

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 1	261.0	0.0	0.0	261.0	0.00	261.0	0.0	0.0	0.0	261.0	0.0	0.0
9	Howell to Chilly	May 1	0.0	0.0	0.0	-261.0	1.00		0.0	0.0	0.0	0.0	0.0	0.0
8	Chilly to Reservoir ***Disconnected***	* May 1	150.3	5.0	0.0	155.3	0.00	155.3	5.0	0.0	0.0	150.3	0.0	0.0
7	Mackay Reservoir	* May 1	136.5	0.0	0.0	150.3	0.00	150.3	150.3		0.0	0.0	136.5	0.0
6	Reservoir to 2B	May 1	136.0	0.5	0.0	0.0	0.00	150.3	0.0	0.5	0.0	0.0	136.0	0.0
5	2B to Leslie	May 1	71.6	3.0	0.0	-61.4	0.45	150.3	0.0	3.0	0.0	0.0	71.6	0.0
4	Leslie to Moore	May 1	0.0	0.0	0.0	-71.6	1.00		0.0	0.0	0.0	0.0	0.0	0.0
2	Moore to blw Munsey	May 1	0.0	9.8	12.3	0.2	0.00	150.5	0.0	0.2	9.6	0.2	-0.2	0.0
1	Blw Munsey to Arco	May 1	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.2	-0.2	0.0
* - Indicates flow estimated, not measured							TOTAL		155.3	3.7	9.6			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 1	0.0	0.0	19160207	1%	1	18800630	3.2	556.5	6.3
9	Howell to Chilly	May 1	0.0	0.0	19160207	1%	2	18810630	1.7	294.0	3.4
8	Chilly to Reservoir ***Disconnected***	May 1	0.0	0.0	19160207	1%	3	18880601	3.2	556.5	6.3
							4	18960601	6.4	1113.0	12.7
7	Mackay Reservoir	May 1	0.0	0.0	19160207	1%	5	19020301	0.8	140.0	1.6
6	Reservoir to 2B	May 1	0.0	0.0	19160207	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 1	0.0	61.4	19160207	1%	7	19160207 Unlimited		17205.0	17131.8
4	Leslie to Moore	May 1	0.0	71.6	19160207	1%	8	19590902 Unlimited		6000.0	0.0
2	Moore to blw Munsey	May 1	0.0	0.0	19160207	1%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 1	0.0	0.0	19160207	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			0.0	133.0		0.0		TOTAL		346511.0	37808.2

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37510.0	37520.0	10.0	5.0	8.8

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	298.2
Total Storage Loss	-263.5
Total Storage Deliver	-7.3
Total Evaporation	-17.4
Accounting Balance	<u>37519.9</u>
Current Res Content	37520.0
Storage Balance Error	-0.1

DAILY STORAGE BALANCE

37510.0 Reservoir Content Previous Day [ac-ft]
37520.0 Reservoir Content Current Day [ac-ft]
10.0 Physical Change in Storage [ac-ft]

298.2 Storage Allocated to Mackay Reservoir [ac-ft]
-263.5 Stored Flow Losses [ac-ft]
-61.4 2B to Leslie [cfs]
-71.6 Leslie to Moore [cfs]
0.0 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.2 Past Arco Gage [cfs]
-7.3 Storage Delivered [ac-ft]
--- Above Reservoir [cfs]
0.5 Reservoir to 2B [cfs]
3.0 2B to Leslie [cfs]
0.0 Leslie to Moore [cfs]
0.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-17.4 Evaporation [ac-ft]
10.0 Accounting Change in Storage [ac-ft]

0.0 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

150.3 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.2 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

150.5 Total Available Natural Flow [cfs]

150.3 Reservoir Rights Diverted [cfs]
0.2 Natural Flow Losses below Reservoir [cfs]
0.0 2B to Leslie [cfs]
0.0 Leslie to Moore [cfs]
0.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.2 Natural Flow Past Arco Gage [cfs]
0.0 Natural Flow Delivered [cfs]
--- Above Reservoir Storage Use [cfs]
0.0 Reservoir to 2B [cfs]
0.0 2B to Leslie [cfs]
0.0 Leslie to Moore [cfs]
0.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

150.5 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	0.2	10
Eastside Felton Wier +	0.0	0
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	0.0	0
Munsey Schureman (IN) Wells In +	7.0	348
Munsey Telford Isom Wells In +	0.0	0
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	0.0	0
Arco Standlee OD Wells IN (Island)	0.0	0
Total In	12.5	624
Groundwater to Arco	5.3	266
Groundwater to Munsey	7.0	348

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	0.0	0
Eastside Richard Reynolds Delivery +	0.0	0
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	9.8	490
Total Out	9.8	490
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.79	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 78.5%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 9.6 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 0.2 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 0.2 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= %
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 0.0 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 0.0 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 0.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 0.0%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	0.0	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	0.5	0.5	1.0
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	3.0	3.0	6.0
9 BITTON	0.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	0.0	0.0	0.0
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	0.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	0.0	0.0	0.0	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	0.0	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	0.0	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	0.0	0.0	0.0
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	0.0	0.0	0.0
9 LONGHURST	0.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.0	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.0	0.0	0.0
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	0.0	0.0	0.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	0.0	0.0	0.0
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	0.0	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	0.0	0.0	0.0	8 Stoecklein 1	0.0	0.0	0.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	0.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	0.0	0.0	0.0
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	0.0	0.0	0.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	4.8	0.6	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	5.0	-0.5	0.0
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.0	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.0	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	0.0	0.0	0.0	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	0.0	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	5.0	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	0.0	0.0
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	0.0	0.0	2 SCHUREMAN EXCHAN	7.0	27.6
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	0.0	0.0	2 RASMUSSEN EXCHAN	5.3	21.1
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	0.0	0.0	2 WADDOUPS GW INTO	0.0	0.0

Reach Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10 Howell Gage	May 2	276.0	0.0	0.0	276.0	0.00	276.0	0.0	0.0	0.0	276.0	0.0	0.0
9 Howell to Chilly	May 2	0.0	0.0	0.0	-276.0	1.00		0.0	0.0	0.0	0.0	0.0	0.0
8 Chilly to Reservoir ***Disconnected***	* May 2	156.4	5.0	0.0	161.4	0.00	161.4	5.0	0.0	0.0	156.4	0.0	0.0
7 Mackay Reservoir	* May 2	177.5	0.0	0.0	156.4	0.00	156.4	156.4		0.0	0.0	177.5	0.0
6 Reservoir to 2B	May 2	177.0	0.5	0.0	0.0	0.00	156.4	0.0	0.5	0.0	0.0	177.0	0.0
5 2B to Leslie	May 2	103.0	3.0	0.0	-71.0	0.40	156.4	0.0	3.0	0.0	0.0	103.0	0.0
4 Leslie to Moore	May 2	0.0	0.0	0.0	-103.0	1.00		0.0	0.0	0.0	0.0	0.0	0.0
2 Moore to blw Munsey	May 2	0.0	0.0	12.3	-9.8	0.00	156.4	0.0	0.0	9.8	0.0	0.0	0.0
1 Blw Munsey to Arco	May 2	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
* - Indicates flow estimated, not measured						TOTAL		161.4	3.5	9.8			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10 Howell Gage	May 2	0.0	0.0		19590902	1%	1	18800630	3.2	556.5	12.7
9 Howell to Chilly	May 2	0.0	0.0		19590902	1%	2	18810630	1.7	294.0	6.7
8 Chilly to Reservoir ***Disconnected***	May 2	0.0	0.0		19590902	1%	3	18880601	3.2	556.5	12.7
							4	18960601	6.4	1113.0	25.4
7 Mackay Reservoir	May 2	0.0	0.0		19590902	1%	5	19020301	0.8	140.0	3.2
6 Reservoir to 2B	May 2	0.0	0.0		19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5 2B to Leslie	May 2	0.0	71.0		19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4 Leslie to Moore	May 2	0.0	103.0		19590902	1%	8	19590902 Unlimited		6000.0	206.7
2 Moore to blw Munsey	May 2	0.0	9.8		19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1 Blw Munsey to Arco	May 2	0.0	0.0		19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL		0.0	183.8	0.0				TOTAL		346511.0	38118.4

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37520.0	37460.0	-60.0	-30.2	9.2

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	608.4
Total Storage Loss	-628.1
Total Storage Deliver	-14.3
Total Evaporation	-35.6
Accounting Balance	<u>37440.4</u>
Current Res Content	37460.0
Storage Balance Error	-19.6

DAILY STORAGE BALANCE

37520.0 Reservoir Content Previous Day [ac-ft]
37460.0 Reservoir Content Current Day [ac-ft]
-60.0 Physical Change in Storage [ac-ft]

310.3 Storage Allocated to Mackay Reservoir [ac-ft]
-364.6 Stored Flow Losses [ac-ft]
-71.0 2B to Leslie [cfs]
-103.0 Leslie to Moore [cfs]
-9.8 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
12.5 Storage Delivered [ac-ft]
--- Above Reservoir [cfs]
0.5 Reservoir to 2B [cfs]
3.0 2B to Leslie [cfs]
0.0 Leslie to Moore [cfs]
-9.8 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-18.2 Evaporation [ac-ft]
-60.0 Accounting Change in Storage [ac-ft]

0.0 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

156.4 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

156.4 Total Available Natural Flow [cfs]

156.4 Reservoir Rights Diverted [cfs]
0.0 Natural Flow Losses below Reservoir [cfs]
0.0 2B to Leslie [cfs]
0.0 Leslie to Moore [cfs]
0.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
0.0 Natural Flow Delivered [cfs]
--- Above Reservoir Storage Use [cfs]
0.0 Reservoir to 2B [cfs]
0.0 2B to Leslie [cfs]
0.0 Leslie to Moore [cfs]
0.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

156.4 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	0.0	0
Eastside Felton Wier +	0.0	0
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	0.0	0
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	0.0	0
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	0.0	0
Arco Standlee OD Wells IN (Island)	0.0	0
Total In	12.3	615
Groundwater to Arco	5.3	266
Groundwater to Munsey	7.0	349

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	0.0	0
Eastside Richard Reynolds Delivery +	0.0	0
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	9.8	490
Total Out	9.8	490
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.80	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 79.7%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 9.8 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 0.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 0.0 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 0.0%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 0.0 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 0.0 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 0.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 0.0%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	0.0	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	0.5	0.5	2.0
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	3.0	3.0	11.9
9 BITTON	0.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	0.0	0.0	0.0
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	0.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	0.0	0.0	0.0	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	0.0	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	0.0	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	0.0	0.0	0.0
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	0.0	0.0	0.0
9 LONGHURST	0.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.0	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.0	0.0	0.0
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	0.0	0.0	0.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	0.0	0.0	0.0
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	0.0	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	0.0	0.0	0.0	8 Stoecklein 1	0.0	0.0	0.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	0.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	0.0	0.0	0.0
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	0.0	0.0	0.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	0.0	-4.2	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	0.0	-5.6	0.0
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.0	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.0	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	0.0	0.0	0.0	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	0.0	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	5.0	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	0.0	0.0
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	0.0	0.0	2 SCHUREMAN EXCHAN	7.0	55.3
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	0.0	0.0	2 RASMUSSEN EXCHAN	5.3	42.2
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	0.0	0.0	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 3	306.0	0.0	0.0	306.0	0.00	306.0	0.0	0.0	0.0	306.0	0.0	0.0
9	Howell to Chilly	May 3	0.0	67.3	0.0	-238.7	1.00	67.3	62.0	5.3	0.0	5.3	-5.3	0.0
8	Chilly to Reservoir ***Disconnected***	* May 3	147.1	55.8	0.0	202.9	0.00	270.2	53.7	2.1	0.0	154.4	-7.3	0.0
7	Mackay Reservoir	* May 3	177.5	0.0	0.0	147.1	0.00	147.1	144.9		0.0	2.1	175.4	0.0
6	Reservoir to 2B	May 3	177.0	0.5	0.0	0.0	0.00	147.1	0.0	0.5	0.0	2.1	174.9	0.0
5	2B to Leslie	May 3	120.0	7.0	0.0	-50.0	0.28	147.1	1.5	5.5	0.0	0.0	120.0	0.0
4	Leslie to Moore	May 3	0.0	6.1	0.0	-113.9	0.95	147.1	0.0	6.1	0.0	0.0	0.0	0.0
2	Moore to blw Munsey	May 3	0.0	0.0	12.3	-15.2	0.00	147.1	0.0	0.0	15.2	0.0	0.0	0.0
1	Blw Munsey to Arco	May 3	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
* - Indicates flow estimated, not measured							TOTAL		262.2	19.5	15.2			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 3	0.0	0.0	19590902	1%	1	18800630	3.2	556.5	19.0
9	Howell to Chilly	May 3	0.0	0.0	19590902	1%	2	18810630	1.7	294.0	10.1
8	Chilly to Reservoir ***Disconnected***	May 3	0.0	0.0	19590902	1%	3	18880601	3.2	556.5	19.0
							4	18960601	6.4	1113.0	38.1
7	Mackay Reservoir	May 3	0.0	0.0	19590902	1%	5	19020301	0.8	140.0	4.8
6	Reservoir to 2B	May 3	0.0	0.0	19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 3	0.6	49.4	19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 3	0.0	113.9	19590902	1%	8	19590902 Unlimited		6000.0	463.9
2	Moore to blw Munsey	May 3	0.0	15.2	19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 3	0.0	0.0	19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			0.6	178.5		0.0		TOTAL		346511.0	38405.9

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37460.0	37380.0	-80.0	-40.3	9.9

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	895.9
Total Storage Loss	-982.2
Total Storage Deliver	-38.3
Total Evaporation	-55.3
Accounting Balance	<u>37330.1</u>
Current Res Content	37380.0
Storage Balance Error	-49.9

DAILY STORAGE BALANCE

37460.0 Reservoir Content Previous Day [ac-ft]
37380.0 Reservoir Content Current Day [ac-ft]
-80.0 Physical Change in Storage [ac-ft]

287.5 Storage Allocated to Mackay Reservoir [ac-ft]
-354.1 Stored Flow Losses [ac-ft]
-49.4 2B to Leslie [cfs]
-113.9 Leslie to Moore [cfs]
-15.2 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
6.1 Storage Delivered [ac-ft]
--- Above Reservoir [cfs]
0.5 Reservoir to 2B [cfs]
5.5 2B to Leslie [cfs]
6.1 Leslie to Moore [cfs]
-15.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-19.7 Evaporation [ac-ft]
-80.2 Accounting Change in Storage [ac-ft]

-0.2 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

147.1 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

147.1 Total Available Natural Flow [cfs]

144.9 Reservoir Rights Diverted [cfs]
0.6 Natural Flow Losses below Reservoir [cfs]
0.6 2B to Leslie [cfs]
0.0 Leslie to Moore [cfs]
0.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
1.5 Natural Flow Delivered [cfs]
--- Above Reservoir Storage Use [cfs]
0.0 Reservoir to 2B [cfs]
1.5 2B to Leslie [cfs]
0.0 Leslie to Moore [cfs]
0.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

147.0 Natural Flow Delivered & Lost [cfs]

0.1 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	0.0	0
Eastside Felton Wier +	0.0	0
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	0.0	0
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	0.0	0
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	0.0	0
Arco Standlee OD Wells IN (Island)	0.0	0
Total In	12.3	615
Groundwater to Arco	5.3	266
Groundwater to Munsey	7.0	349

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	0.0	0
Eastside Richard Reynolds Delivery +	0.0	0
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	15.2	760
Total Out	15.2	760
Abbreviated Reach Delivery Factor Total Out Divided By Total In	1.24	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 123.6%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 15.2 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 0.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 0.0 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 0.0%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 0.0 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 0.0 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 0.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 0.0%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	0.0	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	0.5	0.5	3.0
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	4.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	4.0	2.5	16.8
9 BITTON	0.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	3.0	3.0	6.0
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	5.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	28.9	0.5	1.1	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	4.0	0.0	0.0	5 SUTTER	0.0	0.0	0.0
9 CHILLY	32.0	0.0	0.0	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	0.0	0.0	0.0
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	0.0	0.0	0.0
9 LONGHURST	0.0	0.0	0.0	8 Freeman/Hill Pum	2.5	0.3	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	5.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.0	0.0	0.0
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	0.0	0.0	0.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	0.0	0.0	0.0
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	0.0	0.0	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	7.0	1.5	3.0	8 Stoecklein 1	3.2	0.0	0.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	3.9	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	6.1	6.1	12.1
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	0.0	0.0	0.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	3.2	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	0.0	-6.6	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	0.0	-8.6	0.0
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	2.2	0.2	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.0	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	5.0	0.0	0.0	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	5.0	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	0.0	0.0
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	0.0	0.0	2 SCHUREMAN EXCHAN	7.0	83.0
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	0.0	0.0	2 RASMUSSEN EXCHAN	5.3	63.3
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	0.0	0.0	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 4	380.0	6.0	0.0	386.0	0.00	386.0	4.8	1.2	0.0	381.2	-1.2	0.0
9	Howell to Chilly	May 4	0.0	72.8	0.0	-307.2	1.00	78.8	66.9	6.0	0.0	7.2	-7.2	0.0
8	Chilly to Reservoir ***Disconnected***	* May 4	141.4	58.2	0.0	199.6	0.00	278.4	50.0	8.2	0.0	156.8	-15.4	0.0
7	Mackay Reservoir	* May 4	176.5	0.0	0.0	141.4	0.00	141.4	4.9		0.0	136.5	40.0	0.0
6	Reservoir to 2B	May 4	176.0	0.5	0.0	0.0	0.00	141.4	0.0	0.5	0.0	136.5	39.5	0.0
5	2B to Leslie	May 4	125.0	6.0	0.0	-45.0	0.26	141.4	2.1	3.9	0.0	99.6	25.4	0.0
4	Leslie to Moore	May 4	0.0	3.4	0.0	-121.6	0.97	141.4	0.0	3.4	0.0	2.7	-2.7	0.0
2	Moore to blw Munsey	May 4	0.0	28.9	27.9	10.3	0.00	151.7	13.0	-2.7	18.6	0.0	0.0	0.0
1	Blw Munsey to Arco	May 4	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		141.6	20.5	18.6			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 4	0.0	0.0	19590902	0%	1	18800630	3.2	556.5	25.4
9	Howell to Chilly	May 4	0.0	0.0	19590902	0%	2	18810630	1.7	294.0	13.5
8	Chilly to Reservoir ***Disconnected***	May 4	0.0	0.0	19590902	0%	3	18880601	3.2	556.5	19.0
							4	18960601	6.4	1113.0	38.1
7	Mackay Reservoir	May 4	0.0	0.0	18851002	78%	5	19020301	0.8	140.0	4.8
6	Reservoir to 2B	May 4	0.0	0.0	18851002	78%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 4	34.9	10.1	18851002	78%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 4	96.8	24.8	18851002	78%	8	19590902 Unlimited		6000.0	463.9
2	Moore to blw Munsey	May 4	0.0	0.0	18851002	78%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 4	0.0	0.0	18851002	78%	10	Rotation Unlimited		100000.0	0.0
TOTAL			131.7	34.9	0.0			TOTAL		346511.0	38415.6

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37380.0	37290.0	-90.0	-45.4	10.3

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	905.6
Total Storage Loss	-1051.4
Total Storage Deliver	-48.4
Total Evaporation	-75.7
Accounting Balance	<u>37240.1</u>
Current Res Content	37290.0
Storage Balance Error	-49.9

DAILY STORAGE BALANCE

```

37380.0 Reservoir Content Previous Day [ac-ft]
37290.0 Reservoir Content Current Day [ac-ft]
-90.0 Physical Change in Storage [ac-ft]
-----
  9.7 Storage Allocated to Mackay Reservoir [ac-ft]

-69.2 Stored Flow Losses [ac-ft]
  -10.1 2B to Leslie [cfs]
  -24.8 Leslie to Moore [cfs]
    0.0 Moore blw Munsey [cfs]
    0.0 blw Munsey to Arco Gage [cfs]
    0.0 Past Arco Gage [cfs]

-10.1 Storage Delivered [ac-ft]
  --- Above Reservoir [cfs]
    0.5 Reservoir to 2B [cfs]
    3.9 2B to Leslie [cfs]
    3.4 Leslie to Moore [cfs]
   -2.7 Moore to blw Munsey [cfs]
    0.0 blw Munsey to Arco Gage [cfs]

-20.4 Evaporation [ac-ft]

-90.0 Accounting Change in Storage [ac-ft]
-----
  0.0 Balance [ac-ft]
    
```

DAILY NATURAL FLOW BALANCE

```

141.4 Gain in/above Mackay Reservoir [cfs]
  0.0 Gain in Reach 5: 2-B to Leslie [cfs]
  0.0 Gain in Reach 4: Leslie to Moore [cfs]
 10.3 Gain in Reach 2: Moore to Munsey [cfs]
  0.0 Gain in Reach 1: Munsey to Arco [cfs]
-----
151.7 Total Available Natural Flow [cfs]
-----
  4.9 Reservoir Rights Diverted [cfs]

131.7 Natural Flow Losses below Reservoir [cfs]
  34.9 2B to Leslie [cfs]
  96.8 Leslie to Moore [cfs]
    0.0 Moore to blw Munsey [cfs]
    0.0 blw Munsey to Arco Gage [cfs]
    0.0 Natural Flow Past Arco Gage [cfs]

15.1 Natural Flow Delivered [cfs]
  --- Above Reservoir Storage Use [cfs]
    0.0 Reservoir to 2B [cfs]
    2.1 2B to Leslie [cfs]
    0.0 Leslie to Moore [cfs]
   13.0 Moore to blw Munsey [cfs]
    0.0 blw Munsey to Arco Gage [cfs]
-----
151.7 Natural Flow Delivered & Lost [cfs]
-----
  0.0 Balance [cfs]
    
```

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	0.0	0
Eastside Felton Wier +	0.0	0
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	0.0	0
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	7.8	388
Arco Standlee OD Wells IN (Island)	0.0	0
Total In	27.9	1393
Groundwater to Arco	13.1	654
Groundwater to Munsey	14.8	739

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	0.0	0
Eastside Richard Reynolds Delivery +	0.0	0
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	18.6	930
Total Out	18.6	930
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.67	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 66.8%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 18.6 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 0.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 0.0 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 0.0%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 0.0 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 0.0 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 0.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 0.0%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	6.0	1.2	2.4	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	0.5	0.5	4.0
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	3.0	0.9	18.6
9 BITTON	4.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	3.0	3.0	11.9
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	29.6	0.4	1.8	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	2.0	0.3	0.6	5 SUTTER	0.0	0.0	0.0
9 CHILLY	32.0	0.0	0.0	8 Broken River Dit	4.5	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	0.0	0.0	0.0
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	1.8	3.6
9 LONGHURST	0.0	0.0	0.0	8 Freeman/Hill Pum	2.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	5.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.0	0.0	0.0
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	3.0	0.6	1.1	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	3.2
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	2.0	4.0	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	10.0	4.5	12.0	8 Stoecklein 1	3.2	0.0	0.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	5.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	0.0	0.0	12.1
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	0.0	0.0	0.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	8.9	-2.7	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	20.0	10.1	20.1
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	5.5	0.8	1.5	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.8	30.8
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	0.0	0.0	2 SCHUREMAN EXCHAN	7.0	110.7
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	30.9	2 RASMUSSEN EXCHAN	5.3	84.4
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	0.0	0.0	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 5	497.0	6.0	0.0	503.0	0.00	503.0	4.8	1.2	0.0	498.2	-1.2	0.0
9	Howell to Chilly	May 5	0.0	72.8	0.0	-424.2	1.00	78.8	66.9	6.0	0.0	7.2	-7.2	0.0
8	Chilly to Reservoir ***Disconnected***	* May 5	162.6	58.2	0.0	220.8	0.00	299.7	50.0	8.2	0.0	178.0	-15.4	0.0
7	Mackay Reservoir	* May 5	188.5	0.0	0.0	162.6	0.00	162.6	147.9		0.0	14.7	173.8	0.0
6	Reservoir to 2B	May 5	184.0	4.5	0.0	0.0	0.00	162.6	0.0	4.5	0.0	14.7	169.3	0.0
5	2B to Leslie	May 5	124.0	6.0	0.0	-54.0	0.29	162.6	6.0	0.0	0.0	4.4	119.6	0.0
4	Leslie to Moore	May 5	0.0	23.6	0.0	-100.4	0.81	162.6	0.0	23.6	0.0	0.8	-0.8	0.0
2	Moore to blw Munsey	May 5	0.0	28.9	27.9	5.9	0.00	168.5	6.7	-0.8	23.0	0.0	0.0	0.0
1	Blw Munsey to Arco	May 5	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		282.3	42.7	23.0			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 5	0.0	0.0	19590902	1%	1	18800630	3.2	556.5	31.7
9	Howell to Chilly	May 5	0.0	0.0	19590902	1%	2	18810630	1.7	294.0	16.9
8	Chilly to Reservoir ***Disconnected***	May 5	0.0	0.0	19590902	1%	3	18880601	3.2	556.5	25.4
							4	18960601	6.4	1113.0	50.8
7	Mackay Reservoir	May 5	0.0	0.0	19590902	1%	5	19020301	0.8	140.0	6.3
6	Reservoir to 2B	May 5	0.0	0.0	19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 5	4.3	49.7	19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 5	3.6	96.8	19590902	1%	8	19590902 Unlimited		6000.0	726.9
2	Moore to blw Munsey	May 5	0.0	0.0	19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 5	0.0	0.0	19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			7.9	146.5		0.0		TOTAL		346511.0	38709.0

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37290.0	37210.0	-80.0	-40.3	14.5

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	1199.0
Total Storage Loss	-1342.0
Total Storage Deliver	-102.5
Total Evaporation	-104.4
Accounting Balance	<u>37160.1</u>
Current Res Content	37210.0
Storage Balance Error	-49.9

DAILY STORAGE BALANCE

37290.0 Reservoir Content Previous Day [ac-ft]
37210.0 Reservoir Content Current Day [ac-ft]
-80.0 Physical Change in Storage [ac-ft]

293.3 Storage Allocated to Mackay Reservoir [ac-ft]
-290.6 Stored Flow Losses [ac-ft]
-49.7 2B to Leslie [cfs]
-96.8 Leslie to Moore [cfs]
0.0 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-54.1 Storage Delivered [ac-ft]
--- Above Reservoir [cfs]
4.5 Reservoir to 2B [cfs]
0.0 2B to Leslie [cfs]
23.6 Leslie to Moore [cfs]
-0.8 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-28.7 Evaporation [ac-ft]
-80.1 Accounting Change in Storage [ac-ft]

-0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

162.6 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
5.9 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

168.5 Total Available Natural Flow [cfs]

147.9 Reservoir Rights Diverted [cfs]
7.9 Natural Flow Losses below Reservoir [cfs]
4.3 2B to Leslie [cfs]
3.6 Leslie to Moore [cfs]
0.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
12.7 Natural Flow Delivered [cfs]
--- Above Reservoir Storage Use [cfs]
0.0 Reservoir to 2B [cfs]
6.0 2B to Leslie [cfs]
0.0 Leslie to Moore [cfs]
6.7 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

168.5 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	0.0	0
Eastside Felton Wier +	0.0	0
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	0.0	0
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	7.8	388
Arco Standlee OD Wells IN (Island)	0.0	0
Total In	27.9	1393
Groundwater to Arco	13.1	654
Groundwater to Munsey	14.8	739

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	0.0	0
Eastside Richard Reynolds Delivery +	0.0	0
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	23.0	1150
Total Out	23.0	1150
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.83	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 82.6%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 23.0 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 0.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 0.0 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 0.0%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 0.0 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 0.0 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 0.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 0.0%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	6.0	1.2	4.8	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	4.5	4.5	12.9
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	3.0	0.0	18.6
9 BITTON	4.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	3.0	0.0	11.9
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	29.6	0.4	2.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	2.0	0.3	1.3	5 SUTTER	0.0	0.0	0.0
9 CHILLY	32.0	0.0	0.0	8 Broken River Dit	4.5	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	0.0	0.0	0.0
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	1.8	7.1
9 LONGHURST	0.0	0.0	0.0	8 Freeman/Hill Pum	2.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	5.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.0	0.0	0.0
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	3.0	0.6	2.3	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	6.3
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	2.0	7.9	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	10.0	4.5	21.0	8 Stoecklein 1	3.2	0.0	0.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	5.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	20.2	20.2	52.2
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	0.0	0.0	0.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	8.9	-2.5	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	20.0	6.9	33.8
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	5.5	0.8	3.0	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.8	61.6
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	0.0	0.0	2 SCHUREMAN EXCHAN	7.0	138.4
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	61.9	2 RASMUSSEN EXCHAN	5.3	105.5
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	0.0	0.0	2 WADDOUPS GW INTO	0.0	0.0

Reach Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10 Howell Gage	May 6	590.0	6.0	0.0	596.0	0.00	596.0	4.8	1.2	0.0	591.2	-1.2	0.0
9 Howell to Chilly	May 6	0.0	104.4	0.0	-485.6	1.00	110.4	87.9	16.5	0.0	17.7	-17.7	0.0
8 Chilly to Reservoir ***Disconnected***	* May 6	157.2	58.2	0.0	215.4	0.00	325.8	50.0	8.2	0.0	183.0	-25.9	0.0
7 Mackay Reservoir	* May 6	205.5	0.0	0.0	157.2	0.00	157.2	149.1		0.0	8.0	197.5	0.0
6 Reservoir to 2B	May 6	201.0	4.5	0.0	0.0	0.00	157.2	0.0	4.5	0.0	8.0	193.0	0.0
5 2B to Leslie	May 6	144.0	6.0	0.0	-51.0	0.25	157.2	6.0	0.0	0.0	0.0	144.0	0.0
4 Leslie to Moore	May 6	0.0	29.4	0.0	-114.6	0.80	157.2	0.0	29.4	0.0	0.0	0.0	0.0
2 Moore to blw Munsey	May 6	0.0	31.9	27.9	8.8	0.00	166.0	6.6	2.2	23.1	2.2	-2.2	0.0
1 Blw Munsey to Arco	May 6	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	2.2	-2.2	0.0
* - Indicates flow estimated, not measured						TOTAL		304.5	62.0	23.1			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10 Howell Gage	May 6	0.0	0.0		19590902	1%	1	18800630	3.2	556.5	38.1
9 Howell to Chilly	May 6	0.0	0.0		19590902	1%	2	18810630	1.7	294.0	20.2
8 Chilly to Reservoir ***Disconnected***	May 6	0.0	0.0		19590902	1%	3	18880601	3.2	556.5	31.7
							4	18960601	6.4	1113.0	63.5
7 Mackay Reservoir	May 6	0.0	0.0		19590902	1%	5	19020301	0.8	140.0	7.9
6 Reservoir to 2B	May 6	0.0	0.0		19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5 2B to Leslie	May 6	2.0	49.0		19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4 Leslie to Moore	May 6	0.0	114.6		19590902	1%	8	19590902 Unlimited		6000.0	992.3
2 Moore to blw Munsey	May 6	0.0	0.0		19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1 Blw Munsey to Arco	May 6	0.0	0.0		19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL		2.0	163.6	0.0			TOTAL			346511.0	39004.8

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37210.0	37090.0	-120.0	-60.5	12.2

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	1494.8
Total Storage Loss	-1662.2
Total Storage Deliver	-174.2
Total Evaporation	-128.5
Accounting Balance	<u>37039.9</u>
Current Res Content	37090.0
Storage Balance Error	-50.1

DAILY STORAGE BALANCE

37210.0 Reservoir Content Previous Day [ac-ft]
37090.0 Reservoir Content Current Day [ac-ft]
-120.0 Physical Change in Storage [ac-ft]

295.8 Storage Allocated to Mackay Reservoir [ac-ft]
-320.2 Stored Flow Losses [ac-ft]
-49.0 2B to Leslie [cfs]
-114.6 Leslie to Moore [cfs]
0.0 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
2.2 Past Arco Gage [cfs]
-71.6 Storage Delivered [ac-ft]
--- Above Reservoir [cfs]
4.5 Reservoir to 2B [cfs]
0.0 2B to Leslie [cfs]
29.4 Leslie to Moore [cfs]
2.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-24.1 Evaporation [ac-ft]
-120.1 Accounting Change in Storage [ac-ft]

-0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

157.2 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
8.8 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

166.0 Total Available Natural Flow [cfs]

149.1 Reservoir Rights Diverted [cfs]
4.2 Natural Flow Losses below Reservoir [cfs]
2.0 2B to Leslie [cfs]
0.0 Leslie to Moore [cfs]
0.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
2.2 Natural Flow Past Arco Gage [cfs]
12.6 Natural Flow Delivered [cfs]
--- Above Reservoir Storage Use [cfs]
0.0 Reservoir to 2B [cfs]
6.0 2B to Leslie [cfs]
0.0 Leslie to Moore [cfs]
6.6 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

165.9 Natural Flow Delivered & Lost [cfs]

0.1 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	0.0	0
Eastside Felton Wier +	0.0	0
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	0.0	0
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	7.8	388
Arco Standlee OD Wells IN (Island)	0.0	0
Total In	27.9	1393
Groundwater to Arco	13.1	654
Groundwater to Munsey	14.8	739

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	0.0	0
Eastside Richard Reynolds Delivery +	0.0	0
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	23.1	1155
Total Out	23.1	1155
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.83	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 82.9%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 23.1 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 0.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 0.0 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 0.0%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 0.0 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 0.0 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 0.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 0.0%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	6.0	1.2	7.1	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	4.5	4.5	21.8
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	3.0	0.0	18.6
9 BITTON	4.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	3.0	0.0	11.9
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	41.1	2.2	7.0	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	2.0	0.3	1.9	5 SUTTER	0.0	0.0	0.0
9 CHILLY	44.2	0.8	1.5	8 Broken River Dit	4.5	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	0.0	0.0	0.0
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	1.8	10.7
9 LONGHURST	0.0	0.0	0.0	8 Freeman/Hill Pum	2.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	5.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.0	0.0	0.0
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	3.0	0.6	3.4	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	9.5
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	2.0	11.9	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	10.0	4.5	30.0	8 Stoecklein 1	3.2	0.0	0.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	5.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	26.0	26.0	103.7
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	0.0	0.0	0.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	8.9	-2.6	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	23.0	10.4	54.5
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	5.5	0.8	4.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.8	92.4
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	0.0	0.0	2 SCHUREMAN EXCHAN	7.0	166.1
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	92.8	2 RASMUSSEN EXCHAN	5.3	126.6
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	0.0	0.0	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 7	631.0	6.0	0.0	637.0	0.00	637.0	4.8	1.2	0.0	632.2	-1.2	0.0
9	Howell to Chilly	May 7	0.0	104.4	0.0	-526.6	1.00	110.4	87.9	16.5	0.0	17.7	-17.7	0.0
8	Chilly to Reservoir ***Disconnected***	* May 7	152.0	58.2	0.0	210.2	0.00	320.6	50.0	8.2	0.0	177.9	-25.9	0.0
7	Mackay Reservoir	* May 7	203.9	0.0	0.0	152.0	0.00	152.0	100.6		0.0	51.5	152.4	0.0
6	Reservoir to 2B	May 7	197.0	6.9	0.0	0.0	0.00	152.0	6.1	0.8	0.0	45.3	151.7	0.0
5	2B to Leslie	May 7	142.0	10.6	0.0	-44.4	0.23	152.0	10.4	0.2	0.0	24.7	117.3	0.0
4	Leslie to Moore	May 7	0.0	40.3	0.0	-101.7	0.72	152.0	7.0	33.3	0.0	0.0	0.0	0.0
2	Moore to blw Munsey	May 7	0.0	31.9	27.9	8.9	0.00	160.9	6.6	2.3	23.0	2.3	-2.3	0.0
1	Blw Munsey to Arco	May 7	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	2.3	-2.3	0.0
							TOTAL		273.4	62.5	23.0			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 7	0.0	0.0	19590902	1%	1	18800630	3.2	556.5	44.4
9	Howell to Chilly	May 7	0.0	0.0	19590902	1%	2	18810630	1.7	294.0	23.6
8	Chilly to Reservoir ***Disconnected***	May 7	0.0	0.0	19590902	1%	3	18880601	3.2	556.5	38.1
							4	18960601	6.4	1113.0	76.2
7	Mackay Reservoir	May 7	0.0	0.0	19590902	1%	5	19020301	0.8	140.0	9.5
6	Reservoir to 2B	May 7	0.0	0.0	19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 7	10.2	34.2	19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 7	17.7	84.0	19590902	1%	8	19590902 Unlimited		6000.0	1161.4
2	Moore to blw Munsey	May 7	0.0	0.0	19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 7	0.0	0.0	19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			27.9	118.2		0.0		TOTAL		346511.0	39204.2

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37090.0	36960.0	-130.0	-65.5	13.7

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	1694.2
Total Storage Loss	-1892.0
Total Storage Deliver	-246.7
Total Evaporation	-155.6
Accounting Balance	<u>36909.9</u>
Current Res Content	36960.0
Storage Balance Error	-50.1

DAILY STORAGE BALANCE

37090.0 Reservoir Content Previous Day [ac-ft]
36960.0 Reservoir Content Current Day [ac-ft]
-130.0 Physical Change in Storage [ac-ft]

199.5 Storage Allocated to Mackay Reservoir [ac-ft]
-229.8 Stored Flow Losses [ac-ft]
-34.2 2B to Leslie [cfs]
-84.0 Leslie to Moore [cfs]
0.0 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
2.3 Past Arco Gage [cfs]
-72.6 Storage Delivered [ac-ft]
--- Above Reservoir [cfs]
0.8 Reservoir to 2B [cfs]
0.2 2B to Leslie [cfs]
33.3 Leslie to Moore [cfs]
2.3 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-27.1 Evaporation [ac-ft]
-130.0 Accounting Change in Storage [ac-ft]

0.0 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

152.0 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
8.9 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

160.9 Total Available Natural Flow [cfs]

100.6 Reservoir Rights Diverted [cfs]
30.2 Natural Flow Losses below Reservoir [cfs]
10.2 2B to Leslie [cfs]
17.7 Leslie to Moore [cfs]
0.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
2.3 Natural Flow Past Arco Gage [cfs]
30.1 Natural Flow Delivered [cfs]
--- Above Reservoir Storage Use [cfs]
6.1 Reservoir to 2B [cfs]
10.4 2B to Leslie [cfs]
7.0 Leslie to Moore [cfs]
6.6 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

160.9 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	0.0	0
Eastside Felton Wier +	0.0	0
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	0.0	0
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	7.8	388
Arco Standlee OD Wells IN (Island)	0.0	0
Total In	27.9	1393
Groundwater to Arco	13.1	654
Groundwater to Munsey	14.8	739

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	0.0	0
Eastside Richard Reynolds Delivery +	0.0	0
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	23.0	1150
Total Out	23.0	1150
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.83	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 82.6%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 23.0 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 0.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 0.0 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 0.0%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 0.0 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 0.0 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 0.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 0.0%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	6.0	1.2	9.5	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	6.9	0.8	23.3
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	3.0	0.1	18.9
9 BITTON	4.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	7.6	0.1	12.1
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	41.1	2.2	11.4	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	2.0	0.3	2.5	5 SUTTER	0.0	0.0	0.0
9 CHILLY	44.2	0.8	3.0	8 Broken River Dit	4.5	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	4.4	1.7	3.4
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	1.8	14.3
9 LONGHURST	0.0	0.0	0.0	8 Freeman/Hill Pum	2.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	5.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.0	0.0	0.0
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	3.0	0.6	4.6	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	12.7
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	2.0	15.9	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	10.0	4.5	39.0	8 Stoecklein 1	3.2	0.0	0.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	5.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	32.5	28.2	159.7
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	0.0	0.0	0.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	8.9	-2.9	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	23.0	10.3	75.0
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	5.5	0.8	6.1	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.8	123.1
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	0.0	0.0	2 SCHUREMAN EXCHAN	7.0	193.7
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	123.8	2 RASMUSSEN EXCHAN	5.3	147.7
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	0.0	0.0	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 8	757.0	6.0	0.0	763.0	0.00	763.0	4.8	1.2	0.0	758.2	-1.2	0.0
9	Howell to Chilly	May 8	0.0	104.4	0.0	-652.6	1.00	110.4	87.9	16.5	0.0	17.7	-17.7	0.0
8	Chilly to Reservoir ***Disconnected***	* May 8	196.3	58.2	0.0	254.5	0.00	364.9	50.0	8.2	0.0	222.2	-25.9	0.0
7	Mackay Reservoir	* May 8	252.9	0.0	0.0	196.3	0.00	196.3	65.3		0.0	131.0	121.9	0.0
6	Reservoir to 2B	May 8	246.0	6.9	0.0	0.0	0.00	196.3	6.1	0.8	0.0	124.8	121.2	0.0
5	2B to Leslie	May 8	171.0	10.6	0.0	-64.4	0.26	196.3	10.6	0.0	0.0	81.6	89.4	0.0
4	Leslie to Moore	May 8	0.0	40.3	0.0	-130.7	0.76	196.3	19.2	21.1	0.0	0.0	0.0	0.0
2	Moore to blw Munsey	May 8	0.0	31.9	27.9	7.5	0.00	203.8	6.4	1.1	24.4	1.1	-1.1	0.0
1	Blw Munsey to Arco	May 8	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	1.1	-1.1	0.0
							TOTAL		250.4	48.9	24.4			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 8	0.0	0.0	19590902	1%	1	18800630	3.2	556.5	50.8
9	Howell to Chilly	May 8	0.0	0.0	19590902	1%	2	18810630	1.7	294.0	27.0
8	Chilly to Reservoir ***Disconnected***	May 8	0.0	0.0	19590902	1%	3	18880601	3.2	556.5	44.4
							4	18960601	6.4	1113.0	88.9
7	Mackay Reservoir	May 8	0.0	0.0	19590902	1%	5	19020301	0.8	140.0	11.1
6	Reservoir to 2B	May 8	0.0	0.0	19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 8	32.7	31.7	19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 8	62.4	68.3	19590902	1%	8	19590902 Unlimited		6000.0	1260.7
2	Moore to blw Munsey	May 8	0.0	0.0	19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 8	0.0	0.0	19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			95.1	100.1		0.0		TOTAL		346511.0	39333.8

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
36960.0	36820.0	-140.0	-70.6	14.0

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	1823.8
Total Storage Loss	-2088.1
Total Storage Deliver	-292.4
Total Evaporation	-183.4
Accounting Balance	<u>36770.0</u>
Current Res Content	36820.0
Storage Balance Error	-50.0

DAILY STORAGE BALANCE

36960.0 Reservoir Content Previous Day [ac-ft]
36820.0 Reservoir Content Current Day [ac-ft]
-140.0 Physical Change in Storage [ac-ft]

129.6 Storage Allocated to Mackay Reservoir [ac-ft]
-196.1 Stored Flow Losses [ac-ft]
-31.7 2B to Leslie [cfs]
-68.3 Leslie to Moore [cfs]
0.0 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
1.1 Past Arco Gage [cfs]
-45.7 Storage Delivered [ac-ft]
--- Above Reservoir [cfs]
0.8 Reservoir to 2B [cfs]
0.0 2B to Leslie [cfs]
21.1 Leslie to Moore [cfs]
1.1 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-27.8 Evaporation [ac-ft]
-140.0 Accounting Change in Storage [ac-ft]

0.0 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

196.3 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
7.5 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

203.8 Total Available Natural Flow [cfs]

65.3 Reservoir Rights Diverted [cfs]
96.2 Natural Flow Losses below Reservoir [cfs]
32.7 2B to Leslie [cfs]
62.4 Leslie to Moore [cfs]
0.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
1.1 Natural Flow Past Arco Gage [cfs]
42.3 Natural Flow Delivered [cfs]
--- Above Reservoir Storage Use [cfs]
6.1 Reservoir to 2B [cfs]
10.6 2B to Leslie [cfs]
19.2 Leslie to Moore [cfs]
6.4 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

203.8 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	0.0	0
Eastside Felton Wier +	0.0	0
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	0.0	0
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	7.8	388
Arco Standlee OD Wells IN (Island)	0.0	0
Total In	27.9	1393
Groundwater to Arco	13.1	654
Groundwater to Munsey	14.8	739

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	0.0	0
Eastside Richard Reynolds Delivery +	0.0	0
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	24.4	1220
Total Out	24.4	1220
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.88	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 87.6%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 24.4 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 0.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 0.0 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 0.0%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 0.0 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 0.0 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 0.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 0.0%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	6.0	1.2	11.9	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	6.9	0.8	24.8
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	3.0	0.0	18.9
9 BITTON	4.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	7.6	0.0	12.1
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	41.1	2.2	15.8	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	2.0	0.3	3.2	5 SUTTER	0.0	0.0	0.0
9 CHILLY	44.2	0.8	4.5	8 Broken River Dit	4.5	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	4.4	1.7	6.7
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	1.8	17.9
9 LONGHURST	0.0	0.0	0.0	8 Freeman/Hill Pum	2.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	5.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.0	0.0	0.0
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	3.0	0.6	5.7	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	15.9
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	2.0	19.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	10.0	4.5	48.0	8 Stoecklein 1	3.2	0.0	0.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	5.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	32.5	16.0	191.3
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	0.0	0.0	0.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	8.9	-3.3	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	23.0	9.7	94.3
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	5.5	0.8	7.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.8	153.9
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	0.0	0.0	2 SCHUREMAN EXCHAN	7.0	221.4
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	154.7	2 RASMUSSEN EXCHAN	5.3	168.8
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	0.0	0.0	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 9	851.0	6.0	0.0	857.0	0.00	857.0	4.8	1.2	0.0	852.2	-1.2	0.0
9	Howell to Chilly	May 9	0.0	104.4	0.0	-746.6	1.00	110.4	87.9	16.5	0.0	17.7	-17.7	0.0
8	Chilly to Reservoir ***Disconnected***	* May 9	179.6	58.2	0.0	237.7	0.00	348.2	50.0	8.2	0.0	205.4	-25.9	0.0
7	Mackay Reservoir	* May 9	252.8	0.0	0.0	179.6	0.00	179.6	33.4		0.0	146.1	106.7	0.0
6	Reservoir to 2B	May 9	247.0	5.8	0.0	0.0	0.00	179.6	5.7	0.1	0.0	140.4	106.6	0.0
5	2B to Leslie	May 9	199.0	10.6	0.0	-37.4	0.15	179.6	10.6	0.0	0.0	108.6	90.4	0.0
4	Leslie to Moore	May 9	0.0	40.3	0.0	-158.7	0.80	179.6	19.2	21.1	0.0	2.8	-2.8	0.0
2	Moore to blw Munsey	May 9	0.0	31.9	27.9	3.6	0.00	183.2	6.4	-2.8	28.3	0.0	0.0	0.0
1	Blw Munsey to Arco	May 9	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		218.0	44.3	28.3			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 9	0.0	0.0	19590902	0%	1	18800630	3.2	556.5	57.1
9	Howell to Chilly	May 9	0.0	0.0	19590902	0%	2	18810630	1.7	294.0	30.3
8	Chilly to Reservoir ***Disconnected***	May 9	0.0	0.0	19590902	0%	3	18880601	3.2	556.5	50.8
							4	18960601	6.4	1113.0	101.6
7	Mackay Reservoir	May 9	0.0	0.0	19590902	0%	5	19020301	0.8	140.0	12.7
6	Reservoir to 2B	May 9	0.0	0.0	19590902	0%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 9	21.3	16.1	19590902	0%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 9	86.6	72.1	19590902	0%	8	19590902 Unlimited		6000.0	1296.7
2	Moore to blw Munsey	May 9	0.0	0.0	19590902	0%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 9	0.0	0.0	19590902	0%	10	Rotation Unlimited		100000.0	0.0
TOTAL			107.9	88.2	0.0			TOTAL		346511.0	39400.2

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
36820.0	36650.0	-170.0	-85.7	12.5

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	1890.2
Total Storage Loss	-2263.0
Total Storage Deliver	-328.9
Total Evaporation	-208.1
Accounting Balance	<u>36600.2</u>
Current Res Content	36650.0
Storage Balance Error	-49.8

DAILY STORAGE BALANCE

36820.0 Reservoir Content Previous Day [ac-ft]
36650.0 Reservoir Content Current Day [ac-ft]
-170.0 Physical Change in Storage [ac-ft]

66.3 Storage Allocated to Mackay Reservoir [ac-ft]
-174.9 Stored Flow Losses [ac-ft]
-16.1 2B to Leslie [cfs]
-72.1 Leslie to Moore [cfs]
0.0 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-36.6 Storage Delivered [ac-ft]
--- Above Reservoir [cfs]
0.1 Reservoir to 2B [cfs]
0.0 2B to Leslie [cfs]
21.1 Leslie to Moore [cfs]
-2.8 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-24.7 Evaporation [ac-ft]
-169.9 Accounting Change in Storage [ac-ft]

0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

179.6 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
3.6 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

183.2 Total Available Natural Flow [cfs]

33.4 Reservoir Rights Diverted [cfs]
107.9 Natural Flow Losses below Reservoir [cfs]
21.3 2B to Leslie [cfs]
86.6 Leslie to Moore [cfs]
0.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
41.9 Natural Flow Delivered [cfs]
--- Above Reservoir Storage Use [cfs]
5.7 Reservoir to 2B [cfs]
10.6 2B to Leslie [cfs]
19.2 Leslie to Moore [cfs]
6.4 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

183.2 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	0.0	0
Eastside Felton Wier +	0.0	0
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	0.0	0
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	7.8	388
Arco Standlee OD Wells IN (Island)	0.0	0
Total In	27.9	1393
Groundwater to Arco	13.1	654
Groundwater to Munsey	14.8	739

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	0.0	0
Eastside Richard Reynolds Delivery +	0.0	0
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	28.3	1415
Total Out	28.3	1415
Abbreviated Reach Delivery Factor Total Out Divided By Total In	1.02	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 101.6%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 28.3 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 0.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 0.0 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 0.0%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 0.0 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 12.9 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 0.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 0.0%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	6.0	1.2	14.3	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	5.8	0.1	25.0
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	3.0	0.0	18.9
9 BITTON	4.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	7.6	0.0	12.2
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	41.1	2.2	20.2	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	2.0	0.3	3.8	5 SUTTER	0.0	0.0	0.0
9 CHILLY	44.2	0.8	6.0	8 Broken River Dit	4.5	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	4.4	1.7	10.1
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	1.8	21.4
9 LONGHURST	0.0	0.0	0.0	8 Freeman/Hill Pum	2.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	5.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.0	0.0	0.0
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	3.0	0.6	6.8	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	19.0
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	2.0	23.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	10.0	4.5	56.9	8 Stoecklein 1	3.2	0.0	0.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	5.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	32.5	16.0	223.0
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	12.9	12.9	25.6
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	8.9	-5.9	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	23.0	6.1	106.5
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	5.5	0.8	9.1	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.8	184.7
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	0.0	0.0	2 SCHUREMAN EXCHAN	7.0	249.1
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	185.7	2 RASMUSSEN EXCHAN	5.3	189.9
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	0.0	0.0	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 10	898.0	6.0	0.0	904.0	0.00	904.0	4.8	1.2	0.0	899.2	-1.2	0.0
9	Howell to Chilly	May 10	0.0	105.4	0.0	-792.6	1.00	111.4	87.9	17.5	0.0	18.7	-18.7	0.0
8	Chilly to Reservoir ***Connected***	* May 10	278.2	58.2	0.0	336.4	0.00	447.8	50.0	8.2	0.0	305.0	-26.9	0.0
7	Mackay Reservoir	* May 10	251.0	0.0	0.0	0.0	0.00	447.8	104.6		0.0	200.5	50.5	0.0
6	Reservoir to 2B	May 10	244.0	7.0	0.0	0.0	0.00	447.8	6.9	0.1	0.0	193.6	50.4	0.0
5	2B to Leslie	May 10	191.0	10.6	0.0	-42.4	0.17	447.8	10.6	0.0	0.0	149.4	41.6	0.0
4	Leslie to Moore	May 10	0.0	40.7	0.0	-129.5	0.68	447.8	19.5	21.2	0.0	28.6	-28.6	0.0
2	Moore to blw Munsey	May 10	0.0	31.9	27.9	-16.7	0.80	447.8	5.6	-1.5	27.8	0.0	0.0	0.0
1	Blw Munsey to Arco	May 10	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		289.9	46.7	27.8			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 10	0.0	0.0	19590902	1%	1	18800630	3.2	556.5	63.5
9	Howell to Chilly	May 10	0.0	0.0	19590902	1%	2	18810630	1.7	294.0	33.7
8	Chilly to Reservoir ***Connected***	May 10	0.0	0.0	19590902	1%	3	18880601	3.2	556.5	57.1
							4	18960601	6.4	1113.0	114.2
7	Mackay Reservoir	May 10	0.0	0.0	19590902	1%	5	19020301	0.8	140.0	14.3
6	Reservoir to 2B	May 10	0.0	0.0	19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 10	33.6	8.8	19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 10	101.3	28.2	19590902	1%	8	19590902 Unlimited		6000.0	1473.8
2	Moore to blw Munsey	May 10	23.0	-6.3	19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 10	0.0	0.0	19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			157.9	30.7	0.0			TOTAL		346511.0	39607.6

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
36650.0	36680.0	30.0	15.1	12.0

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	2097.6
Total Storage Loss	-2336.4
Total Storage Deliver	-421.5
Total Evaporation	-232.0
Accounting Balance	<u>36617.7</u>
Current Res Content	36680.0
Storage Balance Error	-62.3

DAILY STORAGE BALANCE

36650.0 Reservoir Content Previous Day [ac-ft]
36680.0 Reservoir Content Current Day [ac-ft]
30.0 Physical Change in Storage [ac-ft]

207.4 Storage Allocated to Mackay Reservoir [ac-ft]
-73.4 Stored Flow Losses [ac-ft]
-8.8 2B to Leslie [cfs]
-28.2 Leslie to Moore [cfs]
0.0 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-92.5 Storage Delivered [ac-ft]
26.9 Above Reservoir [cfs]
0.1 Reservoir to 2B [cfs]
0.0 2B to Leslie [cfs]
21.2 Leslie to Moore [cfs]
-1.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-23.9 Evaporation [ac-ft]
17.6 Accounting Change in Storage [ac-ft]

-12.4 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

278.2 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

278.2 Total Available Natural Flow [cfs]

104.6 Reservoir Rights Diverted [cfs]
157.9 Natural Flow Losses below Reservoir [cfs]
33.6 2B to Leslie [cfs]
101.3 Leslie to Moore [cfs]
23.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
15.7 Natural Flow Delivered [cfs]
-26.9 Above Reservoir Storage Use [cfs]
6.9 Reservoir to 2B [cfs]
10.6 2B to Leslie [cfs]
19.5 Leslie to Moore [cfs]
5.6 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
278.2 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	0.9	45
Eastside Felton Wier +	0.0	0
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	0.0	0
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	7.8	388
Arco Standlee OD Wells IN (Island)	0.0	0
Total In	28.8	1438
Groundwater to Arco	13.1	654
Groundwater to Munsey	14.8	739

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	0.0	0
Eastside Richard Reynolds Delivery +	0.0	0
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	28.7	1435
Total Out	28.7	1435
Abbreviated Reach Delivery Factor Total Out Divided By Total In	1.00	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 99.8%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 27.8 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 0.9 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 0.9 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 4.3%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 20.8 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 0.0 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 0.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 4.3%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	6.0	1.2	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	7.0	0.1	25.2
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	3.0	0.0	18.9
9 BITTON	4.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	7.6	0.0	12.3
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	41.1	2.2	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	2.0	0.3	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	44.2	0.8	7.5	8 Broken River Dit	4.5	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	4.4	1.7	13.5
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	1.8	25.0
9 LONGHURST	0.0	0.0	0.0	8 Freeman/Hill Pum	2.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	5.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.0	0.0	0.0
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	3.0	0.6	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	22.2
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	2.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	10.0	4.5	65.9	8 Stoecklein 1	3.2	0.0	0.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	5.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	32.9	16.1	255.0
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	0.0	0.0	25.6
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	8.9	-8.7	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	23.0	7.1	120.6
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	5.5	0.8	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.8	200.1
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	0.0	0.0	2 SCHUREMAN EXCHAN	7.0	263.0
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	201.1	2 RASMUSSEN EXCHAN	5.3	200.5
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	0.0	0.0	2 WADDOUPS GW INTO	0.0	0.0

Reach Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10 Howell Gage	May 11	1000.0	0.0	0.0	1000.0	0.00	1000.0	0.0	0.0	0.0	1000.0	0.0	0.0
9 Howell to Chilly	May 11	3.6	13.9	0.0	-982.5	0.98	17.5	12.4	1.4	0.0	5.0	-1.4	0.0
8 Chilly to Reservoir ***Connected***	* May 11	337.6	15.3	0.0	349.4	0.00	366.9	15.3	0.0	0.0	339.1	-1.4	0.0
7 Mackay Reservoir	* May 11	328.0	0.0	0.0	0.0	0.00	366.9	131.8		0.0	207.3	120.7	0.0
6 Reservoir to 2B	May 11	321.0	7.0	0.0	0.0	0.00	366.9	6.9	0.1	0.0	200.4	120.6	0.0
5 2B to Leslie	May 11	223.0	10.6	0.0	-87.4	0.27	366.9	10.6	0.0	0.0	135.3	87.7	0.0
4 Leslie to Moore	May 11	0.0	63.5	0.0	-150.6	0.68	366.9	32.2	31.3	0.0	11.7	-11.7	0.0
2 Moore to blw Munsey	May 11	0.0	39.0	45.3	-1.3	0.14	366.9	10.0	-2.4	31.4	0.0	0.0	0.0
1 Blw Munsey to Arco	May 11	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
* - Indicates flow estimated, not measured						TOTAL		219.3	30.4	31.4			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled
10 Howell Gage	May 11	0.0	0.0		19590902	1%
9 Howell to Chilly	May 11	0.0	0.0		19590902	1%
8 Chilly to Reservoir ***Connected***	May 11	0.0	0.0		19590902	1%
7 Mackay Reservoir	May 11	0.0	0.0		19590902	1%
6 Reservoir to 2B	May 11	0.0	0.0		19590902	1%
5 2B to Leslie	May 11	54.6	32.8		19590902	1%
4 Leslie to Moore	May 11	91.4	59.3		19590902	1%
2 Moore to blw Munsey	May 11	1.7	-0.4		19590902	1%
1 Blw Munsey to Arco	May 11	0.0	0.0		19590902	1%
TOTAL		147.7	91.7	0.0		

MACKAY RESERVOIR RIGHTS

Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
1	18800630	3.2	556.5	69.8
2	18810630	1.7	294.0	37.1
3	18880601	3.2	556.5	63.5
4	18960601	6.4	1113.0	126.9
5	19020301	0.8	140.0	15.9
6	19051002 Unlimited		20646.0	20646.0
7	19160207 Unlimited		17205.0	17205.0
8	19590902 Unlimited		6000.0	1704.9
9	Add Vol Unlimited		200000.0	0.0
10	Rotation Unlimited		100000.0	0.0
TOTAL			346511.0	39869.1

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
36680.0	36670.0	-10.0	-5.0	14.7

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	2359.1
Total Storage Loss	-2519.1
Total Storage Deliver	-481.8
Total Evaporation	-261.1
Accounting Balance	<u>36607.1</u>
Current Res Content	36670.0
Storage Balance Error	-62.9

DAILY STORAGE BALANCE

36680.0 Reservoir Content Previous Day [ac-ft]
36670.0 Reservoir Content Current Day [ac-ft]
-10.0 Physical Change in Storage [ac-ft]

261.5 Storage Allocated to Mackay Reservoir [ac-ft]
-182.7 Stored Flow Losses [ac-ft]
-32.8 2B to Leslie [cfs]
-59.3 Leslie to Moore [cfs]
0.0 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-60.2 Storage Delivered [ac-ft]
1.4 Above Reservoir [cfs]
0.1 Reservoir to 2B [cfs]
0.0 2B to Leslie [cfs]
31.3 Leslie to Moore [cfs]
-2.4 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-29.1 Evaporation [ac-ft]
-10.5 Accounting Change in Storage [ac-ft]

-0.5 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

337.6 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

337.6 Total Available Natural Flow [cfs]

131.8 Reservoir Rights Diverted [cfs]
147.7 Natural Flow Losses below Reservoir [cfs]
54.6 2B to Leslie [cfs]
91.4 Leslie to Moore [cfs]
1.7 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
58.3 Natural Flow Delivered [cfs]
-1.4 Above Reservoir Storage Use [cfs]
6.9 Reservoir to 2B [cfs]
10.6 2B to Leslie [cfs]
32.2 Leslie to Moore [cfs]
10.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
337.8 Natural Flow Delivered & Lost [cfs]

-0.2 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	0.3	15
Eastside Felton Wier +	0.0	0
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	45.6	2280
Groundwater to Arco	20.7	1036
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	0.0	0
Eastside Richard Reynolds Delivery +	0.0	0
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	31.6	1580
Total Out	31.6	1580
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.69	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 69.3%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 31.4 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 0.2 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 0.3 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 3.4%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 8.9 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 65.1 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 3.4%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 2.3%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	7.0	0.1	25.4
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	3.0	0.0	18.9
9 BITTON	0.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	7.6	0.0	12.4
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	0.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	7.2	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	5.2	0.0	7.5	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	4.4	1.7	16.9
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	1.8	28.6
9 LONGHURST	0.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	1.6
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	25.4
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	0.0	0.0	65.9	8 Stoecklein 1	0.0	0.0	0.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	0.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	52.7	23.2	301.1
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	65.1	65.1	154.8
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	13.0	-8.5	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	26.0	6.1	132.7
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	4.8	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.0	214.0
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	19.4	2 SCHUREMAN EXCHAN	7.0	276.8
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	216.6	2 RASMUSSEN EXCHAN	5.3	211.0
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	16.7	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 12	1200.0	0.0	0.0	1200.0	0.00	1200.0	0.0	0.0	0.0	1200.0	0.0	0.0
9	Howell to Chilly	May 12	3.6	13.9	0.0	-1182.5	0.99	17.5	7.2	6.6	0.0	10.2	-6.6	0.0
8	Chilly to Reservoir ***Connected***	* May 12	432.6	15.3	0.0	444.3	0.00	461.8	15.3	0.0	0.0	439.2	-6.6	0.0
7	Mackay Reservoir	* May 12	436.0	0.0	0.0	0.0	0.00	461.8	27.2		0.0	412.0	24.0	0.0
6	Reservoir to 2B	May 12	429.0	7.0	0.0	0.0	0.00	461.8	6.9	0.1	0.0	405.1	23.9	0.0
5	2B to Leslie	May 12	318.0	24.6	0.0	-86.4	0.20	461.8	23.9	0.7	0.0	299.6	18.4	0.0
4	Leslie to Moore	May 12	0.0	73.6	0.0	-186.3	0.59	461.8	49.3	24.3	0.0	74.8	-74.8	0.0
2	Moore to blw Munsey	May 12	0.0	41.5	45.3	-49.2	0.85	461.8	11.5	-2.6	32.5	0.0	0.0	0.0
1	Blw Munsey to Arco	May 12	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		141.3	29.1	32.5			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 12	0.0	0.0	19590902	0%	1	18800630	3.2	556.5	76.2
9	Howell to Chilly	May 12	0.0	0.0	19590902	0%	2	18810630	1.7	294.0	40.5
8	Chilly to Reservoir ***Connected***	May 12	0.0	0.0	19590902	0%	3	18880601	3.2	556.5	69.8
							4	18960601	6.4	1113.0	139.6
7	Mackay Reservoir	May 12	0.0	0.0	19590902	0%	5	19020301	0.8	140.0	17.5
6	Reservoir to 2B	May 12	0.0	0.0	19590902	0%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 12	81.6	4.8	19590902	0%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 12	175.5	10.8	19590902	0%	8	19590902 Unlimited		6000.0	1728.5
2	Moore to blw Munsey	May 12	63.3	-14.1	19590902	0%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 12	0.0	0.0	19590902	0%	10	Rotation Unlimited		100000.0	0.0
TOTAL			320.4	1.4	0.0			TOTAL		346511.0	39923.0

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
36670.0	36640.0	-30.0	-15.1	11.7

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	2413.0
Total Storage Loss	-2550.0
Total Storage Deliver	-539.5
Total Evaporation	-284.3
Accounting Balance	<u>36549.2</u>
Current Res Content	36640.0
Storage Balance Error	-90.8

DAILY STORAGE BALANCE

36670.0 Reservoir Content Previous Day [ac-ft]
36640.0 Reservoir Content Current Day [ac-ft]
-30.0 Physical Change in Storage [ac-ft]

53.9 Storage Allocated to Mackay Reservoir [ac-ft]
-30.9 Stored Flow Losses [ac-ft]
-4.8 2B to Leslie [cfs]
-10.8 Leslie to Moore [cfs]
0.0 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-57.8 Storage Delivered [ac-ft]
6.6 Above Reservoir [cfs]
0.1 Reservoir to 2B [cfs]
0.7 2B to Leslie [cfs]
24.3 Leslie to Moore [cfs]
-2.6 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-23.2 Evaporation [ac-ft]
-58.0 Accounting Change in Storage [ac-ft]

-28.0 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

432.6 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

432.6 Total Available Natural Flow [cfs]

27.2 Reservoir Rights Diverted [cfs]
320.4 Natural Flow Losses below Reservoir [cfs]
81.6 2B to Leslie [cfs]
175.5 Leslie to Moore [cfs]
63.3 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
85.0 Natural Flow Delivered [cfs]
-6.6 Above Reservoir Storage Use [cfs]
6.9 Reservoir to 2B [cfs]
23.9 2B to Leslie [cfs]
49.3 Leslie to Moore [cfs]
11.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

432.6 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	2.4	120
Eastside Felton Wier +	3.4	170
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	51.1	2555
Groundwater to Arco	20.7	1036
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	0.0	0
Eastside Richard Reynolds Delivery +	0.0	0
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	36.7	1835
Total Out	36.7	1835
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.72	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 71.8%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 32.5 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 4.2 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 5.8 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 10.0%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 58.1 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 22.1 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 10.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 7.2%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	7.0	0.1	25.6
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	17.0	0.0	18.9
9 BITTON	0.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	7.6	0.7	13.8
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	0.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	7.2	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	5.2	5.2	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	8.6	1.6	20.1
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	0.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	3.2
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	28.6
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	0.0	0.0	65.9	8 Stoecklein 1	0.0	0.0	0.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	0.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	58.6	18.1	336.9
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	22.1	22.1	198.5
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	15.0	-8.7	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	26.5	6.1	144.9
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	4.8	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.0	227.9
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	38.9	2 SCHUREMAN EXCHAN	7.0	290.7
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	232.1	2 RASMUSSEN EXCHAN	5.3	221.6
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	33.3	2 WADDOUPS GW INTO	0.0	0.0

Reach Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10 Howell Gage	May 13	1340.0	0.0	0.0	1340.0	0.00	1340.0	0.0	0.0	0.0	1340.0	0.0	0.0
9 Howell to Chilly	May 13	2.4	12.7	0.0	-1324.9	0.99	15.1	11.2	1.4	0.0	3.8	-1.4	0.0
8 Chilly to Reservoir ***Connected***	* May 13	602.8	20.5	0.0	620.9	0.00	636.0	20.1	0.4	0.0	604.6	-1.8	0.0
7 Mackay Reservoir	* May 13	485.4	0.0	0.0	0.0	0.00	636.0	265.1		0.0	339.5	145.9	0.0
6 Reservoir to 2B	May 13	477.0	8.4	0.0	0.0	0.00	636.0	8.2	0.2	0.0	331.3	145.7	0.0
5 2B to Leslie	May 13	353.0	40.0	0.0	-84.0	0.18	636.0	37.1	2.9	0.0	235.9	117.1	0.0
4 Leslie to Moore	May 13	0.0	109.2	0.0	-197.0	0.56	636.0	74.8	34.4	0.0	29.4	-29.4	0.0
2 Moore to blw Munsey	May 13	0.0	56.0	45.8	-26.5	0.57	636.0	12.8	7.5	35.7	0.0	0.0	0.0
1 Blw Munsey to Arco	May 13	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
* - Indicates flow estimated, not measured						TOTAL		429.4	46.8	35.7			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10 Howell Gage	May 13	0.0	0.0		19590902	2%	1	18800630	3.2	556.5	82.5
9 Howell to Chilly	May 13	0.0	0.0		19590902	2%	2	18810630	1.7	294.0	43.8
8 Chilly to Reservoir ***Connected***	May 13	0.0	0.0		19590902	2%	3	18880601	3.2	556.5	76.2
							4	18960601	6.4	1113.0	152.3
7 Mackay Reservoir	May 13	0.0	0.0		19590902	2%	5	19020301	0.8	140.0	19.0
6 Reservoir to 2B	May 13	0.0	0.0		19590902	2%	6	19051002 Unlimited		20646.0	20646.0
5 2B to Leslie	May 13	58.3	25.7		19590902	2%	7	19160207 Unlimited		17205.0	17205.0
4 Leslie to Moore	May 13	131.6	65.4		19590902	2%	8	19590902 Unlimited		6000.0	2224.0
2 Moore to blw Munsey	May 13	16.7	9.9		19590902	2%	9	Add Vol Unlimited		200000.0	0.0
1 Blw Munsey to Arco	May 13	0.0	0.0		19590902	2%	10	Rotation Unlimited		100000.0	0.0
TOTAL		206.6	100.9	0.0				TOTAL		346511.0	40448.9

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
36640.0	36840.0	200.0	100.8	16.6

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	2938.9
Total Storage Loss	-2750.3
Total Storage Deliver	-632.3
Total Evaporation	-317.1
Accounting Balance	<u>36749.2</u>
Current Res Content	36840.0
Storage Balance Error	-90.8

DAILY STORAGE BALANCE

36640.0 Reservoir Content Previous Day [ac-ft]
36840.0 Reservoir Content Current Day [ac-ft]
200.0 Physical Change in Storage [ac-ft]

525.9 Storage Allocated to Mackay Reservoir [ac-ft]
-200.3 Stored Flow Losses [ac-ft]
-25.7 2B to Leslie [cfs]
-65.4 Leslie to Moore [cfs]
-9.9 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-92.9 Storage Delivered [ac-ft]
1.8 Above Reservoir [cfs]
0.2 Reservoir to 2B [cfs]
2.9 2B to Leslie [cfs]
34.4 Leslie to Moore [cfs]
7.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-32.9 Evaporation [ac-ft]
199.8 Accounting Change in Storage [ac-ft]

-0.2 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

602.8 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

602.8 Total Available Natural Flow [cfs]

265.1 Reservoir Rights Diverted [cfs]
206.6 Natural Flow Losses below Reservoir [cfs]
58.3 2B to Leslie [cfs]
131.6 Leslie to Moore [cfs]
16.7 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
131.1 Natural Flow Delivered [cfs]
-1.8 Above Reservoir Storage Use [cfs]
8.2 Reservoir to 2B [cfs]
37.1 2B to Leslie [cfs]
74.8 Leslie to Moore [cfs]
12.8 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
602.8 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	6.7	335
Eastside Felton Wier +	17.4	870
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.8	388
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	69.9	3497
Groundwater to Arco	21.3	1063
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	5.0	250
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.4	20
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	47.4	2370
Total Out	54.5	2725
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.78	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 77.9%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 35.7 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 11.7 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 15.0 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 32.0%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 46.8 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 51.9 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 28.1%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 24.9%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	8.4	0.2	25.9
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	20.0	0.8	20.6
9 BITTON	0.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	0.0	0.0	0.0
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	20.0	2.1	17.9
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	0.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	7.2	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	8.6	1.6	23.3
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	4.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	4.8
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	31.7
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	0.0	0.0	65.9	8 Stoecklein 1	3.6	0.4	0.8	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	0.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	74.7	19.9	376.3
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	51.9	40.7	279.2
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-0.9	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	30.0	8.4	161.5
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.8	243.3
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	58.3	2 SCHUREMAN EXCHAN	7.0	304.5
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	247.5	2 RASMUSSEN EXCHAN	5.1	231.7
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	50.0	2 WADDOUPS GW INTO	0.0	0.0

Reach Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10 Howell Gage	May 14	1360.0	0.0	0.0	1360.0	0.00	1360.0	0.0	0.0	0.0	1360.0	0.0	0.0
9 Howell to Chilly	May 14	2.4	12.7	0.0	-1344.9	0.99	15.1	11.2	1.4	0.0	3.8	-1.4	0.0
8 Chilly to Reservoir ***Connected***	* May 14	703.7	20.5	0.0	721.8	0.00	736.9	20.1	0.4	0.0	705.5	-1.8	0.0
7 Mackay Reservoir	* May 14	573.4	0.0	0.0	0.0	0.00	736.9	319.9		0.0	385.6	187.8	0.0
6 Reservoir to 2B	May 14	565.0	8.4	0.0	0.0	0.00	736.9	8.2	0.2	0.0	377.4	187.6	0.0
5 2B to Leslie	May 14	405.0	68.0	0.0	-92.0	0.16	736.9	36.8	31.2	0.0	279.2	125.8	0.0
4 Leslie to Moore	May 14	0.0	131.9	0.0	-209.4	0.52	736.9	88.4	43.5	0.0	46.4	-46.4	0.0
2 Moore to blw Munsey	May 14	0.0	56.0	45.8	-41.9	0.66	736.9	15.8	5.9	34.3	0.0	0.0	0.0
1 Blw Munsey to Arco	May 14	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
* - Indicates flow estimated, not measured						TOTAL		500.6	82.6	34.3			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10 Howell Gage	May 14	0.0	0.0		19590902	3%	1	18800630	3.2	556.5	88.9
9 Howell to Chilly	May 14	0.0	0.0		19590902	3%	2	18810630	1.7	294.0	47.2
8 Chilly to Reservoir ***Connected***	May 14	0.0	0.0		19590902	3%	3	18880601	3.2	556.5	82.5
							4	18960601	6.4	1113.0	165.0
7 Mackay Reservoir	May 14	0.0	0.0		19590902	3%	5	19020301	0.8	140.0	20.6
6 Reservoir to 2B	May 14	0.0	0.0		19590902	3%	6	19051002 Unlimited		20646.0	20646.0
5 2B to Leslie	May 14	61.4	30.6		19590902	3%	7	19160207 Unlimited		17205.0	17205.0
4 Leslie to Moore	May 14	144.4	65.1		19590902	3%	8	19590902 Unlimited		6000.0	2828.3
2 Moore to blw Munsey	May 14	30.5	11.4		19590902	3%	9	Add Vol Unlimited		200000.0	0.0
1 Blw Munsey to Arco	May 14	0.0	0.0		19590902	3%	10	Rotation Unlimited		100000.0	0.0
TOTAL		236.3	107.0	0.0				TOTAL		346511.0	41083.5

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
36840.0	37070.0	230.0	116.0	14.4

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	3573.5
Total Storage Loss	-2962.7
Total Storage Deliver	-796.2
Total Evaporation	-345.6
Accounting Balance	<u>36979.0</u>
Current Res Content	37070.0
Storage Balance Error	-91.0

DAILY STORAGE BALANCE

36840.0 Reservoir Content Previous Day [ac-ft]
37070.0 Reservoir Content Current Day [ac-ft]
230.0 Physical Change in Storage [ac-ft]

634.6 Storage Allocated to Mackay Reservoir [ac-ft]
-212.4 Stored Flow Losses [ac-ft]
-30.6 2B to Leslie [cfs]
-65.1 Leslie to Moore [cfs]
-11.4 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-163.8 Storage Delivered [ac-ft]
1.8 Above Reservoir [cfs]
0.2 Reservoir to 2B [cfs]
31.2 2B to Leslie [cfs]
43.5 Leslie to Moore [cfs]
5.9 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-28.5 Evaporation [ac-ft]
229.9 Accounting Change in Storage [ac-ft]

-0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

703.7 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

703.7 Total Available Natural Flow [cfs]

319.9 Reservoir Rights Diverted [cfs]
236.3 Natural Flow Losses below Reservoir [cfs]
61.4 2B to Leslie [cfs]
144.4 Leslie to Moore [cfs]
30.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
147.4 Natural Flow Delivered [cfs]
-1.8 Above Reservoir Storage Use [cfs]
8.2 Reservoir to 2B [cfs]
36.8 2B to Leslie [cfs]
88.4 Leslie to Moore [cfs]
15.8 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
703.6 Natural Flow Delivered & Lost [cfs]

0.1 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	5.9	295
Eastside Felton Wier +	33.9	1695
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.8	388
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	85.6	4282
Groundwater to Arco	21.3	1063
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	5.5	275
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.4	20
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	56.4	2820
Total Out	64.0	3200
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.75	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 74.7%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 34.3 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 22.1 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 29.6 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 46.5%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 63.7 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 43.1 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 40.6%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 34.8%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	8.4	0.2	26.3
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	20.0	1.5	23.6
9 BITTON	0.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	28.0	27.6	54.7
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	20.0	2.1	22.1
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	0.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	7.2	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	8.6	1.6	26.5
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	4.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	6.3
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	34.9
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	0.0	0.0	65.9	8 Stoecklein 1	3.6	0.4	1.6	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	0.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	94.0	30.0	435.9
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	43.1	27.5	333.7
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-3.5	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	30.0	9.4	180.2
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	0.0	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.8	258.6
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	77.8	2 SCHUREMAN EXCHAN	7.0	318.4
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	263.0	2 RASMUSSEN EXCHAN	5.1	241.8
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	66.6	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 15	1190.0	0.0	0.0	1190.0	0.00	1190.0	0.0	0.0	0.0	1190.0	0.0	0.0
9	Howell to Chilly	May 15	2.5	15.4	0.0	-1172.1	0.98	17.9	14.0	1.4	0.0	3.9	-1.4	0.0
8	Chilly to Reservoir ***Connected***	* May 15	746.8	31.1	0.0	775.4	0.00	793.4	29.1	2.0	0.0	750.3	-3.4	0.0
7	Mackay Reservoir	* May 15	656.4	0.0	0.0	0.0	0.00	793.4	319.6		0.0	430.6	225.8	0.0
6	Reservoir to 2B	May 15	648.0	8.4	0.0	0.0	0.00	793.4	8.2	0.2	0.0	422.4	225.6	0.0
5	2B to Leslie	May 15	424.0	70.0	0.0	-154.0	0.24	793.4	38.7	31.3	0.0	283.3	140.7	0.0
4	Leslie to Moore	May 15	1.6	143.9	0.0	-213.8	0.50	793.4	94.4	49.5	0.0	46.1	-44.4	0.0
2	Moore to blw Munsey	May 15	0.0	56.0	45.1	-42.8	0.64	793.4	16.4	7.2	32.5	0.0	0.0	0.0
1	Blw Munsey to Arco	May 15	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		520.4	91.6	32.5			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 15	0.0	0.0	19590902	3%	1	18800630	3.2	556.5	95.2
9	Howell to Chilly	May 15	0.0	0.0	19590902	3%	2	18810630	1.7	294.0	50.6
8	Chilly to Reservoir ***Connected***	May 15	0.0	0.0	19590902	3%	3	18880601	3.2	556.5	88.9
							4	18960601	6.4	1113.0	177.7
7	Mackay Reservoir	May 15	0.0	0.0	19590902	3%	5	19020301	0.8	140.0	22.2
6	Reservoir to 2B	May 15	0.0	0.0	19590902	3%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 15	100.4	53.6	19590902	3%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 15	142.8	71.0	19590902	3%	8	19590902 Unlimited		6000.0	3431.9
2	Moore to blw Munsey	May 15	29.7	13.1	19590902	3%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 15	0.0	0.0	19590902	3%	10	Rotation Unlimited		100000.0	0.0
TOTAL			272.9	137.6		0.0		TOTAL		346511.0	41717.5

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37070.0	37220.0	150.0	75.6	14.8

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	4207.5
Total Storage Loss	-3235.8
Total Storage Deliver	-977.9
Total Evaporation	-374.9
Accounting Balance	<u>37128.9</u>
Current Res Content	37220.0
Storage Balance Error	-91.1

DAILY STORAGE BALANCE

37070.0 Reservoir Content Previous Day [ac-ft]
37220.0 Reservoir Content Current Day [ac-ft]
150.0 Physical Change in Storage [ac-ft]

634.0 Storage Allocated to Mackay Reservoir [ac-ft]
-273.1 Stored Flow Losses [ac-ft]
-53.6 2B to Leslie [cfs]
-71.0 Leslie to Moore [cfs]
-13.1 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-181.7 Storage Delivered [ac-ft]
3.4 Above Reservoir [cfs]
0.2 Reservoir to 2B [cfs]
31.3 2B to Leslie [cfs]
49.5 Leslie to Moore [cfs]
7.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-29.3 Evaporation [ac-ft]
149.9 Accounting Change in Storage [ac-ft]

-0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

746.8 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

746.8 Total Available Natural Flow [cfs]

319.6 Reservoir Rights Diverted [cfs]
272.9 Natural Flow Losses below Reservoir [cfs]
100.4 2B to Leslie [cfs]
142.8 Leslie to Moore [cfs]
29.7 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
154.3 Natural Flow Delivered [cfs]
-3.4 Above Reservoir Storage Use [cfs]
8.2 Reservoir to 2B [cfs]
38.7 2B to Leslie [cfs]
94.4 Leslie to Moore [cfs]
16.4 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
746.8 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	5.3	265
Eastside Felton Wier +	44.5	2225
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	94.9	4744
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	6.0	300
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.4	20
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	60.2	3010
Total Out	68.3	3415
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.72	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 72.0%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 32.5 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 27.7 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 38.5 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 59.6%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 64.7 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 42.2 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 52.1%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 42.9%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	8.4	0.2	26.6
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	1.6	26.8
9 BITTON	0.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	28.0	27.6	109.5
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	20.0	2.1	26.3
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	0.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	8.3	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	8.6	1.6	29.7
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	4.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	7.9
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	38.1
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	5.0	0.0	65.9	8 Stoecklein 1	3.6	0.4	2.4	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	0.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	101.0	31.0	497.4
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	42.2	26.6	386.4
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-2.4	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	30.0	9.5	199.1
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	8.0	1.6	3.2	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.0	272.5
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	97.2	2 SCHUREMAN EXCHAN	7.0	332.2
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	278.5	2 RASMUSSEN EXCHAN	5.1	251.9
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	83.3	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 16	1030.0	0.0	0.0	1030.0	0.00	1030.0	0.0	0.0	0.0	1030.0	0.0	0.0
9	Howell to Chilly	May 16	2.5	15.4	0.0	-1012.1	0.98	17.9	14.0	1.4	0.0	3.9	-1.4	0.0
8	Chilly to Reservoir ***Connected***	* May 16	753.0	31.1	0.0	781.6	0.00	799.5	29.1	2.0	0.0	756.4	-3.4	0.0
7	Mackay Reservoir	* May 16	735.0	0.0	0.0	0.0	0.00	799.5	257.1		0.0	499.4	235.6	0.0
6	Reservoir to 2B	May 16	724.0	11.0	0.0	0.0	0.00	799.5	10.1	0.9	0.0	489.3	234.7	0.0
5	2B to Leslie	May 16	451.0	84.0	0.0	-189.0	0.26	799.5	51.4	32.6	0.0	310.1	140.9	0.0
4	Leslie to Moore	May 16	0.0	164.4	0.0	-228.0	0.51	799.5	102.1	62.3	0.0	51.3	-51.3	0.0
2	Moore to blw Munsey	May 16	0.0	66.0	45.1	-27.7	0.47	799.5	27.0	3.9	35.1	0.0	0.0	0.0
1	Blw Munsey to Arco	May 16	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		490.8	103.1	35.1			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 16	0.0	0.0	19590902	2%	1	18800630	3.2	556.5	101.6
9	Howell to Chilly	May 16	0.0	0.0	19590902	2%	2	18810630	1.7	294.0	54.0
8	Chilly to Reservoir ***Connected***	May 16	0.0	0.0	19590902	2%	3	18880601	3.2	556.5	95.2
							4	18960601	6.4	1113.0	190.4
7	Mackay Reservoir	May 16	0.0	0.0	19590902	2%	5	19020301	0.8	140.0	23.8
6	Reservoir to 2B	May 16	0.0	0.0	19590902	2%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 16	127.7	61.3	19590902	2%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 16	156.8	71.2	19590902	2%	8	19590902 Unlimited		6000.0	3911.4
2	Moore to blw Munsey	May 16	24.2	3.5	19590902	2%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 16	0.0	0.0	19590902	2%	10	Rotation Unlimited		100000.0	0.0
TOTAL			308.7	136.0		0.0		TOTAL		346511.0	42227.4

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37220.0	37230.0	10.0	5.0	12.9

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	4717.4
Total Storage Loss	-3505.6
Total Storage Deliver	-1182.4
Total Evaporation	-400.6
Accounting Balance	<u>37138.8</u>
Current Res Content	37230.0
Storage Balance Error	-91.2

DAILY STORAGE BALANCE

37220.0 Reservoir Content Previous Day [ac-ft]
37230.0 Reservoir Content Current Day [ac-ft]
10.0 Physical Change in Storage [ac-ft]

509.9 Storage Allocated to Mackay Reservoir [ac-ft]
-269.8 Stored Flow Losses [ac-ft]
-61.3 2B to Leslie [cfs]
-71.2 Leslie to Moore [cfs]
-3.5 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-204.5 Storage Delivered [ac-ft]
3.4 Above Reservoir [cfs]
0.9 Reservoir to 2B [cfs]
32.6 2B to Leslie [cfs]
62.3 Leslie to Moore [cfs]
3.9 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-25.6 Evaporation [ac-ft]
10.0 Accounting Change in Storage [ac-ft]

0.0 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

753.0 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

753.0 Total Available Natural Flow [cfs]

257.1 Reservoir Rights Diverted [cfs]
308.7 Natural Flow Losses below Reservoir [cfs]
127.7 2B to Leslie [cfs]
156.8 Leslie to Moore [cfs]
24.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
187.2 Natural Flow Delivered [cfs]
-3.4 Above Reservoir Storage Use [cfs]
10.1 Reservoir to 2B [cfs]
51.4 2B to Leslie [cfs]
102.1 Leslie to Moore [cfs]
27.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
753.0 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	6.6	330
Eastside Felton Wier +	57.0	2850
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	108.7	5434
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.4	20
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	3.3	165
Island Wanstrom David +	0.0	0
Eastside OUT	71.6	3580
Total Out	84.5	4225
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.78	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 77.8%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 35.1 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 36.5 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 47.0 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 80.2%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 58.6 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 41.4 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 71.2%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 62.3%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	11.0	0.9	28.4
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	1.6	29.9
9 BITTON	0.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	28.0	27.6	164.2
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	34.0	3.4	33.0
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	0.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	8.3	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	16.8	3.3	36.3
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	4.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	9.5
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	41.3
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	5.0	0.0	65.9	8 Stoecklein 1	3.6	0.4	3.2	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	0.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	101.0	30.4	557.8
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	41.4	25.1	436.2
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-6.4	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	40.0	10.3	219.5
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	8.0	1.6	6.3	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.0	286.4
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	116.6	2 SCHUREMAN EXCHAN	7.0	346.0
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	294.0	2 RASMUSSEN EXCHAN	5.1	262.1
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	100.0	2 WADDOUPS GW INTO	0.0	0.0

Reach Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10 Howell Gage	May 17	883.0	0.0	0.0	883.0	0.00	883.0	0.0	0.0	0.0	883.0	0.0	0.0
9 Howell to Chilly	May 17	2.5	15.4	0.0	-865.1	0.98	17.9	14.0	1.4	0.0	3.9	-1.4	0.0
8 Chilly to Reservoir ***Connected***	* May 17	701.9	31.1	0.0	730.6	0.00	748.5	29.1	2.0	0.0	705.4	-3.4	0.0
7 Mackay Reservoir	* May 17	642.0	0.0	0.0	0.0	0.00	748.5	277.2		0.0	428.2	213.8	0.0
6 Reservoir to 2B	May 17	631.0	11.0	0.0	0.0	0.00	748.5	10.1	0.9	0.0	418.1	212.9	0.0
5 2B to Leslie	May 17	438.0	84.0	0.0	-109.0	0.17	748.5	51.0	33.0	0.0	294.8	143.2	0.0
4 Leslie to Moore	May 17	0.4	162.4	0.0	-214.3	0.49	748.5	96.9	65.4	0.0	53.7	-53.2	0.0
2 Moore to blw Munsey	May 17	0.0	66.0	45.1	-29.9	0.49	748.5	27.5	4.0	34.5	0.0	0.0	0.0
1 Blw Munsey to Arco	May 17	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
* - Indicates flow estimated, not measured						TOTAL		505.9	106.7	34.5			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10 Howell Gage	May 17	0.0	0.0		19590902	3%	1	18800630	3.2	556.5	107.9
9 Howell to Chilly	May 17	0.0	0.0		19590902	3%	2	18810630	1.7	294.0	57.3
8 Chilly to Reservoir ***Connected***	May 17	0.0	0.0		19590902	3%	3	18880601	3.2	556.5	101.6
							4	18960601	6.4	1113.0	203.1
7 Mackay Reservoir	May 17	0.0	0.0		19590902	3%	5	19020301	0.8	140.0	25.4
6 Reservoir to 2B	May 17	0.0	0.0		19590902	3%	6	19051002 Unlimited		20646.0	20646.0
5 2B to Leslie	May 17	72.2	36.8		19590902	3%	7	19160207 Unlimited		17205.0	17205.0
4 Leslie to Moore	May 17	144.2	70.0		19590902	3%	8	19590902 Unlimited		6000.0	4430.9
2 Moore to blw Munsey	May 17	26.1	3.8		19590902	3%	9	Add Vol Unlimited		200000.0	0.0
1 Blw Munsey to Arco	May 17	0.0	0.0		19590902	3%	10	Rotation Unlimited		100000.0	0.0
TOTAL		242.5	110.6	0.0				TOTAL		346511.0	42777.1

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37230.0	37330.0	100.0	50.4	9.5

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	5267.1
Total Storage Loss	-3725.0
Total Storage Deliver	-1394.0
Total Evaporation	-419.4
Accounting Balance	<u>37238.7</u>
Current Res Content	37330.0
Storage Balance Error	-91.3

DAILY STORAGE BALANCE

37230.0 Reservoir Content Previous Day [ac-ft]
37330.0 Reservoir Content Current Day [ac-ft]
100.0 Physical Change in Storage [ac-ft]

549.8 Storage Allocated to Mackay Reservoir [ac-ft]
-219.4 Stored Flow Losses [ac-ft]
-36.8 2B to Leslie [cfs]
-70.0 Leslie to Moore [cfs]
-3.8 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-211.5 Storage Delivered [ac-ft]
3.4 Above Reservoir [cfs]
0.9 Reservoir to 2B [cfs]
33.0 2B to Leslie [cfs]
65.4 Leslie to Moore [cfs]
4.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-18.9 Evaporation [ac-ft]
100.0 Accounting Change in Storage [ac-ft]

0.0 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

701.9 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

701.9 Total Available Natural Flow [cfs]

277.2 Reservoir Rights Diverted [cfs]
242.5 Natural Flow Losses below Reservoir [cfs]
72.2 2B to Leslie [cfs]
144.2 Leslie to Moore [cfs]
26.1 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
182.1 Natural Flow Delivered [cfs]
-3.4 Above Reservoir Storage Use [cfs]
10.1 Reservoir to 2B [cfs]
51.0 2B to Leslie [cfs]
96.9 Leslie to Moore [cfs]
27.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
701.8 Natural Flow Delivered & Lost [cfs]

0.1 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	7.9	395
Eastside Felton Wier +	68.8	3440
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	121.8	6089
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.4	20
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	3.3	165
Island Wanstrom David +	0.0	0
Eastside OUT	80.4	4020
Total Out	93.3	4665
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.77	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 76.6%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 34.5 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 45.9 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 59.9 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 98.3%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 60.9 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 34.0 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 86.7%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 75.3%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	11.0	0.9	30.1
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	0.0	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	1.6	33.0
9 BITTON	0.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	28.0	28.0	219.8
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	34.0	3.4	39.7
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	0.0	0.0	0.0	5 HARRIS-VAUGHT	0.0	0.0	0.0
9 NEILSEN	8.3	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	16.8	3.3	42.8
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	4.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	0.0
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	11.1
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	44.4
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	5.0	0.0	65.9	8 Stoecklein 1	3.6	0.4	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	0.0	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	99.0	28.9	615.2
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	34.0	22.4	480.8
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-6.1	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	40.0	10.1	239.5
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.8	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	8.0	1.6	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.0	300.3
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	136.1	2 SCHUREMAN EXCHAN	7.0	359.9
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	309.4	2 RASMUSSEN EXCHAN	5.1	272.2
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	116.6	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 18	754.0	1.6	0.0	755.6	0.00	755.6	1.6	0.0	0.0	754.0	0.0	0.0
9	Howell to Chilly	May 18	0.0	26.0	0.0	-728.0	1.00	27.6	23.7	2.3	0.0	2.3	-2.3	0.0
8	Chilly to Reservoir ***Connected***	* May 18	607.5	33.0	0.0	640.5	0.00	668.1	32.0	1.0	0.0	610.8	-3.3	0.0
7	Mackay Reservoir	* May 18	593.0	0.0	0.0	0.0	0.00	668.1	164.0		0.0	446.7	146.3	0.0
6	Reservoir to 2B	May 18	582.0	11.0	0.0	0.0	0.00	668.1	10.1	0.9	0.0	436.6	145.4	0.0
5	2B to Leslie	May 18	409.0	85.6	0.0	-87.4	0.15	668.1	78.3	7.3	0.0	292.8	116.2	0.0
4	Leslie to Moore	May 18	0.9	153.9	0.0	-199.0	0.49	668.1	102.6	51.2	0.0	47.7	-46.8	0.0
2	Moore to blw Munsey	May 18	0.0	66.0	45.1	-23.4	0.42	668.1	27.8	4.9	33.3	0.0	0.0	0.0
1	Blw Munsey to Arco	May 18	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		440.2	67.6	33.3			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 18	0.0	0.0	19590902	1%	1	18800630	3.2	556.5	114.2
9	Howell to Chilly	May 18	0.0	0.0	19590902	1%	2	18810630	1.7	294.0	60.7
8	Chilly to Reservoir ***Connected***	May 18	0.0	0.0	19590902	1%	3	18880601	3.2	556.5	107.9
							4	18960601	6.4	1113.0	215.8
7	Mackay Reservoir	May 18	0.0	0.0	19590902	1%	5	19020301	0.8	140.0	27.0
6	Reservoir to 2B	May 18	0.0	0.0	19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 18	65.6	21.8	19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 18	142.5	56.6	19590902	1%	8	19590902 Unlimited		6000.0	4725.9
2	Moore to blw Munsey	May 18	19.9	3.5	19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 18	0.0	0.0	19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			228.0	81.9	0.0			TOTAL		346511.0	43102.5

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37330.0	37330.0	0.0	0.0	14.5

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	5592.5
Total Storage Loss	-3887.4
Total Storage Deliver	-1528.1
Total Evaporation	-448.1
Accounting Balance	<u>37238.9</u>
Current Res Content	37330.0
Storage Balance Error	-91.1

DAILY STORAGE BALANCE

37330.0 Reservoir Content Previous Day [ac-ft]
37330.0 Reservoir Content Current Day [ac-ft]
0.0 Physical Change in Storage [ac-ft]

325.4 Storage Allocated to Mackay Reservoir [ac-ft]
-162.4 Stored Flow Losses [ac-ft]
-21.8 2B to Leslie [cfs]
-56.6 Leslie to Moore [cfs]
-3.5 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-134.1 Storage Delivered [ac-ft]
3.3 Above Reservoir [cfs]
0.9 Reservoir to 2B [cfs]
7.3 2B to Leslie [cfs]
51.2 Leslie to Moore [cfs]
4.9 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-28.7 Evaporation [ac-ft]
0.2 Accounting Change in Storage [ac-ft]

0.2 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

607.5 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

607.5 Total Available Natural Flow [cfs]

164.0 Reservoir Rights Diverted [cfs]
228.0 Natural Flow Losses below Reservoir [cfs]
65.6 2B to Leslie [cfs]
142.5 Leslie to Moore [cfs]
19.9 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
215.5 Natural Flow Delivered [cfs]
-3.3 Above Reservoir Storage Use [cfs]
10.1 Reservoir to 2B [cfs]
78.3 2B to Leslie [cfs]
102.6 Leslie to Moore [cfs]
27.8 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
607.5 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	7.2	360
Eastside Felton Wier +	71.3	3565
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	123.6	6179
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	3.3	165
Island Wanstrom David +	0.0	0
Eastside OUT	78.8	3940
Total Out	91.3	4565
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.74	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 73.9%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 33.3 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 45.5 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 61.6 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 111.5%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 55.2 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 29.7 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 96.6%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 82.4%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.6	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	11.0	0.9	31.9
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.8	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	1.5	36.0
9 BITTON	3.2	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	2.4	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	30.0	0.0	219.8
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	30.0	2.2	44.0
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	7.1
9 NEILSEN	10.5	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	17.0	3.2	49.1
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	7.6	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	2.0	2.0	4.0
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	12.7
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	47.6
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.5	1.0	68.0	8 Stoecklein 1	1.6	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	89.5	28.1	671.0
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	29.7	4.0	488.7
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-6.2	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	40.0	11.1	261.6
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	8.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.0	314.2
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	155.5	2 SCHUREMAN EXCHAN	7.0	373.7
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	324.9	2 RASMUSSEN EXCHAN	5.1	282.3
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	133.3	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 19	661.0	1.6	0.0	662.6	0.00	662.6	1.6	0.0	0.0	661.0	0.0	0.0
9	Howell to Chilly	May 19	0.0	26.0	0.0	-635.0	1.00	27.6	23.7	2.3	0.0	2.3	-2.3	0.0
8	Chilly to Reservoir ***Connected***	* May 19	553.1	33.0	0.0	586.1	0.00	613.7	32.0	1.0	0.0	556.4	-3.3	0.0
7	Mackay Reservoir	* May 19	568.0	0.0	0.0	0.0	0.00	613.7	108.8		0.0	447.6	120.4	0.0
6	Reservoir to 2B	May 19	557.0	11.0	0.0	0.0	0.00	613.7	10.1	0.9	0.0	437.5	119.5	0.0
5	2B to Leslie	May 19	394.0	85.6	0.0	-77.4	0.14	613.7	80.5	5.1	0.0	296.2	97.8	0.0
4	Leslie to Moore	May 19	0.0	154.3	0.0	-189.2	0.48	613.7	111.9	42.4	0.0	42.1	-42.1	0.0
2	Moore to blw Munsey	May 19	0.0	66.0	45.1	-16.9	0.33	613.7	28.0	5.6	32.4	0.0	0.0	0.0
1	Blw Munsey to Arco	May 19	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		396.6	57.3	32.4			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 19	0.0	0.0	19590902	1%	1	18800630	3.2	556.5	120.6
9	Howell to Chilly	May 19	0.0	0.0	19590902	1%	2	18810630	1.7	294.0	64.1
8	Chilly to Reservoir ***Connected***	May 19	0.0	0.0	19590902	1%	3	18880601	3.2	556.5	114.2
							4	18960601	6.4	1113.0	228.5
7	Mackay Reservoir	May 19	0.0	0.0	19590902	1%	5	19020301	0.8	140.0	28.6
6	Reservoir to 2B	May 19	0.0	0.0	19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 19	60.8	16.6	19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 19	142.2	47.0	19590902	1%	8	19590902 Unlimited		6000.0	4911.4
2	Moore to blw Munsey	May 19	14.1	2.8	19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 19	0.0	0.0	19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			217.1	66.4	0.0			TOTAL		346511.0	43318.4

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37330.0	37280.0	-50.0	-25.2	10.3

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	5808.4
Total Storage Loss	-4019.1
Total Storage Deliver	-1641.7
Total Evaporation	-468.5
Accounting Balance	<u>37189.1</u>
Current Res Content	37280.0
Storage Balance Error	-90.9

DAILY STORAGE BALANCE

37330.0 Reservoir Content Previous Day [ac-ft]
37280.0 Reservoir Content Current Day [ac-ft]
-50.0 Physical Change in Storage [ac-ft]

215.9 Storage Allocated to Mackay Reservoir [ac-ft]
-131.7 Stored Flow Losses [ac-ft]
-16.6 2B to Leslie [cfs]
-47.0 Leslie to Moore [cfs]
-2.8 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-113.7 Storage Delivered [ac-ft]
3.3 Above Reservoir [cfs]
0.9 Reservoir to 2B [cfs]
5.1 2B to Leslie [cfs]
42.4 Leslie to Moore [cfs]
5.6 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-20.4 Evaporation [ac-ft]
-49.9 Accounting Change in Storage [ac-ft]

0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

553.1 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

553.1 Total Available Natural Flow [cfs]

108.8 Reservoir Rights Diverted [cfs]
217.1 Natural Flow Losses below Reservoir [cfs]
60.8 2B to Leslie [cfs]
142.2 Leslie to Moore [cfs]
14.1 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
227.2 Natural Flow Delivered [cfs]
-3.3 Above Reservoir Storage Use [cfs]
10.1 Reservoir to 2B [cfs]
80.5 2B to Leslie [cfs]
111.9 Leslie to Moore [cfs]
28.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
553.1 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	5.5	275
Eastside Felton Wier +	62.8	3140
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	113.4	5669
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	3.3	165
Island Wanstrom David +	0.0	0
Eastside OUT	68.9	3445
Total Out	81.4	4070
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.72	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 71.8%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 32.4 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 36.5 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 50.9 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 100.7%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 50.6 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 33.3 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 85.9%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 72.3%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.6	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	11.0	0.9	33.7
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.8	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	1.5	39.0
9 BITTON	3.2	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	2.4	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	30.0	0.0	219.8
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	30.0	0.0	44.0
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	14.3
9 NEILSEN	10.5	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	17.0	3.2	55.4
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	7.6	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	2.0	2.0	7.9
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	14.3
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	50.8
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.5	1.0	70.0	8 Stoecklein 1	1.6	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	89.9	19.3	709.2
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	33.3	7.7	504.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-5.8	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	40.0	11.4	284.2
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	8.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	0.0	2 QUIST EXCHANGE P	7.0	328.1
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	174.9	2 SCHUREMAN EXCHAN	7.0	387.6
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	340.4	2 RASMUSSEN EXCHAN	5.1	292.4
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	150.0	2 WADDOUPS GW INTO	0.0	0.0

Reach Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10 Howell Gage	May 20	607.0	1.6	0.0	608.6	0.00	608.6	1.6	0.0	0.0	607.0	0.0	0.0
9 Howell to Chilly	May 20	0.0	26.0	0.0	-581.0	1.00	27.6	23.7	2.3	0.0	2.3	-2.3	0.0
8 Chilly to Reservoir ***Connected***	* May 20	523.2	33.0	0.0	556.2	0.00	583.8	32.0	1.0	0.0	526.5	-3.3	0.0
7 Mackay Reservoir	* May 20	523.0	0.0	0.0	0.0	0.00	583.8	112.5		0.0	414.0	109.0	0.0
6 Reservoir to 2B	May 20	512.0	11.0	0.0	0.0	0.00	583.8	10.1	0.9	0.0	403.9	108.1	0.0
5 2B to Leslie	May 20	365.0	93.6	0.0	-53.4	0.10	583.8	88.5	5.1	0.0	273.3	91.7	0.0
4 Leslie to Moore	May 20	0.1	144.4	0.0	-178.3	0.49	583.8	102.9	41.5	0.0	36.9	-36.7	0.0
2 Moore to blw Munsey	May 20	0.0	66.0	46.4	-9.7	0.23	583.8	28.4	4.2	33.5	0.0	0.0	0.0
1 Blw Munsey to Arco	May 20	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
* - Indicates flow estimated, not measured						TOTAL		399.7	55.0	33.5			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10 Howell Gage	May 20	0.0	0.0		19590902	1%	1	18800630	3.2	556.5	126.9
9 Howell to Chilly	May 20	0.0	0.0		19590902	1%	2	18810630	1.7	294.0	67.4
8 Chilly to Reservoir ***Connected***	May 20	0.0	0.0		19590902	1%	3	18880601	3.2	556.5	120.6
							4	18960601	6.4	1113.0	241.2
7 Mackay Reservoir	May 20	0.0	0.0		19590902	1%	5	19020301	0.8	140.0	30.1
6 Reservoir to 2B	May 20	0.0	0.0		19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5 2B to Leslie	May 20	42.1	11.3		19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4 Leslie to Moore	May 20	133.5	44.8		19590902	1%	8	19590902 Unlimited		6000.0	5104.3
2 Moore to blw Munsey	May 20	8.5	1.2		19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1 Blw Munsey to Arco	May 20	0.0	0.0		19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL		184.1	57.3	0.0				TOTAL		346511.0	43541.6

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37280.0	37260.0	-20.0	-10.1	10.3

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	6031.6
Total Storage Loss	-4132.8
Total Storage Deliver	-1750.8
Total Evaporation	-488.9
Accounting Balance	<u>37169.1</u>
Current Res Content	37260.0
Storage Balance Error	-90.9

DAILY STORAGE BALANCE

37280.0 Reservoir Content Previous Day [ac-ft]
37260.0 Reservoir Content Current Day [ac-ft]
-20.0 Physical Change in Storage [ac-ft]

223.2 Storage Allocated to Mackay Reservoir [ac-ft]
-113.7 Stored Flow Losses [ac-ft]
-11.3 2B to Leslie [cfs]
-44.8 Leslie to Moore [cfs]
-1.2 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-109.0 Storage Delivered [ac-ft]
3.3 Above Reservoir [cfs]
0.9 Reservoir to 2B [cfs]
5.1 2B to Leslie [cfs]
41.5 Leslie to Moore [cfs]
4.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-20.4 Evaporation [ac-ft]
-19.9 Accounting Change in Storage [ac-ft]

0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

523.2 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

523.2 Total Available Natural Flow [cfs]

112.5 Reservoir Rights Diverted [cfs]
184.1 Natural Flow Losses below Reservoir [cfs]
42.1 2B to Leslie [cfs]
133.5 Leslie to Moore [cfs]
8.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
226.6 Natural Flow Delivered [cfs]
-3.3 Above Reservoir Storage Use [cfs]
10.1 Reservoir to 2B [cfs]
88.5 2B to Leslie [cfs]
102.9 Leslie to Moore [cfs]
28.4 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

523.2 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	5.7	285
Eastside Felton Wier +	56.1	2805
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	1.3	67
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	108.2	5411
Groundwater to Arco	20.5	1025
Groundwater to Munsey	25.9	1296

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	3.3	165
Island Wanstrom David +	0.0	0
Eastside OUT	65.5	3275
Total Out	78.0	3900
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.72	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 72.1%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 33.5 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 32.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 44.5 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 105.5%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 42.1 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 31.8 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 90.2%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 76.0%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.6	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	11.0	0.9	35.5
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.8	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	1.5	42.0
9 BITTON	3.2	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	2.4	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	30.0	0.0	219.8
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	38.0	0.0	44.0
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	21.4
9 NEILSEN	10.5	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	17.0	3.2	61.7
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	7.6	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	2.1	2.1	12.0
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	15.9
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	54.0
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.5	1.0	72.1	8 Stoecklein 1	1.6	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	80.0	18.7	746.3
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	31.8	5.8	515.5
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-5.8	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	40.0	11.0	306.0
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	8.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	1.3	2.7	2 QUIST EXCHANGE P	7.0	342.0
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	194.4	2 SCHUREMAN EXCHAN	7.0	401.4
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	355.8	2 RASMUSSEN EXCHAN	5.1	302.5
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	166.6	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 21	591.0	1.6	0.0	592.6	0.00	592.6	1.6	0.0	0.0	591.0	0.0	0.0
9	Howell to Chilly	May 21	0.0	26.0	0.0	-565.0	1.00	27.6	23.7	2.3	0.0	2.3	-2.3	0.0
8	Chilly to Reservoir ***Connected***	* May 21	447.8	33.0	0.0	480.8	0.00	508.4	32.0	1.0	0.0	451.1	-3.3	0.0
7	Mackay Reservoir	* May 21	498.0	0.0	0.0	0.0	0.00	508.4	61.3		0.0	389.8	108.2	0.0
6	Reservoir to 2B	May 21	489.0	9.0	0.0	0.0	0.00	508.4	8.9	0.1	0.0	380.9	108.1	0.0
5	2B to Leslie	May 21	346.0	84.6	0.0	-58.4	0.12	508.4	77.0	7.6	0.0	258.4	87.6	0.0
4	Leslie to Moore	May 21	0.0	129.1	0.0	-172.7	0.50	508.4	92.3	36.7	0.0	37.1	-37.1	0.0
2	Moore to blw Munsey	May 21	0.0	59.0	46.6	-18.2	0.41	508.4	21.8	4.2	33.0	0.0	0.0	0.0
1	Blw Munsey to Arco	May 21	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		318.6	51.9	33.0			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 21	0.0	0.0	19590902	0%	1	18800630	3.2	556.5	133.3
9	Howell to Chilly	May 21	0.0	0.0	19590902	0%	2	18810630	1.7	294.0	70.8
8	Chilly to Reservoir ***Connected***	May 21	0.0	0.0	19590902	0%	3	18880601	3.2	556.5	126.9
							4	18960601	6.4	1113.0	253.9
7	Mackay Reservoir	May 21	0.0	0.0	19590902	0%	5	19020301	0.8	140.0	31.7
6	Reservoir to 2B	May 21	0.0	0.0	19590902	0%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 21	45.5	12.9	19590902	0%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 21	129.0	43.7	19590902	0%	8	19590902 Unlimited		6000.0	5195.5
2	Moore to blw Munsey	May 21	15.2	2.9	19590902	0%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 21	0.0	0.0	19590902	0%	10	Rotation Unlimited		100000.0	0.0
TOTAL			189.7	59.6	0.0			TOTAL		346511.0	43663.1

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37260.0	37140.0	-120.0	-60.5	10.3

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	6153.1
Total Storage Loss	-4250.8
Total Storage Deliver	-1853.8
Total Evaporation	-509.3
Accounting Balance	<u>37049.3</u>
Current Res Content	37140.0
Storage Balance Error	-90.7

DAILY STORAGE BALANCE

37260.0 Reservoir Content Previous Day [ac-ft]
37140.0 Reservoir Content Current Day [ac-ft]
-120.0 Physical Change in Storage [ac-ft]

121.5 Storage Allocated to Mackay Reservoir [ac-ft]
-118.0 Stored Flow Losses [ac-ft]
-12.9 2B to Leslie [cfs]
-43.7 Leslie to Moore [cfs]
-2.9 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-102.9 Storage Delivered [ac-ft]
3.3 Above Reservoir [cfs]
0.1 Reservoir to 2B [cfs]
7.6 2B to Leslie [cfs]
36.7 Leslie to Moore [cfs]
4.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-20.4 Evaporation [ac-ft]
-119.8 Accounting Change in Storage [ac-ft]

0.2 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

447.8 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

447.8 Total Available Natural Flow [cfs]

61.3 Reservoir Rights Diverted [cfs]
189.7 Natural Flow Losses below Reservoir [cfs]
45.5 2B to Leslie [cfs]
129.0 Leslie to Moore [cfs]
15.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
196.7 Natural Flow Delivered [cfs]
-3.3 Above Reservoir Storage Use [cfs]
8.9 Reservoir to 2B [cfs]
77.0 2B to Leslie [cfs]
92.3 Leslie to Moore [cfs]
21.8 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
447.7 Natural Flow Delivered & Lost [cfs]

0.1 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	5.1	255
Eastside Felton Wier +	47.6	2380
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	1.3	67
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	99.3	4967
Groundwater to Arco	20.7	1036
Groundwater to Munsey	25.9	1296

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	61.0	3050
Total Out	70.2	3510
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.71	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 70.7%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 33.0 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 28.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 39.7 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 89.8%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 44.2 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 26.1 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 75.1%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 63.4%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.6	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	9.0	0.1	35.7
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.8	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	1.5	44.9
9 BITTON	3.2	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	2.4	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	28.0	0.0	219.8
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	31.0	2.5	48.9
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	28.6
9 NEILSEN	10.5	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	14.0	3.1	67.9
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	7.6	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	1.7	1.7	15.3
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	17.5
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	57.1
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.5	1.0	74.1	8 Stoecklein 1	1.6	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	80.4	25.0	795.9
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	26.1	1.9	519.2
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	25.0	-7.5	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	34.0	12.6	331.0
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	8.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	1.3	5.3	2 QUIST EXCHANGE P	7.0	355.8
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	213.8	2 SCHUREMAN EXCHAN	7.0	415.3
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	371.3	2 RASMUSSEN EXCHAN	5.3	313.1
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	183.3	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 22	587.0	1.6	0.0	588.6	0.00	588.6	1.6	0.0	0.0	587.0	0.0	0.0
9	Howell to Chilly	May 22	0.0	26.0	0.0	-561.0	1.00	27.6	23.7	2.3	0.0	2.3	-2.3	0.0
8	Chilly to Reservoir ***Connected***	* May 22	449.6	33.0	0.0	482.6	0.00	510.2	32.0	1.0	0.0	452.9	-3.3	0.0
7	Mackay Reservoir	* May 22	458.0	0.0	0.0	0.0	0.00	510.2	93.3		0.0	359.6	98.4	0.0
6	Reservoir to 2B	May 22	449.0	9.0	0.0	0.0	0.00	510.2	8.9	0.1	0.0	350.8	98.2	0.0
5	2B to Leslie	May 22	332.0	86.6	0.0	-30.4	0.07	510.2	77.8	8.8	0.0	249.2	82.8	0.0
4	Leslie to Moore	May 22	0.0	125.1	0.0	-162.1	0.49	510.2	88.9	36.2	0.0	38.6	-38.6	0.0
2	Moore to blw Munsey	May 22	0.0	59.0	46.6	-19.5	0.43	510.2	21.8	3.5	33.7	0.0	0.0	0.0
1	Blw Munsey to Arco	May 22	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		348.0	51.9	33.7			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 22	0.0	0.0	19590902	1%	1	18800630	3.2	556.5	139.6
9	Howell to Chilly	May 22	0.0	0.0	19590902	1%	2	18810630	1.7	294.0	74.2
8	Chilly to Reservoir ***Connected***	May 22	0.0	0.0	19590902	1%	3	18880601	3.2	556.5	133.3
							4	18960601	6.4	1113.0	266.6
7	Mackay Reservoir	May 22	0.0	0.0	19590902	1%	5	19020301	0.8	140.0	33.3
6	Reservoir to 2B	May 22	0.0	0.0	19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 22	23.7	6.7	19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 22	121.7	40.4	19590902	1%	8	19590902 Unlimited		6000.0	5350.2
2	Moore to blw Munsey	May 22	16.8	2.7	19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 22	0.0	0.0	19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			162.2	49.8	0.0			TOTAL		346511.0	43848.2

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37140.0	37100.0	-40.0	-20.2	11.8

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	6338.2
Total Storage Loss	-4349.6
Total Storage Deliver	-1956.7
Total Evaporation	-532.6
Accounting Balance	<u>37009.3</u>
Current Res Content	37100.0
Storage Balance Error	-90.7

DAILY STORAGE BALANCE

37140.0 Reservoir Content Previous Day [ac-ft]
37100.0 Reservoir Content Current Day [ac-ft]
-40.0 Physical Change in Storage [ac-ft]

185.1 Storage Allocated to Mackay Reservoir [ac-ft]
-98.8 Stored Flow Losses [ac-ft]
-6.7 2B to Leslie [cfs]
-40.4 Leslie to Moore [cfs]
-2.7 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-102.9 Storage Delivered [ac-ft]
3.3 Above Reservoir [cfs]
0.1 Reservoir to 2B [cfs]
8.8 2B to Leslie [cfs]
36.2 Leslie to Moore [cfs]
3.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-23.3 Evaporation [ac-ft]
-39.9 Accounting Change in Storage [ac-ft]

0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

449.6 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

449.6 Total Available Natural Flow [cfs]

93.3 Reservoir Rights Diverted [cfs]
162.2 Natural Flow Losses below Reservoir [cfs]
23.7 2B to Leslie [cfs]
121.7 Leslie to Moore [cfs]
16.8 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
194.1 Natural Flow Delivered [cfs]
-3.3 Above Reservoir Storage Use [cfs]
8.9 Reservoir to 2B [cfs]
77.8 2B to Leslie [cfs]
88.9 Leslie to Moore [cfs]
21.8 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

449.6 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	4.7	235
Eastside Felton Wier +	46.2	2310
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	1.3	67
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.3	266
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	97.5	4877
Groundwater to Arco	20.7	1036
Groundwater to Munsey	25.9	1296

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	61.2	3060
Total Out	70.4	3520
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.72	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 72.2%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 33.7 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 27.5 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 38.2 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 85.1%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 44.8 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 27.2 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 72.1%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 61.4%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.6	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	9.0	0.1	36.0
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.8	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	24.0	2.7	50.3
9 BITTON	3.2	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	2.4	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	28.0	0.0	219.8
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	31.0	2.5	53.8
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	35.7
9 NEILSEN	10.5	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	10.0	1.7	71.3
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	7.6	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	1.7	1.7	18.6
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	19.0
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	60.3
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.5	1.0	76.1	8 Stoecklein 1	1.6	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	80.4	26.4	848.3
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	27.2	2.3	523.8
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	25.0	-7.8	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	34.0	12.3	355.3
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	8.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	1.3	8.0	2 QUIST EXCHANGE P	7.0	369.7
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	233.3	2 SCHUREMAN EXCHAN	7.0	429.1
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	386.8	2 RASMUSSEN EXCHAN	5.3	323.6
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	199.9	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 23	596.0	0.0	0.0	596.0	0.00	596.0	0.0	0.0	0.0	596.0	0.0	0.0
9	Howell to Chilly	May 23	0.0	16.4	0.0	-579.6	1.00	16.4	14.1	2.3	0.0	2.3	-2.3	0.0
8	Chilly to Reservoir ***Connected***	* May 23	434.8	25.9	0.0	460.7	0.00	477.1	25.9	0.0	0.0	437.1	-2.3	0.0
7	Mackay Reservoir	* May 23	437.0	0.0	0.0	0.0	0.00	477.1	67.5		0.0	369.5	67.5	0.0
6	Reservoir to 2B	May 23	428.0	9.0	0.0	0.0	0.00	477.1	8.9	0.1	0.0	360.7	67.3	0.0
5	2B to Leslie	May 23	303.0	86.6	0.0	-38.4	0.09	477.1	78.7	7.9	0.0	249.6	53.4	0.0
4	Leslie to Moore	May 23	0.0	117.8	0.0	-142.4	0.47	477.1	96.7	21.1	0.0	35.6	-35.6	0.0
2	Moore to blw Munsey	May 23	0.0	66.0	45.1	-9.8	0.23	477.1	27.4	5.5	33.0	0.0	0.0	0.0
1	Blw Munsey to Arco	May 23	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		319.2	36.9	33.0			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 23	0.0	0.0	19590902	1%	1	18800630	3.2	556.5	146.0
9	Howell to Chilly	May 23	0.0	0.0	19590902	1%	2	18810630	1.7	294.0	77.6
8	Chilly to Reservoir ***Connected***	May 23	0.0	0.0	19590902	1%	3	18880601	3.2	556.5	139.6
							4	18960601	6.4	1113.0	279.3
7	Mackay Reservoir	May 23	0.0	0.0	19590902	1%	5	19020301	0.8	140.0	34.9
6	Reservoir to 2B	May 23	0.0	0.0	19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 23	32.4	6.0	19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 23	117.3	25.1	19590902	1%	8	19590902 Unlimited		6000.0	5453.8
2	Moore to blw Munsey	May 23	8.1	1.6	19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 23	0.0	0.0	19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			157.8	32.8	0.0			TOTAL		346511.0	43982.2

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37100.0	37070.0	-30.0	-15.1	12.9

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	6472.2
Total Storage Loss	-4414.5
Total Storage Deliver	-2029.9
Total Evaporation	-558.2
Accounting Balance	<u>36979.6</u>
Current Res Content	37070.0
Storage Balance Error	-90.4

DAILY STORAGE BALANCE

37100.0 Reservoir Content Previous Day [ac-ft]
37070.0 Reservoir Content Current Day [ac-ft]
-30.0 Physical Change in Storage [ac-ft]

134.0 Storage Allocated to Mackay Reservoir [ac-ft]
-64.9 Stored Flow Losses [ac-ft]
-6.0 2B to Leslie [cfs]
-25.1 Leslie to Moore [cfs]
-1.6 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-73.3 Storage Delivered [ac-ft]
2.3 Above Reservoir [cfs]
0.1 Reservoir to 2B [cfs]
7.9 2B to Leslie [cfs]
21.1 Leslie to Moore [cfs]
5.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-25.6 Evaporation [ac-ft]
-29.8 Accounting Change in Storage [ac-ft]

0.2 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

434.8 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

434.8 Total Available Natural Flow [cfs]

67.5 Reservoir Rights Diverted [cfs]
157.8 Natural Flow Losses below Reservoir [cfs]
32.4 2B to Leslie [cfs]
117.3 Leslie to Moore [cfs]
8.1 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
209.4 Natural Flow Delivered [cfs]
-2.3 Above Reservoir Storage Use [cfs]
8.9 Reservoir to 2B [cfs]
78.7 2B to Leslie [cfs]
96.7 Leslie to Moore [cfs]
27.4 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

434.7 Natural Flow Delivered & Lost [cfs]

0.1 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	4.0	200
Eastside Felton Wier +	36.9	1845
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	86.0	4299
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	53.8	2690
Total Out	63.0	3150
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.73	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 73.3%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 33.0 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 20.8 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 28.3 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 66.3%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 42.8 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 39.1 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 57.7%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 48.6%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	9.0	0.1	36.3
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.8	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	24.0	1.8	53.9
9 BITTON	0.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	28.0	0.0	219.8
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	31.0	2.5	58.8
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	42.8
9 NEILSEN	8.9	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	10.0	1.7	74.8
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	5.2	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	0.0	0.0	18.6
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	20.6
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	63.5
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	0.0	0.0	76.1	8 Stoecklein 1	1.6	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	71.8	11.1	870.4
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	39.1	13.2	550.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-6.2	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	40.0	11.8	378.7
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.0	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	8.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	8.0	2 QUIST EXCHANGE P	7.0	383.6
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	252.7	2 SCHUREMAN EXCHAN	7.0	443.0
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	402.3	2 RASMUSSEN EXCHAN	5.1	333.7
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	216.6	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 24	693.0	0.0	0.0	693.0	0.00	693.0	0.0	0.0	0.0	693.0	0.0	0.0
9	Howell to Chilly	May 24	0.0	16.4	0.0	-676.6	1.00	16.4	14.1	2.3	0.0	2.3	-2.3	0.0
8	Chilly to Reservoir ***Connected***	* May 24	445.4	25.9	0.0	471.3	0.00	487.7	25.9	0.0	0.0	447.7	-2.3	0.0
7	Mackay Reservoir	* May 24	436.0	0.0	0.0	0.0	0.00	487.7	84.3		0.0	363.3	72.7	0.0
6	Reservoir to 2B	May 24	427.0	9.0	0.0	0.0	0.00	487.7	8.9	0.1	0.0	354.4	72.6	0.0
5	2B to Leslie	May 24	301.0	86.6	0.0	-39.4	0.09	487.7	78.7	7.9	0.0	243.0	58.0	0.0
4	Leslie to Moore	May 24	0.0	116.2	0.0	-137.5	0.46	487.7	93.8	22.4	0.0	38.2	-38.2	0.0
2	Moore to blw Munsey	May 24	0.0	66.0	45.1	-13.4	0.28	487.7	27.3	6.5	32.2	0.0	0.0	0.0
1	Blw Munsey to Arco	May 24	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		333.1	39.2	32.2			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 24	0.0	0.0	19590902	1%	1	18800630	3.2	556.5	152.3
9	Howell to Chilly	May 24	0.0	0.0	19590902	1%	2	18810630	1.7	294.0	80.9
8	Chilly to Reservoir ***Connected***	May 24	0.0	0.0	19590902	1%	3	18880601	3.2	556.5	146.0
							4	18960601	6.4	1113.0	292.0
7	Mackay Reservoir	May 24	0.0	0.0	19590902	1%	5	19020301	0.8	140.0	36.5
6	Reservoir to 2B	May 24	0.0	0.0	19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 24	32.7	6.7	19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 24	111.1	26.5	19590902	1%	8	19590902 Unlimited		6000.0	5590.8
2	Moore to blw Munsey	May 24	10.8	2.6	19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 24	0.0	0.0	19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			154.6	35.8	0.0			TOTAL		346511.0	44149.5

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37070.0	37060.0	-10.0	-5.0	14.4

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	6639.5
Total Storage Loss	-4485.5
Total Storage Deliver	-2107.7
Total Evaporation	-586.8
Accounting Balance	<u>36969.5</u>
Current Res Content	37060.0
Storage Balance Error	-90.5

DAILY STORAGE BALANCE

37070.0 Reservoir Content Previous Day [ac-ft]
37060.0 Reservoir Content Current Day [ac-ft]
-10.0 Physical Change in Storage [ac-ft]

167.3 Storage Allocated to Mackay Reservoir [ac-ft]
-71.0 Stored Flow Losses [ac-ft]
-6.7 2B to Leslie [cfs]
-26.5 Leslie to Moore [cfs]
-2.6 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-77.8 Storage Delivered [ac-ft]
2.3 Above Reservoir [cfs]
0.1 Reservoir to 2B [cfs]
7.9 2B to Leslie [cfs]
22.4 Leslie to Moore [cfs]
6.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-28.6 Evaporation [ac-ft]
-10.1 Accounting Change in Storage [ac-ft]

-0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

445.4 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

445.4 Total Available Natural Flow [cfs]

84.3 Reservoir Rights Diverted [cfs]
154.6 Natural Flow Losses below Reservoir [cfs]
32.7 2B to Leslie [cfs]
111.1 Leslie to Moore [cfs]
10.8 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
206.4 Natural Flow Delivered [cfs]
-2.3 Above Reservoir Storage Use [cfs]
8.9 Reservoir to 2B [cfs]
78.7 2B to Leslie [cfs]
93.8 Leslie to Moore [cfs]
27.3 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

445.3 Natural Flow Delivered & Lost [cfs]

0.1 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	4.5	225
Eastside Felton Wier +	32.4	1620
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	82.0	4099
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	49.3	2465
Total Out	58.5	2925
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.71	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 71.4%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 32.2 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 17.1 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 24.0 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 50.8%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 47.3 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 51.7 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 43.7%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 36.3%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	9.0	0.1	36.6
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.8	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	24.0	1.8	57.5
9 BITTON	0.0	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	28.0	0.0	219.8
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	31.0	2.5	63.7
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	50.0
9 NEILSEN	8.9	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	10.0	1.7	78.2
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	5.2	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	0.0	0.0	18.6
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	22.2
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	66.6
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	0.0	0.0	76.1	8 Stoecklein 1	1.6	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	70.2	12.4	895.0
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	51.7	25.8	601.2
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-5.8	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	40.0	12.3	403.1
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.0	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	8.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.2	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	8.0	2 QUIST EXCHANGE P	7.0	397.5
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	272.1	2 SCHUREMAN EXCHAN	7.0	456.8
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	417.7	2 RASMUSSEN EXCHAN	5.1	343.9
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	233.3	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 25	859.0	1.6	0.0	860.6	0.00	860.6	1.6	0.0	0.0	859.0	0.0	0.0
9	Howell to Chilly	May 25	2.0	27.6	0.0	-829.4	0.97	31.2	25.3	2.3	0.0	4.3	-2.3	0.0
8	Chilly to Reservoir ***Connected***	* May 25	494.5	36.7	0.0	529.1	0.00	560.3	30.2	6.5	0.0	503.3	-8.8	0.0
7	Mackay Reservoir	* May 25	442.0	0.0	0.0	0.0	0.00	560.3	152.6		0.0	350.7	91.3	0.0
6	Reservoir to 2B	May 25	433.0	9.0	0.0	0.0	0.00	560.3	8.9	0.1	0.0	341.8	91.2	0.0
5	2B to Leslie	May 25	302.0	86.6	0.0	-44.4	0.10	560.3	78.7	7.9	0.0	228.0	74.0	0.0
4	Leslie to Moore	May 25	0.0	118.3	0.0	-132.3	0.44	560.3	88.5	29.8	0.0	39.6	-39.6	0.0
2	Moore to blw Munsey	May 25	0.0	69.0	45.1	-16.1	0.31	560.3	27.2	8.1	33.7	0.0	0.0	0.0
1	Blw Munsey to Arco	May 25	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
* - Indicates flow estimated, not measured							TOTAL		412.9	54.7	33.7			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 25	0.0	0.0	19590902	1%	1	18800630	3.2	556.5	158.7
9	Howell to Chilly	May 25	0.0	0.0	19590902	1%	2	18810630	1.7	294.0	84.3
8	Chilly to Reservoir ***Connected***	May 25	0.0	0.0	19590902	1%	3	18880601	3.2	556.5	152.3
							4	18960601	6.4	1113.0	304.7
7	Mackay Reservoir	May 25	0.0	0.0	19590902	1%	5	19020301	0.8	140.0	38.1
6	Reservoir to 2B	May 25	0.0	0.0	19590902	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 25	35.0	9.4	19590902	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 25	99.9	32.4	19590902	1%	8	19590902 Unlimited		6000.0	5863.1
2	Moore to blw Munsey	May 25	12.4	3.7	19590902	1%	9	Add Vol Unlimited		200000.0	0.0
1	Blw Munsey to Arco	May 25	0.0	0.0	19590902	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			147.3	45.4	0.0			TOTAL		346511.0	44452.1

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37060.0	37140.0	80.0	40.3	12.1

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	6942.1
Total Storage Loss	-4575.7
Total Storage Deliver	-2216.2
Total Evaporation	-610.8
Accounting Balance	37049.4
Current Res Content	37140.0
Storage Balance Error	-90.6

DAILY STORAGE BALANCE

37060.0 Reservoir Content Previous Day [ac-ft]
37140.0 Reservoir Content Current Day [ac-ft]
80.0 Physical Change in Storage [ac-ft]

302.7 Storage Allocated to Mackay Reservoir [ac-ft]
-90.2 Stored Flow Losses [ac-ft]
-9.4 2B to Leslie [cfs]
-32.4 Leslie to Moore [cfs]
-3.7 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-108.4 Storage Delivered [ac-ft]
8.8 Above Reservoir [cfs]
0.1 Reservoir to 2B [cfs]
7.9 2B to Leslie [cfs]
29.8 Leslie to Moore [cfs]
8.1 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-24.1 Evaporation [ac-ft]
80.0 Accounting Change in Storage [ac-ft]

0.0 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

494.5 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

494.5 Total Available Natural Flow [cfs]

152.6 Reservoir Rights Diverted [cfs]
147.3 Natural Flow Losses below Reservoir [cfs]
35.0 2B to Leslie [cfs]
99.9 Leslie to Moore [cfs]
12.4 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
194.5 Natural Flow Delivered [cfs]
-8.8 Above Reservoir Storage Use [cfs]
8.9 Reservoir to 2B [cfs]
78.7 2B to Leslie [cfs]
88.5 Leslie to Moore [cfs]
27.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

494.4 Natural Flow Delivered & Lost [cfs]

0.1 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	5.0	250
Eastside Felton Wier +	36.7	1835
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	86.8	4339
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.6	30
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	55.1	2755
Total Out	64.9	3245
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.75	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 74.8%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 33.7 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 21.4 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 28.6 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 55.7%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 51.4 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 47.6 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 48.7%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 41.6%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.6	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	9.0	0.1	36.9
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	24.0	1.8	61.1
9 BITTON	3.2	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	2.4	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	28.0	0.0	219.8
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	31.0	2.5	68.6
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	57.1
9 NEILSEN	8.9	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	2.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	10.0	1.7	81.7
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	8.8	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	18.6
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	23.8
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	69.8
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.5	6.5	89.0	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	71.1	18.6	931.9
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	47.6	21.7	644.3
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-6.5	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	43.0	14.6	432.0
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.5	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	8.0	2 QUIST EXCHANGE P	7.0	411.4
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	291.6	2 SCHUREMAN EXCHAN	7.0	470.6
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	433.2	2 RASMUSSEN EXCHAN	5.1	354.0
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	249.9	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 26	1050.0	1.6	0.0	1051.6	0.00	1051.6	1.6	0.0	0.0	1050.0	0.0	0.0
9	Howell to Chilly	May 26	2.0	27.6	0.0	-1020.4	0.97	31.2	25.3	2.3	0.0	4.3	-2.3	0.0
8	Chilly to Reservoir ***Connected***	* May 26	632.4	36.7	0.0	667.1	0.00	698.3	30.2	6.5	0.0	641.2	-8.8	0.0
7	Mackay Reservoir	* May 26	538.0	0.0	0.0	0.0	0.00	698.3	181.1		0.0	460.1	77.9	0.0
6	Reservoir to 2B	May 26	529.0	9.0	0.0	0.0	0.00	698.3	7.2	1.8	0.0	452.9	76.1	0.0
5	2B to Leslie	May 26	343.0	84.6	0.0	-101.4	0.19	698.3	76.7	7.9	0.0	289.4	53.6	0.0
4	Leslie to Moore	May 26	0.0	140.1	0.0	-143.6	0.42	698.3	112.1	28.0	0.0	56.2	-56.2	0.0
2	Moore to blw Munsey	May 26	0.0	69.0	45.1	-23.2	0.39	698.3	34.2	1.9	32.9	0.0	0.0	0.0
1	Blw Munsey to Arco	May 26	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		468.3	48.4	32.9			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 26	0.0	0.0	20180101	1%	1	18800630	3.2	556.5	165.0
9	Howell to Chilly	May 26	0.0	0.0	20180101	1%	2	18810630	1.7	294.0	87.7
8	Chilly to Reservoir ***Connected***	May 26	0.0	0.0	20180101	1%	3	18880601	3.2	556.5	158.7
							4	18960601	6.4	1113.0	317.4
7	Mackay Reservoir	May 26	0.0	0.0	20180101	1%	5	19020301	0.8	140.0	39.7
6	Reservoir to 2B	May 26	0.0	0.0	20180101	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 26	86.8	14.6	20180101	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 26	121.1	22.4	20180101	1%	8	19590902 Unlimited		6000.0	6000.0
2	Moore to blw Munsey	May 26	22.0	1.2	20180101	1%	9	Add Vol Unlimited		200000.0	192.0
1	Blw Munsey to Arco	May 26	0.0	0.0	20180101	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			229.9	38.3	0.0			TOTAL		346511.0	44811.4

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change (AF)	Change Content (cfs)	Daily Evap (cfs)
37140.0	37310.0	170.0	85.7	8.7

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	7301.4
Total Storage Loss	-4651.5
Total Storage Deliver	-2312.2
Total Evaporation	-628.1
Accounting Balance	<u>37219.6</u>
Current Res Content	37310.0
Storage Balance Error	-90.4

DAILY STORAGE BALANCE

37140.0 Reservoir Content Previous Day [ac-ft]
37310.0 Reservoir Content Current Day [ac-ft]
170.0 Physical Change in Storage [ac-ft]

359.3 Storage Allocated to Mackay Reservoir [ac-ft]
-75.8 Stored Flow Losses [ac-ft]
-14.6 2B to Leslie [cfs]
-22.4 Leslie to Moore [cfs]
-1.2 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-96.0 Storage Delivered [ac-ft]
8.8 Above Reservoir [cfs]
1.8 Reservoir to 2B [cfs]
7.9 2B to Leslie [cfs]
28.0 Leslie to Moore [cfs]
1.9 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-17.3 Evaporation [ac-ft]
170.2 Accounting Change in Storage [ac-ft]

0.2 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

632.4 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

632.4 Total Available Natural Flow [cfs]

181.1 Reservoir Rights Diverted [cfs]
229.9 Natural Flow Losses below Reservoir [cfs]
86.8 2B to Leslie [cfs]
121.1 Leslie to Moore [cfs]
22.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
221.4 Natural Flow Delivered [cfs]
-8.8 Above Reservoir Storage Use [cfs]
7.2 Reservoir to 2B [cfs]
76.7 2B to Leslie [cfs]
112.1 Leslie to Moore [cfs]
34.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
632.4 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	5.9	295
Eastside Felton Wier +	41.2	2060
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	92.2	4609
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.6	30
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	57.5	2875
Total Out	67.3	3365
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.73	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 73.0%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 32.9 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 24.6 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 33.7 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 56.8%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 59.3 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 47.8 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 49.2%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 41.4%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.6	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	9.0	1.8	40.5
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	2.0	65.0
9 BITTON	3.2	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	2.4	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	28.0	0.0	219.8
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	31.0	2.3	73.2
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	64.3
9 NEILSEN	8.9	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	2.0	0.0	17.9	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	10.0	1.7	85.1
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	8.8	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	0.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	2.6	2.6	23.8
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	25.4
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	73.0
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.5	6.5	101.9	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	90.0	17.1	965.8
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	47.8	21.8	687.6
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-7.1	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	43.0	9.0	449.9
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.5	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	8.0	2 QUIST EXCHANGE P	7.0	425.3
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	311.0	2 SCHUREMAN EXCHAN	7.0	484.5
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	448.7	2 RASMUSSEN EXCHAN	5.1	364.1
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	266.6	2 WADDOUPS GW INTO	0.0	0.0

Reach Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10 Howell Gage	May 27	1140.0	2.2	0.0	1142.2	0.00	1142.2	2.2	0.0	0.0	1140.0	0.0	0.0
9 Howell to Chilly	May 27	3.5	82.6	0.0	-1053.9	0.92	88.4	80.2	2.4	0.0	5.9	-2.4	0.0
8 Chilly to Reservoir ***Connected***	* May 27	706.8	51.9	0.0	755.3	0.00	843.6	45.0	6.9	0.0	716.1	-9.3	0.0
7 Mackay Reservoir	* May 27	633.0	0.0	0.0	0.0	0.00	843.6	179.6		0.0	536.5	96.5	0.0
6 Reservoir to 2B	May 27	623.0	10.0	0.0	0.0	0.00	843.6	7.7	2.3	0.0	528.8	94.2	0.0
5 2B to Leslie	May 27	402.0	109.6	0.0	-111.4	0.18	843.6	96.1	13.5	0.0	338.1	63.9	0.0
4 Leslie to Moore	May 27	1.0	156.4	0.0	-171.4	0.43	843.6	128.7	27.7	0.0	65.2	-64.3	0.0
2 Moore to blw Munsey	May 27	0.0	69.0	45.1	-35.3	0.48	843.6	34.2	4.7	30.1	0.0	0.0	0.0
1 Blw Munsey to Arco	May 27	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
* - Indicates flow estimated, not measured						TOTAL		573.8	57.5	30.1			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10 Howell Gage	May 27	0.0	0.0		20180101	2%	1	18800630	3.2	556.5	171.4
9 Howell to Chilly	May 27	0.0	0.0		20180101	2%	2	18810630	1.7	294.0	91.0
8 Chilly to Reservoir ***Connected***	May 27	0.0	0.0		20180101	2%	3	18880601	3.2	556.5	165.0
							4	18960601	6.4	1113.0	330.1
7 Mackay Reservoir	May 27	0.0	0.0		20180101	2%	5	19020301	0.8	140.0	41.3
6 Reservoir to 2B	May 27	0.0	0.0		20180101	2%	6	19051002 Unlimited		20646.0	20646.0
5 2B to Leslie	May 27	94.5	16.9		20180101	2%	7	19160207 Unlimited		17205.0	17205.0
4 Leslie to Moore	May 27	144.2	27.2		20180101	2%	8	19590902 Unlimited		6000.0	6000.0
2 Moore to blw Munsey	May 27	31.1	4.2		20180101	2%	9	Add Vol Unlimited		200000.0	518.0
1 Blw Munsey to Arco	May 27	0.0	0.0		20180101	2%	10	Rotation Unlimited		100000.0	0.0
TOTAL		269.8	48.3	0.0				TOTAL		346511.0	45167.8

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37310.0	37430.0	120.0	60.5	13.3

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	7657.8
Total Storage Loss	-4747.3
Total Storage Deliver	-2426.2
Total Evaporation	-654.6
Accounting Balance	37339.7
Current Res Content	37430.0
Storage Balance Error	-90.3

DAILY STORAGE BALANCE

37310.0 Reservoir Content Previous Day [ac-ft]
37430.0 Reservoir Content Current Day [ac-ft]
120.0 Physical Change in Storage [ac-ft]

356.3 Storage Allocated to Mackay Reservoir [ac-ft]
-95.8 Stored Flow Losses [ac-ft]
-16.9 2B to Leslie [cfs]
-27.2 Leslie to Moore [cfs]
-4.2 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-114.0 Storage Delivered [ac-ft]
9.3 Above Reservoir [cfs]
2.3 Reservoir to 2B [cfs]
13.5 2B to Leslie [cfs]
27.7 Leslie to Moore [cfs]
4.7 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-26.4 Evaporation [ac-ft]
120.1 Accounting Change in Storage [ac-ft]

0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

706.8 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

706.8 Total Available Natural Flow [cfs]

179.6 Reservoir Rights Diverted [cfs]
269.8 Natural Flow Losses below Reservoir [cfs]
94.5 2B to Leslie [cfs]
144.2 Leslie to Moore [cfs]
31.1 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
257.4 Natural Flow Delivered [cfs]
-9.3 Above Reservoir Storage Use [cfs]
7.7 Reservoir to 2B [cfs]
96.1 2B to Leslie [cfs]
128.7 Leslie to Moore [cfs]
34.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
706.8 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	6.0	300
Eastside Felton Wier +	59.3	2965
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	110.4	5519
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.6	30
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	64.0	3200
Total Out	73.8	3690
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.67	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 66.9%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 30.1 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 33.9 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 50.6 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 69.2%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 73.2 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 41.0 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 57.3%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 46.3%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	2.2	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	10.0	2.3	45.0
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	6.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	2.2	69.3
9 BITTON	5.4	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	46.0	5.5	230.8
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	38.0	2.2	77.6
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	71.4
9 NEILSEN	23.5	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	2.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	34.1	0.0	17.9	8 Broken River Dit	2.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	18.0	3.4	92.0
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	11.2	0.0	0.0	8 Freeman/Hill Pum	2.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.9	0.4	0.8	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	5.9	5.9	35.5
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	27.0
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	76.2
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.5	6.5	114.8	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	4.7	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	95.0	11.8	989.2
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	41.0	15.1	717.4
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	3.2	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-5.9	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	43.0	10.5	470.8
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.5	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	8.0	2 QUIST EXCHANGE P	7.0	439.1
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	330.5	2 SCHUREMAN EXCHAN	7.0	498.3
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	464.1	2 RASMUSSEN EXCHAN	5.1	374.2
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	283.2	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 28	1220.0	2.2	0.0	1222.2	0.00	1222.2	2.2	0.0	0.0	1220.0	0.0	0.0
9	Howell to Chilly	May 28	3.5	82.6	0.0	-1133.9	0.93	88.4	80.2	2.4	0.0	5.9	-2.4	0.0
8	Chilly to Reservoir ***Connected***	* May 28	718.3	51.9	0.0	766.8	0.00	855.1	45.0	6.9	0.0	727.6	-9.3	0.0
7	Mackay Reservoir	* May 28	679.0	0.0	0.0	0.0	0.00	855.1	177.3		0.0	550.4	128.6	0.0
6	Reservoir to 2B	May 28	669.0	10.0	0.0	0.0	0.00	855.1	7.7	2.3	0.0	542.6	126.4	0.0
5	2B to Leslie	May 28	422.0	113.6	0.0	-133.4	0.20	855.1	95.3	18.3	0.0	339.2	82.8	0.0
4	Leslie to Moore	May 28	0.0	165.3	0.0	-183.1	0.43	855.1	128.4	36.9	0.0	63.6	-63.6	0.0
2	Moore to blw Munsey	May 28	0.0	69.0	45.1	-34.0	0.46	855.1	34.2	5.4	29.4	0.0	0.0	0.0
1	Blw Munsey to Arco	May 28	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		570.4	72.2	29.4			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 28	0.0	0.0	20180101	2%	1	18800630	3.2	556.5	177.7
9	Howell to Chilly	May 28	0.0	0.0	20180101	2%	2	18810630	1.7	294.0	94.4
8	Chilly to Reservoir ***Connected***	May 28	0.0	0.0	20180101	2%	3	18880601	3.2	556.5	171.4
							4	18960601	6.4	1113.0	342.7
7	Mackay Reservoir	May 28	0.0	0.0	20180101	2%	5	19020301	0.8	140.0	42.8
6	Reservoir to 2B	May 28	0.0	0.0	20180101	2%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 28	108.2	25.2	20180101	2%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 28	147.1	35.9	20180101	2%	8	19590902 Unlimited		6000.0	6000.0
2	Moore to blw Munsey	May 28	29.3	4.6	20180101	2%	9	Add Vol Unlimited		200000.0	839.3
1	Blw Munsey to Arco	May 28	0.0	0.0	20180101	2%	10	Rotation Unlimited		100000.0	0.0
TOTAL			284.6	65.8	0.0			TOTAL		346511.0	45519.4

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37430.0	37480.0	50.0	25.2	14.1

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	8009.4
Total Storage Loss	-4877.6
Total Storage Deliver	-2569.4
Total Evaporation	-682.6
Accounting Balance	<u>37389.8</u>
Current Res Content	37480.0
Storage Balance Error	-90.2

DAILY STORAGE BALANCE

37430.0 Reservoir Content Previous Day [ac-ft]
37480.0 Reservoir Content Current Day [ac-ft]
50.0 Physical Change in Storage [ac-ft]

351.6 Storage Allocated to Mackay Reservoir [ac-ft]
-130.3 Stored Flow Losses [ac-ft]
-25.2 2B to Leslie [cfs]
-35.9 Leslie to Moore [cfs]
-4.6 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-143.2 Storage Delivered [ac-ft]
9.3 Above Reservoir [cfs]
2.3 Reservoir to 2B [cfs]
18.3 2B to Leslie [cfs]
36.9 Leslie to Moore [cfs]
5.4 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-28.0 Evaporation [ac-ft]
50.1 Accounting Change in Storage [ac-ft]

0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

718.3 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

718.3 Total Available Natural Flow [cfs]

177.3 Reservoir Rights Diverted [cfs]
284.6 Natural Flow Losses below Reservoir [cfs]
108.2 2B to Leslie [cfs]
147.1 Leslie to Moore [cfs]
29.3 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
256.3 Natural Flow Delivered [cfs]
-9.3 Above Reservoir Storage Use [cfs]
7.7 Reservoir to 2B [cfs]
95.3 2B to Leslie [cfs]
128.4 Leslie to Moore [cfs]
34.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
718.2 Natural Flow Delivered & Lost [cfs]

0.1 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	7.3	365
Eastside Felton Wier +	57.4	2870
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	109.8	5489
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.6	30
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	61.7	3085
Total Out	71.5	3575
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.65	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 65.1%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 29.4 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 32.3 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 49.7 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 67.5%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 73.6 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 42.6 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 55.2%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 43.9%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	2.2	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	10.0	2.3	49.5
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	6.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	2.2	73.5
9 BITTON	5.4	0.0	0.0	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	46.0	5.5	241.7
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	42.0	7.0	91.5
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	78.5
9 NEILSEN	23.5	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	2.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	34.1	0.0	17.9	8 Broken River Dit	2.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	20.0	4.6	101.0
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	11.2	0.0	0.0	8 Freeman/Hill Pum	2.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.9	0.4	1.6	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	5.9	5.9	47.3
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	28.6
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	79.3
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.5	6.5	127.7	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	4.7	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	101.9	19.8	1028.5
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	42.6	16.7	750.5
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	3.2	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	26.0	-5.5	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	43.0	10.9	492.4
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.5	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	8.0	2 QUIST EXCHANGE P	7.0	453.0
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	349.9	2 SCHUREMAN EXCHAN	7.0	512.2
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	479.6	2 RASMUSSEN EXCHAN	5.1	384.3
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	299.9	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 29	1190.0	2.2	0.0	1192.2	0.00	1192.2	2.2	0.0	0.0	1190.0	0.0	0.0
9	Howell to Chilly	May 29	3.5	82.6	0.0	-1103.9	0.93	88.4	45.9	36.7	0.0	40.2	-36.7	0.0
8	Chilly to Reservoir ***Connected***	* May 29	764.1	51.9	0.0	812.5	0.00	900.9	45.0	6.9	0.0	807.7	-43.6	0.0
7	Mackay Reservoir	* May 29	710.0	0.0	0.0	0.0	0.00	900.9	246.0		0.0	561.7	148.3	0.0
6	Reservoir to 2B	May 29	700.0	10.0	0.0	0.0	0.00	900.9	7.7	2.3	0.0	554.0	146.0	0.0
5	2B to Leslie	May 29	450.0	113.6	0.0	-136.4	0.19	900.9	95.3	18.3	0.0	350.7	99.3	0.0
4	Leslie to Moore	May 29	1.7	160.5	0.0	-214.4	0.48	900.9	116.4	44.1	0.0	67.2	-65.6	0.0
2	Moore to blw Munsey	May 29	0.0	70.0	45.1	-34.9	0.46	900.9	36.0	4.2	29.7	0.0	0.0	0.0
1	Blw Munsey to Arco	May 29	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		594.6	112.5	29.7			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 29	0.0	0.0	20180101	2%	1	18800630	3.2	556.5	184.1
9	Howell to Chilly	May 29	0.0	0.0	20180101	2%	2	18810630	1.7	294.0	97.8
8	Chilly to Reservoir ***Connected***	May 29	0.0	0.0	20180101	2%	3	18880601	3.2	556.5	177.7
							4	18960601	6.4	1113.0	355.4
7	Mackay Reservoir	May 29	0.0	0.0	20180101	2%	5	19020301	0.8	140.0	44.4
6	Reservoir to 2B	May 29	0.0	0.0	20180101	2%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 29	107.9	28.5	20180101	2%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 29	167.1	47.3	20180101	2%	8	19590902 Unlimited		6000.0	6000.0
2	Moore to blw Munsey	May 29	31.2	3.7	20180101	2%	9	Add Vol Unlimited		200000.0	1296.8
1	Blw Munsey to Arco	May 29	0.0	0.0	20180101	2%	10	Rotation Unlimited		100000.0	0.0
TOTAL			306.2	79.4		0.0		TOTAL		346511.0	46007.2

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37480.0	37560.0	80.0	40.3	13.7

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	8497.2
Total Storage Loss	-5035.3
Total Storage Deliver	-2792.6
Total Evaporation	-709.8
Accounting Balance	<u>37469.5</u>
Current Res Content	37560.0
Storage Balance Error	-90.5

DAILY STORAGE BALANCE

37480.0 Reservoir Content Previous Day [ac-ft]
37560.0 Reservoir Content Current Day [ac-ft]
80.0 Physical Change in Storage [ac-ft]

487.9 Storage Allocated to Mackay Reservoir [ac-ft]
-157.7 Stored Flow Losses [ac-ft]
-28.5 2B to Leslie [cfs]
-47.3 Leslie to Moore [cfs]
-3.7 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-223.2 Storage Delivered [ac-ft]
43.6 Above Reservoir [cfs]
2.3 Reservoir to 2B [cfs]
18.3 2B to Leslie [cfs]
44.1 Leslie to Moore [cfs]
4.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-27.3 Evaporation [ac-ft]
79.7 Accounting Change in Storage [ac-ft]

-0.3 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

764.1 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

764.1 Total Available Natural Flow [cfs]

246.0 Reservoir Rights Diverted [cfs]
306.2 Natural Flow Losses below Reservoir [cfs]
107.9 2B to Leslie [cfs]
167.1 Leslie to Moore [cfs]
31.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
211.8 Natural Flow Delivered [cfs]
-43.6 Above Reservoir Storage Use [cfs]
7.7 Reservoir to 2B [cfs]
95.3 2B to Leslie [cfs]
116.4 Leslie to Moore [cfs]
36.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
764.0 Natural Flow Delivered & Lost [cfs]

0.1 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	5.1	255
Eastside Felton Wier +	64.7	3235
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	114.9	5744
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.6	30
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	66.0	3300
Total Out	75.8	3790
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.66	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 66.0%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 29.7 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 36.3 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 54.9 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 74.8%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 73.5 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 41.9 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 62.7%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 49.3%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	2.2	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	10.0	2.3	54.0
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	6.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	2.2	77.8
9 BITTON	5.4	2.1	4.3	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	46.0	5.9	253.4
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	42.0	6.7	104.7
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	85.7
9 NEILSEN	23.5	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	2.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	34.1	32.1	81.6	8 Broken River Dit	2.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	20.0	3.7	108.3
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	11.2	0.0	0.0	8 Freeman/Hill Pum	2.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.9	0.4	2.4	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	47.3
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	30.1
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	82.5
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.5	6.5	140.6	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	4.7	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	100.2	31.1	1090.1
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	41.9	16.0	782.2
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	3.2	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	27.0	-6.0	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	43.0	10.3	512.8
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.5	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	8.0	2 QUIST EXCHANGE P	7.0	466.9
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	369.3	2 SCHUREMAN EXCHAN	7.0	526.0
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	495.1	2 RASMUSSEN EXCHAN	5.1	394.4
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	316.6	2 WADDOUPS GW INTO	0.0	0.0

Reach Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10 Howell Gage	May 30	1120.0	1.6	0.0	1121.6	0.00	1121.6	1.6	0.0	0.0	1120.0	0.0	0.0
9 Howell to Chilly	May 30	3.5	29.3	0.0	-1087.2	0.97	34.4	26.9	2.4	0.0	5.9	-2.4	0.0
8 Chilly to Reservoir ***Connected***	* May 30	728.8	40.7	0.0	766.0	0.00	800.4	34.2	6.5	0.0	737.7	-8.9	0.0
7 Mackay Reservoir	* May 30	684.0	0.0	0.0	0.0	0.00	800.4	183.2		0.0	554.5	129.5	0.0
6 Reservoir to 2B	May 30	674.0	10.0	0.0	0.0	0.00	800.4	7.7	2.3	0.0	546.8	127.2	0.0
5 2B to Leslie	May 30	461.0	113.6	0.0	-99.4	0.15	800.4	92.8	20.8	0.0	373.3	87.7	0.0
4 Leslie to Moore	May 30	0.2	160.4	0.0	-225.0	0.49	800.4	116.1	44.3	0.0	75.1	-74.8	0.0
2 Moore to blw Munsey	May 30	0.0	70.0	45.1	-35.8	0.47	800.4	39.5	0.3	30.2	0.0	0.0	0.0
1 Blw Munsey to Arco	May 30	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
* - Indicates flow estimated, not measured						TOTAL		502.0	76.6	30.2			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10 Howell Gage	May 30	0.0	0.0		20180101	2%	1	18800630	3.2	556.5	190.4
9 Howell to Chilly	May 30	0.0	0.0		20180101	2%	2	18810630	1.7	294.0	101.2
8 Chilly to Reservoir ***Connected***	May 30	0.0	0.0		20180101	2%	3	18880601	3.2	556.5	184.1
							4	18960601	6.4	1113.0	368.1
7 Mackay Reservoir	May 30	0.0	0.0		20180101	2%	5	19020301	0.8	140.0	46.0
6 Reservoir to 2B	May 30	0.0	0.0		20180101	2%	6	19051002 Unlimited		20646.0	20646.0
5 2B to Leslie	May 30	80.6	18.8		20180101	2%	7	19160207 Unlimited		17205.0	17205.0
4 Leslie to Moore	May 30	182.2	42.8		20180101	2%	8	19590902 Unlimited		6000.0	6000.0
2 Moore to blw Munsey	May 30	35.6	0.3		20180101	2%	9	Add Vol Unlimited		200000.0	1629.9
1 Blw Munsey to Arco	May 30	0.0	0.0		20180101	2%	10	Rotation Unlimited		100000.0	0.0
TOTAL		298.4	61.8	0.0				TOTAL		346511.0	46370.7

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37560.0	37630.0	70.0	35.3	9.6

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	8860.7
Total Storage Loss	-5158.1
Total Storage Deliver	-2944.5
Total Evaporation	-728.8
Accounting Balance	<u>37539.3</u>
Current Res Content	37630.0
Storage Balance Error	-90.7

DAILY STORAGE BALANCE

37560.0 Reservoir Content Previous Day [ac-ft]
37630.0 Reservoir Content Current Day [ac-ft]
70.0 Physical Change in Storage [ac-ft]

363.4 Storage Allocated to Mackay Reservoir [ac-ft]
-122.8 Stored Flow Losses [ac-ft]
-18.8 2B to Leslie [cfs]
-42.8 Leslie to Moore [cfs]
-0.3 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-151.9 Storage Delivered [ac-ft]
8.9 Above Reservoir [cfs]
2.3 Reservoir to 2B [cfs]
20.8 2B to Leslie [cfs]
44.3 Leslie to Moore [cfs]
0.3 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-19.0 Evaporation [ac-ft]
69.7 Accounting Change in Storage [ac-ft]

-0.3 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

728.8 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

728.8 Total Available Natural Flow [cfs]

183.2 Reservoir Rights Diverted [cfs]
298.4 Natural Flow Losses below Reservoir [cfs]
80.6 2B to Leslie [cfs]
182.2 Leslie to Moore [cfs]
35.6 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
247.2 Natural Flow Delivered [cfs]
-8.9 Above Reservoir Storage Use [cfs]
7.7 Reservoir to 2B [cfs]
92.8 2B to Leslie [cfs]
116.1 Leslie to Moore [cfs]
39.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
728.8 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	4.9	245
Eastside Felton Wier +	70.9	3545
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	120.9	6044
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.6	30
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	71.2	3560
Total Out	81.0	4050
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.67	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 67.0%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 30.2 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 41.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 61.2 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 81.2%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 75.4 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 38.3 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 68.6%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 54.4%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.6	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	10.0	2.3	58.6
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	2.2	82.1
9 BITTON	3.2	0.0	4.3	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	2.4	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	46.0	8.0	269.3
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	42.0	7.0	118.7
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	92.8
9 NEILSEN	10.5	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	2.0	0.0	81.6	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	20.0	3.7	115.6
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	8.8	0.0	0.0	8 Freeman/Hill Pum	2.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	2.4	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	47.3
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	31.7
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	85.7
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.5	6.5	153.5	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	100.1	31.0	1151.6
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	38.3	12.7	807.4
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	27.0	-9.0	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	43.0	9.3	531.3
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.5	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	8.0	2 QUIST EXCHANGE P	7.0	480.8
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	388.8	2 SCHUREMAN EXCHAN	7.0	539.9
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	510.6	2 RASMUSSEN EXCHAN	5.1	404.6
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	333.2	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	May 31	1060.0	1.6	0.0	1061.6	0.00	1061.6	1.6	0.0	0.0	1060.0	0.0	0.0
9	Howell to Chilly	May 31	3.5	29.2	0.0	-1027.3	0.97	34.3	26.9	2.3	0.0	5.8	-2.3	0.0
8	Chilly to Reservoir ***Connected***	* May 31	751.2	40.7	0.0	788.3	0.00	822.6	34.2	6.5	0.0	760.0	-8.8	0.0
7	Mackay Reservoir	* May 31	687.0	0.0	0.0	0.0	0.00	822.6	199.6		0.0	560.4	126.6	0.0
6	Reservoir to 2B	May 31	677.0	10.0	0.0	0.0	0.00	822.6	7.7	2.3	0.0	552.6	124.4	0.0
5	2B to Leslie	May 31	471.0	113.6	0.0	-92.4	0.14	822.6	95.0	18.6	0.0	382.3	88.7	0.0
4	Leslie to Moore	May 31	0.2	164.0	0.0	-231.1	0.49	822.6	122.8	41.2	0.0	71.8	-71.6	0.0
2	Moore to blw Munsey	May 31	0.0	70.0	45.1	-36.4	0.48	822.6	37.4	2.1	30.6	0.0	0.0	0.0
1	Blw Munsey to Arco	May 31	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		525.1	73.0	30.6			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	May 31	0.0	0.0	20180101	2%	1	18800630	3.2	556.5	196.8
9	Howell to Chilly	May 31	0.0	0.0	20180101	2%	2	18810630	1.7	294.0	104.5
8	Chilly to Reservoir ***Connected***	May 31	0.0	0.0	20180101	2%	3	18880601	3.2	556.5	190.4
							4	18960601	6.4	1113.0	380.8
7	Mackay Reservoir	May 31	0.0	0.0	20180101	2%	5	19020301	0.8	140.0	47.6
6	Reservoir to 2B	May 31	0.0	0.0	20180101	2%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	May 31	75.4	17.0	20180101	2%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	May 31	187.6	43.5	20180101	2%	8	19590902 Unlimited		6000.0	6000.0
2	Moore to blw Munsey	May 31	34.5	1.9	20180101	2%	9	Add Vol Unlimited		200000.0	1995.5
1	Blw Munsey to Arco	May 31	0.0	0.0	20180101	2%	10	Rotation Unlimited		100000.0	0.0
TOTAL			297.5	62.5		0.0		TOTAL		346511.0	46766.7

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37630.0	37730.0	100.0	50.4	13.8

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	9256.7
Total Storage Loss	-5281.9
Total Storage Deliver	-3089.3
Total Evaporation	-756.1
Accounting Balance	<u>37639.3</u>
Current Res Content	37730.0
Storage Balance Error	-90.7

DAILY STORAGE BALANCE

37630.0 Reservoir Content Previous Day [ac-ft]
37730.0 Reservoir Content Current Day [ac-ft]
100.0 Physical Change in Storage [ac-ft]

396.0 Storage Allocated to Mackay Reservoir [ac-ft]
-123.8 Stored Flow Losses [ac-ft]
-17.0 2B to Leslie [cfs]
-43.5 Leslie to Moore [cfs]
-1.9 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-144.8 Storage Delivered [ac-ft]
8.8 Above Reservoir [cfs]
2.3 Reservoir to 2B [cfs]
18.6 2B to Leslie [cfs]
41.2 Leslie to Moore [cfs]
2.1 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-27.3 Evaporation [ac-ft]
100.1 Accounting Change in Storage [ac-ft]

0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

751.2 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

751.2 Total Available Natural Flow [cfs]

199.6 Reservoir Rights Diverted [cfs]
297.5 Natural Flow Losses below Reservoir [cfs]
75.4 2B to Leslie [cfs]
187.6 Leslie to Moore [cfs]
34.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
254.1 Natural Flow Delivered [cfs]
-8.8 Above Reservoir Storage Use [cfs]
7.7 Reservoir to 2B [cfs]
95.0 2B to Leslie [cfs]
122.8 Leslie to Moore [cfs]
37.4 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
751.2 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	6.0	300
Eastside Felton Wier +	77.0	3850
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	128.1	6404
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.6	30
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	77.0	3850
Total Out	86.8	4340
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.68	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 67.8%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 30.6 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 46.4 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 68.5 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 90.6%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 75.6 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 34.2 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 77.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 61.4%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.6	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	10.0	2.3	63.1
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	22.0	2.2	86.4
9 BITTON	3.2	0.0	4.3	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	2.4	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	46.0	5.9	280.9
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	42.0	7.0	132.6
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	100.0
9 NEILSEN	10.5	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	2.0	0.0	81.6	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	20.0	3.7	122.9
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	8.8	0.0	0.0	8 Freeman/Hill Pum	2.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	2.4	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	47.3
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	33.3
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	88.9
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	2.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.5	6.5	166.4	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	103.7	28.1	1207.4
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	34.2	8.2	823.7
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	27.0	-6.4	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	43.0	8.5	548.1
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.8	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.5	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.4	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	8.0	2 QUIST EXCHANGE P	7.0	494.7
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	408.2	2 SCHUREMAN EXCHAN	7.0	553.7
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	526.0	2 RASMUSSEN EXCHAN	5.1	414.7
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	349.9	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	Jun 1	919.0	1.8	0.0	920.8	0.00	920.8	1.8	0.0	0.0	919.0	0.0	0.0
9	Howell to Chilly	Jun 1	0.0	50.7	0.0	-868.3	1.00	52.5	48.3	2.5	0.0	2.5	-2.5	0.0
8	Chilly to Reservoir ***Connected***	* Jun 1	709.2	36.0	0.0	745.1	0.00	797.7	30.0	6.0	0.0	717.6	-8.5	0.0
7	Mackay Reservoir	* Jun 1	681.0	0.0	0.0	0.0	0.00	797.7	171.4		0.0	546.2	134.8	0.0
6	Reservoir to 2B	Jun 1	675.0	6.0	0.0	0.0	0.00	797.7	5.8	0.2	0.0	540.4	134.6	0.0
5	2B to Leslie	Jun 1	483.0	117.6	0.0	-74.4	0.11	797.7	100.7	16.9	0.0	380.2	102.8	0.0
4	Leslie to Moore	Jun 1	0.1	167.8	0.0	-242.3	0.50	797.7	134.8	33.0	0.0	54.7	-54.5	0.0
2	Moore to blw Munsey	Jun 1	0.0	79.0	47.1	-24.5	0.34	797.7	36.3	12.1	30.6	0.0	0.0	0.0
1	Blw Munsey to Arco	Jun 1	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		529.0	70.7	30.6			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	Jun 1	0.0	0.0	20180101	2%	1	18800630	3.2	556.5	203.1
9	Howell to Chilly	Jun 1	0.0	0.0	20180101	2%	2	18810630	1.7	294.0	107.9
8	Chilly to Reservoir ***Connected***	Jun 1	0.0	0.0	20180101	2%	3	18880601	3.2	556.5	196.8
							4	18960601	6.4	1113.0	393.5
7	Mackay Reservoir	Jun 1	0.0	0.0	20180101	2%	5	19020301	0.8	140.0	49.2
6	Reservoir to 2B	Jun 1	0.0	0.0	20180101	2%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	Jun 1	59.6	14.8	20180101	2%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	Jun 1	190.7	51.6	20180101	2%	8	19590902 Unlimited		6000.0	6000.0
2	Moore to blw Munsey	Jun 1	18.4	6.1	20180101	2%	9	Add Vol Unlimited		200000.0	2305.1
1	Blw Munsey to Arco	Jun 1	0.0	0.0	20180101	2%	10	Rotation Unlimited		100000.0	0.0
TOTAL			268.7	72.5	0.0			TOTAL		346511.0	47106.6

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change (AF)	Change Content (cfs)	Daily Evap (cfs)
37730.0	37760.0	30.0	15.1	13.0

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	9596.6
Total Storage Loss	-5425.7
Total Storage Deliver	-3229.5
Total Evaporation	-782.0
Accounting Balance	<u>37669.4</u>
Current Res Content	37760.0
Storage Balance Error	-90.6

DAILY STORAGE BALANCE

37730.0 Reservoir Content Previous Day [ac-ft]
37760.0 Reservoir Content Current Day [ac-ft]
30.0 Physical Change in Storage [ac-ft]

340.0 Storage Allocated to Mackay Reservoir [ac-ft]
-143.8 Stored Flow Losses [ac-ft]
-14.8 2B to Leslie [cfs]
-51.6 Leslie to Moore [cfs]
-6.1 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-140.2 Storage Delivered [ac-ft]
8.5 Above Reservoir [cfs]
0.2 Reservoir to 2B [cfs]
16.9 2B to Leslie [cfs]
33.0 Leslie to Moore [cfs]
12.1 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-25.9 Evaporation [ac-ft]
30.1 Accounting Change in Storage [ac-ft]

0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

709.2 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

709.2 Total Available Natural Flow [cfs]

171.4 Reservoir Rights Diverted [cfs]
268.7 Natural Flow Losses below Reservoir [cfs]
59.6 2B to Leslie [cfs]
190.7 Leslie to Moore [cfs]
18.4 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
269.1 Natural Flow Delivered [cfs]
-8.5 Above Reservoir Storage Use [cfs]
5.8 Reservoir to 2B [cfs]
100.7 2B to Leslie [cfs]
134.8 Leslie to Moore [cfs]
36.3 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
709.2 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	6.9	345
Eastside Felton Wier +	77.5	3875
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	2.0	100
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	131.5	6574
Groundwater to Arco	20.5	1025
Groundwater to Munsey	26.6	1329

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	76.3	3815
Total Out	85.5	4275
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.65	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 65.0%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 30.6 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 45.7 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 70.3 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 96.6%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 72.7 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 31.6 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 80.9%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 62.8%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.8	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	6.0	0.2	63.4
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	26.0	0.8	88.0
9 BITTON	4.0	0.0	4.3	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	5.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	46.0	5.9	292.6
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	42.0	6.7	145.8
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	107.1
9 NEILSEN	18.6	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	9.0	0.0	81.6	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	20.0	3.7	130.2
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	10.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	2.4	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	47.3
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	34.9
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	92.0
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.0	6.0	178.3	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	108.9	16.9	1240.8
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	31.6	6.9	837.4
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	29.0	-1.8	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	50.0	15.2	578.2
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.0	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	2.0	11.9	2 QUIST EXCHANGE P	7.0	508.6
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	427.6	2 SCHUREMAN EXCHAN	7.0	567.6
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	541.5	2 RASMUSSEN EXCHAN	5.1	424.8
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	366.6	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	Jun 2	832.0	1.8	0.0	833.8	0.00	833.8	1.8	0.0	0.0	832.0	0.0	0.0
9	Howell to Chilly	Jun 2	0.0	50.7	0.0	-781.3	1.00	52.5	48.3	2.5	0.0	2.5	-2.5	0.0
8	Chilly to Reservoir ***Connected***	* Jun 2	623.6	36.0	0.0	659.6	0.00	712.1	30.0	6.0	0.0	632.1	-8.5	0.0
7	Mackay Reservoir	* Jun 2	666.0	0.0	0.0	0.0	0.00	712.1	107.9		0.0	524.1	141.9	0.0
6	Reservoir to 2B	Jun 2	660.0	6.0	0.0	0.0	0.00	712.1	5.8	0.2	0.0	518.3	141.7	0.0
5	2B to Leslie	Jun 2	488.0	77.6	0.0	-94.4	0.14	712.1	65.4	12.2	0.0	378.8	109.2	0.0
4	Leslie to Moore	Jun 2	0.0	166.5	0.0	-250.3	0.51	712.1	130.9	35.6	0.0	53.6	-53.6	0.0
2	Moore to blw Munsey	Jun 2	0.0	79.0	47.1	-22.2	0.31	712.1	36.9	12.1	30.0	0.0	0.0	0.0
1	Blw Munsey to Arco	Jun 2	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		427.0	68.6	30.0			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	Jun 2	0.0	0.0	20180101	1%	1	18800630	3.2	556.5	209.5
9	Howell to Chilly	Jun 2	0.0	0.0	20180101	1%	2	18810630	1.7	294.0	111.3
8	Chilly to Reservoir ***Connected***	Jun 2	0.0	0.0	20180101	1%	3	18880601	3.2	556.5	203.1
							4	18960601	6.4	1113.0	406.2
7	Mackay Reservoir	Jun 2	0.0	0.0	20180101	1%	5	19020301	0.8	140.0	50.8
6	Reservoir to 2B	Jun 2	0.0	0.0	20180101	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	Jun 2	74.1	20.3	20180101	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	Jun 2	194.3	56.0	20180101	1%	8	19590902 Unlimited		6000.0	6000.0
2	Moore to blw Munsey	Jun 2	16.7	5.5	20180101	1%	9	Add Vol Unlimited		200000.0	2488.9
1	Blw Munsey to Arco	Jun 2	0.0	0.0	20180101	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			285.1	81.7	0.0			TOTAL		346511.0	47320.7

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37760.0	37650.0	-110.0	-55.5	13.0

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	9810.7
Total Storage Loss	-5588.0
Total Storage Deliver	-3365.6
Total Evaporation	-807.8
Accounting Balance	<u>37559.3</u>
Current Res Content	37650.0
Storage Balance Error	-90.7

DAILY STORAGE BALANCE

37760.0 Reservoir Content Previous Day [ac-ft]
37650.0 Reservoir Content Current Day [ac-ft]
-110.0 Physical Change in Storage [ac-ft]

214.1 Storage Allocated to Mackay Reservoir [ac-ft]
-162.3 Stored Flow Losses [ac-ft]
-20.3 2B to Leslie [cfs]
-56.0 Leslie to Moore [cfs]
-5.5 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-136.1 Storage Delivered [ac-ft]
8.5 Above Reservoir [cfs]
0.2 Reservoir to 2B [cfs]
12.2 2B to Leslie [cfs]
35.6 Leslie to Moore [cfs]
12.1 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-25.9 Evaporation [ac-ft]
-110.2 Accounting Change in Storage [ac-ft]

-0.2 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

623.6 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

623.6 Total Available Natural Flow [cfs]

107.9 Reservoir Rights Diverted [cfs]
285.1 Natural Flow Losses below Reservoir [cfs]
74.1 2B to Leslie [cfs]
194.3 Leslie to Moore [cfs]
16.7 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
230.5 Natural Flow Delivered [cfs]
-8.5 Above Reservoir Storage Use [cfs]
5.8 Reservoir to 2B [cfs]
65.4 2B to Leslie [cfs]
130.9 Leslie to Moore [cfs]
36.9 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
623.5 Natural Flow Delivered & Lost [cfs]

0.1 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	5.7	285
Eastside Felton Wier +	76.3	3815
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	2.0	100
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	129.1	6454
Groundwater to Arco	20.5	1025
Groundwater to Munsey	26.6	1329

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	73.0	3650
Total Out	82.2	4110
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.64	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 63.7%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 30.0 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 43.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 67.6 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 94.9%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 71.2 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 32.4 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 78.7%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 60.4%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.8	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	6.0	0.2	63.8
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	26.0	0.8	89.6
9 BITTON	4.0	0.0	4.3	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	5.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	46.0	7.8	308.1
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	2.0	0.0	145.8
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	114.2
9 NEILSEN	18.6	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	9.0	0.0	81.6	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	20.0	3.7	137.5
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	10.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	2.4	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	47.3
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	36.5
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	95.2
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.0	6.0	190.2	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	107.6	19.2	1278.9
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	32.4	8.0	853.3
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	29.0	-1.5	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	50.0	14.9	607.7
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.0	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	2.0	15.9	2 QUIST EXCHANGE P	7.0	522.5
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	447.1	2 SCHUREMAN EXCHAN	7.0	581.4
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	557.0	2 RASMUSSEN EXCHAN	5.1	434.9
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	383.2	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	Jun 3	838.0	1.8	0.0	839.8	0.00	839.8	1.8	0.0	0.0	838.0	0.0	0.0
9	Howell to Chilly	Jun 3	0.0	38.7	0.0	-799.3	1.00	40.5	37.1	1.6	0.0	1.6	-1.6	0.0
8	Chilly to Reservoir ***Connected***	* Jun 3	583.0	40.1	0.0	623.1	0.00	663.6	33.7	6.4	0.0	591.0	-8.0	0.0
7	Mackay Reservoir	* Jun 3	627.0	0.0	0.0	0.0	0.00	663.6	103.3		0.0	487.7	139.3	0.0
6	Reservoir to 2B	Jun 3	621.0	6.0	0.0	0.0	0.00	663.6	5.8	0.2	0.0	481.9	139.1	0.0
5	2B to Leslie	Jun 3	465.0	117.6	0.0	-38.4	0.06	663.6	98.3	19.3	0.0	353.8	111.2	0.0
4	Leslie to Moore	Jun 3	0.0	164.2	0.0	-230.5	0.50	663.6	126.2	38.1	0.0	52.2	-52.2	0.0
2	Moore to blw Munsey	Jun 3	0.0	79.0	47.1	-20.6	0.29	663.6	36.9	12.7	29.4	0.0	0.0	0.0
1	Blw Munsey to Arco	Jun 3	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		443.0	78.3	29.4			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	Jun 3	0.0	0.0	20180101	1%	1	18800630	3.2	556.5	215.8
9	Howell to Chilly	Jun 3	0.0	0.0	20180101	1%	2	18810630	1.7	294.0	114.6
8	Chilly to Reservoir ***Connected***	Jun 3	0.0	0.0	20180101	1%	3	18880601	3.2	556.5	209.5
							4	18960601	6.4	1113.0	418.9
7	Mackay Reservoir	Jun 3	0.0	0.0	20180101	1%	5	19020301	0.8	140.0	52.4
6	Reservoir to 2B	Jun 3	0.0	0.0	20180101	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	Jun 3	29.8	8.6	20180101	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	Jun 3	175.4	55.1	20180101	1%	8	19590902 Unlimited		6000.0	6000.0
2	Moore to blw Munsey	Jun 3	15.3	5.3	20180101	1%	9	Add Vol Unlimited		200000.0	2663.4
1	Blw Munsey to Arco	Jun 3	0.0	0.0	20180101	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			220.5	69.0		0.0		TOTAL		346511.0	47525.6

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37650.0	37540.0	-110.0	-55.5	11.5

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	10015.6
Total Storage Loss	-5724.9
Total Storage Deliver	-3520.9
Total Evaporation	-830.6
Accounting Balance	37449.2
Current Res Content	37540.0
Storage Balance Error	-90.8

DAILY STORAGE BALANCE

37650.0 Reservoir Content Previous Day [ac-ft]
37540.0 Reservoir Content Current Day [ac-ft]
-110.0 Physical Change in Storage [ac-ft]

204.9 Storage Allocated to Mackay Reservoir [ac-ft]
-136.9 Stored Flow Losses [ac-ft]
-8.6 2B to Leslie [cfs]
-55.1 Leslie to Moore [cfs]
-5.3 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-155.3 Storage Delivered [ac-ft]
8.0 Above Reservoir [cfs]
0.2 Reservoir to 2B [cfs]
19.3 2B to Leslie [cfs]
38.1 Leslie to Moore [cfs]
12.7 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-22.8 Evaporation [ac-ft]
-110.1 Accounting Change in Storage [ac-ft]

-0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

583.0 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

583.0 Total Available Natural Flow [cfs]

103.3 Reservoir Rights Diverted [cfs]
220.5 Natural Flow Losses below Reservoir [cfs]
29.8 2B to Leslie [cfs]
175.4 Leslie to Moore [cfs]
15.3 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
259.2 Natural Flow Delivered [cfs]
-8.0 Above Reservoir Storage Use [cfs]
5.8 Reservoir to 2B [cfs]
98.3 2B to Leslie [cfs]
126.2 Leslie to Moore [cfs]
36.9 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
583.0 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	5.1	255
Eastside Felton Wier +	71.2	3560
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	2.0	100
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	123.4	6169
Groundwater to Arco	20.5	1025
Groundwater to Munsey	26.6	1329

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	67.8	3390
Total Out	77.0	3850
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.62	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 62.4%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 29.4 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 38.4 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 61.6 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 87.6%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 70.3 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 35.4 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 72.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 54.7%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.8	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	6.0	0.2	64.2
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	26.0	0.8	91.2
9 BITTON	4.0	0.0	4.3	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	5.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	46.0	7.8	323.7
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	42.0	7.0	159.8
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	121.4
9 NEILSEN	7.4	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	9.0	0.0	81.6	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	20.0	4.2	145.8
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	10.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.9	0.4	3.2	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	47.3
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	38.1
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	98.4
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.0	6.0	202.1	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	105.3	21.3	1321.1
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	35.4	10.9	875.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	3.2	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	29.0	-1.2	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	50.0	15.2	637.8
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.0	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	2.0	19.9	2 QUIST EXCHANGE P	7.0	536.3
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	466.5	2 SCHUREMAN EXCHAN	7.0	595.2
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	572.4	2 RASMUSSEN EXCHAN	5.1	445.0
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	399.9	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	Jun 4	865.0	1.8	0.0	866.8	0.00	866.8	1.8	0.0	0.0	865.0	0.0	0.0
9	Howell to Chilly	Jun 4	0.0	38.7	0.0	-826.3	1.00	40.5	37.1	1.6	0.0	1.6	-1.6	0.0
8	Chilly to Reservoir ***Connected***	* Jun 4	571.4	40.1	0.0	611.4	0.00	651.9	33.7	6.4	0.0	579.4	-8.0	0.0
7	Mackay Reservoir	* Jun 4	591.0	0.0	0.0	0.0	0.00	651.9	119.7		0.0	459.7	131.3	0.0
6	Reservoir to 2B	Jun 4	585.0	6.0	0.0	0.0	0.00	651.9	5.8	0.2	0.0	453.9	131.1	0.0
5	2B to Leslie	Jun 4	445.0	117.6	0.0	-22.4	0.04	651.9	100.1	17.5	0.0	336.5	108.5	0.0
4	Leslie to Moore	Jun 4	0.0	162.7	0.0	-213.1	0.48	651.9	122.7	40.0	0.0	52.7	-52.7	0.0
2	Moore to blw Munsey	Jun 4	0.0	79.0	47.1	-20.4	0.29	651.9	37.1	11.7	30.2	0.0	0.0	0.0
1	Blw Munsey to Arco	Jun 4	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		457.9	77.4	30.2			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	Jun 4	0.0	0.0	20180101	1%	1	18800630	3.2	556.5	222.2
9	Howell to Chilly	Jun 4	0.0	0.0	20180101	1%	2	18810630	1.7	294.0	118.0
8	Chilly to Reservoir ***Connected***	Jun 4	0.0	0.0	20180101	1%	3	18880601	3.2	556.5	215.8
							4	18960601	6.4	1113.0	431.6
7	Mackay Reservoir	Jun 4	0.0	0.0	20180101	1%	5	19020301	0.8	140.0	54.0
6	Reservoir to 2B	Jun 4	0.0	0.0	20180101	1%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	Jun 4	17.4	5.0	20180101	1%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	Jun 4	161.1	52.0	20180101	1%	8	19590902 Unlimited		6000.0	6000.0
2	Moore to blw Munsey	Jun 4	15.5	4.9	20180101	1%	9	Add Vol Unlimited		200000.0	2870.4
1	Blw Munsey to Arco	Jun 4	0.0	0.0	20180101	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL			194.0	61.9		0.0		TOTAL		346511.0	47762.9

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change (AF)	Change Content (cfs)	Daily Evap (cfs)
37540.0	37470.0	-70.0	-35.3	15.7

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	10252.9
Total Storage Loss	-5847.7
Total Storage Deliver	-3674.4
Total Evaporation	-861.7
Accounting Balance	37379.1
Current Res Content	37470.0
Storage Balance Error	-90.9

DAILY STORAGE BALANCE

37540.0 Reservoir Content Previous Day [ac-ft]
37470.0 Reservoir Content Current Day [ac-ft]
-70.0 Physical Change in Storage [ac-ft]

237.3 Storage Allocated to Mackay Reservoir [ac-ft]
-122.8 Stored Flow Losses [ac-ft]
-5.0 2B to Leslie [cfs]
-52.0 Leslie to Moore [cfs]
-4.9 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-153.5 Storage Delivered [ac-ft]
8.0 Above Reservoir [cfs]
0.2 Reservoir to 2B [cfs]
17.5 2B to Leslie [cfs]
40.0 Leslie to Moore [cfs]
11.7 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-31.1 Evaporation [ac-ft]
-70.1 Accounting Change in Storage [ac-ft]

-0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

571.4 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

571.4 Total Available Natural Flow [cfs]

119.7 Reservoir Rights Diverted [cfs]
194.0 Natural Flow Losses below Reservoir [cfs]
17.4 2B to Leslie [cfs]
161.1 Leslie to Moore [cfs]
15.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
257.7 Natural Flow Delivered [cfs]
-8.0 Above Reservoir Storage Use [cfs]
5.8 Reservoir to 2B [cfs]
100.1 2B to Leslie [cfs]
122.7 Leslie to Moore [cfs]
37.1 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
571.4 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	4.7	235
Eastside Felton Wier +	66.9	3345
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	2.0	100
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	118.7	5934
Groundwater to Arco	20.5	1025
Groundwater to Munsey	26.6	1329

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	66.9	3345
Total Out	76.1	3805
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.64	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 64.1%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 30.2 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 36.7 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 57.3 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 82.7%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 69.2 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 37.1 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 68.8%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 53.0%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	1.8	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	6.0	0.2	64.5
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	1.7	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	26.0	0.8	92.7
9 BITTON	4.0	0.0	4.3	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	5.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	46.0	6.1	335.8
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	42.0	7.0	173.7
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	3.6	3.6	128.5
9 NEILSEN	7.4	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	9.0	0.0	81.6	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	20.0	4.2	154.1
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	10.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.9	0.4	4.0	8 Johnson/Navarro	2.0	0.0	0.0	4 3IN1	0.0	0.0	47.3
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	39.7
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	101.6
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.0	6.0	214.0	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	103.8	23.1	1366.9
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	37.1	12.7	900.2
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	2.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	3.2	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	29.0	-1.6	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	50.0	14.5	666.6
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.0	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	2.0	23.8	2 QUIST EXCHANGE P	7.0	550.2
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	486.0	2 SCHUREMAN EXCHAN	7.0	609.1
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	587.9	2 RASMUSSEN EXCHAN	5.1	455.1
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	416.5	2 WADDUPS GW INTO	0.0	0.0

Reach Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10 Howell Gage	Jun 5	968.0	0.0	0.0	968.0	0.00	968.0	0.0	0.0	0.0	968.0	0.0	0.0
9 Howell to Chilly	Jun 5	0.0	19.0	0.0	-949.0	1.00	19.0	17.4	1.6	0.0	1.6	-1.6	0.0
8 Chilly to Reservoir ***Connected***	* Jun 5	600.0	32.0	0.0	632.0	0.00	651.0	26.0	6.0	0.0	607.6	-7.6	0.0
7 Mackay Reservoir	* Jun 5	601.0	0.0	0.0	0.0	0.00	651.0	148.6		0.0	459.0	142.0	0.0
6 Reservoir to 2B	Jun 5	596.0	5.0	0.0	0.0	0.00	651.0	4.8	0.2	0.0	454.2	141.8	0.0
5 2B to Leslie	Jun 5	443.0	113.9	0.0	-39.1	0.07	651.0	103.9	10.0	0.0	320.5	122.5	0.0
4 Leslie to Moore	Jun 5	0.0	159.5	0.0	-210.5	0.48	651.0	120.4	39.1	0.0	47.8	-47.8	0.0
2 Moore to blw Munsey	Jun 5	0.0	82.0	45.1	-20.3	0.28	651.0	34.5	18.2	29.3	0.0	0.0	0.0
1 Blw Munsey to Arco	Jun 5	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
* - Indicates flow estimated, not measured						TOTAL		455.6	75.1	29.3			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10 Howell Gage	Jun 5	0.0	0.0		20180101	1%	1	18800630	3.2	556.5	228.5
9 Howell to Chilly	Jun 5	0.0	0.0		20180101	1%	2	18810630	1.7	294.0	121.4
8 Chilly to Reservoir ***Connected***	Jun 5	0.0	0.0		20180101	1%	3	18880601	3.2	556.5	222.2
							4	18960601	6.4	1113.0	444.3
7 Mackay Reservoir	Jun 5	0.0	0.0		20180101	1%	5	19020301	0.8	140.0	55.5
6 Reservoir to 2B	Jun 5	0.0	0.0		20180101	1%	6	19051002 Unlimited		20646.0	20646.0
5 2B to Leslie	Jun 5	29.8	9.3		20180101	1%	7	19160207 Unlimited		17205.0	17205.0
4 Leslie to Moore	Jun 5	152.3	58.2		20180101	1%	8	19590902 Unlimited		6000.0	6000.0
2 Moore to blw Munsey	Jun 5	13.3	7.0		20180101	1%	9	Add Vol Unlimited		200000.0	3134.8
1 Blw Munsey to Arco	Jun 5	0.0	0.0		20180101	1%	10	Rotation Unlimited		100000.0	0.0
TOTAL		195.4	74.5	0.0				TOTAL		346511.0	48057.6

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37470.0	37440.0	-30.0	-15.1	14.1

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	10547.6
Total Storage Loss	-5995.5
Total Storage Deliver	-3823.4
Total Evaporation	-889.7
Accounting Balance	<u>37349.0</u>
Current Res Content	37440.0
Storage Balance Error	-91.0

DAILY STORAGE BALANCE

37470.0 Reservoir Content Previous Day [ac-ft]
37440.0 Reservoir Content Current Day [ac-ft]
-30.0 Physical Change in Storage [ac-ft]

294.7 Storage Allocated to Mackay Reservoir [ac-ft]
-147.8 Stored Flow Losses [ac-ft]
-9.3 2B to Leslie [cfs]
-58.2 Leslie to Moore [cfs]
-7.0 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-148.9 Storage Delivered [ac-ft]
7.6 Above Reservoir [cfs]
0.2 Reservoir to 2B [cfs]
10.0 2B to Leslie [cfs]
39.1 Leslie to Moore [cfs]
18.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-28.0 Evaporation [ac-ft]
-30.0 Accounting Change in Storage [ac-ft]

0.0 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

600.0 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

600.0 Total Available Natural Flow [cfs]

148.6 Reservoir Rights Diverted [cfs]
195.4 Natural Flow Losses below Reservoir [cfs]
29.8 2B to Leslie [cfs]
152.3 Leslie to Moore [cfs]
13.3 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
256.0 Natural Flow Delivered [cfs]
-7.6 Above Reservoir Storage Use [cfs]
4.8 Reservoir to 2B [cfs]
103.9 2B to Leslie [cfs]
120.4 Leslie to Moore [cfs]
34.5 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
600.0 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	4.4	220
Eastside Felton Wier +	68.7	3435
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	118.2	5909
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	67.7	3385
Total Out	76.9	3845
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.65	

- Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 65.1%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 29.3 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 38.4 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 59.0 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 80.8%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 73.0 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 37.7 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 67.7%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 52.6%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	5.0	0.2	64.9
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	26.0	0.6	93.9
9 BITTON	0.0	0.0	4.3	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	37.0	1.9	339.6
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	50.0	6.6	186.8
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	0.9	0.9	130.3
9 NEILSEN	7.4	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	81.6	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	20.0	4.4	162.7
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	10.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	4.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	0.0	0.0	47.3
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	41.3
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	104.7
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.0	6.0	225.9	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	100.6	22.0	1410.5
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	37.7	13.3	926.7
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	29.0	-1.8	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	53.0	20.0	706.2
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.0	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	23.8	2 QUIST EXCHANGE P	7.0	564.1
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	505.4	2 SCHUREMAN EXCHAN	7.0	622.9
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	603.4	2 RASMUSSEN EXCHAN	5.1	465.2
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	433.2	2 WADDOUPS GW INTO	0.0	0.0

Reach	Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10	Howell Gage	Jun 6	1020.0	0.0	0.0	1020.0	0.00	1020.0	0.0	0.0	0.0	1020.0	0.0	0.0
9	Howell to Chilly	Jun 6	0.0	19.0	0.0	-1001.0	1.00	19.0	17.4	1.6	0.0	1.6	-1.6	0.0
8	Chilly to Reservoir ***Connected***	* Jun 6	647.2	32.0	0.0	679.2	0.00	698.2	26.0	6.0	0.0	654.8	-7.6	0.0
7	Mackay Reservoir	* Jun 6	635.0	0.0	0.0	0.0	0.00	698.2	174.8		0.0	480.0	155.0	0.0
6	Reservoir to 2B	Jun 6	630.0	5.0	0.0	0.0	0.00	698.2	4.8	0.2	0.0	475.2	154.8	0.0
5	2B to Leslie	Jun 6	465.0	103.9	0.0	-61.1	0.10	698.2	95.2	8.7	0.0	333.9	131.1	0.0
4	Leslie to Moore	Jun 6	0.0	158.6	0.0	-235.8	0.51	698.2	124.3	34.3	0.0	40.2	-40.2	0.0
2	Moore to blw Munsey	Jun 6	0.0	80.5	45.1	-19.7	0.28	698.2	29.0	21.8	29.7	0.0	0.0	0.0
1	Blw Munsey to Arco	Jun 6	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	0.0	0.0	0.0
							TOTAL		471.5	72.6	29.7			

* - Indicates flow estimated, not measured

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10	Howell Gage	Jun 6	0.0	0.0	20180101	2%	1	18800630	3.2	556.5	234.8
9	Howell to Chilly	Jun 6	0.0	0.0	20180101	2%	2	18810630	1.7	294.0	124.8
8	Chilly to Reservoir ***Connected***	Jun 6	0.0	0.0	20180101	2%	3	18880601	3.2	556.5	228.5
							4	18960601	6.4	1113.0	457.0
7	Mackay Reservoir	Jun 6	0.0	0.0	20180101	2%	5	19020301	0.8	140.0	57.1
6	Reservoir to 2B	Jun 6	0.0	0.0	20180101	2%	6	19051002 Unlimited		20646.0	20646.0
5	2B to Leslie	Jun 6	46.1	15.0	20180101	2%	7	19160207 Unlimited		17205.0	17205.0
4	Leslie to Moore	Jun 6	169.3	66.5	20180101	2%	8	19590902 Unlimited		6000.0	6000.0
2	Moore to blw Munsey	Jun 6	11.2	8.5	20180101	2%	9	Add Vol Unlimited		200000.0	3451.1
1	Blw Munsey to Arco	Jun 6	0.0	0.0	20180101	2%	10	Rotation Unlimited		100000.0	0.0
TOTAL			226.6	90.0				TOTAL		346511.0	48404.4

MACKAY RESERVOIR RIGHTS

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37440.0	37440.0	0.0	0.0	12.2

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	10894.4
Total Storage Loss	-6174.0
Total Storage Deliver	-3967.4
Total Evaporation	-913.9
Accounting Balance	37349.1
Current Res Content	37440.0
Storage Balance Error	-90.9

DAILY STORAGE BALANCE

37440.0 Reservoir Content Previous Day [ac-ft]
37440.0 Reservoir Content Current Day [ac-ft]
0.0 Physical Change in Storage [ac-ft]

346.7 Storage Allocated to Mackay Reservoir [ac-ft]
-178.5 Stored Flow Losses [ac-ft]
-15.0 2B to Leslie [cfs]
-66.5 Leslie to Moore [cfs]
-8.5 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Past Arco Gage [cfs]
-144.1 Storage Delivered [ac-ft]
7.6 Above Reservoir [cfs]
0.2 Reservoir to 2B [cfs]
8.7 2B to Leslie [cfs]
34.3 Leslie to Moore [cfs]
21.8 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-24.2 Evaporation [ac-ft]
-0.1 Accounting Change in Storage [ac-ft]

-0.1 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

647.2 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
0.0 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

647.2 Total Available Natural Flow [cfs]

174.8 Reservoir Rights Diverted [cfs]
226.6 Natural Flow Losses below Reservoir [cfs]
46.1 2B to Leslie [cfs]
169.3 Leslie to Moore [cfs]
11.2 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
0.0 Natural Flow Past Arco Gage [cfs]
245.7 Natural Flow Delivered [cfs]
-7.6 Above Reservoir Storage Use [cfs]
4.8 Reservoir to 2B [cfs]
95.2 2B to Leslie [cfs]
124.3 Leslie to Moore [cfs]
29.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
647.1 Natural Flow Delivered & Lost [cfs]

0.1 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	4.9	245
Eastside Felton Wier +	69.9	3495
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	119.9	5994
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	69.7	3485
Total Out	78.9	3945
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.66	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 65.8%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 29.7 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 40.0 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 60.8 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= 86.2%
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 70.6 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 35.1 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 72.6%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 56.7%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	5.0	0.2	65.3
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	26.0	0.6	95.0
9 BITTON	0.0	0.0	4.3	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	37.0	1.9	343.4
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	40.0	5.3	197.3
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	0.9	0.9	132.1
9 NEILSEN	7.4	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	81.6	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	20.0	4.4	171.4
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	10.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	4.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	0.0	0.0	47.3
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	42.8
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	107.9
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.0	6.0	237.8	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	99.7	17.2	1444.6
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	35.1	10.8	948.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	29.0	-1.9	1.2
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	51.5	23.8	753.4
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.0	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
- (3) No Tellum 2, 3, 4 & 5 use combined with No Tellum 1
- (4) 13120300 use combined with Sorensen
- (5) Zollinger 3 use combined with Zollinger 1
- (6) KENT use combined with BITTON
- (7) 6X Ranch Pump use combined with 6X Ranch Navarre
- (8) 13121400 use combined with Cherian
- (*) OVERAGES SHOWN MAY DUE TO NELSON INJECTION

EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	23.8	2 QUIST EXCHANGE P	7.0	578.0
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	524.8	2 SCHUREMAN EXCHAN	7.0	636.8
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	618.9	2 RASMUSSEN EXCHAN	5.1	475.4
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	449.9	2 WADDOUPS GW INTO	0.0	0.0

Reach Flows in cfs	Actual Date	Actual Flow	Total Rch Div	Exchange Flow	Reach Gain	Convey Loss	Natural Flow	Nat Flow Divert	Sto Flow Divert	Exc Flow Divert	Nat Flow Remain	Sto Flow Remain	Exc Flow Remain
10 Howell Gage	Jun 7	997.0	0.0	0.0	997.0	0.00	997.0	0.0	0.0	0.0	997.0	0.0	0.0
9 Howell to Chilly	Jun 7	0.0	19.0	0.0	-978.0	1.00	19.0	17.4	1.6	0.0	1.6	-1.6	0.0
8 Chilly to Reservoir ***Connected***	* Jun 7	687.4	32.0	0.0	719.4	0.00	738.4	26.0	6.0	0.0	695.0	-7.6	0.0
7 Mackay Reservoir	* Jun 7	671.0	0.0	0.0	0.0	0.00	738.4	229.3		0.0	465.7	205.3	0.0
6 Reservoir to 2B	Jun 7	666.0	5.0	0.0	0.0	0.00	738.4	4.8	0.2	0.0	460.9	205.1	0.0
5 2B to Leslie	Jun 7	475.0	103.9	0.0	-87.1	0.13	738.4	95.2	8.7	0.0	305.4	169.6	0.0
4 Leslie to Moore	Jun 7	0.0	160.2	0.0	-314.8	0.66	738.4	103.0	57.2	0.0	0.0	0.0	0.0
2 Moore to blw Munsey	Jun 7	0.0	80.5	45.1	50.6	0.00	789.0	29.3	21.3	29.9	21.3	-21.3	0.0
1 Blw Munsey to Arco	Jun 7	0.0	0.0	0.0	0.0	0.00		0.0	0.0	0.0	21.3	-21.3	0.0
* - Indicates flow estimated, not measured						TOTAL		505.0	95.0	29.9			

REACH LOSS DATA

Reach	Actual Date	Nat Flow Loss	Sto Flow Loss	Exc Flow Loss	Priority	Percent Filled	Order	Priority	Rate (cfs)	Right (AF)	Stored (AF)
10 Howell Gage	Jun 7	0.0	0.0		20180101	2%	1	18800630	3.2	556.5	241.2
9 Howell to Chilly	Jun 7	0.0	0.0		20180101	2%	2	18810630	1.7	294.0	128.1
8 Chilly to Reservoir ***Connected***	Jun 7	0.0	0.0		20180101	2%	3	18880601	3.2	556.5	234.8
							4	18960601	6.4	1113.0	469.7
7 Mackay Reservoir	Jun 7	0.0	0.0		20180101	2%	5	19020301	0.8	140.0	58.7
6 Reservoir to 2B	Jun 7	0.0	0.0		20180101	2%	6	19051002 Unlimited		20646.0	20646.0
5 2B to Leslie	Jun 7	60.3	26.8		20180101	2%	7	19160207 Unlimited		17205.0	17205.0
4 Leslie to Moore	Jun 7	202.4	112.4		20180101	2%	8	19590902 Unlimited		6000.0	6000.0
2 Moore to blw Munsey	Jun 7	0.0	0.0		20180101	2%	9	Add Vol Unlimited		200000.0	3875.6
1 Blw Munsey to Arco	Jun 7	0.0	0.0		20180101	2%	10	Rotation Unlimited		100000.0	0.0
TOTAL		262.7	139.2	0.0				TOTAL		346511.0	48859.2

SUMMARY OF MACKAY RESERVOIR & BELOW

Previous Content (AF)	Current Content (AF)	Change Content (AF)	Change Content (cfs)	Daily Evap (cfs)
37440.0	37440.0	0.0	0.0	16.4

RESERVOIR BALANCE CALCULATION (AF)

Beg Storage (4/30)	37510.0
Allocated Storage	11349.2
Total Storage Loss	-6407.9
Total Storage Deliver	-4155.8
Total Evaporation	-946.4
Accounting Balance	37349.1
Current Res Content	37440.0
Storage Balance Error	-90.9

DAILY STORAGE BALANCE

37440.0 Reservoir Content Previous Day [ac-ft]
37440.0 Reservoir Content Current Day [ac-ft]
0.0 Physical Change in Storage [ac-ft]

454.8 Storage Allocated to Mackay Reservoir [ac-ft]
-233.9 Stored Flow Losses [ac-ft]
-26.8 2B to Leslie [cfs]
-112.4 Leslie to Moore [cfs]
0.0 Moore blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
21.3 Past Arco Gage [cfs]
-188.4 Storage Delivered [ac-ft]
7.6 Above Reservoir [cfs]
0.2 Reservoir to 2B [cfs]
8.7 2B to Leslie [cfs]
57.2 Leslie to Moore [cfs]
21.3 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
-32.5 Evaporation [ac-ft]
0.0 Accounting Change in Storage [ac-ft]

0.0 Balance [ac-ft]

DAILY NATURAL FLOW BALANCE

687.4 Gain in/above Mackay Reservoir [cfs]
0.0 Gain in Reach 5: 2-B to Leslie [cfs]
0.0 Gain in Reach 4: Leslie to Moore [cfs]
50.6 Gain in Reach 2: Moore to Munsey [cfs]
0.0 Gain in Reach 1: Munsey to Arco [cfs]

738.0 Total Available Natural Flow [cfs]

229.3 Reservoir Rights Diverted [cfs]
284.0 Natural Flow Losses below Reservoir [cfs]
60.3 2B to Leslie [cfs]
202.4 Leslie to Moore [cfs]
0.0 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]
21.3 Natural Flow Past Arco Gage [cfs]
224.7 Natural Flow Delivered [cfs]
-7.6 Above Reservoir Storage Use [cfs]
4.8 Reservoir to 2B [cfs]
95.2 2B to Leslie [cfs]
103.0 Leslie to Moore [cfs]
29.3 Moore to blw Munsey [cfs]
0.0 blw Munsey to Arco Gage [cfs]

738.0 Natural Flow Delivered & Lost [cfs]

0.0 Balance [cfs]

Abbreviated Reach

Eastside Delivery Factor

----- In -----		
Description	CFS	INCHES
Island Jensen Weir +	5.5	275
Eastside Felton Wier +	69.8	3490
Island Felton Farms Wells In +	0.0	0
Island Doug Hendricks Wells In +	0.0	0
Island Theola Jensen Wells In +	0.0	0
Munsey Jay Jensen OD Wells In +	0.0	0
Munsey Parkinson Farms-1 OD Wells In +	7.8	390
Munsey Schureman (IN) Wells In +	7.0	349
Munsey Telford Isom Wells In +	9.8	490
Munsey Telford Lower Wells In +	0.0	0
Arco Lost River Rasmussen Wells In +	5.1	255
Arco Quist Wells In +	7.0	350
Arco Standlee OD Wells IN (Island)	8.4	420
Total In	120.4	6019
Groundwater to Arco	20.5	1025
Groundwater to Munsey	24.6	1229

----- Delivery -----		
Description	CFS	INCHES
Eastside Nolan Beard Delivery +	0.0	0
Eastside Tyler Felton Delivery +	0.0	0
Eastside Valarie Backcock +	0.0	0
Eastside PU Ranch Delivery +	7.5	375
Eastside Richard Reynolds Delivery +	1.7	85
Eastside Rosenkrance (Felton) Delivery +	0.0	0
Eastside Waddoups Delivery +	0.0	0
Eastside Walker Delivery +	0.0	0
Eastside V Reynolds Delivery +	0.0	0
Eastside & Island Recharge +	0.0	0
Island Babcock Delivery +	0.0	0
Island Felton Farms Delivery +	0.0	0
Island Doug Hendricks Delivery +	0.0	0
Island Norm Sowards Delivery +	0.0	0
Island Wanstrom David +	0.0	0
Eastside OUT	70.6	3530
Total Out	79.8	3990
Abbreviated Reach Delivery Factor Total Out Divided By Total In	0.66	

Step	Description	Value
Step 1 - Abbreviated Reach Delivery Factor (GW Delivery Factor)		
	Eastside Out + Eastside diversion below weirs	
	-----	= 66.3%
	Weirs + Groundwater Injection	
Step 2 - Groundwater at Eastside Out		
	Groundwater Inj. X Abbreviated Reach Delivery Factor	= 29.9 cfs
Step 3 - River at Eastside Out		
	Eastside Out - Groundwater at Eastside Out	= 40.7 cfs
Step 4 - River at Weirs		
	River at Eastside Out	
	-----	= 61.4 cfs
	Abbreviated Reach Delivery Factor	
Step 5 - Upper Reach Delivery Factor		
	Weirs + Eastside Diversion Above Weirs	
	-----	= %
	Eastside In	
Step 6 - River at Eastside In		
	River at Weirs	
	-----	= 0.0 cfs
	Upper Reach Delivery Factor	
Step 7 - Canal at Eastside In		
	Eastside In - River at Eastside In	= 0.0 cfs
Step 8 - Canal Delivery Factor		
	Eastside Div. Abv Weirs + Eastside Div. Blw Weirs	
	-----	= 0.0%
	Canal at Eastside	
Step 9 - Eastside River Delivery Factor		
	River at Eastside Out	
	-----	= 0.0%
	River at Eastside In	

RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED	RCH DIVERSION	CFS DIVN	CFS STOR	AF STOR USED
10 Sorensen	0.0	0.0	0.0	8 No Tellum 2	0.0	0.0	0.0	6 BIG LOST RIVER O	0.0	0.0	0.0
10 HOWELL	0.0	0.0	16.7	8 No Tellum 3	0.0	0.0	0.0	6 SHARP	5.0	0.2	65.7
9 KENT	0.0	0.0	0.0	8 Gates/Woods 1	1.5	0.0	0.0	5 STREETER	0.0	0.0	0.0
9 BRADSHAW	0.0	0.0	0.0	8 Gates/Woods 2	0.0	0.0	0.0	5 SWAUGER	26.0	0.6	96.2
9 BITTON	0.0	0.0	4.3	8 No Tellum 4	0.0	0.0	0.0	5 MARINAC	0.0	0.0	0.0
9 Anderson	0.0	0.0	0.0	8 No Tellum 5	0.0	0.0	0.0	5 DARLINGTON	37.0	1.9	347.2
9 Thalman Hunter D	0.0	0.0	0.0	8 Gates/Woods/6X R	0.0	0.0	0.0	5 BURNETT	40.0	5.3	207.9
9 Johnson/Hatmaker	0.0	0.0	0.0	8 Smith Pumps	3.0	0.0	0.0	5 HARRIS-VAUGHT	0.9	0.9	133.9
9 NEILSEN	7.4	0.0	24.6	8 Freeman/Kent	0.0	0.0	0.0	5 MAGEE PUMP	0.0	0.0	0.0
9 Bradshaw 2	0.0	0.0	0.0	8 Broken River Pum	0.0	0.0	4.4	5 SUTTER	0.0	0.0	0.0
9 CHILLY	0.0	0.0	81.6	8 Broken River Dit	0.0	0.0	0.0	5 ANGELO	0.0	0.0	0.0
9 INGRAM	0.0	0.0	0.0	8 Freeman 2	0.0	0.0	0.0	4 BECK	20.0	4.4	180.1
9 Cherian	0.0	0.0	0.0	8 Freeman 3	0.0	0.0	0.0	4 PEHRSON	1.8	0.0	28.6
9 LONGHURST	10.0	0.0	0.0	8 Freeman/Hill Pum	0.0	0.0	0.7	4 LOW BURNETT	0.0	0.0	0.0
8 Mtn. Springs 3	0.0	0.0	0.0	8 6X Ranch 5	0.0	0.0	0.0	4 UC Canal	0.0	0.0	0.0
8 Donahue 1	0.0	0.0	4.0	8 Johnson/Navarro	0.0	0.0	0.0	4 3IN1	0.0	0.0	47.3
8 Zollinger 1	0.0	0.0	0.0	8 6X Ranch 6	0.0	0.0	0.0	4 CRAWFORD PUMP	0.8	0.8	44.4
8 Zollinger 3	0.0	0.0	0.0	8 Stoecklein 3	0.0	0.0	0.0	4 B AND J	0.0	0.0	0.0
8 Pence Diversion	1.7	0.0	8.0	8 Upper Fish Hatch	0.0	0.0	0.0	4 Dennis Moss Pump	1.6	1.6	111.1
8 Unger	0.0	0.0	0.0	8 Freeman Ditch	0.0	0.0	27.8	4 Robert Moss	0.0	0.0	0.0
8 6X Ranch 1	6.0	6.0	249.7	8 Stoecklein 1	3.2	0.0	4.0	4 Mike Webb Pump	0.0	0.0	0.0
8 Mtn. Springs 1	1.5	0.0	0.0	8 Stoecklein 2	0.0	0.0	0.0	4 MOORE	101.3	15.7	1475.7
8 Mtn. Springs 4	0.0	0.0	0.0	8 Stoecklein 4	0.0	0.0	0.0	4 EASTSIDE FIELD H	0.0	0.0	948.0
8 Mtn. Springs 2	0.0	0.0	0.0	8 Shoupe Ditch	0.0	0.0	0.0	2 NICHOLS	0.0	0.0	0.0
8 Donahue 2	0.0	0.0	0.0	8 Gates Pump 1	0.0	0.0	0.0	2 ARCO	29.0	10.3	21.7
8 Simmons	0.0	0.0	0.0	8 Gates Pump 2	0.0	0.0	0.0	2 MUNSEY	51.5	31.7	816.3
8 Donahue 4	0.0	0.0	0.0	8 6X Ranch Pump	0.0	0.0	0.4	1 MILLER	0.0	0.0	0.0
8 Donahue 3	0.0	0.0	0.0	8 6X Ranch Navarre	0.6	0.0	0.0	1 MCLAUGHLIN	0.0	0.0	0.0
8 Zollinger 2	0.0	0.0	0.0	8 Gates/Woods 3	0.0	0.0	0.0	1 FOLKMAN PUMP	0.0	0.0	0.0
8 Zollinger/No Tel	6.7	0.0	10.6	8 6X Ranch 3	0.0	0.0	0.0	1 HUGGINS PUMP	0.0	0.0	0.0
8 Churn Dasher Ran	1.8	0.0	0.0	8 6X Ranch 4	0.0	0.0	0.0	1 QUIST PUMP #1	0.0	0.0	0.0
8 No Tellum 1	6.0	0.0	9.5	7 MACKAY DAM	0.0	0.0	0.0	1 QUIST PUMP #2	0.0	0.0	0.0

- (1) Donahue 3 & 4 use combined with Donahue 2
- (2) Mtn. Springs 2, 3 & 4 use combined with Mtn. Springs 1
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EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD	EXCHANGE PUMP	CFS PUMPED	AF YTD
8 Neilsen Injectio	0.0	0.0	2 POTTER EXCHANGE	0.0	0.0	2 ISOM 2 EXCHANGE	0.0	0.0
5 JM SMITH EXCHANG	0.0	0.0	2 JENSEN EXCHANGE	0.0	23.8	2 QUIST EXCHANGE P	7.0	591.9
5 L SMITH EXCHANGE	0.0	0.0	2 ISOM 1 EXCHANGE	9.8	544.3	2 SCHUREMAN EXCHAN	7.0	650.6
5 PEHRSON EXCHANGE	0.0	0.0	2 PARKINSON EXCHAN	7.8	634.3	2 RASMUSSEN EXCHAN	5.1	485.5
2 FOLKMAN EXCHANGE	0.0	0.0	2 MCDONALD EXCHANG	8.4	466.5	2 WADDOUPS GW INTO	0.0	0.0