The next 163 screen shots were included for a basic understanding of the elements that go into the configuration of HEC-ResSim, and each alternative’s associated rules and priorities.
Annex B - Screen 2 (Hartwell Physical Attributes)
Annex B - Screen 3 (Russell Physical Attributes)
Annex B - Screen 4 (Thurmons Physical Attributes)
## Annex B - Screen 5 (Hartwell Elevation-Storage-Area Attributes)

<table>
<thead>
<tr>
<th>Elevation (ft)</th>
<th>Storage (ac-ft)</th>
<th>Area (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>175.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>150.00</td>
<td>4920.00</td>
<td>10.00</td>
</tr>
<tr>
<td>155.00</td>
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<td>160.00</td>
<td>113600.00</td>
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</tr>
<tr>
<td>165.00</td>
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</tr>
<tr>
<td>170.00</td>
<td>114200.00</td>
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</tr>
<tr>
<td>175.00</td>
<td>114500.00</td>
<td>27.00</td>
</tr>
<tr>
<td>180.00</td>
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<td>185.00</td>
<td>115100.00</td>
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<tr>
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</tr>
<tr>
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<tr>
<td>200.00</td>
<td>116000.00</td>
<td>27.00</td>
</tr>
<tr>
<td>205.00</td>
<td>116300.00</td>
<td>27.00</td>
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<td>116600.00</td>
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<td>215.00</td>
<td>116900.00</td>
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<td>220.00</td>
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<tr>
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</tr>
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<td>119600.00</td>
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</tr>
</tbody>
</table>

The diagram on the right illustrates the storage and area attributes for each elevation level.
Annex B - Screen 6 (Russell Elevation-Storage-Area Attributes)
Annex B - Screen 7 (Thurmond Elevation-Storage-Area Attributes)
Annex B – ResSim Model

Annex B - Screen 8 (Hartwell Tailwater Rating Curve)
Annex B - Screen 9 (Russell Tailwater Rating Curve)
Annex B - Screen 10 (Thurmond Tailwater Rating Curve)
Annex B - Screen 11 (Hartwell Gate Capacity Curve)
### Annex B - Screen 12 (Russell Gate Capacity Curve)

<table>
<thead>
<tr>
<th>Elevation (ft)</th>
<th>Site Capacity (cu ft)</th>
<th>Total Max Capacity (cu ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>450</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>460</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>470</td>
<td>0</td>
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<td>480</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>490</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>500</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>510</td>
<td>0</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>550</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Physical Limitations**

Max Rate of Increase (cfs/hr)

Max Rate of Decrease (cfs/hr)
Annex B - Screen 14 (Hartwell Power Plant Outflow Capacity)
**Annex B - Screen 15 (Russell Power Plant Outflow Capacity)**

<table>
<thead>
<tr>
<th>Elevation (ft)</th>
<th>Max Capacity (cfs)</th>
<th>Total Use (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>450</td>
<td>50000</td>
<td>52000</td>
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<tr>
<td>470</td>
<td>52000</td>
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<td>51000</td>
</tr>
<tr>
<td>480</td>
<td>57000</td>
<td>57000</td>
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</tbody>
</table>

**Physical Limitations:**
- No Rate of Increase (cfs/day)
- No Rate of Decrease (cfs/day)
Annex B - Screen 16 (Thurmond Power Plant Outflow Capacity)
Annex B - Screen 17 (Hartwell Power Plant Generation Capacity)
Annex B - Screen 18 (Russell Power Plant Generation Capacity)
Annex B - Screen 19 (Keowee Release Allocation)
Annex B - Screen 20 (Jocassee Release Allocation)
Annex B - Screen 21 (Hartwell Release Allocation)
Annex B – ResSim Model

Annex B - Screen 22 (Russell Release Allocation)
Annex B – ResSim Model

Annex B - Screen 23 (Thurmond Release Allocation)
Annex B - Screen 24 (Thurmond Power Plant Generation Capacity)

<table>
<thead>
<tr>
<th>Head (ft)</th>
<th>Capacity (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>150.00</td>
<td>200.00</td>
</tr>
<tr>
<td>120.00</td>
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<tr>
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<td>20.00</td>
<td>380.00</td>
</tr>
<tr>
<td>10.00</td>
<td>400.00</td>
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</tbody>
</table>
Annex B - Screen 25 (NAA, Thurmond Induced Surcharge Pool Rule Stack)
Annex B - Screen 26 (NAA, Thurmond Flood Pool Rule Stack)
Annex B - Screen 27 (NAA, Thurmond Conservation Pool Rule Stack)
Annex B – Screen 28 (NAA, Thurmond Trigger Level 1 Rule Stack)
Annex B - Screen 30 (NAA, Thurmond Trigger Level 3 Rule Stack)
Annex B - Screen 31 (NAA, Thurmond Inactive Pool Definition)
Annex B – ResSim Model

Annex B - Screen 32 (NAA, Thurmond Induced Surcharge Envelope Definition)
Annex B – Screen 33 (NAA, Thurmond IS Pool, Augusta Max Rule)
Annex B - Screen 34 (NAA, Thurmond IS Pool, Thurmond Min 3600 cfs Rule)
Annex B - Screen 35 (NAA, Thurmond IS Pool, Augusta Min 3600 cfs Rule)
Annex B - Screen 36 (NAA, Thurmond Flood Pool, Augusta Min 3600 cfs Rule)
Annex B - Screen 37 (NAA, Thurmond Conservation Pool, Fish Spawn Rule)
Annex B – Screen 39 (NAA, Thurmond Conservation Pool, Level 1 Bell Gage Rule)
Annex B - Screen 40 (NAA, Thurmond Conservation Pool, Level 2 Bell Gage Rule)

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Annex B - Screen 41 (NAA, Thurmond Conservation Pool, Level 3 Rule)
Annex B - Screen 42 (ALT1, Thurmond Induced Surcharge Pool Rule Stack)
Annex B - Screen 43 (ALT1, Thurmond Flood Pool Rule Stack)
Annex B – ResSim Model

Annex B - Screen 44 (ALT1, Thurmond Conservation Pool Rule Stack)
Annex B - Screen 45 (ALT1, Thurmond Trigger Level 1 Rule Stack)
Annex B – ResSim Model
Annex B – ResSim Model

Annex B - Screen 46 (ALT1, Thurmond Trigger Level 2 Rule Stack)
Annex B - Screen 47 (ALT1, Thurmond Trigger Level3 Rule Stack)
Annex B – ResSim Model
Annex B – ResSim Model

Annex B - Screen 48 (ALT1, Thurmond Inactive Pool Definition)
Annex B - Screen 49 (ALT1, Thurmond Conservation Pool, Level 1 Bell Gage Rule)
Annex B – ResSim Model
Annex B - Screen 50 (ALT1, Thurmond Conservation Pool, Level 2 Bell Gage Rule)
Annex B – ResSim Model

Annex B - Screen 51 (ALT1, Thurmond Conservation Pool, Level 3 Rule)

ALT-2
Annex B - Screen 52 (ALT2, Thurmond Induced Surcharge Pool Rule Stack)
Annex B - Screen 53 (ALT2, Thurmond Flood Pool Rule Stack)
Annex B – ResSim Model

Annex B - Screen 54 (ALT2, Thurmond Conservation Pool Rule Stack)
Annex B - Screen 55 (ALT2, Thurmond Trigger Level 1 Rule Stack)
Annex B – ResSim Model

Annex B - Screen 56 (ALT2, Thurmond Trigger Level 2 Rule Stack)
Annex B - Screen 57 (ALT2, Thurmond Trigger Level 3 Rule Stack)
Annex B - Screen 58 (ALT2, Thurmond Inactive Pool Definition)
Annex B - ResSim Model

Annex B - Screen 59 (ALT2, Conservation Pool, Level 1 Bell Gage Rule)
Annex B - Screen 61 (ALT2, Conservation Pool, Level 3 Rule)
Annex B - Screen 64 (ALT3, Induced Surcharge Pool Rule Stack)
Annex B - Screen 65 (ALT3, Induced Flood Pool Rule Stack)
Annex B - Screen 66 (ALT3, Conservation Pool Rule Stack)
Annex B – ResSim Model

Annex B - Screen 67 (ALT3, Trigger Level 1 Rule Stack)
Annex B – Screen 68 (ALT3, Trigger Level 2 Rule Stack)
Annex B - Screen 69 (ALT3, Trigger Level 3 Rule Stack)
Annex B – Screen 70 (ALT3, Thurmond Inactive Pool Definition)
Annex B - ResSim Model

Annex B - Screen 71 (ALT3, Wet Condition, Shoals Minimum Rule)
Annex B - Screen 72 (ALT3, Wet Condition, Shoals, Rate of Fall Rule)
Annex B – ResSim Model

Annex B - Screen 73(ALT3, Wet Condition, Millhaven, Minimum Rule)
Annex B – Screen 74 (ALT3, Wet Condition, Millhaven, Max Rule)
Annex B - Screen 75 (ALT3, Wet Condition, Millhaven, Pulse Rule)
Annex B - Screen 76 (ALT3, Wet Condition, Clyo, Min Rule)
Annex B - Screen 78 (ALT3, Wet Condition, Clyo, Pulse Rule)
Annex B - Screen 79 (ALT3, Average Condition, Shoals, Max Rule)
Annex B - Screen 80 (ALT3, Average Condition, Shoals, Min Rule)
Annex B – ResSim Model

Annex B - Screen 81 (ALT3, Average Condition, Shoals, Max Rule)
Annex B - Screen 82 (ALT3, Average Condition, Millhaven, Mix Rule)
Annex B - Screen 83 (ALT3, Average Condition, Millhaven, Max Rule)
Annex B - Screen 84 (ALT3, Average Condition, Millhaven, Pulse Rule)
Annex B - Screen 85 (ALT3, Average Condition, Clyo, Min Rule)
Annex B - Screen 86 (ALT3, Average Condition, Clyo, Man Rule)
Annex B - Screen 87 (ALT3, Average Condition, Clyo, Pulse Rule)
Annex B - Screen 88 (ALT3, Dry Condition, Shoals, Min Rule)
Annex B - Screen 89 (ALT3, Dry Condition, Shoals, Max Rule)
Annex B – ResSim Model

Annex B - Screen 90 (ALT3, Dry Condition, Millhaven, Max Rule)
Annex B - Screen 91 (ALT3, Dry Condition, Millhaven, Min Rule)
Annex B – ResSim Model

Annex B - Screen 92 (ALT3, Dry Condition, Thurmond, Rate of Rise Critical Rule)
Annex B - Screen 93 (ALT3, Dry Condition, Thurmond, Rate of Fall Critical Rule)
Annex B - Screen 94 (ALT3, Dry Condition, Millhaven, Min Pulse Rule)
Annex B - Screen 95 (ALT3, Dry Condition, Clyo, Min Rule)
Annex B - Screen 96 (ALT3, Dry Condition, Clyo, Max Rule)
Annex B - Screen 97 (ALT3, Dry Condition, Clyo, Pulse Rule)
Annex B - Screen 98 (ALT3, Drought Condition, Shoals, Min Rule)
Annex B - Screen 99 (ALT3, Drought Condition, Shoals, Max Rule)
Annex B - Screen 100 (ALT3, Drought Condition, Shoals, Rate of Fall Rule)
Annex B - Screen 101 (ALT3, Drought Condition, Millhaven, Min Rule)
Annex B - Screen 102 (ALT3, Drought Condition, Millhaven, Max Rule)
Annex B - Screen 103 (ALT3, Drought Condition, Thurmond, Rate of Rise Critical Rule)
Annex B - Screen 104 (ALT3, Drought Condition, Thurmond, Rate of Fall Critical Rule)
Annex B - Screen 105 (ALT3, Drought Condition, Millhaven, Min-Pulse Rule)
Annex B - Screen 106 (ALT3, Drought Condition, Clyo, Min Rule)
Annex B - Screen 107 (ALT3, Drought Condition, Clyo, Max Rule)
Annex B - Screen 108 (ALT3, Drought Condition, Clyo, Pulse Rule)
Annex B - Screen 109 (ALT3, Normal\Flood Control, Weekly System Power Rule)
Annex B – Screen 110 (ALT3, Drought Level 1, SpecRel Bell Rule)
Annex B - Screen 111 (ALT3, Drought Level 2, SpecRel Bell Rule)
Annex B - Screen 112 (ALT3, Drought Level 3, SpecRel Bell Rule)
Annex B – Screen 113 (ALT4, Thurmond, Induced Surcharge Pool Rule Stack)
Annex B - Screen 114 (ALT4, Thurmond, Flood Control Rule Stack)
Annex B - Screen 115 (ALT4, Thurmond, Conservation Rule Stack)
Annex B - Screen 116 (ALT4, Thurmond, Trigger Level 1 Rule Stack)
Annex B - Screen 117 (ALT4, Thurmond, Trigger Level 2 Rule Stack)
Annex B - Screen 118 (ALT4, Thurmond, Trigger Level 3 Rule Stack)
Annex B – Screen 119 (ALT4, Thurmond, Inactive Pool Definition)
Annex B – ResSim Model

Annex B - Screen 120 (ALT4, Conservation Pool, Thurmond Min 3800 cfs Rule)
Annex B – ResSim Model

Annex B - Screen 121 (ALT4, Conservation Pool, Weekly System Power Rule)
Annex B - Screen 122 (ALT4, Conservation Pool, Drought Level, 1 SpecRel 3600-3100 cfs Rule)
Annex B - Screen 123 (ALT4, Conservation Pool, Drought Level 2, SpecRel 3600-31000 cfs Rule)
Annex B - Screen 124 (ALT4, Conservation Pool, Drought Level 3, SpecRel 3600-3100 cfs Rule)
Annex B - Screen 125 (ALT5, Induced Surcharge Pool Rule Stack)
Annex B - Screen 126 (ALT5, Flood Control Pool Rule Stack)
Annex B – ResSim Model

Annex B - Screen 127 (ALT5, Conservation Pool Rule Stack)
Annex B - Screen 128 (ALT5, Trigger Level 1 Rule Stack)
Annex B - Screen 129 (ALT5, Trigger Level 2 Rule Stack)
Annex B - Screen 130 (ALT5, Trigger Level 3 Rule Stack)
Annex B – ResSim Model

ALT-5

Annex B - Screen 131 (ALT5, Induced Surcharge Rule Stack)
Annex B - Screen 132 (ALT5, Flood Control Pool Rule Stack)
Annex B - Screen 133 (ALT5, Conservation Pool Rule Stack)
Annex B - Screen 134 (ALT5, Trigger Level 1 Rule Stack)
Annex B – ResSim Model

Annex B - Screen 135 (ALT5, Trigger Level 2 Rule Stack)
Annex B – ResSim Model

Annex B - Screen 136 (ALT5, Trigger Level 3 Rule Stack)

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Annex B - Screen 137 (ALT5, Inactive Pool Definition)
Annex B - Screen 138 (ALT5, Conservation Seasonal Rate of Change, Thurmond, Rate of Rise Critical Rule)
Annex B - Screen 140 (ALT5, Conservation Seasonal Rate of Change, Thurmond, Rate of Fall Non-Critical Rule)
Annex B - Screen 141 (ALT5, Conservation Seasonal Rate of Change, Thurmond, Rate of Rise Non-Critical Rule)
Annex B – Screen 142 (ALT5, Dry Conditions, Shoals, Min Rule)
Annex B - Screen 143 (ALT5, Dry Conditions, Millhaven, Min-Pulse Rule)
Annex B - Screen 144 (ALT5, Dry Conditions, Thurmond, 4000-2800 cfs Rule)
Annex B - Screen 145 (ALT5, Dry Conditions, Clyo, Min Rule)
Annex B – ResSim Model

Annex B - Screen 146 (ALT5, Dry Conditions, Shoals, Max Rule)
Annex B – ResSim Model

Annex B - Screen 147 (ALT5, Dry Conditions, Millhaven, Max Rule)
Annex B - Screen 148 (ALT5, Drought Conditions, Millhaven, Min Rule)
Annex B - Screen 149 (ALT5, Drought Conditions, Thurmond, 3800-2800 cfs Rule)
Annex B - Screen 150 (ALT5, Drought Conditions, Shoals, Max Rule)
Annex B - Screen 151 (ALT5, Drought Conditions, Millhaven, Max Rule)
Annex B – ResSim Model

Annex B - Screen 152 (ALT5, Drought Conditions, Thurmond, 3600-2800 Rule)
Annex B – Screen 153 (ALT6, Induced Surcharge Pool Rule Stack)
Annex B - Screen 154 (ALT6, Flood Control Pool Rule Stack)
Annex B - Screen 155 (ALT6, Conservation Pool Rule Stack)
Annex B - Screen 156 (ALT6, Thurmond, Trigger Level 1 Rule Stack)
Annex B – ResSim Model

Annex B - Screen 157 (ALT6, Thurmond, Trigger Level 2 Rule Stack)
Annex B – Screen 158 (ALT6, Thurmond, Trigger Level 3 Rule Stack)
Annex B – ResSim Model

Annex B - Screen 160 (ALT6, Drought Level 2, Thurmond, 5875-2800 cfs Rule)
Annex B - Screen 161 (ALT6, Drought Level 3, Thurmond, 6875-2800 cfs Rule)