## WDID: XXXXXX\_221031 (DOUBLE JACK'S VARRA RESERVOIR)

DIVISION: 1 DISTRICT: 5 WATER COMMISSIONERS: Shera Summerford

OWNER: Varra Companies Incorporated

PERSON RESPONSIBLE FOR SUBMITTING LINED GRAVEL PIT PERFORMANCE EVALUATION: Jay C. Davenport, P.E.

PERSONS RESPONSIBLE FOR SUBMITTING WATER ACCOUNTING ADMINISTRATION DATA: Ashley Moffatt, P.E., Leonard Rice Engineers, Inc.

WATER YEAR: 2022

DESCRIPTION: Monthly physical water accounting for determining groundwater seepage into a lined gravel pit reservoir (DOUBLE JACK'S VARRA RESERVOIR) to evaluate liner performance as required by the State Engineer Guidelines for Lining Criteria for Gravel Pits - 1999.

|        |                                       | DIR STAGE                         |            | INFLOWS                               |             |          | OUTFLOWS    |             | TOTAL<br>INFLOW | TOTAL<br>OUTFLOW | RESERVOIR<br>VOLUME |   |   |  | Allowable Groundwater Seepage<br>for a Lined Gravel Pit |                         |
|--------|---------------------------------------|-----------------------------------|------------|---------------------------------------|-------------|----------|-------------|-------------|-----------------|------------------|---------------------|---|---|--|---|-------------------------|
| Month  | Water<br>Surface<br>Elevation<br>(ft) | Calculated<br>Reservoir<br>Volume | Diversions | Direct &<br>Indirect<br>Precipitation | Groundwater | Releases | Evaporation | Groundwater |                 |                  | CHANGE              | Estimated<br>Net Inflow<br>(excluding<br>groundwater) | Actual<br>Reservoir<br>Volume<br>Change | Calculated<br>Groundwater<br>Seepage into<br>Reservoir | Design Standard   | Performance<br>Standard |
| Oct-16 | 0.00                                  | 0.00                              |            |                                       |             |          |             |             |                 |                  |                     |   |   |  |   |                         |
| Nov-21 | 0.00                                  | 0.00                              | 0.00       | 0.00                                  | 0.00        | 0.00     | 0.00        |             | 0.00            | 0.00             | 0.00                | 0.00  | 0.00                                    | 0.00   | 9.83  | 29.49                   |
| Dec-21 | 0.00                                  | 0.00                              | 0.00       | 0.00                                  | 0.00        | 0.00     | 0.00        |             | 0.00            | 0.00             | 0.00                | 0.00  | 0.00                                    | 0.00   | 10.16   | 30.47                   |
| Jan-22 | 0.00                                  | 0.00                              | 0.00       | 0.00                                  | 0.00        | 0.00     | 0.00        |             | 0.00            | 0.00             | 0.00                | 0.00  | 0.00                                    | 0.00   | 10.16   | 30.47                   |
| Feb-22 | 0.00                                  | 0.00                              | 0.00       | 0.00                                  | 0.00        | 0.00     | 0.00        |             | 0.00            | 0.00             | 0.00                | 0.00  | 0.00                                    | 0.00   | 9.50  | 28.51                   |
| Mar-22 | 0.00                                  | 0.00                              | 0.00       | 0.00                                  | 0.00        | 0.00     | 0.00        |             | 0.00            | 0.00             | 0.00                | 0.00  | 0.00                                    | 0.00   | 10.16   | 30.47                   |
| Apr-22 | 0.00                                  | 0.00                              | 0.00       |                                       | 0.00        | 0.00     | 0.00        | <u>;</u>    | 0.00            |                  | 0.00                |   | 0.00                                    | 0.00   | 9.83  | 29.49                   |
| May-22 | 0.00                                  | 0.00                              | 0.00       | 0.00                                  | 0.00        | 0.00     | 0.00        |             | 0.00            | 0.00             | 0.00                | 0.00  | 0.00                                    | 0.00   | 10.16   | 30.47                   |
| Jun-22 | 4746.14                               | 0.07                              | 0.00       | 0.23                                  | -0.07       | 0.00     | 0.09        |             | 0.16            | 0.09             | 0.07                | 0.14  | 0.07                                    | -0.07  | 9.83  | 29.49                   |
| Jul-22 | 4746.39                               | 0.17                              | 0.00       | 1.17                                  | -0.87       | 0.00     | 0.20        |             | 0.30            | 0.20             | 0.10                | 0.97  | 0.10                                    | -0.87  | 10.16   | 30.47                   |
| Aug-22 | 4746.39                               | 0.17                              | 0.00       | 1.11                                  | -0.92       | 0.00     | 0.19        |             | 0.19            | 0.19             | 0.00                | 0.92  | 0.00                                    | -0.92  | 10.16   | 30.47                   |
| Sep-22 | 4746.70                               | 0.30                              | 0.00       | 1.64                                  | -1.36       | 0.00     | 0.15        | <u>;</u>    | 0.28            | 0.15             | 0.13                | 1.49  | 0.13                                    | -1.36  | 9.83  | 29.49                   |
| Oct-22 | 4746.99                               | 0.44                              | 0.00       | 0.45                                  | -0.19       | 0.00     | 0.12        | i           | 0.26            | 0.12             | 0.14                | 0.33  | 0.14                                    | -0.19  | 10.16   | 30.47                   |
|        | Wa                                    | ater Year Totals                  | 0.00       | 4.60                                  | -3.41       | 0.00     | 0.75        | 0.00        |                 |                  |                     |   |   | -3.41  | 119.94  | 359.76                  |

## Notes:

All values shown are end of month data and are in acre-feet (AF) and are rounded to the nearest hundredth AF unless otherwise indicated.

The Initial Liner Test was completed on September 13, 2022 and the results of that test indicate the reservoir liner meets the Design Standard.

Lenoard Rice Engineers is submitting the required water allocation accounting separately.

Prepared By Jay C. Davenport, P.E.

11/28/22