. 231. 299.
      Jordan R. est.
      Hist. Qual. 1059. 199. 58. 69. 24. 282. 244. 297.
-----
***Water yr tot. water bal. flow is 14612. (trib 81)
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TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====
0 ***SUMMARY INFORMATION FOR TIME PERIOD 504 -- Month Sep 1971
=====

0 *** Period data

	Bay	Hist beg	Hist precip	Model evap
Name	No.	Stage ft	In.	In. % Intermix
MAIN_LK	1	4485.30	1.33	6.14 0.00
PROVO B	2	4485.30	1.33	6.14 1.00
GOSHEN B	3	4485.30	1.59	6.14 20.00

0 *** Period flows and interflows

	Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r	Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	6388.	29514.	25000.	-39200.	364043.	-14261.	4484.90	-4.44	57481.	378303.	
W.Yr.Tot:	1	76711.	246755.	437696.	-302001.		Avg EOM stage	4486.26				
PROVO B	2	336.	1551.	7575.	0.	11153.	7584.	4484.90	-4.44	2756.	3570.	
W.Yr.Tot:	2	5320.	19044.	106901.	0.		Avg EOM stage	4486.26				
GOSHEN B	3	3032.	11719.	6201.	0.	127056.	6677.	4484.90	-4.44	22710.	120379.	
W.Yr.Tot:	3	32484.	100513.	50269.	0.		Avg EOM stage	4486.26				
T.SYS.This Mo		9755.	42784.	38775.	-39200.	Lake excl diked bays:	4484.90	-4.44		82940.	502252.	
Water Yr Cumm		114515.	366311.	594866.	-302001.							

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	CALCIUM CARBONATE PRECIPITATION-----/								
									Del CA	Del HCO3	Del CACO3	mg/l	Tons	mg/l	Tons	mg/l	Tons
MAIN_LK	1	1025.	224.	58.	76.	25.	293.	244.	308.	5.	2716.	19.	10002.	25.	12719.	0.010	3.59
W.Yr.Avg:		917.	194.	58.	66.	21.	254.	244.	267.								
PROVO B	2	496.	62.	46.	40.	10.	71.	220.	162.	33.	160.	89.	430.	122.	590.	0.010	3.43
W.Yr.Avg:		475.	53.	61.	34.	8.	58.	242.	134.								
GOSHEN B	3	1045.	241.	43.	81.	27.	316.	205.	329.	12.	1942.	34.	5627.	46.	7569.	0.015	3.31
Jordan R. est.																	
Hist. Qual.		1029.	193.	58.	67.	23.	272.	244.	287.								

***Water yr tot. water bal. flow is -6483. (trib 81)

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 516 -- Month Sep 1972

0 *** Period data

Bay	Hist beg	Hist precip	Model evap		
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4485.00	0.65	6.35	0.00
PROVO B	2	4485.00	0.65	6.35	1.00
GOSHEN B	3	4485.00	0.81	6.35	20.00

0 *** Period flows and interflows

Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	3102.	30303.	18120.	-39200.	335762.	-13922.	4484.40	-4.94	56992.	349684.
W.Yr.Tot:	1	40058.	251826.	416663.	-302001.		Avg EOM stage	4486.44			
PROVO B	2	136.	1327.	7148.	0.	9783.	7433.	4484.40	-4.94	2134.	2350.
W.Yr.Tot:	2	2854.	19409.	97842.	0.		Avg EOM stage	4486.44			
GOSHEN B	3	1519.	11906.	3390.	0.	115640.	6489.	4484.40	-4.94	22203.	109150.
W.Yr.Tot:	3	22532.	102642.	54861.	0.		Avg EOM stage	4486.44			
T.SYS.This Mo		4756.	43535.	28657.	-39200.	Lake excl diked bays:	4484.40	-4.94	81328.	461184.	
Water Yr Cumm		65444.	373878.	569366.	-302001.						

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	CALCIUM CARBONATE PRECIPITATION-----/								
									Del CA	Del HCO3	Del CACO3						
mg/l	Tons	mg/l	Tons	mg/l	Tons	#/Ft2	Acc										
MAIN_LK	1	1121.	249.	58.	83.	27.	329.	244.	340.	6.	3011.	24.	11238.	30.	14250.	0.011	3.69
W.Yr.Avg:		949.	201.	58.	68.	22.	265.	244.	276.								
PROVO B	2	500.	63.	46.	40.	10.	73.	220.	163.	36.	115.	96.	306.	132.	421.	0.009	3.54
W.Yr.Avg:		492.	57.	61.	35.	8.	63.	242.	142.								
GOSHEN B	3	1139.	265.	43.	88.	29.	351.	205.	360.	12.	1819.	39.	5716.	51.	7536.	0.016	3.39
W.Yr.Avg:		1018.	224.	53.	74.	24.	297.	234.	302.								
Jordan R. est.																	
Hist. Qual.		1059.	199.	58.	69.	24.	282.	244.	297.								

***Water yr tot. water bal. flow is -31891. (trib 81)

1

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***SUMMARY INFORMATION FOR TIME PERIOD 528 -- Month Sep 1973

0 *** Period data

Bay	Hist beg	Hist precip	Model evap		
Name	No.	Stage ft	In.	In.	% Intermix
MAIN_LK	1	4486.20	1.65	5.80	0.00
PROVO B	2	4486.20	1.65	5.80	1.00
GOSHEN B	3	4486.20	1.24	5.80	20.00

0 *** Period flows and interflows

Bay	Precip	Evap	Sum trib	Jordan	Vol before	Interflow	F	I	N	A	L
Name	No.	ac-ft	ac-ft	Inflow ac-ft	River	Interflow	Vol ac-ft	Stage w/r Comp.	Area ac	Vol ac-ft	
MAIN_LK	1	8074.	28380.	35049.	-39200.	429303.	-6910.	4485.90	-3.44	58589.	436213.
W.Yr.Tot:	1	73374.	239097.	489546.	-302001.		Avg EOM stage	4486.72			
PROVO B	2	600.	2108.	7618.	0.	14446.	7423.	4485.90	-3.44	4193.	7023.
W.Yr.Tot:	2	5168.	21115.	113481.	0.		Avg EOM stage	4486.72			
GOSHEN B	3	2448.	11450.	1366.	0.	143022.	-514.	4485.90	-3.44	23587.	143535.
W.Yr.Tot:	3	36472.	98856.	68616.	0.		Avg EOM stage	4486.72			
T.SYS.This Mo		11122.	41937.	44032.	-39200.	Lake excl diked bays:	4485.90	-3.44	86080.	586771.	
Water Yr Cumm		115013.	359069.	671643.	-302001.						

0 *** WATER QUALITY AT THE END OF THE PERIOD (mg/l)

CALCIUM CARBONATE PRECIPITATION-----/																	
Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4	mg/l	Tons	mg/l	Tons	mg/l	Tons	#/Ft2	Acc	
MAIN_LK	1	960.	202.	58.	70.	23.	265.	244.	279.	4.	2507.	17.	10055.	21.	12562.	0.010	3.77
W.Yr.Avg:		926.	193.	58.	66.	21.	255.	244.	266.								
PROVO B	2	495.	65.	46.	41.	11.	75.	220.	157.	24.	231.	72.	683.	96.	914.	0.010	3.65
W.Yr.Avg:		460.	52.	61.	33.	8.	57.	242.	124.								
GOSHEN B	3	987.	220.	43.	75.	25.	292.	205.	303.	10.	1944.	31.	6103.	41.	8047.	0.016	3.47
W.Yr.Avg:		1005.	220.	52.	73.	24.	292.	230.	297.								
Jordan R. est.																	
Hist. Qual.		969.	180.	58.	63.	22.	252.	244.	267.								

***Simulation is ended

1 TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***Average Water Quality for the Entire Simulation (mg/l) *** (arithmetic avg--monthly)

Bay	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4							
MAIN_LK	1	1063.	244.	58.	82.	26.	316.	244.	332.						
PROVO B	2	474.	52.	61.	34.	8.	55.	242.	136.						
GOSHEN B	3	1215.	291.	52.	95.	30.	380.	233.	389.						

For these avg's all monthly TDS values over 2000 mg/l in Main Lk, and 2500 in Goshen Bay
were reduced to these values--Na, K, Cl, SO4 proportionately also

AVERAGE LAKE STAGES FOR THE SIMULATION PERIOD

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Entire Sim	
MAIN_LK	1	4484.81	4485.37	4485.85	4486.08	4485.84	4485.32	4484.46	4483.75	4483.26	4483.30	4483.74	4484.29	4484.67
PROVO B	2	4484.81	4485.37	4485.85	4486.08	4485.84	4485.32	4484.46	4483.75	4483.26	4483.30	4483.74	4484.29	4484.67
GOSHEN B	3	4484.81	4485.37	4485.85	4486.08	4485.84	4485.32	4484.46	4483.75	4483.26	4483.30	4483.74	4484.29	4484.67

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***TOTAL SALT SUMMARY FOR THE SIMULATION

T O N S---cummulative for the entire simulation period

	Tds	Na	Ca	Mg	K	Cl	HCO ₃	SO ₄
Trib. inflow	19157452.	3157277.	2292246.	1073950.	335160.	4080677.	8599232.	4306358.
OLake outflow	14119436.	3132559.	832937.	1065267.	333465.	4062426.	3484561.	4287272.
Lake . .								
Beginning	747054.	138375.	37451.	47618.	16562.	196660.	165875.	206869.
Ending	766368	163127	43449	56305	18253	214914	186981	225974

1 TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***TRIBUTARY FLOWS AND SALT QUANTITIES
 SALTS-- AVG. ANNUAL TONS -- FOR THIS SIMULATION, pct. based on the total lake sys, incl. diked bays

Trib:12 858. 465. 15. 96. 31. 4. 17. 328. 106.
Pct 0.17 0.107 0.020 0.184 0.129 0.054 0.019 0.168 0.108
12 Trib. Desc: T12 Drain--02 mi West, thence 1 mi So. of 6500 West and 7750 No.

Trib:13 2368. 1046. 37. 232. 77. 9. 42. 782. 261.
Pct 0.48 0.240 0.051 0.445 0.316 0.123 0.045 0.400 0.266
13 Trib. Desc: T13 American Fork River--0.75 mile N of Am. Fork Boat Harbor on 100 W.

Trib:14 1570. 1037. 34. 218. 73. 8. 43. 689. 250.
Pct 0.32 0.238 0.047 0.418 0.297 0.104 0.046 0.353 0.255
14 Trib. Desc: T14 Drain--0.1 mi West of 6400 North and 5750 West.

Trib:15 1797. 1045. 33. 212. 68. 7. 39. 696. 286.
Pct 0.36 0.240 0.047 0.408 0.280 0.087 0.042 0.356 0.292
15 Trib. Desc: T15 Drain--0.1 mi East of 6400 North and 5750 West.

Trib:16 1212. 934. 50. 180. 59. 7. 49. 532. 278.
Pct 0.25 0.215 0.069 0.345 0.243 0.091 0.053 0.272 0.284
16 Trib. Desc: T16 Drain--0.1 mi South of 6400 North and 5300 West.

Trib:17 3061. 2034. 81. 383. 141. 20. 108. 1302. 512.
Pct 0.62 0.467 0.113 0.735 0.579 0.268 0.117 0.666 0.523
17 Trib. Desc: T17 Drain--0.25 mi West thence 0.15 mile South of 4850 & 6400 N.

Trib:18 14115. 11146. 777. 1790. 806. 119. 719. 6954. 2298.
Pct 2.86 2.560 1.083 3.436 3.301 1.561 0.776 3.558 2.348
18 Trib. Desc: T18 Geneva Cannery Drain--4250 West and 5600 North.

Trib:19 2. 2. 0. 0. 0. 0. 0. 1. 0.
Pct 0.00 0.000 0.000 0.000 0.001 0.001 0.000 0.001 0.000
19 Trib. Desc: T19 Drain--0.15 mile N of Geneva effluent recording station on W Geneva Rd.

Trib:20 20007. 16646. 1137. 2162. 805. 517. 1825. 6659. 3807.
Pct 4.05 3.823 1.584 4.149 3.298 6.782 1.967 3.407 3.890
20 Trib. Desc: T20 Geneva Steel Drain--Geneva effluent recording station.

Trib:21 29. 24. 3. 3. 2. 1. 2. 21. 3.
Pct 0.01 0.005 0.004 0.005 0.008 0.014 0.002 0.011 0.003
21 Trib. Desc: T21 Drain--0.2 mile S of Geneva effluent recording station on W Geneva Rd.

Trib:22 20. 9. 0. 2. 1. 0. 0. 8. 1.
Pct 0.00 0.002 0.001 0.004 0.002 0.002 0.000 0.004 0.001
22 Trib. Desc: T22 Drain--0.5 mile S of Geneva effluent recording station on W Geneva Rd.

Trib:23 80. 64. 7. 7. 7. 2. 7. 59. 3.
Pct 0.02 0.015 0.009 0.013 0.030 0.024 0.008 0.030 0.003
23 Trib. Desc: T23 Drain--0.9 mile S of Geneva effluent recording station on W Geneva Rd.

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

--Continued

Bay 1

Trib:85	1122.	6100.	1571.	366.	137.	168.	2440.	702.	1144.
Pct	0.23	1.401	2.189	0.703	0.562	2.202	2.631	0.359	1.169
85 Trib. Desc: T85 Main Lake--Lincoln-Point-East-quality grouped unknown mineral springs.									
Trib:56	436.	3909.	1007.	237.	77.	110.	1510.	361.	829.
Pct	0.09	0.898	1.403	0.455	0.315	1.439	1.629	0.185	0.847
56 Trib. Desc: T56 Main Lake: Mineral Springs at Lincoln Point - West Springs.									
Trib:86	2710.	24309.	6262.	1473.	479.	681.	9392.	2247.	5157.
Pct	0.55	5.583	8.726	2.828	1.962	8.946	10.127	1.150	5.269
86 Trib. Desc: T86 Main Lake: Lincoln-Point-West-quality grouped unknown mineral springs.									
Trib:57	1813.	17745.	4978.	838.	320.	444.	7961.	1676.	2193.
Pct	0.37	4.076	6.938	1.608	1.313	5.824	8.584	0.858	2.241
57 Trib. Desc: T57 Main Lake: Mineral Springs at Bird Island.									
Trib:87	3376.	33039.	9269.	1560.	597.	826.	14822.	3120.	4084.
Pct	0.68	7.588	12.918	2.995	2.444	10.843	15.982	1.597	4.173
87 Trib. Desc: T87 Main Lake: Bird-Island-quality grouped unknown mineral springs.									
Trib:66	35113.	16538.	1128.	2819.	1316.	150.	1128.	12028.	3383.
Pct	7.11	3.798	1.571	5.411	5.390	1.974	1.216	6.154	3.456
66 Trib. Desc: T66 Main Lake: Surface wash and very shallow seepage around the shoreline.									
Trib:67	27665.	11656.	752.	2068.	827.	150.	902.	8723.	1955.
Pct	5.61	2.677	1.048	3.969	3.389	1.974	0.973	4.463	1.998
67 Trib. Desc: T67 Main Lake: Fresh GW inflow, Spanish Fk to Jordan R (Northwest quad).									
Trib:68	12002.	5187.	604.	832.	375.	98.	408.	4127.	636.
Pct	2.43	1.191	0.841	1.597	1.537	1.285	0.440	2.112	0.650
68 Trib. Desc: T68 Main Lake: Fresh GW inflow Spanish Fk to West Mtn (Southwest quad).									
Trib:69	-36483.	-19861.	-1354.	-3385.	-1354.	-181.	-1354.	-14444.	-4062.
Pct	-7.39	-4.562	-1.887	-6.498	-5.548	-2.370	-1.460	-7.391	-4.151
69 Trib. Desc: T69 Total Lake: Unmeasured inflow--assigned to Main Lake during Hist. calib.									

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====										
---Continued										
Bay 1										
Trib. flow(avg)										
(af/yr)	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4		
Trib:70	206.	121.	13.	20.	6.	3.	18.	88.	14.	
Pct	0.04	0.028	0.018	0.038	0.023	0.033	0.020	0.045	0.014	
70	Trib. Desc: T70	Lehi WWTP Effluent.	(closed in 1980)							
Trib:71	0.	0.	0.	0.	0.	0.	0.	0.	0.	
Pct	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
71	Trib. Desc: T71	Timpanogos WWTP Effluent.	(North end Utah Valley)							
Trib:72	381.	223.	23.	36.	10.	5.	34.	163.	26.	
Pct	0.08	0.051	0.032	0.070	0.042	0.061	0.036	0.083	0.026	
72	Trib. Desc: T72	Pleasant Grove WWTP Effluent.	(closed in 1980)							
Trib:75	126.	99.	11.	13.	7.	3.	10.	75.	10.	
Pct	0.03	0.023	0.015	0.025	0.028	0.034	0.011	0.038	0.010	
75	Trib. Desc: T75	Salem WWTP Effluent.								
Trib:76	448.	426.	55.	64.	18.	9.	79.	253.	30.	
Pct	0.09	0.098	0.076	0.123	0.075	0.120	0.085	0.129	0.031	
76	Trib. Desc: T76	Payson WWTP Effluent								
Trib:81	-4197.	-2510.	-171.	-428.	-171.	-23.	-171.	-1825.	-513.	
Pct	-0.85	-0.576	-0.238	-0.821	-0.701	-0.300	-0.185	-0.934	-0.525	
81	Trib. Desc: T81	Total Lake: Unmeas. Inflow	(to get balance during misc. simulation runs.)							
Trib:30	86043.	18710.	1169.	4093.	1637.	234.	702.	18710.	1754.	
Pct	17.43	4.297	1.630	7.856	6.707	3.070	0.757	9.574	1.792	
30	Trib. Desc: T30	CUP Inflow from Strawberry Lake--Utah Lake demands, M&I exchange								
Trib:80	1033.	983.	604.	121.	180.	11.	531.	920.	920.	
Pct	0.21	0.226	0.841	0.232	0.736	0.147	0.572	0.471	0.940	
80	Trib. Desc: T80	Return flow: Irrig & M & I -- Span Fk and Peteetneet (No Mosida/Elberta)								
Trib:78	12677.	12061.	7409.	1482.	2205.	138.	6513.	11285.	11285.	
Pct	2.57	2.770	10.325	2.844	9.035	1.809	7.022	5.774	11.531	
78	Trib. Desc: T78	Irrig. Return flow--Utah County Return Flows QX26 ULWSM								

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***TRIBUTARY FLOWS AND SALT QUANTITIES
SALTS-- AVG. ANNUAL TONS -- FOR THIS SIMULATION, pct. based on the total lake sys, incl. diked bays

	Bay 2 PROVO B	Trib. flow(avg) (af/yr)	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4
					tons/yr					
Trib:31	1653.	930.	43.	211.	56.	10.	56.	690.	173.	
Pct	0.33	0.214	0.060	0.405	0.230	0.136	0.061	0.353	0.177	
31	Trib. Desc: T31	Little Dry Cr.--0.1 mile W thence 0.25 mile S of 560 S and 2470 W.								
Trib:32	805.	425.	19.	104.	25.	4.	25.	351.	70.	
Pct	0.16	0.098	0.027	0.200	0.103	0.057	0.027	0.180	0.072	
32	Trib. Desc: T32	Drain--0.25 mi S and 250 ft W of 1600 W and 1150 S.								
Trib:33	151.	61.	6.	12.	4.	1.	5.	57.	4.	
Pct	0.03	0.014	0.009	0.023	0.018	0.009	0.006	0.029	0.004	
33	Trib. Desc: T33	Flowing well--0.5 M S of 1600 W & 1150 S & 50' N of culv. at Big Dry Cr.								
Trib:34	6218.	3245.	149.	727.	177.	35.	186.	2484.	625.	
Pct	1.26	0.745	0.207	1.395	0.727	0.455	0.200	1.271	0.639	
34	Trib. Desc: T34	Big Dry Creek--0.5 mile South of 1600 West and 1150 South.								
Trib:35	1055.	449.	20.	95.	23.	5.	22.	341.	70.	
Pct	0.21	0.103	0.028	0.182	0.094	0.060	0.023	0.175	0.072	
35	Trib. Desc: T35	11th West Ditch--in pasture approx 600 ft SE of 1100 W & 1560 S.								
Trib:36	789.	400.	19.	94.	25.	4.	23.	320.	61.	
Pct	0.16	0.092	0.026	0.181	0.101	0.056	0.024	0.164	0.062	
36	Trib. Desc: T36	5th West Ditch--1560 South and 500 West.								
Trib:37	993.	582.	26.	135.	35.	5.	31.	463.	97.	
Pct	0.20	0.134	0.036	0.259	0.144	0.071	0.033	0.237	0.099	
37	Trib. Desc: T37	University Ditch--0.25 mi SSE of 1420 S and Univ. Ave.								
Trib:38	8973.	4890.	427.	902.	293.	62.	646.	3390.	683.	
Pct	1.82	1.123	0.595	1.732	1.199	0.816	0.697	1.735	0.698	
38	Trib. Desc: T38	Mill Race--350 East and 1500 South.								
Trib:39	8318.	4861.	509.	791.	226.	102.	735.	3561.	565.	
Pct	1.69	1.117	0.709	1.519	0.926	1.336	0.792	1.822	0.578	
39	Trib. Desc: T39	Provo WWTP Effluent.								
Trib:40	1727.	1056.	66.	185.	70.	59.	89.	784.	146.	
Pct	0.35	0.243	0.092	0.356	0.289	0.771	0.096	0.401	0.149	
40	Trib. Desc: T40	Drain--0.35 mi South of Provo WWTP thence 0.27 mi East.								
Trib:41	3726.	2005.	124.	400.	152.	20.	111.	1691.	309.	
Pct	0.75	0.461	0.172	0.768	0.622	0.266	0.120	0.865	0.316	
41	Trib. Desc: T41	Rat Farm Drain--0.35 mi South of Provo WWTP thence 0.3 mi East.								
Trib:42	15287.	15842.	846.	2713.	885.	150.	933.	5780.	6044.	
Pct	3.10	3.638	1.178	5.208	3.626	1.964	1.006	2.957	6.175	
42	Trib. Desc: T42	Steel Mill Drain--2770 South 1050 East near Kuhni Packing Plant.								
Trib:43	4814.	3644.	236.	687.	209.	40.	268.	2009.	1014.	
Pct	0.98	0.837	0.328	1.319	0.858	0.524	0.289	1.028	1.036	
43	Trib. Desc: T43	Spring Creek--0.55 mi South of Kuhni Packing Plant.								
Trib:44	13339.	5167.	221.	1160.	290.	36.	272.	4278.	852.	
Pct	2.70	1.187	0.308	2.227	1.188	0.476	0.293	2.189	0.871	

44 Trib. Desc: T44 Hobble Creek--0.4 mi East of 750 East and 2800 South.

Trib:45 4442. 2910. 169. 507. 229. 31. 169. 2288. 477.
Pct 0.90 0.668 0.236 0.973 0.940 0.404 0.182 1.171 0.487

45 Trib. Desc: T45 Packard Drain--on Frontage Rd. 0.85 mi North of 3900 South.

Trib:46 3128. 2241. 276. 340. 179. 19. 157. 1679. 400.
Pct 0.63 0.515 0.384 0.653 0.732 0.246 0.170 0.859 0.408

46 Trib. Desc: T46 Drain--0.35 mile West of Freeway on 3900 South.

Trib:47 7772. 9161. 1607. 823. 485. 137. 1180. 5054. 1878.
Pct 1.57 2.104 2.239 1.579 1.986 1.803 1.272 2.586 1.919

47 Trib. Desc: T47 Dry Creek--0.85 mile West of Freeway on 4000 South.

Trib:73 1594. 910. 76. 173. 43. 13. 130. 682. 108.
Pct 0.32 0.209 0.106 0.333 0.177 0.171 0.140 0.349 0.111

73 Trib. Desc: T73 Springville WWTP Effluent.

Trib:74 1287. 1819. 297. 184. 70. 44. 341. 840. 385.
Pct 0.26 0.418 0.414 0.353 0.287 0.574 0.368 0.430 0.393

74 Trib. Desc: T74 Spanish Fork WWTP Effluent.

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

=====										
0 ***TRIBUTARY FLOWS AND SALT QUANTITIES										
SALTS-- AVG. ANNUAL TONS -- FOR THIS SIMULATION, pct. based on the total lake sys, incl. diked bays										

Bay	3 GOSHEN B	Trib. flow(avg) (af/yr)	Tds	Na	Ca	Mg	K	Cl	HCO3	SO4
tons/yr										
Trib:52	6123.	26696.	6812.	656.	949.	467.	10103.	3149.	5557.	
Pct	1.24	6.131	9.493	1.259	3.888	6.126	10.894	1.612	5.678	
52 Trib. Desc:	T52	White Lake--Overflow into Goshen Bay.								
Trib:58	726.	1333.	355.	79.	30.	30.	395.	247.	326.	
Pct	0.15	0.306	0.495	0.152	0.121	0.389	0.426	0.126	0.333	
58 Trib. Desc:	T58	Goshen Bay: Mineral Springs on East side of Goshen Bay.								
Trib:88	571.	1048.	279.	62.	23.	23.	310.	194.	256.	
Pct	0.12	0.241	0.389	0.119	0.095	0.306	0.335	0.099	0.262	
88 Trib. Desc:	T88	Goshen Bay: East-side-quality grouped unknown mineral springs.								
Trib:60	23409.	19044.	2506.	2882.	1002.	376.	3257.	8018.	4260.	
Pct	4.74	4.374	3.492	5.531	4.106	4.934	3.512	4.103	4.352	
60 Trib. Desc:	T60	Goshen Bay: Surface wash and very shallow seepage around the shoreline.								
Trib:61	3328.	5202.	362.	543.	588.	181.	995.	1990.	1493.	
Pct	0.67	1.195	0.504	1.042	2.409	2.375	1.073	1.018	1.525	
61 Trib. Desc:	T61	Goshen Bay: Groundwater-- Westside Smith Property Area.								
Trib:62	7419.	7058.	1311.	706.	403.	101.	1714.	2722.	1311.	
Pct	1.50	1.621	1.827	1.355	1.652	1.324	1.848	1.393	1.339	
62 Trib. Desc:	T62	Goshen Bay: Groundwater--Westside Mosida Bay N.(Fitzgerald well #2 quality)								
Trib:64	2496.	2409.	577.	204.	68.	68.	814.	712.	339.	
Pct	0.51	0.553	0.804	0.391	0.278	0.891	0.878	0.365	0.347	
64 Trib. Desc:	T64	Goshen Bay: Groundwater-- Westside - Southend (Elberta Church well).								
Trib:63	0.	0.	0.	0.	0.	0.	0.	0.	0.	
Pct	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
63 Trib. Desc:	T63	Return flows from Elberta Area								

TABLE UT LK SIMULATION--RUN.044 ULWSM 10/12/98 DFT Interim Operation - 86,000 a.f. Strawberry Rel.

0 ***WATER BALANCE FOR THE SIMULATION -- 528 Month

	Bay	Precip ac-ft	Evap ac-ft	Trib Inflow ac-ft	Beginning Stage	Ending Stage					
	Total	Avg/yr	Total	Avg/yr	Total	Avg/yr	Volume				
MAIN_LK	1	2772893.	63020.	10421547.	236853.	15988241.	363369.	4484.70	366852.	4485.90	436213.
PROVO B	2	128544.	2921.	511055.	11615.	3787153.	86072.	4484.70	3059.	4485.90	7023.
GOSHEN B	3	970323.	22053.	4057819.	92223.	1939182.	44072.	4484.70	115873.	4485.90	143535.
Total Lake:		3871760.	87995.	14990421.	340691.	21714576.	493513.		485784.		586771.
(Excluding diked bays, if any)											

0 ***Total Lake -- ac-ft (Excluding diked bays, if any)
repeated Total Avg annual

Total precipitation =	3871760.	87995.
Total evaporation =	14990421.	340691.
Total trib. inflow =	21714576.	493513.
Total trib. outflow =	-10494926.	-238521.
Other overflow =	0.	(ending volume has been adjusted for overflow)
Beginning volume =	485784.	Stage= 4484.70
Ending volume =	586771.	Stage= 4485.90

0 Check= 2.5 (if not near zero -prog error or other overflow equals)

***Run Desc: Information on this simulation run--
 Time period --Begin Oct 1929 and end Sep 1973 (44 yrs)
 Input data --Based on actual and correlated data as
 updated and correlated in 1994.
 Evaporation --Updated 1992 data using Morton's model.
 Outflow qual. --Jordan River at Lake quality during simulation.

