### Root Zone Water Balance Working Model

#### General Design Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Name</td>
<td>Hollister - Airport Reuse Site</td>
</tr>
<tr>
<td>Project Number</td>
<td>344738</td>
</tr>
<tr>
<td>Designer</td>
<td>Smesrud, Modified by Isbell</td>
</tr>
<tr>
<td>Crop</td>
<td>Turf - warm season grasses</td>
</tr>
<tr>
<td>Water Supply</td>
<td></td>
</tr>
<tr>
<td>Days/Month</td>
<td>Jan 31</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Application Efficiency</td>
<td>0.80</td>
</tr>
<tr>
<td>Available Water Flow to Irrigation/Storage?</td>
<td>Y</td>
</tr>
<tr>
<td>Effective Rainfall</td>
<td>2.74</td>
</tr>
<tr>
<td>Surface Runoff</td>
<td>0.00</td>
</tr>
<tr>
<td>Deep Percolation</td>
<td>0.00</td>
</tr>
<tr>
<td>Potential Evapotranspiration</td>
<td>0.00</td>
</tr>
<tr>
<td>Actual Evapotranspiration</td>
<td>0.00</td>
</tr>
<tr>
<td>Net Irrigation Requirement</td>
<td>0.00</td>
</tr>
<tr>
<td>Gross Irrigation Requirement</td>
<td>0.00</td>
</tr>
<tr>
<td>Total Irrigation Applied</td>
<td>0.00</td>
</tr>
<tr>
<td>Gross Irrigation Requirement</td>
<td>0.00</td>
</tr>
<tr>
<td>Net Irrigation Requirement</td>
<td>0.00</td>
</tr>
<tr>
<td>Effective Irrigation</td>
<td>0.00</td>
</tr>
<tr>
<td>Available Water</td>
<td>0.00</td>
</tr>
<tr>
<td>Available Water Flow to Irrigation/Storage?</td>
<td>Y</td>
</tr>
<tr>
<td>Effective Rainfall</td>
<td>2.74</td>
</tr>
<tr>
<td>Surface Runoff</td>
<td>0.00</td>
</tr>
<tr>
<td>Deep Percolation</td>
<td>0.00</td>
</tr>
<tr>
<td>Potential Evapotranspiration</td>
<td>0.00</td>
</tr>
<tr>
<td>Actual Evapotranspiration</td>
<td>0.00</td>
</tr>
<tr>
<td>Net Irrigation Requirement</td>
<td>0.00</td>
</tr>
<tr>
<td>Gross Irrigation Requirement</td>
<td>0.00</td>
</tr>
<tr>
<td>Total Irrigation Applied</td>
<td>0.00</td>
</tr>
<tr>
<td>Gross Irrigation Requirement</td>
<td>0.00</td>
</tr>
<tr>
<td>Net Irrigation Requirement</td>
<td>0.00</td>
</tr>
<tr>
<td>Effective Irrigation</td>
<td>0.00</td>
</tr>
<tr>
<td>Available Water</td>
<td>0.00</td>
</tr>
</tbody>
</table>

### Water Supply

#### Soil Profile Water Balance

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Water Storage at Minimum Management Allowed Soil Moisture</td>
<td>3.60 inches</td>
</tr>
<tr>
<td>Soil Water Storage at Permanent Wilting Point</td>
<td>0.90 inches</td>
</tr>
<tr>
<td>Available Water Holding Capacity</td>
<td>2.52 inches</td>
</tr>
</tbody>
</table>

#### Summary

- Irrigated Land = 90.0 acres
- Soil Water Storage at Field Capacity = 3.60 inches
- Soil Water Storage at Permanent Wilting Point = 0.90 inches
- Available Water Holding Capacity = 2.70 inches
- Soil Water Storage at Minimum Management Allowed Soil Moisture = 2.52 inches

### Crop Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Capacity</td>
<td>0.20</td>
</tr>
<tr>
<td>Permanent Wilting Point</td>
<td>0.05</td>
</tr>
</tbody>
</table>

#### Notes:

- Depletion Fraction - Average fraction of total available soil water that can be depleted from the root zone before moisture stress resulting in ET reduction occurs. Yield Response Factor - A slope factor describing the reduction in relative yield according to the reduction in ET caused by soil water shortage. Salinity Induced Yield Reduction - A slope factor describing the reduction in relative yield according to an incremental increase in ECa values above the threshold ECa. Threshold ECa - Electrical conductivity of the saturation extract at the threshold of ECa when crop yield first reduces below the maximum yield potential. See "Ref-Yield Response Factors" for typical values of this parameter. See "Ref-Crop Water Parameters" for typical values of the depletion fraction and maximum rooting depth. See "Ref-Crop Salt Tolerance" for typical values of the salinity induced yield reduction factor and the threshold ECa.

### Irrigation System Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined Irrigation Application Efficiency</td>
<td>0.80</td>
</tr>
</tbody>
</table>

#### Notes:

- Combined Irrigation Application Efficiency - (average depth of water infiltrated and retained in the root zone following irrigation) / (average depth of water applied). See "Cal-Hweg Applic Efficiency" for guidelines on estimating.