



State of Idaho

DEPARTMENT OF WATER RESOURCES

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July 18, 2007

C. L. "BUTCH" OTTER
Governor

DAVID R. TUTHILL, JR.
Interim Director

DAVID K BENNION, SECRETARY
STANLEY LAKE CREEK WATER USERS ASSOCIATION
2212 RIDGE POINT WAY
BOISE, ID 83712

Re: Order Requiring Measuring Devices and Head gates in Water District No. 170.

Dear Mr. Bennion:

This letter is a follow-up to our visit last week at the SLC1 diversion on Stanley Lake Creek. The purpose of our visit was to verify that the existing structure is suitable for measurement and control. Based on my observations and measurements taken that day, the structure is suitable and no further action is required on your part to comply with the February 20, 2007 IDWR order requiring controlling works and measuring devices in Water District No. 170. Additionally, I have reviewed the measurement data and have developed the attached rating curve for the structure.

As you recall, I made four measurements on the ditch at three different flow stages (we made two measurements at the high stage). The flow data are plotted on the attached chart, along with a standard rating curve for two widths and a modified curve for two widths. Although the weir opening is 1.84 feet, the upstream face is obstructed by a slightly larger opening of 1.90 feet. Although the upstream opening is larger, it may influence the contraction. The standard curves are based on the Francis equation and appear to under-predict the observed flows. It appears that the approach channel geometry prevents development of fully contracted flow over the weir plate. As a result, suppressed weir equations more closely fit the data. Additionally, at the higher stage, the velocity of approach may begin to influence the measurement, as the head over the weir is approximately 30% of the weir crest length at the higher stage.

The modified curves are based on the more general suppressed weir equation shown on the attached table. Whereas the Francis equation uses a standard coefficient of 3.33, the modified equation adjusts this value based on the head over the weir. The modified equation for the 1.9-foot crest length appears to fit the data well at the middle and upper flow stages. Although this equation over-predicts the flow at the lowest stage, it is within the 5% error margin for the stream flow measurement.

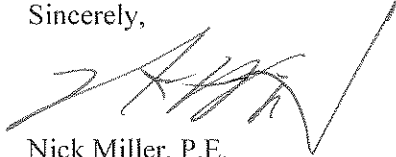
The attached rating table is based on the modified equation with a 1.9-foot crest length. The table also shows the water rights diverted from SLC1 and how much each right would receive under a strict priority basis at each stage. However, this allocation of water assumes every right is called for and each senior user must be fully satisfied before a junior user receives water. Please note that junior users may receive water if water is available and the senior users are not taking their full water rights, but no user may redivert more than their full water right less ditch losses.

Mr. David Bennion
July 18, 2007
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As we discussed, Water District No. 170 will begin keeping diversion records in Basin 71 for the 2008 irrigation season. IDWR will contact you prior to the start of the irrigation season to discuss the record keeping and reporting procedure.

It was a pleasure meeting with you and Dean last week. If you have any questions about this matter, please feel free to call, email, or write me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Nick Miller', with a long, sweeping flourish extending upwards and to the right.

Nick Miller, P.E.
Water Distribution Section

Enclosures:

Weir rating table and data summary (1 page, 2 sides), three copies

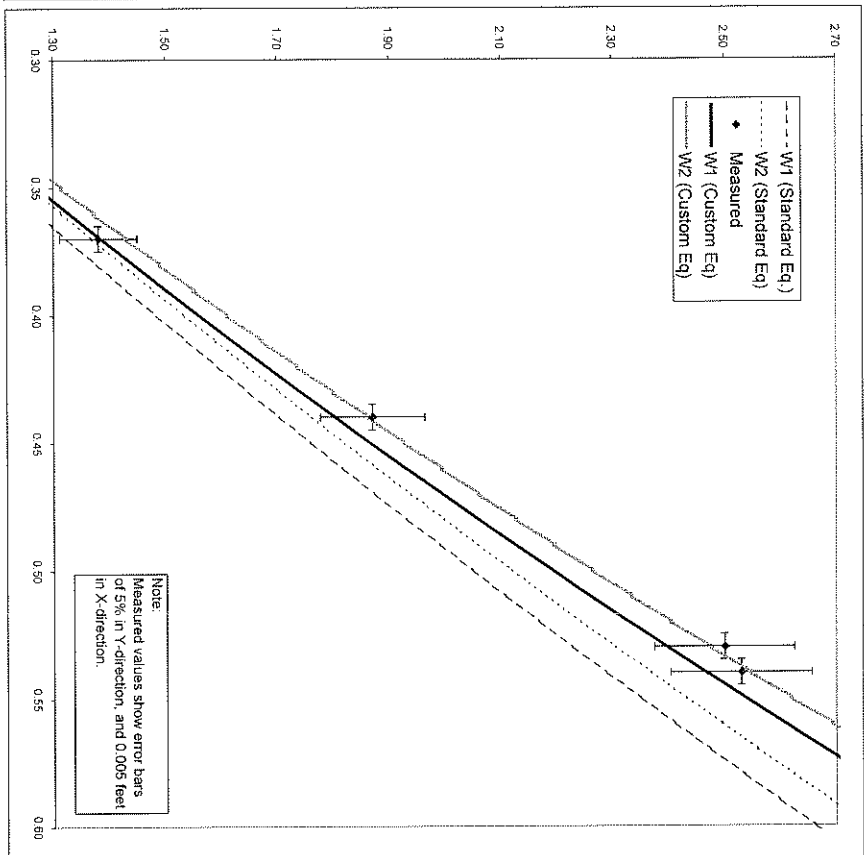
S:\Correspondence\2007 HGMD Correspondence\Basin 71\071807_SLC1.doc

RATING AND PRIORITY SCHEDULE FOR SLC1

| WR Num | 71-2084A | 71-2084B | 71-10880 | 71-7020 | 71-7023 | 71-7102A | 71-7105 | 71-7117 |
|---|-------------------------|----------------------|--|----------------------------------|----------------------------------|--|---------------------------------------|------------------------------------|
| Priority Date | 03/07/1956 | 03/07/1956 | 01/05/1970 | 01/11/1972 | 15/11/1973 | 27/08/1986 | 22/12/1986 | 31/05/1988 |
| Rate | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.07 | 0.06 | 0.08 |
| Cummulative Rate | 0.22 | 0.3 | 2.09 | 2.23 | 2.25 | 2.32 | 2.38 | 2.46 |
| Owner | LANGERMANN, JOHN W R | BAIRD, SHERRILL M | STANLEY LAKE CREEK WATER USERS ASSOCIATION | BOYLE, ALICE R; BOYLE, W DEAN | BOYLE, ALICE R; BOYLE, W DEAN | REYNOLDS JR, EARL C; REYNOLDS, JODI B | BENNION, DAVID K; BENNION, SUSAN D | ENGLEMAN, TONY; LUCACHICK, MARY |
| Amount of Each Water Right On At Each Flow Rate By Priority | | | | | | | | |
| GH (ft) | Q2 (cfs) | | | | | | | |
| 0.30 | 0.22 | 0.08 | 0.74 | Off | Off | Off | Off | Off |
| 0.31 | 0.22 | 0.08 | 0.79 | Off | Off | Off | Off | Off |
| 0.32 | 0.22 | 0.08 | 0.85 | Off | Off | Off | Off | Off |
| 0.33 | 0.22 | 0.08 | 0.90 | Off | Off | Off | Off | Off |
| 0.34 | 0.22 | 0.08 | 0.96 | Off | Off | Off | Off | Off |
| 0.35 | 0.22 | 0.08 | 1.01 | Off | Off | Off | Off | Off |
| 0.36 | 0.22 | 0.08 | 1.07 | Off | Off | Off | Off | Off |
| 0.37 | 0.22 | 0.08 | 1.13 | Off | Off | Off | Off | Off |
| 0.38 | 0.22 | 0.08 | 1.19 | Off | Off | Off | Off | Off |
| 0.39 | 0.22 | 0.08 | 1.25 | Off | Off | Off | Off | Off |
| 0.40 | 0.22 | 0.08 | 1.31 | Off | Off | Off | Off | Off |
| 0.41 | 0.22 | 0.08 | 1.37 | Off | Off | Off | Off | Off |
| 0.42 | 0.22 | 0.08 | 1.43 | Off | Off | Off | Off | Off |
| 0.43 | 0.22 | 0.08 | 1.50 | Off | Off | Off | Off | Off |
| 0.44 | 0.22 | 0.08 | 1.56 | Off | Off | Off | Off | Off |
| 0.45 | 0.22 | 0.08 | 1.63 | Off | Off | Off | Off | Off |
| 0.46 | 0.22 | 0.08 | 1.69 | Off | Off | Off | Off | Off |
| 0.47 | 0.22 | 0.08 | 1.76 | Off | Off | Off | Off | Off |
| 0.48 | 0.22 | 0.08 | 1.79 | 0.04 | Off | Off | Off | Off |
| 0.49 | 0.22 | 0.08 | 1.79 | 0.10 | Off | Off | Off | Off |
| 0.50 | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.01 | Off | Off |
| 0.51 | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.07 | 0.01 | Off |
| 0.52 | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.07 | 0.06 | 0.02 |
| 0.53 | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.07 | 0.06 | 0.08 |
| 0.54 | | | | | Over Diverting | | | |
| 0.55 | | | | | Over Diverting | | | |
| 0.56 | | | | | Over Diverting | | | |
| 0.57 | | | | | Over Diverting | | | |
| 0.58 | | | | | Over Diverting | | | |
| 0.59 | | | | | Over Diverting | | | |
| 0.60 | | | | | Over Diverting | | | |
| 0.61 | | | | | Over Diverting | | | |
| 0.62 | | | | | Over Diverting | | | |
| 0.63 | | | | | Over Diverting | | | |
| 0.64 | | | | | Over Diverting | | | |
| 0.65 | | | | | Over Diverting | | | |
| 0.66 | | | | | Over Diverting | | | |
| 0.67 | | | | | Over Diverting | | | |
| 0.68 | | | | | Over Diverting | | | |
| 0.69 | | | | | Over Diverting | | | |
| 0.70 | | | | | Over Diverting | | | |

| GH (ft) | Measured Q (cfs) | Rated Q (cfs) |
|---------|---------------------|------------------|
| 0.37 | 1.38 | 1.43 |
| 0.44 | 1.87 | 1.86 |
| 0.53 | 2.50 | 2.47 |
| 0.54 | 2.53 | 2.55 |

| W1 is upstream opening | | | | Q=3.33 (W-0.2H) ^{1/3} (2) | | | | Q=Cw(2/3)(2g ^{0.5} WH ^{1/3} (2) | | | |
|------------------------|---------|---------|----------|------------------------------------|----------|----------|-----------------|---|-------|------|--|
| GH (ft) | W1 (ft) | W2 (ft) | Q1 (cfs) | Q2 (cfs) | Q1 (cfs) | Q2 (cfs) | Cw(2/3)Sqrt(2g) | Pw | GH/Pw | Cmc | |
| 0.30 | 1.84 | 1.90 | 0.97 | 1.01 | 1.01 | 1.04 | 3.33 | 2 | 0.15 | 0.62 | |
| 0.31 | 1.84 | 1.90 | 1.02 | 1.06 | 1.06 | 1.09 | 3.33 | 2 | 0.16 | 0.62 | |
| 0.32 | 1.84 | 1.90 | 1.07 | 1.11 | 1.11 | 1.15 | 3.33 | 2 | 0.16 | 0.62 | |
| 0.33 | 1.84 | 1.90 | 1.12 | 1.16 | 1.16 | 1.20 | 3.34 | 2 | 0.17 | 0.62 | |
| 0.34 | 1.84 | 1.90 | 1.17 | 1.21 | 1.22 | 1.26 | 3.34 | 2 | 0.17 | 0.62 | |
| 0.35 | 1.84 | 1.90 | 1.22 | 1.26 | 1.27 | 1.31 | 3.34 | 2 | 0.18 | 0.62 | |
| 0.36 | 1.84 | 1.90 | 1.27 | 1.31 | 1.33 | 1.37 | 3.34 | 2 | 0.18 | 0.62 | |
| 0.37 | 1.84 | 1.90 | 1.32 | 1.37 | 1.38 | 1.43 | 3.35 | 2 | 0.19 | 0.62 | |
| 0.38 | 1.84 | 1.90 | 1.38 | 1.42 | 1.44 | 1.49 | 3.35 | 2 | 0.19 | 0.63 | |
| 0.39 | 1.84 | 1.90 | 1.43 | 1.48 | 1.50 | 1.55 | 3.35 | 2 | 0.20 | 0.63 | |
| 0.40 | 1.84 | 1.90 | 1.48 | 1.53 | 1.56 | 1.61 | 3.35 | 2 | 0.20 | 0.63 | |
| 0.41 | 1.84 | 1.90 | 1.54 | 1.59 | 1.62 | 1.67 | 3.35 | 2 | 0.21 | 0.63 | |
| 0.42 | 1.84 | 1.90 | 1.59 | 1.65 | 1.68 | 1.73 | 3.35 | 2 | 0.21 | 0.63 | |
| 0.43 | 1.84 | 1.90 | 1.65 | 1.70 | 1.74 | 1.80 | 3.36 | 2 | 0.22 | 0.63 | |
| 0.44 | 1.84 | 1.90 | 1.70 | 1.76 | 1.80 | 1.86 | 3.36 | 2 | 0.22 | 0.63 | |
| 0.45 | 1.84 | 1.90 | 1.76 | 1.82 | 1.87 | 1.93 | 3.36 | 2 | 0.23 | 0.63 | |
| 0.46 | 1.84 | 1.90 | 1.82 | 1.88 | 1.93 | 1.99 | 3.36 | 2 | 0.24 | 0.63 | |
| 0.47 | 1.84 | 1.90 | 1.87 | 1.94 | 1.99 | 2.05 | 3.37 | 2 | 0.24 | 0.63 | |
| 0.48 | 1.84 | 1.90 | 1.93 | 2.00 | 2.06 | 2.13 | 3.37 | 2 | 0.25 | 0.63 | |
| 0.49 | 1.84 | 1.90 | 1.99 | 2.06 | 2.13 | 2.19 | 3.37 | 2 | 0.25 | 0.63 | |
| 0.50 | 1.84 | 1.90 | 2.05 | 2.12 | 2.18 | 2.26 | 3.37 | 2 | 0.25 | 0.63 | |
| 0.51 | 1.84 | 1.90 | 2.11 | 2.18 | 2.26 | 2.33 | 3.37 | 2 | 0.26 | 0.63 | |
| 0.52 | 1.84 | 1.90 | 2.17 | 2.24 | 2.33 | 2.40 | 3.38 | 2 | 0.27 | 0.63 | |
| 0.53 | 1.84 | 1.90 | 2.23 | 2.31 | 2.40 | 2.47 | 3.38 | 2 | 0.27 | 0.63 | |
| 0.54 | 1.84 | 1.90 | 2.29 | 2.37 | 2.47 | 2.55 | 3.38 | 2 | 0.27 | 0.63 | |
| 0.55 | 1.84 | 1.90 | 2.35 | 2.43 | 2.54 | 2.62 | 3.38 | 2 | 0.28 | 0.63 | |
| 0.56 | 1.84 | 1.90 | 2.41 | 2.50 | 2.61 | 2.69 | 3.38 | 2 | 0.28 | 0.63 | |
| 0.57 | 1.84 | 1.90 | 2.47 | 2.56 | 2.68 | 2.77 | 3.39 | 2 | 0.29 | 0.63 | |
| 0.58 | 1.84 | 1.90 | 2.54 | 2.62 | 2.75 | 2.84 | 3.39 | 2 | 0.30 | 0.63 | |
| 0.59 | 1.84 | 1.90 | 2.60 | 2.69 | 2.82 | 2.92 | 3.39 | 2 | 0.30 | 0.63 | |
| 0.60 | 1.84 | 1.90 | 2.66 | 2.75 | 2.90 | 2.99 | 3.39 | 2 | 0.31 | 0.63 | |
| 0.61 | 1.84 | 1.90 | 2.73 | 2.82 | 2.97 | 3.07 | 3.39 | 2 | 0.31 | 0.63 | |
| 0.62 | 1.84 | 1.90 | 2.79 | 2.89 | 3.05 | 3.15 | 3.39 | 2 | 0.32 | 0.63 | |
| 0.63 | 1.84 | 1.90 | 2.85 | 2.95 | 3.12 | 3.23 | 3.40 | 2 | 0.32 | 0.64 | |
| 0.64 | 1.84 | 1.90 | 2.92 | 3.02 | 3.20 | 3.30 | 3.40 | 2 | 0.33 | 0.64 | |
| 0.65 | 1.84 | 1.90 | 2.98 | 3.09 | 3.28 | 3.38 | 3.40 | 2 | 0.33 | 0.64 | |
| 0.66 | 1.84 | 1.90 | 3.05 | 3.16 | 3.36 | 3.47 | 3.40 | 2 | 0.33 | 0.64 | |
| 0.67 | 1.84 | 1.90 | 3.12 | 3.23 | 3.43 | 3.55 | 3.40 | 2 | 0.34 | 0.64 | |
| 0.68 | 1.84 | 1.90 | 3.18 | 3.29 | 3.51 | 3.63 | 3.41 | 2 | 0.34 | 0.64 | |
| 0.69 | 1.84 | 1.90 | 3.25 | 3.36 | 3.59 | 3.71 | 3.41 | 2 | 0.35 | 0.64 | |
| 0.70 | 1.84 | 1.90 | 3.32 | 3.43 | 3.67 | 3.79 | 3.41 | 2 | 0.35 | 0.64 | |

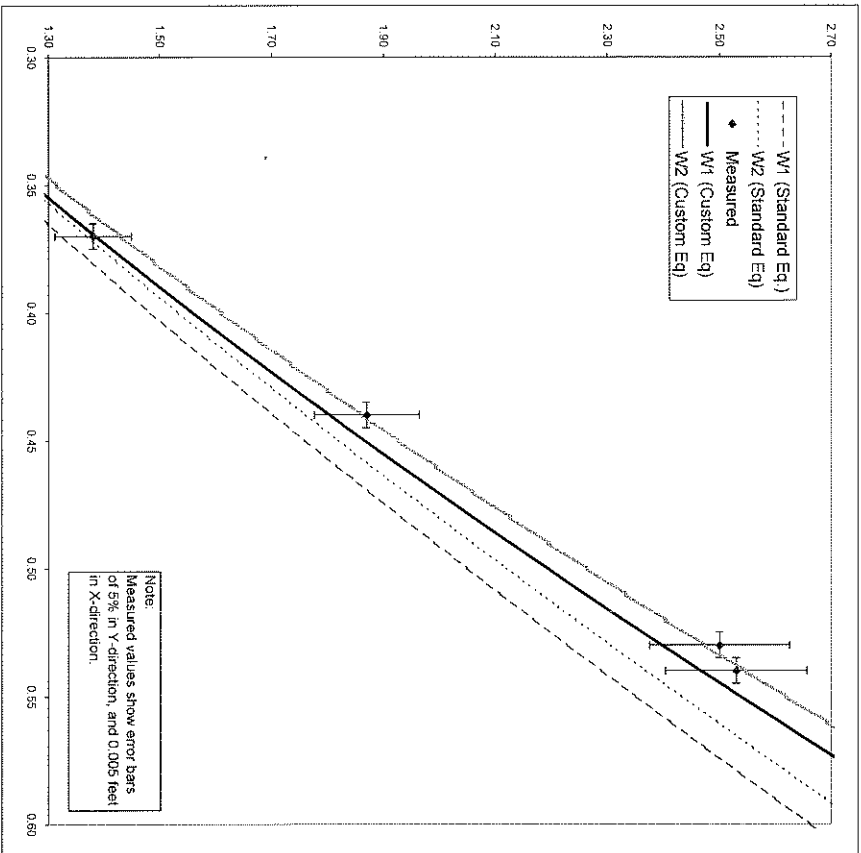


RATING AND PRIORITY SCHEDULE FOR SLC1

| WR Num | 71-2084A | 71-2084B | 71-10880 | 71-7020 | 71-7023 | 71-7102A | 71-7105 | 71-7117 |
|---|-------------------------|----------------------|--|----------------------------------|----------------------------------|--|---------------------------------------|------------------------------------|
| Priority Date | 03/07/1956 | 03/07/1956 | 01/05/1970 | 01/11/1972 | 15/11/1973 | 27/08/1986 | 22/12/1986 | 31/05/1988 |
| Cummulative Rate | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.07 | 0.06 | 0.08 |
| Owner | LANGERMANN, JOHN W R | BAIRD, SHERRILL M | STANLEY LAKE CREEK WATER USERS ASSOCIATION | BOYLE, ALICE R; BOYLE, W DEAN | BOYLE, ALICE R; BOYLE, W DEAN | REYNOLDS JR, EARL C; REYNOLDS, JODI B | BENNION, DAVID K; BENNION, SUSAN D | ENGLEMAN, TONY; LUCACHICK, MARY |
| Amount of Each Water Right On At Each Flow Rate By Priority | | | | | | | | |
| GH (ft) | Q2 (cfs) | | | | | | | |
| 0.30 | 0.22 | 0.08 | 0.74 | Off | Off | Off | Off | Off |
| 0.31 | 0.22 | 0.08 | 0.79 | Off | Off | Off | Off | Off |
| 0.32 | 0.22 | 0.08 | 0.85 | Off | Off | Off | Off | Off |
| 0.33 | 0.22 | 0.08 | 0.90 | Off | Off | Off | Off | Off |
| 0.34 | 0.22 | 0.08 | 0.96 | Off | Off | Off | Off | Off |
| 0.35 | 0.22 | 0.08 | 1.01 | Off | Off | Off | Off | Off |
| 0.36 | 0.22 | 0.08 | 1.07 | Off | Off | Off | Off | Off |
| 0.37 | 0.22 | 0.08 | 1.13 | Off | Off | Off | Off | Off |
| 0.38 | 0.22 | 0.08 | 1.19 | Off | Off | Off | Off | Off |
| 0.39 | 0.22 | 0.08 | 1.25 | Off | Off | Off | Off | Off |
| 0.40 | 0.22 | 0.08 | 1.31 | Off | Off | Off | Off | Off |
| 0.41 | 0.22 | 0.08 | 1.37 | Off | Off | Off | Off | Off |
| 0.42 | 0.22 | 0.08 | 1.43 | Off | Off | Off | Off | Off |
| 0.43 | 0.22 | 0.08 | 1.50 | Off | Off | Off | Off | Off |
| 0.44 | 0.22 | 0.08 | 1.56 | Off | Off | Off | Off | Off |
| 0.45 | 0.22 | 0.08 | 1.63 | Off | Off | Off | Off | Off |
| 0.46 | 0.22 | 0.08 | 1.69 | Off | Off | Off | Off | Off |
| 0.47 | 0.22 | 0.08 | 1.76 | Off | Off | Off | Off | Off |
| 0.48 | 0.22 | 0.08 | 1.79 | 0.04 | Off | Off | Off | Off |
| 0.49 | 0.22 | 0.08 | 1.79 | 0.10 | Off | Off | Off | Off |
| 0.50 | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.01 | Off | Off |
| 0.51 | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.07 | 0.01 | Off |
| 0.52 | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.07 | 0.06 | 0.02 |
| 0.53 | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.07 | 0.06 | 0.08 |
| 0.54 | | | | Over Diverting | | | | |
| 0.55 | | | | Over Diverting | | | | |
| 0.56 | | | | Over Diverting | | | | |
| 0.57 | | | | Over Diverting | | | | |
| 0.58 | | | | Over Diverting | | | | |
| 0.59 | | | | Over Diverting | | | | |
| 0.60 | | | | Over Diverting | | | | |
| 0.61 | | | | Over Diverting | | | | |
| 0.62 | | | | Over Diverting | | | | |
| 0.63 | | | | Over Diverting | | | | |
| 0.64 | | | | Over Diverting | | | | |
| 0.65 | | | | Over Diverting | | | | |
| 0.66 | | | | Over Diverting | | | | |
| 0.67 | | | | Over Diverting | | | | |
| 0.68 | | | | Over Diverting | | | | |
| 0.69 | | | | Over Diverting | | | | |
| 0.70 | | | | Over Diverting | | | | |

| GH (ft) | Measured Q (cfs) | Rated Q (cfs) |
|---------|---------------------|------------------|
| 0.37 | 1.87 | 1.43 |
| 0.44 | 1.87 | 1.86 |
| 0.53 | 2.50 | 2.47 |
| 0.54 | 2.53 | 2.55 |

| GH (ft) | W1 (ft) | W2 (ft) | Q-3.33 (W-0.2H) ^{1.432} | | Q=CW ^{2/3} (2g ^{1/3} 0.5WH ^{1.432}) | | | | | | Cw=0.611+0.075(GHPw) | | | | | |
|---------|---------|---------|----------------------------------|----------|---|----------|----------------------------|----|------|------|----------------------|----------|----------------------------|----|------|------|
| | | | Q1 (cfs) | Q2 (cfs) | Q1 (cfs) | Q2 (cfs) | CW ^{2/3} (Std Eq) | Pw | GHPw | CwC | Q1 (cfs) | Q2 (cfs) | CW ^{2/3} (Std Eq) | Pw | GHPw | CwC |
| 0.30 | 1.84 | 1.90 | 0.97 | 1.01 | 1.01 | 1.04 | 3.33 | 2 | 0.15 | 0.62 | 1.01 | 1.09 | 3.33 | 2 | 0.16 | 0.62 |
| 0.31 | 1.84 | 1.90 | 1.02 | 1.06 | 1.06 | 1.09 | 3.33 | 2 | 0.16 | 0.62 | 1.11 | 1.15 | 3.33 | 2 | 0.16 | 0.62 |
| 0.32 | 1.84 | 1.90 | 1.07 | 1.11 | 1.11 | 1.15 | 3.33 | 2 | 0.17 | 0.62 | 1.16 | 1.20 | 3.34 | 2 | 0.17 | 0.62 |
| 0.33 | 1.84 | 1.90 | 1.12 | 1.16 | 1.16 | 1.20 | 3.34 | 2 | 0.17 | 0.62 | 1.22 | 1.26 | 3.34 | 2 | 0.18 | 0.62 |
| 0.34 | 1.84 | 1.90 | 1.17 | 1.21 | 1.21 | 1.26 | 3.34 | 2 | 0.18 | 0.62 | 1.27 | 1.31 | 3.34 | 2 | 0.18 | 0.62 |
| 0.35 | 1.84 | 1.90 | 1.22 | 1.26 | 1.26 | 1.31 | 3.34 | 2 | 0.18 | 0.62 | 1.33 | 1.37 | 3.34 | 2 | 0.19 | 0.62 |
| 0.36 | 1.84 | 1.90 | 1.27 | 1.31 | 1.31 | 1.37 | 3.34 | 2 | 0.19 | 0.62 | 1.38 | 1.43 | 3.35 | 2 | 0.19 | 0.63 |
| 0.37 | 1.84 | 1.90 | 1.32 | 1.37 | 1.37 | 1.43 | 3.35 | 2 | 0.20 | 0.63 | 1.44 | 1.49 | 3.35 | 2 | 0.20 | 0.63 |
| 0.38 | 1.84 | 1.90 | 1.38 | 1.42 | 1.42 | 1.49 | 3.35 | 2 | 0.20 | 0.63 | 1.50 | 1.55 | 3.35 | 2 | 0.21 | 0.63 |
| 0.39 | 1.84 | 1.90 | 1.43 | 1.48 | 1.48 | 1.55 | 3.35 | 2 | 0.21 | 0.63 | 1.56 | 1.61 | 3.35 | 2 | 0.21 | 0.63 |
| 0.40 | 1.84 | 1.90 | 1.48 | 1.53 | 1.53 | 1.61 | 3.35 | 2 | 0.21 | 0.63 | 1.62 | 1.67 | 3.35 | 2 | 0.22 | 0.63 |
| 0.41 | 1.84 | 1.90 | 1.54 | 1.59 | 1.59 | 1.67 | 3.35 | 2 | 0.22 | 0.63 | 1.68 | 1.73 | 3.36 | 2 | 0.22 | 0.63 |
| 0.42 | 1.84 | 1.90 | 1.59 | 1.65 | 1.65 | 1.73 | 3.36 | 2 | 0.22 | 0.63 | 1.74 | 1.80 | 3.36 | 2 | 0.23 | 0.63 |
| 0.43 | 1.84 | 1.90 | 1.65 | 1.70 | 1.70 | 1.80 | 3.36 | 2 | 0.23 | 0.63 | 1.80 | 1.86 | 3.36 | 2 | 0.23 | 0.63 |
| 0.44 | 1.84 | 1.90 | 1.70 | 1.76 | 1.76 | 1.86 | 3.36 | 2 | 0.23 | 0.63 | 1.87 | 1.93 | 3.36 | 2 | 0.24 | 0.63 |
| 0.45 | 1.84 | 1.90 | 1.76 | 1.82 | 1.82 | 1.93 | 3.36 | 2 | 0.24 | 0.63 | 1.93 | 1.99 | 3.36 | 2 | 0.24 | 0.63 |
| 0.46 | 1.84 | 1.90 | 1.82 | 1.88 | 1.88 | 1.99 | 3.36 | 2 | 0.24 | 0.63 | 1.99 | 2.06 | 3.37 | 2 | 0.25 | 0.63 |
| 0.47 | 1.84 | 1.90 | 1.87 | 1.94 | 1.94 | 2.06 | 3.37 | 2 | 0.25 | 0.63 | 2.06 | 2.13 | 3.37 | 2 | 0.25 | 0.63 |
| 0.48 | 1.84 | 1.90 | 1.93 | 2.00 | 2.00 | 2.13 | 3.37 | 2 | 0.25 | 0.63 | 2.13 | 2.20 | 3.37 | 2 | 0.26 | 0.63 |
| 0.49 | 1.84 | 1.90 | 1.99 | 2.06 | 2.06 | 2.19 | 3.37 | 2 | 0.25 | 0.63 | 2.19 | 2.26 | 3.37 | 2 | 0.26 | 0.63 |
| 0.50 | 1.84 | 1.90 | 2.05 | 2.12 | 2.12 | 2.26 | 3.37 | 2 | 0.26 | 0.63 | 2.26 | 2.33 | 3.37 | 2 | 0.27 | 0.63 |
| 0.51 | 1.84 | 1.90 | 2.11 | 2.18 | 2.18 | 2.33 | 3.37 | 2 | 0.26 | 0.63 | 2.33 | 2.40 | 3.38 | 2 | 0.27 | 0.63 |
| 0.52 | 1.84 | 1.90 | 2.17 | 2.24 | 2.24 | 2.40 | 3.38 | 2 | 0.27 | 0.63 | 2.40 | 2.47 | 3.38 | 2 | 0.27 | 0.63 |
| 0.53 | 1.84 | 1.90 | 2.23 | 2.31 | 2.31 | 2.47 | 3.38 | 2 | 0.27 | 0.63 | 2.47 | 2.55 | 3.38 | 2 | 0.28 | 0.63 |
| 0.54 | 1.84 | 1.90 | 2.29 | 2.37 | 2.37 | 2.55 | 3.38 | 2 | 0.28 | 0.63 | 2.54 | 2.62 | 3.38 | 2 | 0.28 | 0.63 |
| 0.55 | 1.84 | 1.90 | 2.35 | 2.43 | 2.43 | 2.62 | 3.38 | 2 | 0.28 | 0.63 | 2.61 | 2.69 | 3.38 | 2 | 0.29 | 0.63 |
| 0.56 | 1.84 | 1.90 | 2.41 | 2.50 | 2.50 | 2.69 | 3.38 | 2 | 0.29 | 0.63 | 2.69 | 2.77 | 3.39 | 2 | 0.29 | 0.63 |
| 0.57 | 1.84 | 1.90 | 2.47 | 2.56 | 2.56 | 2.77 | 3.39 | 2 | 0.30 | 0.63 | 2.75 | 2.84 | 3.39 | 2 | 0.30 | 0.63 |
| 0.58 | 1.84 | 1.90 | 2.54 | 2.62 | 2.62 | 2.82 | 3.39 | 2 | 0.30 | 0.63 | 2.80 | 2.89 | 3.39 | 2 | 0.30 | 0.63 |
| 0.59 | 1.84 | 1.90 | 2.60 | 2.73 | 2.73 | 2.89 | 3.39 | 2 | 0.31 | 0.63 | 2.87 | 2.97 | 3.39 | 2 | 0.31 | 0.63 |
| 0.60 | 1.84 | 1.90 | 2.66 | 2.82 | 2.82 | 3.07 | 3.39 | 2 | 0.31 | 0.63 | 2.94 | 3.03 | 3.40 | 2 | 0.32 | 0.64 |
| 0.61 | 1.84 | 1.90 | 2.73 | 2.89 | 2.89 | 3.15 | 3.39 | 2 | 0.32 | 0.63 | 3.01 | 3.10 | 3.40 | 2 | 0.33 | 0.64 |
| 0.62 | 1.84 | 1.90 | 2.79 | 2.95 | 2.95 | 3.23 | 3.40 | 2 | 0.33 | 0.64 | 3.08 | 3.17 | 3.40 | 2 | 0.33 | 0.64 |
| 0.63 | 1.84 | 1.90 | 2.85 | 3.02 | 3.02 | 3.30 | 3.40 | 2 | 0.33 | 0.64 | 3.15 | 3.23 | 3.40 | 2 | 0.34 | 0.64 |
| 0.64 | 1.84 | 1.90 | 2.92 | 3.09 | 3.09 | 3.38 | 3.40 | 2 | 0.34 | 0.64 | 3.22 | 3.30 | 3.41 | 2 | 0.34 | 0.64 |
| 0.65 | 1.84 | 1.90 | 2.98 | 3.16 | 3.16 | 3.45 | 3.41 | 2 | 0.34 | 0.64 | 3.29 | 3.37 | 3.41 | 2 | 0.35 | 0.64 |
| 0.66 | 1.84 | 1.90 | 3.05 | 3.23 | 3.23 | 3.51 | 3.41 | 2 | 0.35 | 0.64 | 3.36 | 3.44 | 3.41 | 2 | 0.35 | 0.64 |
| 0.67 | 1.84 | 1.90 | 3.12 | 3.29 | 3.29 | 3.58 | 3.41 | 2 | 0.35 | 0.64 | 3.43 | 3.51 | 3.41 | 2 | 0.35 | 0.64 |
| 0.68 | 1.84 | 1.90 | 3.18 | 3.36 | 3.36 | 3.65 | 3.41 | 2 | 0.35 | 0.64 | 3.50 | 3.58 | 3.41 | 2 | 0.35 | 0.64 |
| 0.69 | 1.84 | 1.90 | 3.25 | 3.43 | 3.43 | 3.71 | 3.41 | 2 | 0.35 | 0.64 | 3.57 | 3.79 | 3.41 | 2 | 0.35 | 0.64 |
| 0.70 | 1.84 | 1.90 | 3.32 | 3.43 | 3.43 | 3.79 | 3.41 | 2 | 0.35 | 0.64 | 3.64 | 3.86 | 3.41 | 2 | 0.35 | 0.64 |



RATING AND PRIORITY SCHEDULE FOR SLC1

| WR Num | 71-2084A | 71-2084B | 71-10880 | 71-7020 | 71-7023 | 71-7102A | 71-7105 | 71-7117 |
|---|-------------------------|----------------------|--|----------------------------------|----------------------------------|--|---------------------------------------|------------------------------------|
| Priority Date | 03/07/1956 | 03/07/1956 | 01/05/1970 | 01/11/1972 | 15/11/1973 | 27/08/1986 | 22/12/1986 | 31/05/1988 |
| Rate | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.07 | 0.06 | 0.08 |
| Cummulative Rate | 0.22 | 0.3 | 2.09 | 2.23 | 2.25 | 2.32 | 2.38 | 2.46 |
| Owner | LANGERMANN, JOHN W R | BAIRD, SHERRILL M | STANLEY LAKE CREEK WATER USERS ASSOCIATION | BOYLE, ALICE R; BOYLE, W DEAN | BOYLE, ALICE R; BOYLE, W DEAN | REYNOLDS JR, EARL C; REYNOLDS, JODI B | BENNION, DAVID K; BENNION, SUSAN D | ENGLEMAN, TONY; LUCACHICK, MARY |
| Amount of Each Water Right On At Each Flow Rate By Priority | | | | | | | | |
| GH (ft) | Q2 (cfs) | | | | | | | |
| 0.30 | 0.22 | 0.08 | 0.74 | Off | Off | Off | Off | Off |
| 0.31 | 0.22 | 0.08 | 0.79 | Off | Off | Off | Off | Off |
| 0.32 | 0.22 | 0.08 | 0.85 | Off | Off | Off | Off | Off |
| 0.33 | 0.22 | 0.08 | 0.90 | Off | Off | Off | Off | Off |
| 0.34 | 0.22 | 0.08 | 0.96 | Off | Off | Off | Off | Off |
| 0.35 | 0.22 | 0.08 | 1.01 | Off | Off | Off | Off | Off |
| 0.36 | 0.22 | 0.08 | 1.07 | Off | Off | Off | Off | Off |
| 0.37 | 0.22 | 0.08 | 1.13 | Off | Off | Off | Off | Off |
| 0.38 | 0.22 | 0.08 | 1.19 | Off | Off | Off | Off | Off |
| 0.39 | 0.22 | 0.08 | 1.25 | Off | Off | Off | Off | Off |
| 0.40 | 0.22 | 0.08 | 1.31 | Off | Off | Off | Off | Off |
| 0.41 | 0.22 | 0.08 | 1.37 | Off | Off | Off | Off | Off |
| 0.42 | 0.22 | 0.08 | 1.43 | Off | Off | Off | Off | Off |
| 0.43 | 0.22 | 0.08 | 1.50 | Off | Off | Off | Off | Off |
| 0.44 | 0.22 | 0.08 | 1.56 | Off | Off | Off | Off | Off |
| 0.45 | 0.22 | 0.08 | 1.63 | Off | Off | Off | Off | Off |
| 0.46 | 0.22 | 0.08 | 1.69 | Off | Off | Off | Off | Off |
| 0.47 | 0.22 | 0.08 | 1.76 | Off | Off | Off | Off | Off |
| 0.48 | 0.22 | 0.08 | 1.79 | 0.04 | Off | Off | Off | Off |
| 0.49 | 0.22 | 0.08 | 1.79 | 0.10 | Off | Off | Off | Off |
| 0.50 | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.01 | Off | Off |
| 0.51 | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.07 | 0.01 | Off |
| 0.52 | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.07 | 0.06 | 0.02 |
| 0.53 | 0.22 | 0.08 | 1.79 | 0.14 | 0.02 | 0.07 | 0.06 | 0.08 |
| 0.54 | | | | | Over Diverting | | | |
| 0.55 | | | | | Over Diverting | | | |
| 0.56 | | | | | Over Diverting | | | |
| 0.57 | | | | | Over Diverting | | | |
| 0.58 | | | | | Over Diverting | | | |
| 0.59 | | | | | Over Diverting | | | |
| 0.60 | | | | | Over Diverting | | | |
| 0.61 | | | | | Over Diverting | | | |
| 0.62 | | | | | Over Diverting | | | |
| 0.63 | | | | | Over Diverting | | | |
| 0.64 | | | | | Over Diverting | | | |
| 0.65 | | | | | Over Diverting | | | |
| 0.66 | | | | | Over Diverting | | | |
| 0.67 | | | | | Over Diverting | | | |
| 0.68 | | | | | Over Diverting | | | |
| 0.69 | | | | | Over Diverting | | | |
| 0.70 | | | | | Over Diverting | | | |

| GH (ft) | Measured Q (cfs) | Rated Q (cfs) |
|---------|------------------|---------------|
| 0.37 | 1.39 | 1.43 |
| 0.44 | 1.87 | 1.86 |
| 0.53 | 2.50 | 2.47 |
| 0.64 | 2.53 | 2.55 |

| W1 is downstream opening | | | Q=3.33 (W-0.2H) ^{1.3(2)} | | | Q=Cw(2/3)(2g ^{0.5} WH ^{1.3(2)}) | | | Cw=0.611+0.076(GH/PW) | | |
|--------------------------|---------|---------|-----------------------------------|----------|----------|--|----------------|----|-----------------------|------|--|
| GH (ft) | W1 (ft) | W2 (ft) | Q1 (cfs) | Q2 (cfs) | Q1 (cfs) | Q2 (cfs) | CW=2/3*Sqr(2g) | Pw | GHP/W | Cw6 | |
| 0.30 | 1.84 | 1.90 | 0.97 | 1.01 | 1.07 | 1.04 | 3.33 | 2 | 0.15 | 0.62 | |
| 0.31 | 1.84 | 1.90 | 1.02 | 1.06 | 1.06 | 1.09 | 3.33 | 2 | 0.16 | 0.62 | |
| 0.32 | 1.84 | 1.90 | 1.07 | 1.11 | 1.11 | 1.15 | 3.33 | 2 | 0.17 | 0.62 | |
| 0.33 | 1.84 | 1.90 | 1.12 | 1.16 | 1.16 | 1.20 | 3.34 | 2 | 0.17 | 0.62 | |
| 0.34 | 1.84 | 1.90 | 1.17 | 1.21 | 1.22 | 1.26 | 3.34 | 2 | 0.18 | 0.62 | |
| 0.35 | 1.84 | 1.90 | 1.22 | 1.26 | 1.27 | 1.31 | 3.34 | 2 | 0.18 | 0.62 | |
| 0.36 | 1.84 | 1.90 | 1.27 | 1.31 | 1.33 | 1.37 | 3.34 | 2 | 0.19 | 0.62 | |
| 0.37 | 1.84 | 1.90 | 1.32 | 1.37 | 1.38 | 1.43 | 3.35 | 2 | 0.19 | 0.63 | |
| 0.38 | 1.84 | 1.90 | 1.38 | 1.42 | 1.44 | 1.49 | 3.35 | 2 | 0.20 | 0.63 | |
| 0.39 | 1.84 | 1.90 | 1.43 | 1.48 | 1.50 | 1.55 | 3.35 | 2 | 0.20 | 0.63 | |
| 0.40 | 1.84 | 1.90 | 1.48 | 1.53 | 1.56 | 1.61 | 3.35 | 2 | 0.21 | 0.63 | |
| 0.41 | 1.84 | 1.90 | 1.54 | 1.59 | 1.62 | 1.67 | 3.35 | 2 | 0.21 | 0.63 | |
| 0.42 | 1.84 | 1.90 | 1.59 | 1.65 | 1.68 | 1.73 | 3.35 | 2 | 0.22 | 0.63 | |
| 0.43 | 1.84 | 1.90 | 1.65 | 1.70 | 1.74 | 1.80 | 3.36 | 2 | 0.22 | 0.63 | |
| 0.44 | 1.84 | 1.90 | 1.70 | 1.76 | 1.80 | 1.86 | 3.36 | 2 | 0.23 | 0.63 | |
| 0.45 | 1.84 | 1.90 | 1.76 | 1.82 | 1.87 | 1.93 | 3.36 | 2 | 0.23 | 0.63 | |
| 0.46 | 1.84 | 1.90 | 1.82 | 1.88 | 1.93 | 1.99 | 3.36 | 2 | 0.24 | 0.63 | |
| 0.47 | 1.84 | 1.90 | 1.87 | 1.94 | 1.99 | 2.05 | 3.37 | 2 | 0.24 | 0.63 | |
| 0.48 | 1.84 | 1.90 | 1.93 | 2.00 | 2.06 | 2.13 | 3.37 | 2 | 0.25 | 0.63 | |
| 0.49 | 1.84 | 1.90 | 1.99 | 2.06 | 2.13 | 2.19 | 3.37 | 2 | 0.25 | 0.63 | |
| 0.50 | 1.84 | 1.90 | 2.05 | 2.12 | 2.19 | 2.26 | 3.37 | 2 | 0.26 | 0.63 | |
| 0.51 | 1.84 | 1.90 | 2.11 | 2.18 | 2.26 | 2.33 | 3.37 | 2 | 0.26 | 0.63 | |
| 0.52 | 1.84 | 1.90 | 2.17 | 2.24 | 2.33 | 2.40 | 3.37 | 2 | 0.26 | 0.63 | |
| 0.53 | 1.84 | 1.90 | 2.23 | 2.31 | 2.40 | 2.47 | 3.38 | 2 | 0.27 | 0.63 | |
| 0.54 | 1.84 | 1.90 | 2.29 | 2.37 | 2.47 | 2.55 | 3.38 | 2 | 0.27 | 0.63 | |
| 0.55 | 1.84 | 1.90 | 2.35 | 2.43 | 2.54 | 2.62 | 3.38 | 2 | 0.28 | 0.63 | |
| 0.56 | 1.84 | 1.90 | 2.41 | 2.50 | 2.61 | 2.69 | 3.39 | 2 | 0.28 | 0.63 | |
| 0.57 | 1.84 | 1.90 | 2.47 | 2.56 | 2.68 | 2.77 | 3.38 | 2 | 0.29 | 0.63 | |
| 0.58 | 1.84 | 1.90 | 2.54 | 2.62 | 2.75 | 2.84 | 3.39 | 2 | 0.29 | 0.63 | |
| 0.59 | 1.84 | 1.90 | 2.60 | 2.69 | 2.82 | 2.92 | 3.39 | 2 | 0.30 | 0.63 | |
| 0.60 | 1.84 | 1.90 | 2.66 | 2.75 | 2.90 | 2.99 | 3.39 | 2 | 0.30 | 0.63 | |
| 0.61 | 1.84 | 1.90 | 2.73 | 2.82 | 2.97 | 3.07 | 3.39 | 2 | 0.31 | 0.63 | |
| 0.62 | 1.84 | 1.90 | 2.79 | 2.89 | 3.05 | 3.15 | 3.40 | 2 | 0.31 | 0.63 | |
| 0.63 | 1.84 | 1.90 | 2.85 | 2.95 | 3.12 | 3.23 | 3.40 | 2 | 0.32 | 0.64 | |
| 0.64 | 1.84 | 1.90 | 2.92 | 3.02 | 3.20 | 3.30 | 3.40 | 2 | 0.33 | 0.64 | |
| 0.65 | 1.84 | 1.90 | 2.98 | 3.09 | 3.28 | 3.38 | 3.40 | 2 | 0.33 | 0.64 | |
| 0.66 | 1.84 | 1.90 | 3.05 | 3.16 | 3.36 | 3.47 | 3.40 | 2 | 0.34 | 0.64 | |
| 0.67 | 1.84 | 1.90 | 3.12 | 3.23 | 3.43 | 3.55 | 3.40 | 2 | 0.34 | 0.64 | |
| 0.68 | 1.84 | 1.90 | 3.18 | 3.29 | 3.51 | 3.63 | 3.41 | 2 | 0.35 | 0.64 | |
| 0.69 | 1.84 | 1.90 | 3.25 | 3.36 | 3.59 | 3.71 | 3.41 | 2 | 0.35 | 0.64 | |
| 0.70 | 1.84 | 1.90 | 3.32 | 3.43 | 3.67 | 3.79 | 3.41 | 2 | 0.35 | 0.64 | |

