

## Attachment 3

# Delta Simulation Modeling Output – DSM2

## Modeling





**Table 1: Monthly Averages of Simulated Electrical Conductivity at Sacramento River at Collinsville (umhos/cm) - Sacramento Valley All Years**

| Month | All Year Summary                 |                            |                                  |
|-------|----------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm) | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 7,190                            | 7,169                      | -21 (0%)                         |
| Nov   | 6,584                            | 6,527                      | -58 (-1%)                        |
| Dec   | 4,406                            | 4,382                      | -23 (-1%)                        |
| Jan   | 2,500                            | 2,508                      | 8 (0%)                           |
| Feb   | 1,058                            | 1,098                      | 40 (4%)                          |
| Mar   | 703                              | 696                        | -8 (-1%)                         |
| Apr   | 914                              | 893                        | -22 (-2%)                        |
| May   | 1,385                            | 1,373                      | -12 (-1%)                        |
| Jun   | 2,282                            | 2,274                      | -9 (0%)                          |
| Jul   | 2,869                            | 2,864                      | -5 (0%)                          |
| Aug   | 4,807                            | 4,825                      | 18 (0%)                          |
| Sep   | 6,407                            | 6,423                      | 16 (0%)                          |

Source: DSM2 Modeling (Node RSAC081)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 2: Monthly Averages of Simulated Electrical Conductivity at Sacramento River at Collinsville (umhos/cm) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 5,592                                    | 5,601                      | 10 (0%)                          |
| Nov   | 4,719                                    | 4,654                      | -65 (-1%)                        |
| Dec   | 1,368                                    | 1,349                      | -19 (-1%)                        |
| Jan   | 435                                      | 437                        | 2 (1%)                           |
| Feb   | 201                                      | 201                        | 0 (0%)                           |
| Mar   | 206                                      | 205                        | -1 (0%)                          |
| Apr   | 243                                      | 242                        | -1 (0%)                          |
| May   | 313                                      | 312                        | -1 (0%)                          |
| Jun   | 693                                      | 683                        | -10 (-1%)                        |
| Jul   | 1,294                                    | 1,292                      | -2 (0%)                          |
| Aug   | 3,523                                    | 3,532                      | 9 (0%)                           |
| Sep   | 4,001                                    | 3,975                      | -26 (-1%)                        |

Source: DSM2 Modeling (Node RSAC081)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 3: Monthly Averages of Simulated Electrical Conductivity at Sacramento River at Collinsville (umhos/cm) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                            |                                  |
|-------|---------------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)                  | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 7,524                                             | 7,428                      | -95 (-1%)                        |
| Nov   | 6,055                                             | 5,954                      | -100 (-2%)                       |
| Dec   | 4,396                                             | 4,327                      | -69 (-2%)                        |
| Jan   | 1,208                                             | 1,207                      | -1 (0%)                          |
| Feb   | 288                                               | 289                        | 1 (0%)                           |
| Mar   | 207                                               | 207                        | 0 (0%)                           |
| Apr   | 259                                               | 257                        | -2 (-1%)                         |
| May   | 386                                               | 377                        | -9 (-2%)                         |
| Jun   | 1,129                                             | 1,106                      | -23 (-2%)                        |
| Jul   | 1,617                                             | 1,592                      | -25 (-2%)                        |
| Aug   | 3,910                                             | 3,898                      | -12 (0%)                         |
| Sep   | 6,349                                             | 6,358                      | 9 (0%)                           |

Source: DSM2 Modeling (Node RSAC081)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 4: Monthly Averages of Simulated Electrical Conductivity at Sacramento River at Collinsville (umhos/cm) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                            |                                  |
|-------|---------------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)                  | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 7,379                                             | 7,377                      | -2 (0%)                          |
| Nov   | 7,379                                             | 7,328                      | -51 (-1%)                        |
| Dec   | 5,667                                             | 5,709                      | 42 (1%)                          |
| Jan   | 2,631                                             | 2,697                      | 66 (3%)                          |
| Feb   | 552                                               | 562                        | 10 (2%)                          |
| Mar   | 410                                               | 402                        | -7 (-2%)                         |
| Apr   | 635                                               | 600                        | -35 (-5%)                        |
| May   | 985                                               | 970                        | -15 (-2%)                        |
| Jun   | 1,890                                             | 1,891                      | 1 (0%)                           |
| Jul   | 2,437                                             | 2,430                      | -7 (0%)                          |
| Aug   | 4,540                                             | 4,522                      | -18 (0%)                         |
| Sep   | 6,938                                             | 6,947                      | 9 (0%)                           |

Source: DSM2 Modeling (Node RSAC081)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 5: Monthly Averages of Simulated Electrical Conductivity at Sacramento River at Collinsville (umhos/cm) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                               |                                     |
|-------|------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)      | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 8,272                                    | 8,234                         | -37 (0%)                            |
| Nov   | 7,702                                    | 7,665                         | -37 (0%)                            |
| Dec   | 5,625                                    | 5,587                         | -38 (-1%)                           |
| Jan   | 4,036                                    | 4,047                         | 11 (0%)                             |
| Feb   | 1,570                                    | 1,762                         | 191 (12%)                           |
| Mar   | 845                                      | 831                           | -15 (-2%)                           |
| Apr   | 1,234                                    | 1,180                         | -54 (-4%)                           |
| May   | 1,758                                    | 1,736                         | -22 (-1%)                           |
| Jun   | 3,299                                    | 3,293                         | -6 (0%)                             |
| Jul   | 3,950                                    | 3,959                         | 9 (0%)                              |
| Aug   | 5,751                                    | 5,792                         | 41 (1%)                             |
| Sep   | 7,950                                    | 8,005                         | 55 (1%)                             |

Source: DSM2 Modeling (Node RSAC081)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 6: Monthly Averages of Simulated Electrical Conductivity at Sacramento River at Collinsville (umhos/cm) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                               |                                     |
|-------|-----------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)           | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 8,480                                         | 8,469                         | -11 (0%)                            |
| Nov   | 8,552                                         | 8,513                         | -39 (0%)                            |
| Dec   | 7,698                                         | 7,655                         | -43 (-1%)                           |
| Jan   | 5,807                                         | 5,763                         | -44 (-1%)                           |
| Feb   | 3,505                                         | 3,479                         | -25 (-1%)                           |
| Mar   | 2,406                                         | 2,387                         | -19 (-1%)                           |
| Apr   | 2,872                                         | 2,849                         | -22 (-1%)                           |
| May   | 4,615                                         | 4,591                         | -25 (-1%)                           |
| Jun   | 5,813                                         | 5,807                         | -6 (0%)                             |
| Jul   | 6,415                                         | 6,406                         | -9 (0%)                             |
| Aug   | 7,383                                         | 7,457                         | 74 (1%)                             |
| Sep   | 8,744                                         | 8,810                         | 66 (1%)                             |

Source: DSM2 Modeling (Node RSAC081)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 7: Monthly Averages of Simulated Electrical Conductivity at Sacramento River at Emmanton (umhos/cm) - Sacramento Valley All Years**

| Month | All Year Summary                 |                            |                                  |
|-------|----------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm) | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 2,260                            | 2,249                      | -10 (0%)                         |
| Nov   | 1,920                            | 1,896                      | -24 (-1%)                        |
| Dec   | 1,185                            | 1,178                      | -7 (-1%)                         |
| Jan   | 659                              | 662                        | 3 (1%)                           |
| Feb   | 332                              | 340                        | 8 (2%)                           |
| Mar   | 251                              | 250                        | -1 (0%)                          |
| Apr   | 278                              | 275                        | -2 (-1%)                         |
| May   | 383                              | 382                        | -2 (0%)                          |
| Jun   | 584                              | 584                        | 0 (0%)                           |
| Jul   | 667                              | 665                        | -2 (0%)                          |
| Aug   | 1,280                            | 1,286                      | 6 (1%)                           |
| Sep   | 1,967                            | 1,978                      | 11 (1%)                          |

Source: DSM2 Modeling (Node RSAC092)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 8: Monthly Averages of Simulated Electrical Conductivity at Sacramento River at Emmanton (umhos/cm) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 1,687                                    | 1,685                      | -3 (0%)                          |
| Nov   | 1,276                                    | 1,245                      | -31 (-2%)                        |
| Dec   | 397                                      | 391                        | -6 (-2%)                         |
| Jan   | 220                                      | 221                        | 0 (0%)                           |
| Feb   | 185                                      | 185                        | 0 (0%)                           |
| Mar   | 184                                      | 184                        | 0 (0%)                           |
| Apr   | 186                                      | 186                        | 0 (0%)                           |
| May   | 192                                      | 192                        | 0 (0%)                           |
| Jun   | 233                                      | 232                        | -1 (0%)                          |
| Jul   | 293                                      | 293                        | 0 (0%)                           |
| Aug   | 807                                      | 813                        | 5 (1%)                           |
| Sep   | 1,001                                    | 995                        | -6 (-1%)                         |

Source: DSM2 Modeling (Node RSAC092)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 9: Monthly Averages of Simulated Electrical Conductivity at Sacramento River at Emmanton (umhos/cm) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                            |                                  |
|-------|---------------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)                  | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 2,443                                             | 2,408                      | -35 (-1%)                        |
| Nov   | 1,752                                             | 1,719                      | -33 (-2%)                        |
| Dec   | 1,134                                             | 1,104                      | -30 (-3%)                        |
| Jan   | 369                                               | 369                        | 0 (0%)                           |
| Feb   | 200                                               | 200                        | 0 (0%)                           |
| Mar   | 185                                               | 185                        | 0 (0%)                           |
| Apr   | 188                                               | 188                        | 0 (0%)                           |
| May   | 197                                               | 197                        | 0 (0%)                           |
| Jun   | 276                                               | 275                        | -2 (-1%)                         |
| Jul   | 322                                               | 319                        | -3 (-1%)                         |
| Aug   | 878                                               | 877                        | -1 (0%)                          |
| Sep   | 1,722                                             | 1,730                      | 7 (0%)                           |

Source: DSM2 Modeling (Node RSAC092)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 10: Monthly Averages of Simulated Electrical Conductivity at Sacramento River at Emmanton (umhos/cm) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                            |                                  |
|-------|---------------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)                  | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 2,220                                             | 2,226                      | 6 (0%)                           |
| Nov   | 2,021                                             | 2,007                      | -14 (-1%)                        |
| Dec   | 1,491                                             | 1,519                      | 28 (2%)                          |
| Jan   | 634                                               | 655                        | 21 (3%)                          |
| Feb   | 231                                               | 232                        | 1 (1%)                           |
| Mar   | 203                                               | 203                        | 0 (0%)                           |
| Apr   | 219                                               | 216                        | -3 (-1%)                         |
| May   | 258                                               | 257                        | -1 (0%)                          |
| Jun   | 387                                               | 389                        | 2 (1%)                           |
| Jul   | 460                                               | 459                        | -1 (0%)                          |
| Aug   | 1,084                                             | 1,077                      | -7 (-1%)                         |
| Sep   | 2,031                                             | 2,038                      | 8 (0%)                           |

Source: DSM2 Modeling (Node RSAC092)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 11: Monthly Averages of Simulated Electrical Conductivity at Sacramento River at Emmanton (umhos/cm) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                               |                                     |
|-------|------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)      | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 2,637                                    | 2,618                         | -18 (-1%)                           |
| Nov   | 2,336                                    | 2,320                         | -15 (-1%)                           |
| Dec   | 1,431                                    | 1,414                         | -17 (-1%)                           |
| Jan   | 942                                      | 948                           | 6 (1%)                              |
| Feb   | 385                                      | 425                           | 40 (10%)                            |
| Mar   | 247                                      | 246                           | -2 (-1%)                            |
| Apr   | 291                                      | 285                           | -7 (-2%)                            |
| May   | 350                                      | 349                           | -1 (0%)                             |
| Jun   | 726                                      | 726                           | 1 (0%)                              |
| Jul   | 829                                      | 831                           | 2 (0%)                              |
| Aug   | 1,577                                    | 1,586                         | 9 (1%)                              |
| Sep   | 2,635                                    | 2,661                         | 27 (1%)                             |

Source: DSM2 Modeling (Node RSAC092)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 12: Monthly Averages of Simulated Electrical Conductivity at Sacramento River at Emmanton (umhos/cm) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                               |                                     |
|-------|-----------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)           | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 2,798                                         | 2,789                         | -9 (0%)                             |
| Nov   | 2,741                                         | 2,715                         | -26 (-1%)                           |
| Dec   | 2,219                                         | 2,208                         | -11 (-1%)                           |
| Jan   | 1,503                                         | 1,493                         | -10 (-1%)                           |
| Feb   | 820                                           | 811                           | -8 (-1%)                            |
| Mar   | 523                                           | 521                           | -2 (0%)                             |
| Apr   | 613                                           | 609                           | -4 (-1%)                            |
| May   | 1,180                                         | 1,171                         | -9 (-1%)                            |
| Jun   | 1,667                                         | 1,667                         | 0 (0%)                              |
| Jul   | 1,821                                         | 1,811                         | -9 (-1%)                            |
| Aug   | 2,486                                         | 2,515                         | 28 (1%)                             |
| Sep   | 3,228                                         | 3,262                         | 34 (1%)                             |

Source: DSM2 Modeling (Node RSAC092)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 13: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Jersey Point (umhos/cm) - Sacramento Valley All Years**

| Month | All Year Summary                 |                            |                                  |
|-------|----------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm) | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 2,017                            | 2,010                      | -7 (0%)                          |
| Nov   | 1,945                            | 1,908                      | -37 (-2%)                        |
| Dec   | 1,546                            | 1,537                      | -9 (-1%)                         |
| Jan   | 975                              | 984                        | 9 (1%)                           |
| Feb   | 506                              | 520                        | 14 (3%)                          |
| Mar   | 295                              | 294                        | -1 (0%)                          |
| Apr   | 265                              | 262                        | -3 (-1%)                         |
| May   | 328                              | 327                        | -1 (0%)                          |
| Jun   | 490                              | 487                        | -3 (-1%)                         |
| Jul   | 740                              | 741                        | 1 (0%)                           |
| Aug   | 1,202                            | 1,205                      | 3 (0%)                           |
| Sep   | 1,902                            | 1,905                      | 3 (0%)                           |

Source: DSM2 Modeling (Node RSAN018)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 14: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Jersey Point (umhos/cm) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 1,649                                    | 1,664                      | 15 (1%)                          |
| Nov   | 1,554                                    | 1,523                      | -32 (-2%)                        |
| Dec   | 757                                      | 744                        | -14 (-2%)                        |
| Jan   | 317                                      | 318                        | 0 (0%)                           |
| Feb   | 243                                      | 243                        | 0 (0%)                           |
| Mar   | 227                                      | 226                        | 0 (0%)                           |
| Apr   | 215                                      | 215                        | 0 (0%)                           |
| May   | 215                                      | 215                        | 0 (0%)                           |
| Jun   | 227                                      | 226                        | -1 (-1%)                         |
| Jul   | 295                                      | 296                        | 1 (0%)                           |
| Aug   | 836                                      | 833                        | -3 (0%)                          |
| Sep   | 1,193                                    | 1,177                      | -15 (-1%)                        |

Source: DSM2 Modeling (Node RSAN018)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 15: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Jersey Point (umhos/cm) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 2,196                                             | 2,161                         | -35 (-2%)                           |
| Nov   | 1,850                                             | 1,778                         | -72 (-4%)                           |
| Dec   | 1,595                                             | 1,566                         | -29 (-2%)                           |
| Jan   | 713                                               | 712                           | -1 (0%)                             |
| Feb   | 300                                               | 302                           | 2 (1%)                              |
| Mar   | 220                                               | 220                           | 0 (0%)                              |
| Apr   | 211                                               | 212                           | 1 (0%)                              |
| May   | 222                                               | 223                           | 1 (0%)                              |
| Jun   | 257                                               | 257                           | -1 (0%)                             |
| Jul   | 338                                               | 336                           | -2 (-1%)                            |
| Aug   | 1,017                                             | 1,011                         | -6 (-1%)                            |
| Sep   | 2,108                                             | 2,101                         | -7 (0%)                             |

Source: DSM2 Modeling (Node RSAN018)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 16: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Jersey Point (umhos/cm) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 2,005                                             | 2,002                         | -3 (0%)                             |
| Nov   | 2,155                                             | 2,100                         | -55 (-3%)                           |
| Dec   | 1,833                                             | 1,857                         | 23 (1%)                             |
| Jan   | 1,070                                             | 1,119                         | 49 (5%)                             |
| Feb   | 397                                               | 403                           | 6 (1%)                              |
| Mar   | 246                                               | 245                           | 0 (0%)                              |
| Apr   | 235                                               | 231                           | -4 (-2%)                            |
| May   | 269                                               | 269                           | 0 (0%)                              |
| Jun   | 383                                               | 385                           | 2 (1%)                              |
| Jul   | 614                                               | 613                           | -1 (0%)                             |
| Aug   | 1,177                                             | 1,177                         | 0 (0%)                              |
| Sep   | 2,210                                             | 2,209                         | -1 (0%)                             |

Source: DSM2 Modeling (Node RSAN018)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 17: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Jersey Point (umhos/cm) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                               |                                     |
|-------|------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)      | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 2,259                                    | 2,236                         | -23 (-1%)                           |
| Nov   | 2,227                                    | 2,194                         | -32 (-1%)                           |
| Dec   | 1,955                                    | 1,947                         | -8 (0%)                             |
| Jan   | 1,433                                    | 1,449                         | 16 (1%)                             |
| Feb   | 703                                      | 767                           | 64 (9%)                             |
| Mar   | 306                                      | 311                           | 5 (2%)                              |
| Apr   | 265                                      | 256                           | -9 (-3%)                            |
| May   | 324                                      | 324                           | 0 (0%)                              |
| Jun   | 615                                      | 612                           | -4 (-1%)                            |
| Jul   | 1,153                                    | 1,154                         | 1 (0%)                              |
| Aug   | 1,539                                    | 1,558                         | 19 (1%)                             |
| Sep   | 2,352                                    | 2,384                         | 32 (1%)                             |

Source: DSM2 Modeling (Node RSAN018)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 18: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Jersey Point (umhos/cm) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                               |                                     |
|-------|-----------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)           | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 2,285                                         | 2,276                         | -9 (0%)                             |
| Nov   | 2,220                                         | 2,221                         | 1 (0%)                              |
| Dec   | 2,257                                         | 2,237                         | -20 (-1%)                           |
| Jan   | 1,864                                         | 1,842                         | -22 (-1%)                           |
| Feb   | 1,112                                         | 1,104                         | -8 (-1%)                            |
| Mar   | 557                                           | 543                           | -13 (-2%)                           |
| Apr   | 465                                           | 459                           | -6 (-1%)                            |
| May   | 755                                           | 750                           | -5 (-1%)                            |
| Jun   | 1,229                                         | 1,217                         | -13 (-1%)                           |
| Jul   | 1,634                                         | 1,638                         | 4 (0%)                              |
| Aug   | 1,700                                         | 1,707                         | 7 (0%)                              |
| Sep   | 2,202                                         | 2,216                         | 14 (1%)                             |

Source: DSM2 Modeling (Node RSAN018)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 19: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Brandt Bridge (umhos/cm) - Sacramento Valley All Years**

| Month | All Year Summary                    |                               |                                     |
|-------|-------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm) | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 578                                 | 573                           | -5 (-1%)                            |
| Nov   | 599                                 | 571                           | -28 (-5%)                           |
| Dec   | 747                                 | 747                           | -1 (0%)                             |
| Jan   | 735                                 | 738                           | 3 (0%)                              |
| Feb   | 727                                 | 723                           | -5 (-1%)                            |
| Mar   | 707                                 | 650                           | -58 (-8%)                           |
| Apr   | 469                                 | 437                           | -33 (-7%)                           |
| May   | 446                                 | 443                           | -4 (-1%)                            |
| Jun   | 572                                 | 568                           | -4 (-1%)                            |
| Jul   | 618                                 | 618                           | 1 (0%)                              |
| Aug   | 573                                 | 573                           | 0 (0%)                              |
| Sep   | 549                                 | 548                           | -1 (0%)                             |

Source: DSM2 Modeling (Node RSAN072)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 20: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Brandt Bridge (umhos/cm) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                               |                                     |
|-------|------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)      | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 534                                      | 529                           | -4 (-1%)                            |
| Nov   | 559                                      | 533                           | -26 (-5%)                           |
| Dec   | 681                                      | 685                           | 4 (1%)                              |
| Jan   | 593                                      | 604                           | 10 (2%)                             |
| Feb   | 485                                      | 493                           | 8 (2%)                              |
| Mar   | 442                                      | 419                           | -24 (-5%)                           |
| Apr   | 321                                      | 306                           | -15 (-5%)                           |
| May   | 311                                      | 309                           | -2 (-1%)                            |
| Jun   | 420                                      | 415                           | -6 (-1%)                            |
| Jul   | 510                                      | 511                           | 0 (0%)                              |
| Aug   | 461                                      | 461                           | 0 (0%)                              |
| Sep   | 449                                      | 445                           | -4 (-1%)                            |

Source: DSM2 Modeling (Node RSAN072)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 21: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Brandt Bridge (umhos/cm) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                            |                                  |
|-------|---------------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)                  | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 622                                               | 616                        | -6 (-1%)                         |
| Nov   | 641                                               | 606                        | -35 (-5%)                        |
| Dec   | 770                                               | 769                        | -1 (0%)                          |
| Jan   | 719                                               | 724                        | 4 (1%)                           |
| Feb   | 691                                               | 694                        | 3 (0%)                           |
| Mar   | 637                                               | 584                        | -53 (-8%)                        |
| Apr   | 429                                               | 390                        | -39 (-9%)                        |
| May   | 409                                               | 395                        | -13 (-3%)                        |
| Jun   | 531                                               | 517                        | -14 (-3%)                        |
| Jul   | 620                                               | 620                        | 0 (0%)                           |
| Aug   | 574                                               | 574                        | 0 (0%)                           |
| Sep   | 545                                               | 544                        | -1 (0%)                          |

Source: DSM2 Modeling (Node RSAN072)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 22: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Brandt Bridge (umhos/cm) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                            |                                  |
|-------|---------------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)                  | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 578                                               | 574                        | -5 (-1%)                         |
| Nov   | 595                                               | 567                        | -29 (-5%)                        |
| Dec   | 744                                               | 741                        | -2 (0%)                          |
| Jan   | 761                                               | 760                        | -1 (0%)                          |
| Feb   | 685                                               | 689                        | 3 (1%)                           |
| Mar   | 705                                               | 633                        | -72 (-10%)                       |
| Apr   | 448                                               | 398                        | -50 (-11%)                       |
| May   | 427                                               | 426                        | -1 (0%)                          |
| Jun   | 614                                               | 617                        | 3 (1%)                           |
| Jul   | 658                                               | 659                        | 1 (0%)                           |
| Aug   | 595                                               | 595                        | 0 (0%)                           |
| Sep   | 568                                               | 567                        | -1 (0%)                          |

Source: DSM2 Modeling (Node RSAN072)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 23: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Brandt Bridge (umhos/cm) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                               |                                     |
|-------|------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)      | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 583                                      | 576                           | -6 (-1%)                            |
| Nov   | 602                                      | 575                           | -27 (-5%)                           |
| Dec   | 780                                      | 776                           | -4 (-1%)                            |
| Jan   | 822                                      | 821                           | -1 (0%)                             |
| Feb   | 938                                      | 915                           | -23 (-2%)                           |
| Mar   | 937                                      | 832                           | -105 (-11%)                         |
| Apr   | 580                                      | 527                           | -53 (-9%)                           |
| May   | 548                                      | 547                           | -1 (0%)                             |
| Jun   | 692                                      | 693                           | 1 (0%)                              |
| Jul   | 689                                      | 691                           | 2 (0%)                              |
| Aug   | 647                                      | 648                           | 2 (0%)                              |
| Sep   | 607                                      | 608                           | 1 (0%)                              |

Source: DSM2 Modeling (Node RSAN072)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 24: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Brandt Bridge (umhos/cm) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                               |                                     |
|-------|-----------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)           | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 620                                           | 617                           | -3 (-1%)                            |
| Nov   | 644                                           | 619                           | -24 (-4%)                           |
| Dec   | 822                                           | 819                           | -4 (0%)                             |
| Jan   | 896                                           | 895                           | -1 (0%)                             |
| Feb   | 1,022                                         | 998                           | -24 (-2%)                           |
| Mar   | 1,009                                         | 961                           | -48 (-5%)                           |
| Apr   | 688                                           | 675                           | -14 (-2%)                           |
| May   | 647                                           | 643                           | -4 (-1%)                            |
| Jun   | 716                                           | 708                           | -8 (-1%)                            |
| Jul   | 696                                           | 695                           | -1 (0%)                             |
| Aug   | 675                                           | 676                           | 1 (0%)                              |
| Sep   | 658                                           | 661                           | 2 (0%)                              |

Source: DSM2 Modeling (Node RSAN072)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 25: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Vernalis (umhos/cm) - Sacramento Valley All Years**

| Month | All Year Summary                 |                            |                                  |
|-------|----------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm) | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 578                              | 573                        | -5 (-1%)                         |
| Nov   | 599                              | 570                        | -29 (-5%)                        |
| Dec   | 755                              | 755                        | 1 (0%)                           |
| Jan   | 728                              | 732                        | 3 (0%)                           |
| Feb   | 726                              | 721                        | -6 (-1%)                         |
| Mar   | 703                              | 643                        | -60 (-8%)                        |
| Apr   | 443                              | 418                        | -26 (-6%)                        |
| May   | 447                              | 442                        | -5 (-1%)                         |
| Jun   | 567                              | 563                        | -3 (-1%)                         |
| Jul   | 613                              | 615                        | 1 (0%)                           |
| Aug   | 565                              | 565                        | 0 (0%)                           |
| Sep   | 543                              | 542                        | -1 (0%)                          |

Source: DSM2 Modeling (Node RSAN112)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 26: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Vernalis (umhos/cm) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 534                                      | 529                        | -4 (-1%)                         |
| Nov   | 558                                      | 532                        | -27 (-5%)                        |
| Dec   | 686                                      | 691                        | 6 (1%)                           |
| Jan   | 583                                      | 593                        | 10 (2%)                          |
| Feb   | 479                                      | 487                        | 8 (2%)                           |
| Mar   | 439                                      | 414                        | -25 (-6%)                        |
| Apr   | 313                                      | 300                        | -13 (-4%)                        |
| May   | 308                                      | 306                        | -2 (-1%)                         |
| Jun   | 416                                      | 411                        | -5 (-1%)                         |
| Jul   | 509                                      | 510                        | 0 (0%)                           |
| Aug   | 453                                      | 453                        | 0 (0%)                           |
| Sep   | 445                                      | 441                        | -4 (-1%)                         |

Source: DSM2 Modeling (Node RSAN112)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 27: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Vernalis (umhos/cm) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 623                                               | 616                           | -7 (-1%)                            |
| Nov   | 641                                               | 604                           | -37 (-6%)                           |
| Dec   | 777                                               | 778                           | 1 (0%)                              |
| Jan   | 707                                               | 712                           | 5 (1%)                              |
| Feb   | 684                                               | 687                           | 3 (0%)                              |
| Mar   | 632                                               | 577                           | -56 (-9%)                           |
| Apr   | 411                                               | 378                           | -33 (-8%)                           |
| May   | 408                                               | 394                           | -14 (-4%)                           |
| Jun   | 526                                               | 513                           | -13 (-3%)                           |
| Jul   | 619                                               | 619                           | 0 (0%)                              |
| Aug   | 565                                               | 565                           | 0 (0%)                              |
| Sep   | 540                                               | 538                           | -1 (0%)                             |

Source: DSM2 Modeling (Node RSAN112)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 28: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Vernalis (umhos/cm) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 579                                               | 574                           | -5 (-1%)                            |
| Nov   | 595                                               | 565                           | -30 (-5%)                           |
| Dec   | 751                                               | 750                           | -1 (0%)                             |
| Jan   | 757                                               | 756                           | -1 (0%)                             |
| Feb   | 682                                               | 685                           | 3 (0%)                              |
| Mar   | 704                                               | 629                           | -75 (-11%)                          |
| Apr   | 424                                               | 381                           | -43 (-10%)                          |
| May   | 427                                               | 425                           | -1 (0%)                             |
| Jun   | 610                                               | 613                           | 4 (1%)                              |
| Jul   | 655                                               | 656                           | 1 (0%)                              |
| Aug   | 585                                               | 585                           | 0 (0%)                              |
| Sep   | 563                                               | 561                           | -1 (0%)                             |

Source: DSM2 Modeling (Node RSAN112)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 29: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Vernalis (umhos/cm) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                               |                                     |
|-------|------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)      | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 582                                      | 576                           | -7 (-1%)                            |
| Nov   | 602                                      | 574                           | -28 (-5%)                           |
| Dec   | 789                                      | 786                           | -3 (0%)                             |
| Jan   | 818                                      | 817                           | -1 (0%)                             |
| Feb   | 943                                      | 919                           | -25 (-3%)                           |
| Mar   | 933                                      | 824                           | -108 (-12%)                         |
| Apr   | 540                                      | 501                           | -39 (-7%)                           |
| May   | 551                                      | 550                           | -1 (0%)                             |
| Jun   | 686                                      | 687                           | 1 (0%)                              |
| Jul   | 682                                      | 684                           | 3 (0%)                              |
| Aug   | 639                                      | 640                           | 2 (0%)                              |
| Sep   | 600                                      | 601                           | 1 (0%)                              |

Source: DSM2 Modeling (Node RSAN112)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 30: Monthly Averages of Simulated Electrical Conductivity at San Joaquin River at Vernalis (umhos/cm) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                               |                                     |
|-------|-----------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)           | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 620                                           | 617                           | -4 (-1%)                            |
| Nov   | 643                                           | 618                           | -26 (-4%)                           |
| Dec   | 835                                           | 833                           | -2 (0%)                             |
| Jan   | 896                                           | 895                           | -1 (0%)                             |
| Feb   | 1,030                                         | 1,004                         | -26 (-3%)                           |
| Mar   | 1,001                                         | 952                           | -48 (-5%)                           |
| Apr   | 636                                           | 632                           | -4 (-1%)                            |
| May   | 653                                           | 643                           | -11 (-2%)                           |
| Jun   | 703                                           | 700                           | -4 (-1%)                            |
| Jul   | 683                                           | 685                           | 2 (0%)                              |
| Aug   | 671                                           | 671                           | 1 (0%)                              |
| Sep   | 653                                           | 656                           | 3 (0%)                              |

Source: DSM2 Modeling (Node RSAN112)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 31: Monthly Averages of Simulated Electrical Conductivity at Old River near Tracy Road Bridge (umhos/cm) - Sacramento Valley All Years**

| Month | All Year Summary                 |                            |                                  |
|-------|----------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm) | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 580                              | 576                        | -4 (-1%)                         |
| Nov   | 605                              | 581                        | -24 (-4%)                        |
| Dec   | 748                              | 747                        | -2 (0%)                          |
| Jan   | 769                              | 772                        | 4 (0%)                           |
| Feb   | 752                              | 747                        | -4 (-1%)                         |
| Mar   | 720                              | 665                        | -55 (-8%)                        |
| Apr   | 557                              | 514                        | -43 (-8%)                        |
| May   | 498                              | 497                        | -2 (0%)                          |
| Jun   | 573                              | 571                        | -3 (0%)                          |
| Jul   | 614                              | 616                        | 1 (0%)                           |
| Aug   | 579                              | 580                        | 1 (0%)                           |
| Sep   | 562                              | 562                        | -1 (0%)                          |

Source: DSM2 Modeling (Node ROLD059)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 32: Monthly Averages of Simulated Electrical Conductivity at Old River near Tracy Road Bridge (umhos/cm) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 538                                      | 534                        | -4 (-1%)                         |
| Nov   | 564                                      | 541                        | -23 (-4%)                        |
| Dec   | 686                                      | 690                        | 3 (1%)                           |
| Jan   | 643                                      | 654                        | 10 (2%)                          |
| Feb   | 517                                      | 525                        | 8 (2%)                           |
| Mar   | 457                                      | 434                        | -23 (-5%)                        |
| Apr   | 376                                      | 354                        | -21 (-6%)                        |
| May   | 363                                      | 361                        | -2 (0%)                          |
| Jun   | 426                                      | 421                        | -6 (-1%)                         |
| Jul   | 512                                      | 511                        | 0 (0%)                           |
| Aug   | 480                                      | 480                        | 0 (0%)                           |
| Sep   | 464                                      | 460                        | -4 (-1%)                         |

Source: DSM2 Modeling (Node ROLD059)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 33: Monthly Averages of Simulated Electrical Conductivity at Old River near Tracy Road Bridge (umhos/cm) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 619                                               | 616                           | -3 (-1%)                            |
| Nov   | 648                                               | 618                           | -30 (-5%)                           |
| Dec   | 771                                               | 770                           | -2 (0%)                             |
| Jan   | 770                                               | 775                           | 5 (1%)                              |
| Feb   | 744                                               | 747                           | 3 (0%)                              |
| Mar   | 658                                               | 606                           | -51 (-8%)                           |
| Apr   | 513                                               | 469                           | -45 (-9%)                           |
| May   | 475                                               | 465                           | -9 (-2%)                            |
| Jun   | 537                                               | 522                           | -14 (-3%)                           |
| Jul   | 622                                               | 621                           | 0 (0%)                              |
| Aug   | 594                                               | 594                           | 0 (0%)                              |
| Sep   | 566                                               | 565                           | -1 (0%)                             |

Source: DSM2 Modeling (Node ROLD059)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 34: Monthly Averages of Simulated Electrical Conductivity at Old River near Tracy Road Bridge (umhos/cm) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 581                                               | 577                           | -4 (-1%)                            |
| Nov   | 601                                               | 576                           | -26 (-4%)                           |
| Dec   | 743                                               | 740                           | -3 (0%)                             |
| Jan   | 785                                               | 784                           | -1 (0%)                             |
| Feb   | 706                                               | 710                           | 4 (1%)                              |
| Mar   | 715                                               | 647                           | -69 (-10%)                          |
| Apr   | 563                                               | 495                           | -68 (-12%)                          |
| May   | 502                                               | 500                           | -2 (0%)                             |
| Jun   | 618                                               | 621                           | 2 (0%)                              |
| Jul   | 662                                               | 663                           | 1 (0%)                              |
| Aug   | 619                                               | 619                           | 0 (0%)                              |
| Sep   | 590                                               | 589                           | -1 (0%)                             |

Source: DSM2 Modeling (Node ROLD059)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 35: Monthly Averages of Simulated Electrical Conductivity at Old River near Tracy Road Bridge (umhos/cm) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                               |                                     |
|-------|------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)      | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 586                                      | 580                           | -6 (-1%)                            |
| Nov   | 609                                      | 584                           | -25 (-4%)                           |
| Dec   | 780                                      | 775                           | -5 (-1%)                            |
| Jan   | 843                                      | 842                           | -1 (0%)                             |
| Feb   | 949                                      | 928                           | -21 (-2%)                           |
| Mar   | 945                                      | 846                           | -99 (-10%)                          |
| Apr   | 698                                      | 628                           | -70 (-10%)                          |
| May   | 599                                      | 600                           | 2 (0%)                              |
| Jun   | 698                                      | 701                           | 3 (0%)                              |
| Jul   | 693                                      | 696                           | 2 (0%)                              |
| Aug   | 660                                      | 666                           | 5 (1%)                              |
| Sep   | 630                                      | 634                           | 3 (1%)                              |

Source: DSM2 Modeling (Node ROLD059)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 36: Monthly Averages of Simulated Electrical Conductivity at Old River near Tracy Road Bridge (umhos/cm) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                               |                                     |
|-------|-----------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)           | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 622                                           | 620                           | -2 (0%)                             |
| Nov   | 649                                           | 628                           | -21 (-3%)                           |
| Dec   | 818                                           | 814                           | -4 (-1%)                            |
| Jan   | 909                                           | 908                           | -1 (0%)                             |
| Feb   | 1,025                                         | 1,004                         | -21 (-2%)                           |
| Mar   | 1,017                                         | 970                           | -46 (-5%)                           |
| Apr   | 775                                           | 754                           | -21 (-3%)                           |
| May   | 662                                           | 663                           | 1 (0%)                              |
| Jun   | 688                                           | 689                           | 2 (0%)                              |
| Jul   | 656                                           | 661                           | 5 (1%)                              |
| Aug   | 611                                           | 612                           | 1 (0%)                              |
| Sep   | 638                                           | 639                           | 1 (0%)                              |

Source: DSM2 Modeling (Node ROLD059)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 37: Monthly Averages of Simulated Electrical Conductivity at Old River at Middle River (umhos/cm) - Sacramento Valley All Years**

| Month | All Year Summary                 |                            |                                  |
|-------|----------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm) | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 579                              | 574                        | -5 (-1%)                         |
| Nov   | 601                              | 573                        | -28 (-5%)                        |
| Dec   | 751                              | 750                        | 0 (0%)                           |
| Jan   | 736                              | 739                        | 3 (0%)                           |
| Feb   | 729                              | 724                        | -5 (-1%)                         |
| Mar   | 707                              | 650                        | -58 (-8%)                        |
| Apr   | 483                              | 452                        | -31 (-6%)                        |
| May   | 452                              | 449                        | -4 (-1%)                         |
| Jun   | 573                              | 569                        | -4 (-1%)                         |
| Jul   | 618                              | 618                        | 1 (0%)                           |
| Aug   | 572                              | 573                        | 0 (0%)                           |
| Sep   | 550                              | 549                        | -1 (0%)                          |

Source: DSM2 Modeling (Node RMID041)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 38: Monthly Averages of Simulated Electrical Conductivity at Old River at Middle River (umhos/cm) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 535                                      | 531                        | -4 (-1%)                         |
| Nov   | 560                                      | 535                        | -25 (-5%)                        |
| Dec   | 683                                      | 688                        | 5 (1%)                           |
| Jan   | 594                                      | 604                        | 10 (2%)                          |
| Feb   | 486                                      | 494                        | 8 (2%)                           |
| Mar   | 443                                      | 419                        | -24 (-5%)                        |
| Apr   | 336                                      | 323                        | -13 (-4%)                        |
| May   | 316                                      | 314                        | -2 (-1%)                         |
| Jun   | 421                                      | 416                        | -6 (-1%)                         |
| Jul   | 511                                      | 511                        | 0 (0%)                           |
| Aug   | 462                                      | 462                        | 0 (0%)                           |
| Sep   | 450                                      | 446                        | -4 (-1%)                         |

Source: DSM2 Modeling (Node RMID041)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 39: Monthly Averages of Simulated Electrical Conductivity at Old River at Middle River (umhos/cm) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 623                                               | 617                           | -6 (-1%)                            |
| Nov   | 643                                               | 608                           | -35 (-5%)                           |
| Dec   | 773                                               | 773                           | -1 (0%)                             |
| Jan   | 719                                               | 724                           | 5 (1%)                              |
| Feb   | 692                                               | 695                           | 3 (0%)                              |
| Mar   | 638                                               | 584                           | -54 (-8%)                           |
| Apr   | 448                                               | 410                           | -38 (-8%)                           |
| May   | 416                                               | 402                           | -13 (-3%)                           |
| Jun   | 532                                               | 519                           | -14 (-3%)                           |
| Jul   | 621                                               | 621                           | 0 (0%)                              |
| Aug   | 574                                               | 574                           | 0 (0%)                              |
| Sep   | 546                                               | 545                           | -1 (0%)                             |

Source: DSM2 Modeling (Node RMID041)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 40: Monthly Averages of Simulated Electrical Conductivity at Old River at Middle River (umhos/cm) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 580                                               | 575                           | -5 (-1%)                            |
| Nov   | 597                                               | 568                           | -28 (-5%)                           |
| Dec   | 747                                               | 745                           | -2 (0%)                             |
| Jan   | 762                                               | 761                           | -1 (0%)                             |
| Feb   | 687                                               | 690                           | 3 (0%)                              |
| Mar   | 706                                               | 634                           | -72 (-10%)                          |
| Apr   | 464                                               | 415                           | -49 (-10%)                          |
| May   | 433                                               | 432                           | -1 (0%)                             |
| Jun   | 615                                               | 618                           | 3 (1%)                              |
| Jul   | 659                                               | 660                           | 1 (0%)                              |
| Aug   | 594                                               | 594                           | 0 (0%)                              |
| Sep   | 569                                               | 568                           | -1 (0%)                             |

Source: DSM2 Modeling (Node RMID041)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 41: Monthly Averages of Simulated Electrical Conductivity at Old River at Middle River (umhos/cm) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                               |                                     |
|-------|------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)      | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 584                                      | 578                           | -6 (-1%)                            |
| Nov   | 604                                      | 577                           | -27 (-4%)                           |
| Dec   | 784                                      | 780                           | -4 (-1%)                            |
| Jan   | 823                                      | 822                           | -1 (0%)                             |
| Feb   | 941                                      | 917                           | -23 (-2%)                           |
| Mar   | 937                                      | 832                           | -105 (-11%)                         |
| Apr   | 595                                      | 544                           | -52 (-9%)                           |
| May   | 555                                      | 555                           | -1 (0%)                             |
| Jun   | 693                                      | 693                           | 1 (0%)                              |
| Jul   | 687                                      | 689                           | 2 (0%)                              |
| Aug   | 646                                      | 648                           | 2 (0%)                              |
| Sep   | 608                                      | 608                           | 1 (0%)                              |

Source: DSM2 Modeling (Node RMID041)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 42: Monthly Averages of Simulated Electrical Conductivity at Old River at Middle River (umhos/cm) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                               |                                     |
|-------|-----------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)           | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 621                                           | 618                           | -3 (-1%)                            |
| Nov   | 645                                           | 621                           | -24 (-4%)                           |
| Dec   | 828                                           | 825                           | -3 (0%)                             |
| Jan   | 898                                           | 897                           | -1 (0%)                             |
| Feb   | 1,025                                         | 1,001                         | -24 (-2%)                           |
| Mar   | 1,008                                         | 960                           | -48 (-5%)                           |
| Apr   | 689                                           | 679                           | -10 (-1%)                           |
| May   | 653                                           | 647                           | -5 (-1%)                            |
| Jun   | 716                                           | 709                           | -7 (-1%)                            |
| Jul   | 693                                           | 694                           | 1 (0%)                              |
| Aug   | 675                                           | 676                           | 1 (0%)                              |
| Sep   | 659                                           | 662                           | 2 (0%)                              |

Source: DSM2 Modeling (Node RMID041)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 43: Monthly Averages of Simulated Electrical Conductivity at Old R. at Hwy 4 (CCWD Intake) (umhos/cm) - Sacramento Valley All Years**

| Month | All Year Summary                 |                            |                                  |
|-------|----------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm) | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 639                              | 638                        | -1 (0%)                          |
| Nov   | 621                              | 613                        | -9 (-1%)                         |
| Dec   | 634                              | 624                        | -10 (-2%)                        |
| Jan   | 574                              | 576                        | 2 (0%)                           |
| Feb   | 487                              | 488                        | 1 (0%)                           |
| Mar   | 384                              | 389                        | 5 (1%)                           |
| Apr   | 338                              | 346                        | 7 (2%)                           |
| May   | 337                              | 339                        | 2 (1%)                           |
| Jun   | 315                              | 317                        | 2 (1%)                           |
| Jul   | 330                              | 330                        | 0 (0%)                           |
| Aug   | 384                              | 384                        | 0 (0%)                           |
| Sep   | 546                              | 547                        | 1 (0%)                           |

Source: DSM2 Modeling (Node ROLD034)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 44: Monthly Averages of Simulated Electrical Conductivity at Old R. at Hwy 4 (CCWD Intake) (umhos/cm) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 552                                      | 556                        | 4 (1%)                           |
| Nov   | 524                                      | 518                        | -6 (-1%)                         |
| Dec   | 487                                      | 476                        | -10 (-2%)                        |
| Jan   | 399                                      | 397                        | -2 (0%)                          |
| Feb   | 367                                      | 367                        | 0 (0%)                           |
| Mar   | 343                                      | 344                        | 1 (0%)                           |
| Apr   | 302                                      | 304                        | 1 (0%)                           |
| May   | 285                                      | 285                        | 0 (0%)                           |
| Jun   | 271                                      | 275                        | 4 (2%)                           |
| Jul   | 267                                      | 268                        | 1 (0%)                           |
| Aug   | 287                                      | 287                        | 0 (0%)                           |
| Sep   | 402                                      | 400                        | -2 (-1%)                         |

Source: DSM2 Modeling (Node ROLD034)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 45: Monthly Averages of Simulated Electrical Conductivity at Old R. at Hwy 4 (CCWD Intake) (umhos/cm) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                            |                                  |
|-------|---------------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)                  | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 679                                               | 672                        | -7 (-1%)                         |
| Nov   | 628                                               | 612                        | -15 (-2%)                        |
| Dec   | 632                                               | 613                        | -19 (-3%)                        |
| Jan   | 562                                               | 562                        | -1 (0%)                          |
| Feb   | 410                                               | 412                        | 2 (0%)                           |
| Mar   | 330                                               | 337                        | 7 (2%)                           |
| Apr   | 301                                               | 309                        | 8 (3%)                           |
| May   | 308                                               | 309                        | 0 (0%)                           |
| Jun   | 274                                               | 276                        | 2 (1%)                           |
| Jul   | 259                                               | 259                        | 0 (0%)                           |
| Aug   | 302                                               | 302                        | 0 (0%)                           |
| Sep   | 560                                               | 558                        | -2 (0%)                          |

Source: DSM2 Modeling (Node ROLD034)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 46: Monthly Averages of Simulated Electrical Conductivity at Old R. at Hwy 4 (CCWD Intake) (umhos/cm) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                            |                                  |
|-------|---------------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)                  | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 623                                               | 625                        | 1 (0%)                           |
| Nov   | 628                                               | 619                        | -9 (-1%)                         |
| Dec   | 686                                               | 677                        | -9 (-1%)                         |
| Jan   | 605                                               | 622                        | 17 (3%)                          |
| Feb   | 464                                               | 466                        | 2 (0%)                           |
| Mar   | 362                                               | 365                        | 3 (1%)                           |
| Apr   | 316                                               | 322                        | 6 (2%)                           |
| May   | 320                                               | 320                        | 0 (0%)                           |
| Jun   | 274                                               | 275                        | 1 (0%)                           |
| Jul   | 278                                               | 278                        | 0 (0%)                           |
| Aug   | 351                                               | 351                        | 1 (0%)                           |
| Sep   | 579                                               | 579                        | 1 (0%)                           |

Source: DSM2 Modeling (Node ROLD034)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 47: Monthly Averages of Simulated Electrical Conductivity at Old R. at Hwy 4 (CCWD Intake) (umhos/cm) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 690                                      | 685                        | -4 (-1%)                         |
| Nov   | 691                                      | 680                        | -11 (-2%)                        |
| Dec   | 716                                      | 707                        | -8 (-1%)                         |
| Jan   | 666                                      | 669                        | 3 (0%)                           |
| Feb   | 571                                      | 574                        | 3 (0%)                           |
| Mar   | 386                                      | 397                        | 12 (3%)                          |
| Apr   | 350                                      | 364                        | 14 (4%)                          |
| May   | 368                                      | 372                        | 4 (1%)                           |
| Jun   | 321                                      | 321                        | 1 (0%)                           |
| Jul   | 380                                      | 381                        | 0 (0%)                           |
| Aug   | 474                                      | 477                        | 2 (1%)                           |
| Sep   | 645                                      | 651                        | 6 (1%)                           |

Source: DSM2 Modeling (Node ROLD034)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 48: Monthly Averages of Simulated Electrical Conductivity at Old R. at Hwy 4 (CCWD Intake) (umhos/cm) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                            |                                  |
|-------|-----------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)              | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 731                                           | 729                        | -2 (0%)                          |
| Nov   | 713                                           | 709                        | -4 (-1%)                         |
| Dec   | 774                                           | 770                        | -5 (-1%)                         |
| Jan   | 792                                           | 784                        | -7 (-1%)                         |
| Feb   | 725                                           | 723                        | -1 (0%)                          |
| Mar   | 547                                           | 552                        | 5 (1%)                           |
| Apr   | 460                                           | 472                        | 12 (3%)                          |
| May   | 453                                           | 460                        | 7 (2%)                           |
| Jun   | 491                                           | 492                        | 1 (0%)                           |
| Jul   | 524                                           | 523                        | -1 (0%)                          |
| Aug   | 578                                           | 577                        | -1 (0%)                          |
| Sep   | 656                                           | 659                        | 4 (1%)                           |

Source: DSM2 Modeling (Node ROLD034)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 49: Monthly Averages of Simulated Electrical Conductivity at Delta Mendota Canal at Tracy Pumping Plant (umhos/cm) - Sacramento Valley All Years**

| Month | All Year Summary                 |                            |                                  |
|-------|----------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm) | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 570                              | 569                        | -1 (0%)                          |
| Nov   | 568                              | 558                        | -9 (-2%)                         |
| Dec   | 638                              | 632                        | -6 (-1%)                         |
| Jan   | 635                              | 638                        | 4 (1%)                           |
| Feb   | 614                              | 614                        | 0 (0%)                           |
| Mar   | 549                              | 535                        | -14 (-2%)                        |
| Apr   | 426                              | 418                        | -7 (-2%)                         |
| May   | 392                              | 393                        | 2 (0%)                           |
| Jun   | 379                              | 380                        | 1 (0%)                           |
| Jul   | 371                              | 371                        | 0 (0%)                           |
| Aug   | 399                              | 399                        | 0 (0%)                           |
| Sep   | 498                              | 499                        | 1 (0%)                           |

Source: DSM2 Modeling (Node CHDMC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 50: Monthly Averages of Simulated Electrical Conductivity at Delta Mendota Canal at Tracy Pumping Plant (umhos/cm) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 509                                      | 511                        | 2 (0%)                           |
| Nov   | 497                                      | 490                        | -6 (-1%)                         |
| Dec   | 546                                      | 544                        | -3 (-1%)                         |
| Jan   | 509                                      | 515                        | 6 (1%)                           |
| Feb   | 440                                      | 445                        | 5 (1%)                           |
| Mar   | 399                                      | 390                        | -8 (-2%)                         |
| Apr   | 317                                      | 311                        | -6 (-2%)                         |
| May   | 308                                      | 308                        | 0 (0%)                           |
| Jun   | 346                                      | 346                        | 0 (0%)                           |
| Jul   | 335                                      | 335                        | 0 (0%)                           |
| Aug   | 323                                      | 323                        | 0 (0%)                           |
| Sep   | 392                                      | 390                        | -2 (0%)                          |

Source: DSM2 Modeling (Node CHDMC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 51: Monthly Averages of Simulated Electrical Conductivity at Delta Mendota Canal at Tracy Pumping Plant (umhos/cm) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 600                                               | 595                           | -5 (-1%)                            |
| Nov   | 582                                               | 568                           | -14 (-2%)                           |
| Dec   | 643                                               | 633                           | -10 (-1%)                           |
| Jan   | 625                                               | 629                           | 4 (1%)                              |
| Feb   | 580                                               | 583                           | 3 (1%)                              |
| Mar   | 485                                               | 475                           | -10 (-2%)                           |
| Apr   | 382                                               | 373                           | -9 (-2%)                            |
| May   | 375                                               | 371                           | -5 (-1%)                            |
| Jun   | 358                                               | 352                           | -7 (-2%)                            |
| Jul   | 348                                               | 348                           | 0 (0%)                              |
| Aug   | 337                                               | 337                           | 0 (0%)                              |
| Sep   | 504                                               | 503                           | -1 (0%)                             |

Source: DSM2 Modeling (Node CHDMC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 52: Monthly Averages of Simulated Electrical Conductivity at Delta Mendota Canal at Tracy Pumping Plant (umhos/cm) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 559                                               | 560                           | 1 (0%)                              |
| Nov   | 568                                               | 559                           | -9 (-2%)                            |
| Dec   | 663                                               | 655                           | -8 (-1%)                            |
| Jan   | 661                                               | 669                           | 8 (1%)                              |
| Feb   | 571                                               | 581                           | 10 (2%)                             |
| Mar   | 522                                               | 504                           | -18 (-3%)                           |
| Apr   | 407                                               | 393                           | -14 (-3%)                           |
| May   | 376                                               | 377                           | 1 (0%)                              |
| Jun   | 360                                               | 363                           | 3 (1%)                              |
| Jul   | 324                                               | 325                           | 1 (0%)                              |
| Aug   | 374                                               | 374                           | 0 (0%)                              |
| Sep   | 519                                               | 520                           | 1 (0%)                              |

Source: DSM2 Modeling (Node CHDMC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 53: Monthly Averages of Simulated Electrical Conductivity at Delta Mendota Canal at Tracy Pumping Plant (umhos/cm) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 602                                      | 599                        | -3 (-1%)                         |
| Nov   | 612                                      | 600                        | -12 (-2%)                        |
| Dec   | 687                                      | 679                        | -8 (-1%)                         |
| Jan   | 699                                      | 700                        | 1 (0%)                           |
| Feb   | 744                                      | 732                        | -11 (-2%)                        |
| Mar   | 647                                      | 623                        | -24 (-4%)                        |
| Apr   | 503                                      | 490                        | -13 (-3%)                        |
| May   | 446                                      | 450                        | 4 (1%)                           |
| Jun   | 374                                      | 377                        | 4 (1%)                           |
| Jul   | 387                                      | 388                        | 1 (0%)                           |
| Aug   | 469                                      | 472                        | 2 (1%)                           |
| Sep   | 571                                      | 575                        | 4 (1%)                           |

Source: DSM2 Modeling (Node CHDMC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 54: Monthly Averages of Simulated Electrical Conductivity at Delta Mendota Canal at Tracy Pumping Plant (umhos/cm) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                            |                                  |
|-------|-----------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)              | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 638                                           | 636                        | -2 (0%)                          |
| Nov   | 640                                           | 633                        | -6 (-1%)                         |
| Dec   | 732                                           | 728                        | -4 (-1%)                         |
| Jan   | 789                                           | 787                        | -2 (0%)                          |
| Feb   | 878                                           | 870                        | -9 (-1%)                         |
| Mar   | 820                                           | 812                        | -8 (-1%)                         |
| Apr   | 611                                           | 617                        | 7 (1%)                           |
| May   | 524                                           | 534                        | 11 (2%)                          |
| Jun   | 499                                           | 505                        | 6 (1%)                           |
| Jul   | 500                                           | 500                        | 0 (0%)                           |
| Aug   | 547                                           | 544                        | -3 (-1%)                         |
| Sep   | 588                                           | 590                        | 2 (0%)                           |

Source: DSM2 Modeling (Node CHDMC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 55: Monthly Averages of Simulated Electrical Conductivity at Contra Costa Canal Pumping Plant #1 (umhos/cm) - Sacramento Valley All Years**

| Month | All Year Summary                 |                            |                                  |
|-------|----------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm) | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 734                              | 733                        | -1 (0%)                          |
| Nov   | 700                              | 690                        | -10 (-1%)                        |
| Dec   | 725                              | 711                        | -14 (-2%)                        |
| Jan   | 665                              | 665                        | 1 (0%)                           |
| Feb   | 545                              | 547                        | 2 (0%)                           |
| Mar   | 378                              | 381                        | 3 (1%)                           |
| Apr   | 328                              | 332                        | 4 (1%)                           |
| May   | 317                              | 318                        | 1 (0%)                           |
| Jun   | 304                              | 304                        | 0 (0%)                           |
| Jul   | 339                              | 339                        | 0 (0%)                           |
| Aug   | 417                              | 418                        | 1 (0%)                           |
| Sep   | 614                              | 615                        | 1 (0%)                           |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 56: Monthly Averages of Simulated Electrical Conductivity at Contra Costa Canal Pumping Plant #1 (umhos/cm) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 620                                      | 624                        | 4 (1%)                           |
| Nov   | 580                                      | 574                        | -6 (-1%)                         |
| Dec   | 571                                      | 556                        | -15 (-3%)                        |
| Jan   | 480                                      | 476                        | -4 (-1%)                         |
| Feb   | 440                                      | 441                        | 1 (0%)                           |
| Mar   | 387                                      | 390                        | 3 (1%)                           |
| Apr   | 341                                      | 343                        | 1 (0%)                           |
| May   | 293                                      | 291                        | -2 (-1%)                         |
| Jun   | 259                                      | 260                        | 1 (0%)                           |
| Jul   | 254                                      | 254                        | 1 (0%)                           |
| Aug   | 291                                      | 291                        | 0 (0%)                           |
| Sep   | 441                                      | 438                        | -3 (-1%)                         |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 57: Monthly Averages of Simulated Electrical Conductivity at Contra Costa Canal Pumping Plant #1 (umhos/cm) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 784                                               | 775                           | -9 (-1%)                            |
| Nov   | 717                                               | 699                           | -18 (-3%)                           |
| Dec   | 705                                               | 680                           | -25 (-4%)                           |
| Jan   | 676                                               | 669                           | -6 (-1%)                            |
| Feb   | 491                                               | 490                           | -1 (0%)                             |
| Mar   | 320                                               | 324                           | 4 (1%)                              |
| Apr   | 285                                               | 291                           | 6 (2%)                              |
| May   | 294                                               | 296                           | 2 (1%)                              |
| Jun   | 249                                               | 251                           | 3 (1%)                              |
| Jul   | 246                                               | 247                           | 1 (0%)                              |
| Aug   | 311                                               | 310                           | -1 (0%)                             |
| Sep   | 628                                               | 625                           | -3 (0%)                             |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 58: Monthly Averages of Simulated Electrical Conductivity at Contra Costa Canal Pumping Plant #1 (umhos/cm) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 713                                               | 715                           | 2 (0%)                              |
| Nov   | 699                                               | 689                           | -10 (-1%)                           |
| Dec   | 783                                               | 770                           | -13 (-2%)                           |
| Jan   | 695                                               | 716                           | 21 (3%)                             |
| Feb   | 485                                               | 489                           | 4 (1%)                              |
| Mar   | 337                                               | 333                           | -4 (-1%)                            |
| Apr   | 295                                               | 298                           | 3 (1%)                              |
| May   | 306                                               | 306                           | 0 (0%)                              |
| Jun   | 256                                               | 257                           | 1 (0%)                              |
| Jul   | 282                                               | 282                           | 0 (0%)                              |
| Aug   | 377                                               | 377                           | 1 (0%)                              |
| Sep   | 648                                               | 649                           | 1 (0%)                              |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 59: Monthly Averages of Simulated Electrical Conductivity at Contra Costa Canal Pumping Plant #1 (umhos/cm) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                               |                                     |
|-------|------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)      | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 801                                      | 796                           | -5 (-1%)                            |
| Nov   | 790                                      | 776                           | -14 (-2%)                           |
| Dec   | 811                                      | 800                           | -11 (-1%)                           |
| Jan   | 749                                      | 752                           | 3 (0%)                              |
| Feb   | 611                                      | 619                           | 8 (1%)                              |
| Mar   | 347                                      | 357                           | 9 (3%)                              |
| Apr   | 310                                      | 315                           | 5 (2%)                              |
| May   | 326                                      | 329                           | 4 (1%)                              |
| Jun   | 304                                      | 303                           | 0 (0%)                              |
| Jul   | 409                                      | 408                           | 0 (0%)                              |
| Aug   | 533                                      | 535                           | 2 (0%)                              |
| Sep   | 727                                      | 735                           | 8 (1%)                              |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 60: Monthly Averages of Simulated Electrical Conductivity at Contra Costa Canal Pumping Plant #1 (umhos/cm) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                               |                                     |
|-------|-----------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)           | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 854                                           | 851                           | -3 (0%)                             |
| Nov   | 812                                           | 807                           | -6 (-1%)                            |
| Dec   | 880                                           | 876                           | -3 (0%)                             |
| Jan   | 892                                           | 882                           | -10 (-1%)                           |
| Feb   | 797                                           | 793                           | -4 (0%)                             |
| Mar   | 510                                           | 508                           | -2 (0%)                             |
| Apr   | 410                                           | 414                           | 4 (1%)                              |
| May   | 391                                           | 395                           | 4 (1%)                              |
| Jun   | 510                                           | 508                           | -2 (0%)                             |
| Jul   | 577                                           | 576                           | -1 (0%)                             |
| Aug   | 673                                           | 673                           | 0 (0%)                              |
| Sep   | 767                                           | 771                           | 4 (1%)                              |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 61: Monthly Averages of Simulated Electrical Conductivity at West Canal at mouth of CCForebay Intake (umhos/cm) - Sacramento Valley All Years**

| Month | All Year Summary                 |                            |                                  |
|-------|----------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm) | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 564                              | 564                        | 0 (0%)                           |
| Nov   | 557                              | 550                        | -7 (-1%)                         |
| Dec   | 611                              | 604                        | -7 (-1%)                         |
| Jan   | 593                              | 596                        | 3 (0%)                           |
| Feb   | 565                              | 567                        | 2 (0%)                           |
| Mar   | 505                              | 498                        | -7 (-1%)                         |
| Apr   | 400                              | 399                        | -1 (0%)                          |
| May   | 372                              | 374                        | 2 (1%)                           |
| Jun   | 346                              | 348                        | 1 (0%)                           |
| Jul   | 333                              | 334                        | 0 (0%)                           |
| Aug   | 367                              | 367                        | 0 (0%)                           |
| Sep   | 484                              | 484                        | 1 (0%)                           |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 62: Monthly Averages of Simulated Electrical Conductivity at West Canal at mouth of CCForebay Intake (umhos/cm) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 497                                      | 500                        | 3 (1%)                           |
| Nov   | 480                                      | 475                        | -4 (-1%)                         |
| Dec   | 504                                      | 499                        | -5 (-1%)                         |
| Jan   | 454                                      | 457                        | 3 (1%)                           |
| Feb   | 396                                      | 403                        | 7 (2%)                           |
| Mar   | 373                                      | 368                        | -5 (-1%)                         |
| Apr   | 306                                      | 303                        | -3 (-1%)                         |
| May   | 294                                      | 294                        | 0 (0%)                           |
| Jun   | 312                                      | 314                        | 2 (1%)                           |
| Jul   | 289                                      | 289                        | 0 (0%)                           |
| Aug   | 287                                      | 287                        | 0 (0%)                           |
| Sep   | 373                                      | 371                        | -2 (0%)                          |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 63: Monthly Averages of Simulated Electrical Conductivity at West Canal at mouth of CCForebay Intake (umhos/cm) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 594                                               | 589                           | -6 (-1%)                            |
| Nov   | 568                                               | 556                           | -12 (-2%)                           |
| Dec   | 611                                               | 600                           | -12 (-2%)                           |
| Jan   | 579                                               | 582                           | 3 (1%)                              |
| Feb   | 515                                               | 518                           | 3 (1%)                              |
| Mar   | 437                                               | 431                           | -6 (-1%)                            |
| Apr   | 355                                               | 354                           | -2 (0%)                             |
| May   | 351                                               | 348                           | -3 (-1%)                            |
| Jun   | 318                                               | 314                           | -4 (-1%)                            |
| Jul   | 289                                               | 289                           | 0 (0%)                              |
| Aug   | 293                                               | 294                           | 0 (0%)                              |
| Sep   | 492                                               | 491                           | -1 (0%)                             |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 64: Monthly Averages of Simulated Electrical Conductivity at West Canal at mouth of CCForebay Intake (umhos/cm) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                               |                                     |
|-------|---------------------------------------------------|-------------------------------|-------------------------------------|
|       | No-Action Alternative<br>(umhos/cm)               | Proposed Action<br>(umhos/cm) | Change from No Action<br>(umhos/cm) |
| Oct   | 551                                               | 553                           | 2 (0%)                              |
| Nov   | 559                                               | 553                           | -6 (-1%)                            |
| Dec   | 645                                               | 636                           | -9 (-1%)                            |
| Jan   | 624                                               | 635                           | 10 (2%)                             |
| Feb   | 533                                               | 542                           | 9 (2%)                              |
| Mar   | 477                                               | 465                           | -12 (-3%)                           |
| Apr   | 385                                               | 378                           | -7 (-2%)                            |
| May   | 355                                               | 356                           | 0 (0%)                              |
| Jun   | 314                                               | 316                           | 2 (1%)                              |
| Jul   | 280                                               | 280                           | 0 (0%)                              |
| Aug   | 333                                               | 334                           | 1 (0%)                              |
| Sep   | 503                                               | 504                           | 1 (0%)                              |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 65: Monthly Averages of Simulated Electrical Conductivity at West Canal at mouth of CCForebay Intake (umhos/cm) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 602                                      | 600                        | -3 (0%)                          |
| Nov   | 610                                      | 600                        | -10 (-2%)                        |
| Dec   | 667                                      | 658                        | -8 (-1%)                         |
| Jan   | 662                                      | 664                        | 2 (0%)                           |
| Feb   | 691                                      | 682                        | -9 (-1%)                         |
| Mar   | 594                                      | 578                        | -16 (-3%)                        |
| Apr   | 468                                      | 466                        | -3 (-1%)                         |
| May   | 422                                      | 426                        | 4 (1%)                           |
| Jun   | 344                                      | 346                        | 2 (1%)                           |
| Jul   | 363                                      | 364                        | 1 (0%)                           |
| Aug   | 443                                      | 445                        | 2 (0%)                           |
| Sep   | 560                                      | 564                        | 4 (1%)                           |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 66: Monthly Averages of Simulated Electrical Conductivity at West Canal at mouth of CCForebay Intake (umhos/cm) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                            |                                  |
|-------|-----------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)              | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 636                                           | 635                        | -2 (0%)                          |
| Nov   | 633                                           | 629                        | -4 (-1%)                         |
| Dec   | 719                                           | 716                        | -4 (-1%)                         |
| Jan   | 766                                           | 761                        | -5 (-1%)                         |
| Feb   | 832                                           | 827                        | -5 (-1%)                         |
| Mar   | 758                                           | 763                        | 5 (1%)                           |
| Apr   | 566                                           | 577                        | 11 (2%)                          |
| May   | 505                                           | 515                        | 10 (2%)                          |
| Jun   | 489                                           | 493                        | 4 (1%)                           |
| Jul   | 492                                           | 491                        | -1 (0%)                          |
| Aug   | 537                                           | 533                        | -4 (-1%)                         |
| Sep   | 580                                           | 582                        | 2 (0%)                           |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 67: Monthly Averages of Simulated Electrical Conductivity at Middle River at Victoria Canal (umhos/cm) - Sacramento Valley All Years**

| Month | All Year Summary                 |                            |                                  |
|-------|----------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm) | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 437                              | 437                        | 0 (0%)                           |
| Nov   | 446                              | 442                        | -3 (-1%)                         |
| Dec   | 472                              | 466                        | -7 (-1%)                         |
| Jan   | 514                              | 515                        | 2 (0%)                           |
| Feb   | 508                              | 512                        | 5 (1%)                           |
| Mar   | 451                              | 462                        | 11 (2%)                          |
| Apr   | 394                              | 408                        | 14 (4%)                          |
| May   | 376                              | 378                        | 2 (0%)                           |
| Jun   | 346                              | 348                        | 2 (1%)                           |
| Jul   | 319                              | 319                        | 0 (0%)                           |
| Aug   | 322                              | 322                        | 0 (0%)                           |
| Sep   | 378                              | 379                        | 1 (0%)                           |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 68: Monthly Averages of Simulated Electrical Conductivity at Middle River at Victoria Canal (umhos/cm) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 404                                      | 405                        | 1 (0%)                           |
| Nov   | 400                                      | 398                        | -2 (-1%)                         |
| Dec   | 419                                      | 414                        | -4 (-1%)                         |
| Jan   | 445                                      | 447                        | 2 (0%)                           |
| Feb   | 417                                      | 426                        | 8 (2%)                           |
| Mar   | 382                                      | 385                        | 3 (1%)                           |
| Apr   | 331                                      | 332                        | 1 (0%)                           |
| May   | 301                                      | 301                        | 0 (0%)                           |
| Jun   | 319                                      | 321                        | 2 (1%)                           |
| Jul   | 314                                      | 314                        | 0 (0%)                           |
| Aug   | 286                                      | 286                        | 0 (0%)                           |
| Sep   | 319                                      | 318                        | -1 (0%)                          |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 69: Monthly Averages of Simulated Electrical Conductivity at Middle River at Victoria Canal (umhos/cm) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                            |                                  |
|-------|---------------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)                  | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 450                                               | 447                        | -2 (0%)                          |
| Nov   | 454                                               | 450                        | -4 (-1%)                         |
| Dec   | 466                                               | 456                        | -10 (-2%)                        |
| Jan   | 523                                               | 525                        | 2 (0%)                           |
| Feb   | 482                                               | 488                        | 6 (1%)                           |
| Mar   | 423                                               | 433                        | 10 (2%)                          |
| Apr   | 365                                               | 378                        | 13 (4%)                          |
| May   | 352                                               | 349                        | -3 (-1%)                         |
| Jun   | 334                                               | 333                        | -1 (0%)                          |
| Jul   | 303                                               | 302                        | -1 (0%)                          |
| Aug   | 278                                               | 279                        | 1 (0%)                           |
| Sep   | 369                                               | 369                        | 0 (0%)                           |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 70: Monthly Averages of Simulated Electrical Conductivity at Middle River at Victoria Canal (umhos/cm) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                            |                                  |
|-------|---------------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)                  | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 428                                               | 429                        | 1 (0%)                           |
| Nov   | 438                                               | 436                        | -3 (-1%)                         |
| Dec   | 486                                               | 477                        | -9 (-2%)                         |
| Jan   | 530                                               | 537                        | 7 (1%)                           |
| Feb   | 510                                               | 518                        | 8 (2%)                           |
| Mar   | 436                                               | 449                        | 13 (3%)                          |
| Apr   | 388                                               | 400                        | 12 (3%)                          |
| May   | 359                                               | 357                        | -1 (0%)                          |
| Jun   | 318                                               | 320                        | 2 (1%)                           |
| Jul   | 278                                               | 278                        | 1 (0%)                           |
| Aug   | 293                                               | 293                        | 0 (0%)                           |
| Sep   | 380                                               | 380                        | 1 (0%)                           |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 71: Monthly Averages of Simulated Electrical Conductivity at Middle River at Victoria Canal (umhos/cm) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                            |                                  |
|-------|------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)         | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 454                                      | 453                        | -1 (0%)                          |
| Nov   | 473                                      | 468                        | -5 (-1%)                         |
| Dec   | 498                                      | 490                        | -8 (-2%)                         |
| Jan   | 536                                      | 536                        | 1 (0%)                           |
| Feb   | 564                                      | 562                        | -2 (0%)                          |
| Mar   | 491                                      | 510                        | 18 (4%)                          |
| Apr   | 432                                      | 461                        | 29 (7%)                          |
| May   | 429                                      | 432                        | 4 (1%)                           |
| Jun   | 347                                      | 350                        | 3 (1%)                           |
| Jul   | 313                                      | 314                        | 1 (0%)                           |
| Aug   | 351                                      | 351                        | 0 (0%)                           |
| Sep   | 420                                      | 422                        | 1 (0%)                           |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 72: Monthly Averages of Simulated Electrical Conductivity at Middle River at Victoria Canal (umhos/cm) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                            |                                  |
|-------|-----------------------------------------------|----------------------------|----------------------------------|
|       | No-Action Alternative (umhos/cm)              | Proposed Action (umhos/cm) | Change from No Action (umhos/cm) |
| Oct   | 480                                           | 480                        | -1 (0%)                          |
| Nov   | 502                                           | 499                        | -3 (-1%)                         |
| Dec   | 542                                           | 537                        | -5 (-1%)                         |
| Jan   | 602                                           | 598                        | -4 (-1%)                         |
| Feb   | 643                                           | 646                        | 2 (0%)                           |
| Mar   | 586                                           | 600                        | 13 (2%)                          |
| Apr   | 510                                           | 534                        | 24 (5%)                          |
| May   | 502                                           | 512                        | 11 (2%)                          |
| Jun   | 449                                           | 455                        | 6 (1%)                           |
| Jul   | 407                                           | 406                        | -1 (0%)                          |
| Aug   | 433                                           | 431                        | -2 (0%)                          |
| Sep   | 452                                           | 454                        | 2 (0%)                           |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 73: Monthly Averages of Simulated Chloride Concentration at Contra Costa Canal Pumping Plant #1 (mg/L) - Sacramento Valley All Years**

| Month | All Year Summary              |                      |                               |
|-------|-------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 112                           | 112                  | 0 (0%)                        |
| Nov   | 111                           | 109                  | -2 (-2%)                      |
| Dec   | 130                           | 129                  | -2 (-1%)                      |
| Jan   | 129                           | 130                  | 1 (1%)                        |
| Feb   | 124                           | 124                  | 0 (0%)                        |
| Mar   | 106                           | 102                  | -4 (-3%)                      |
| Apr   | 72                            | 70                   | -2 (-3%)                      |
| May   | 63                            | 63                   | 1 (1%)                        |
| Jun   | 60                            | 60                   | 0 (1%)                        |
| Jul   | 57                            | 57                   | 0 (0%)                        |
| Aug   | 65                            | 65                   | 0 (0%)                        |
| Sep   | 92                            | 92                   | 0 (0%)                        |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 74: Monthly Averages of Simulated Chloride Concentration at Contra Costa Canal Pumping Plant #1 (mg/L) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                      |                               |
|-------|------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L            | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 95                                       | 96                   | 1 (1%)                        |
| Nov   | 92                                       | 90                   | -2 (-2%)                      |
| Dec   | 105                                      | 104                  | -1 (-1%)                      |
| Jan   | 95                                       | 97                   | 2 (2%)                        |
| Feb   | 76                                       | 78                   | 1 (2%)                        |
| Mar   | 65                                       | 63                   | -2 (-3%)                      |
| Apr   | 43                                       | 41                   | -2 (-4%)                      |
| May   | 40                                       | 40                   | 0 (0%)                        |
| Jun   | 51                                       | 51                   | 0 (0%)                        |
| Jul   | 48                                       | 48                   | 0 (0%)                        |
| Aug   | 44                                       | 44                   | 0 (0%)                        |
| Sep   | 63                                       | 63                   | -1 (-1%)                      |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 75: Monthly Averages of Simulated Chloride Concentration at Contra Costa Canal Pumping Plant #1 (mg/L) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                      |                               |
|-------|---------------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L                     | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 120                                               | 119                  | -1 (-1%)                      |
| Nov   | 115                                               | 111                  | -4 (-3%)                      |
| Dec   | 132                                               | 129                  | -3 (-2%)                      |
| Jan   | 127                                               | 128                  | 1 (1%)                        |
| Feb   | 115                                               | 115                  | 1 (1%)                        |
| Mar   | 88                                                | 86                   | -3 (-3%)                      |
| Apr   | 60                                                | 58                   | -2 (-4%)                      |
| May   | 59                                                | 57                   | -1 (-2%)                      |
| Jun   | 54                                                | 52                   | -2 (-3%)                      |
| Jul   | 51                                                | 51                   | 0 (0%)                        |
| Aug   | 48                                                | 48                   | 0 (0%)                        |
| Sep   | 94                                                | 93                   | 0 (0%)                        |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 76: Monthly Averages of Simulated Chloride Concentration at Contra Costa Canal Pumping Plant #1 (mg/L) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                      |                               |
|-------|---------------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L                     | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 109                                               | 109                  | 0 (0%)                        |
| Nov   | 111                                               | 109                  | -3 (-2%)                      |
| Dec   | 137                                               | 135                  | -2 (-2%)                      |
| Jan   | 137                                               | 139                  | 2 (2%)                        |
| Feb   | 112                                               | 115                  | 3 (2%)                        |
| Mar   | 99                                                | 94                   | -5 (-5%)                      |
| Apr   | 67                                                | 63                   | -4 (-6%)                      |
| May   | 59                                                | 59                   | 0 (0%)                        |
| Jun   | 54                                                | 55                   | 1 (2%)                        |
| Jul   | 45                                                | 45                   | 0 (1%)                        |
| Aug   | 58                                                | 58                   | 0 (0%)                        |
| Sep   | 98                                                | 98                   | 0 (0%)                        |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 77: Monthly Averages of Simulated Chloride Concentration at Contra Costa Canal Pumping Plant #1 (mg/L) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                      |                               |
|-------|------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L            | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 121                                      | 120                  | -1 (-1%)                      |
| Nov   | 123                                      | 120                  | -3 (-3%)                      |
| Dec   | 144                                      | 142                  | -2 (-1%)                      |
| Jan   | 147                                      | 147                  | 0 (0%)                        |
| Feb   | 159                                      | 156                  | -3 (-2%)                      |
| Mar   | 133                                      | 126                  | -7 (-5%)                      |
| Apr   | 93                                       | 90                   | -4 (-4%)                      |
| May   | 78                                       | 79                   | 1 (1%)                        |
| Jun   | 58                                       | 59                   | 1 (2%)                        |
| Jul   | 62                                       | 62                   | 0 (1%)                        |
| Aug   | 84                                       | 85                   | 1 (1%)                        |
| Sep   | 112                                      | 113                  | 1 (1%)                        |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 78: Monthly Averages of Simulated Chloride Concentration at Contra Costa Canal Pumping Plant #1 (mg/L) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                      |                               |
|-------|-----------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L                 | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 130                                           | 130                  | 0 (0%)                        |
| Nov   | 131                                           | 129                  | -2 (-1%)                      |
| Dec   | 156                                           | 155                  | -1 (-1%)                      |
| Jan   | 172                                           | 171                  | -1 (0%)                       |
| Feb   | 196                                           | 193                  | -2 (-1%)                      |
| Mar   | 180                                           | 178                  | -2 (-1%)                      |
| Apr   | 123                                           | 125                  | 2 (1%)                        |
| May   | 99                                            | 102                  | 3 (3%)                        |
| Jun   | 92                                            | 94                   | 2 (2%)                        |
| Jul   | 93                                            | 93                   | 0 (0%)                        |
| Aug   | 105                                           | 105                  | -1 (-1%)                      |
| Sep   | 117                                           | 117                  | 1 (1%)                        |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 79: Monthly Averages of Simulated Chloride Concentration at West Canal at mouth of CCForebay Intake (mg/L) - Sacramento Valley All Years**

| Month | All Year Summary              |                      |                               |
|-------|-------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 173                           | 172                  | 0 (0%)                        |
| Nov   | 164                           | 161                  | -3 (-2%)                      |
| Dec   | 170                           | 167                  | -4 (-2%)                      |
| Jan   | 154                           | 154                  | 0 (0%)                        |
| Feb   | 122                           | 123                  | 1 (0%)                        |
| Mar   | 77                            | 78                   | 1 (1%)                        |
| Apr   | 64                            | 65                   | 1 (1%)                        |
| May   | 61                            | 61                   | 0 (1%)                        |
| Jun   | 57                            | 57                   | 0 (0%)                        |
| Jul   | 67                            | 67                   | 0 (0%)                        |
| Aug   | 88                            | 88                   | 0 (0%)                        |
| Sep   | 141                           | 141                  | 0 (0%)                        |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 80: Monthly Averages of Simulated Chloride Concentration at West Canal at mouth of CCForebay Intake (mg/L) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                      |                               |
|-------|------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L            | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 142                                      | 143                  | 1 (1%)                        |
| Nov   | 131                                      | 130                  | -2 (-1%)                      |
| Dec   | 129                                      | 125                  | -4 (-3%)                      |
| Jan   | 105                                      | 104                  | -1 (-1%)                      |
| Feb   | 94                                       | 94                   | 0 (0%)                        |
| Mar   | 80                                       | 81                   | 1 (1%)                        |
| Apr   | 67                                       | 68                   | 0 (1%)                        |
| May   | 55                                       | 54                   | 0 (-1%)                       |
| Jun   | 45                                       | 46                   | 0 (1%)                        |
| Jul   | 44                                       | 44                   | 0 (0%)                        |
| Aug   | 54                                       | 54                   | 0 (0%)                        |
| Sep   | 94                                       | 93                   | -1 (-1%)                      |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 81: Monthly Averages of Simulated Chloride Concentration at West Canal at mouth of CCForebay Intake (mg/L) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                      |                               |
|-------|---------------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L                     | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 186                                               | 184                  | -2 (-1%)                      |
| Nov   | 168                                               | 163                  | -5 (-3%)                      |
| Dec   | 165                                               | 158                  | -7 (-4%)                      |
| Jan   | 157                                               | 155                  | -2 (-1%)                      |
| Feb   | 108                                               | 107                  | 0 (0%)                        |
| Mar   | 62                                                | 63                   | 1 (2%)                        |
| Apr   | 52                                                | 54                   | 2 (3%)                        |
| May   | 55                                                | 55                   | 1 (1%)                        |
| Jun   | 43                                                | 43                   | 1 (2%)                        |
| Jul   | 42                                                | 42                   | 0 (0%)                        |
| Aug   | 59                                                | 59                   | 0 (0%)                        |
| Sep   | 144                                               | 143                  | -1 (0%)                       |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 82: Monthly Averages of Simulated Chloride Concentration at West Canal at mouth of CCForebay Intake (mg/L) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                      |                               |
|-------|---------------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L                     | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 167                                               | 168                  | 1 (0%)                        |
| Nov   | 163                                               | 161                  | -3 (-2%)                      |
| Dec   | 186                                               | 182                  | -3 (-2%)                      |
| Jan   | 162                                               | 168                  | 6 (3%)                        |
| Feb   | 106                                               | 107                  | 1 (1%)                        |
| Mar   | 66                                                | 65                   | -1 (-2%)                      |
| Apr   | 55                                                | 56                   | 1 (2%)                        |
| May   | 58                                                | 58                   | 0 (0%)                        |
| Jun   | 45                                                | 45                   | 0 (0%)                        |
| Jul   | 52                                                | 52                   | 0 (0%)                        |
| Aug   | 77                                                | 77                   | 0 (0%)                        |
| Sep   | 150                                               | 150                  | 0 (0%)                        |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 83: Monthly Averages of Simulated Chloride Concentration at West Canal at mouth of CCForebay Intake (mg/L) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                      |                               |
|-------|------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L            | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 191                                      | 189                  | -1 (-1%)                      |
| Nov   | 188                                      | 184                  | -4 (-2%)                      |
| Dec   | 193                                      | 191                  | -3 (-2%)                      |
| Jan   | 177                                      | 178                  | 1 (1%)                        |
| Feb   | 140                                      | 142                  | 2 (2%)                        |
| Mar   | 69                                       | 72                   | 2 (4%)                        |
| Apr   | 59                                       | 60                   | 1 (2%)                        |
| May   | 63                                       | 64                   | 1 (2%)                        |
| Jun   | 57                                       | 57                   | 0 (0%)                        |
| Jul   | 86                                       | 85                   | 0 (0%)                        |
| Aug   | 119                                      | 119                  | 1 (1%)                        |
| Sep   | 171                                      | 173                  | 2 (1%)                        |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 84: Monthly Averages of Simulated Chloride Concentration at West Canal at mouth of CCForebay Intake (mg/L) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                      |                               |
|-------|-----------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L                 | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 205                                           | 204                  | -1 (0%)                       |
| Nov   | 194                                           | 192                  | -2 (-1%)                      |
| Dec   | 212                                           | 211                  | -1 (0%)                       |
| Jan   | 215                                           | 212                  | -3 (-1%)                      |
| Feb   | 189                                           | 188                  | -1 (-1%)                      |
| Mar   | 113                                           | 112                  | -1 (0%)                       |
| Apr   | 86                                            | 87                   | 1 (1%)                        |
| May   | 81                                            | 82                   | 1 (1%)                        |
| Jun   | 113                                           | 112                  | -1 (-1%)                      |
| Jul   | 131                                           | 130                  | 0 (0%)                        |
| Aug   | 156                                           | 156                  | 0 (0%)                        |
| Sep   | 181                                           | 183                  | 1 (1%)                        |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 85: Monthly Averages of Simulated Chloride Concentration at Middle River at Victoria Canal (mg/L) - Sacramento Valley All Years**

| Month | All Year Summary              |                      |                               |
|-------|-------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 110                           | 110                  | 0 (0%)                        |
| Nov   | 108                           | 106                  | -2 (-2%)                      |
| Dec   | 123                           | 121                  | -2 (-2%)                      |
| Jan   | 118                           | 119                  | 1 (1%)                        |
| Feb   | 110                           | 111                  | 0 (0%)                        |
| Mar   | 94                            | 92                   | -2 (-2%)                      |
| Apr   | 65                            | 65                   | 0 (-1%)                       |
| May   | 58                            | 58                   | 1 (1%)                        |
| Jun   | 51                            | 51                   | 0 (1%)                        |
| Jul   | 47                            | 47                   | 0 (0%)                        |
| Aug   | 56                            | 56                   | 0 (0%)                        |
| Sep   | 88                            | 88                   | 0 (0%)                        |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 86: Monthly Averages of Simulated Chloride Concentration at Middle River at Victoria Canal (mg/L) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                      |                               |
|-------|------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L            | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 92                                       | 93                   | 1 (1%)                        |
| Nov   | 87                                       | 86                   | -1 (-1%)                      |
| Dec   | 94                                       | 92                   | -1 (-1%)                      |
| Jan   | 80                                       | 81                   | 1 (1%)                        |
| Feb   | 64                                       | 66                   | 2 (3%)                        |
| Mar   | 58                                       | 57                   | -1 (-2%)                      |
| Apr   | 40                                       | 39                   | -1 (-2%)                      |
| May   | 36                                       | 36                   | 0 (0%)                        |
| Jun   | 41                                       | 42                   | 1 (1%)                        |
| Jul   | 35                                       | 35                   | 0 (0%)                        |
| Aug   | 35                                       | 35                   | 0 (0%)                        |
| Sep   | 58                                       | 57                   | 0 (-1%)                       |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 87: Monthly Averages of Simulated Chloride Concentration at Middle River at Victoria Canal (mg/L) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                      |                               |
|-------|---------------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L                     | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 118                                               | 117                  | -2 (-1%)                      |
| Nov   | 111                                               | 108                  | -3 (-3%)                      |
| Dec   | 123                                               | 120                  | -3 (-3%)                      |
| Jan   | 114                                               | 115                  | 1 (1%)                        |
| Feb   | 97                                                | 97                   | 1 (1%)                        |
| Mar   | 75                                                | 74                   | -2 (-2%)                      |
| Apr   | 53                                                | 53                   | 0 (-1%)                       |
| May   | 52                                                | 51                   | -1 (-2%)                      |
| Jun   | 43                                                | 42                   | -1 (-2%)                      |
| Jul   | 35                                                | 35                   | 0 (0%)                        |
| Aug   | 36                                                | 36                   | 0 (0%)                        |
| Sep   | 90                                                | 90                   | 0 (0%)                        |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 88: Monthly Averages of Simulated Chloride Concentration at Middle River at Victoria Canal (mg/L) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                      |                               |
|-------|---------------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L                     | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 106                                               | 107                  | 1 (0%)                        |
| Nov   | 109                                               | 107                  | -2 (-2%)                      |
| Dec   | 132                                               | 130                  | -2 (-2%)                      |
| Jan   | 127                                               | 129                  | 3 (2%)                        |
| Feb   | 102                                               | 104                  | 3 (2%)                        |
| Mar   | 86                                                | 83                   | -3 (-4%)                      |
| Apr   | 61                                                | 59                   | -2 (-3%)                      |
| May   | 53                                                | 53                   | 0 (0%)                        |
| Jun   | 42                                                | 42                   | 0 (1%)                        |
| Jul   | 33                                                | 33                   | 0 (0%)                        |
| Aug   | 47                                                | 47                   | 0 (0%)                        |
| Sep   | 93                                                | 94                   | 0 (0%)                        |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 89: Monthly Averages of Simulated Chloride Concentration at Middle River at Victoria Canal (mg/L) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                      |                               |
|-------|------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L            | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 121                                      | 120                  | -1 (-1%)                      |
| Nov   | 123                                      | 120                  | -3 (-2%)                      |
| Dec   | 138                                      | 136                  | -2 (-2%)                      |
| Jan   | 137                                      | 137                  | 0 (0%)                        |
| Feb   | 145                                      | 142                  | -2 (-2%)                      |
| Mar   | 118                                      | 114                  | -4 (-4%)                      |
| Apr   | 84                                       | 83                   | -1 (-1%)                      |
| May   | 71                                       | 72                   | 1 (2%)                        |
| Jun   | 50                                       | 51                   | 0 (1%)                        |
| Jul   | 55                                       | 55                   | 0 (0%)                        |
| Aug   | 77                                       | 78                   | 1 (1%)                        |
| Sep   | 109                                      | 110                  | 1 (1%)                        |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

**Table 90: Monthly Averages of Simulated Chloride Concentration at Middle River at Victoria Canal (mg/L) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                      |                               |
|-------|-----------------------------------------------|----------------------|-------------------------------|
|       | No-Action Alternative<br>mg/L                 | Proposed Action mg/L | Change from No Action<br>mg/L |
| Oct   | 130                                           | 129                  | 0 (0%)                        |
| Nov   | 129                                           | 128                  | -1 (-1%)                      |
| Dec   | 152                                           | 151                  | -1 (-1%)                      |
| Jan   | 165                                           | 164                  | -1 (-1%)                      |
| Feb   | 183                                           | 182                  | -1 (-1%)                      |
| Mar   | 163                                           | 164                  | 1 (1%)                        |
| Apr   | 111                                           | 114                  | 3 (3%)                        |
| May   | 94                                            | 97                   | 3 (3%)                        |
| Jun   | 90                                            | 91                   | 1 (1%)                        |
| Jul   | 90                                            | 90                   | 0 (0%)                        |
| Aug   | 103                                           | 102                  | -1 (-1%)                      |
| Sep   | 114                                           | 115                  | 1 (1%)                        |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter

Table 91: Simulated Electrical Conductivity at Sacramento River at Collinsville (umhos/cm) - No-Action Alternative

| WY           | Year Type    | Oct    | Nov    | Dec   | Jan   | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Sep   |
|--------------|--------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1922         | Above Normal | 6,947  | 7,243  | 4,338 | 2,969 | 500   | 223   | 231   | 186   | 187   | 930   | 3,873 | 6,289 |
| 1923         | Below Normal | 7,245  | 7,158  | 1,253 | 242   | 477   | 1,003 | 578   | 468   | 1,614 | 2,383 | 4,461 | 6,228 |
| 1924         | Critical     | 7,070  | 8,002  | 7,774 | 6,379 | 2,892 | 1,849 | 3,439 | 5,829 | 6,189 | 6,785 | 7,411 | 8,392 |
| 1925         | Dry          | 10,231 | 10,054 | 7,524 | 6,683 | 439   | 213   | 280   | 690   | 1,668 | 3,670 | 6,183 | 8,258 |
| 1926         | Dry          | 9,175  | 8,827  | 8,822 | 4,981 | 477   | 809   | 653   | 893   | 3,397 | 5,254 | 6,366 | 7,561 |
| 1927         | Wet          | 8,829  | 3,567  | 1,925 | 436   | 187   | 189   | 181   | 225   | 921   | 1,198 | 3,478 | 6,030 |
| 1928         | Above Normal | 7,352  | 4,829  | 3,720 | 1,401 | 523   | 186   | 199   | 379   | 1,726 | 2,216 | 4,009 | 6,169 |
| 1929         | Critical     | 7,867  | 8,088  | 7,258 | 6,722 | 3,808 | 2,536 | 3,602 | 4,108 | 4,943 | 6,116 | 7,382 | 8,737 |
| 1930         | Dry          | 9,990  | 10,234 | 5,892 | 2,179 | 971   | 261   | 685   | 1,746 | 3,894 | 4,719 | 6,717 | 8,689 |
| 1931         | Critical     | 9,164  | 8,744  | 8,513 | 6,842 | 5,132 | 4,762 | 4,996 | 6,591 | 6,468 | 6,534 | 7,496 | 8,438 |
| 1932         | Dry          | 10,050 | 9,916  | 3,324 | 1,167 | 861   | 1,016 | 1,599 | 1,373 | 1,634 | 3,469 | 6,272 | 8,133 |
| 1933         | Critical     | 8,573  | 8,362  | 8,345 | 5,248 | 3,828 | 2,930 | 2,310 | 3,644 | 5,164 | 6,322 | 7,331 | 8,506 |
| 1934         | Critical     | 10,032 | 9,938  | 7,337 | 2,994 | 1,366 | 1,211 | 1,646 | 3,750 | 4,393 | 5,770 | 7,530 | 8,924 |
| 1935         | Below Normal | 9,744  | 9,135  | 8,342 | 1,477 | 791   | 435   | 192   | 210   | 760   | 2,000 | 4,674 | 7,347 |
| 1936         | Below Normal | 8,818  | 8,654  | 7,895 | 769   | 218   | 215   | 241   | 398   | 1,404 | 2,154 | 4,558 | 6,647 |
| 1937         | Below Normal | 8,166  | 8,498  | 8,111 | 5,308 | 516   | 237   | 236   | 410   | 1,017 | 2,673 | 5,107 | 6,975 |
| 1938         | Wet          | 8,135  | 2,357  | 203   | 203   | 207   | 191   | 194   | 189   | 197   | 919   | 3,819 | 3,185 |
| 1939         | Dry          | 2,680  | 4,581  | 5,710 | 5,601 | 3,796 | 1,893 | 1,956 | 2,129 | 3,963 | 3,494 | 5,856 | 8,605 |
| 1940         | Above Normal | 8,414  | 8,035  | 7,410 | 1,164 | 216   | 185   | 181   | 328   | 1,543 | 1,362 | 3,380 | 6,460 |
| 1941         | Wet          | 7,484  | 7,977  | 875   | 194   | 192   | 189   | 185   | 186   | 346   | 1,543 | 4,108 | 4,357 |
| 1942         | Wet          | 4,984  | 6,623  | 553   | 194   | 182   | 208   | 191   | 193   | 232   | 1,272 | 4,132 | 3,730 |
| 1943         | Wet          | 4,447  | 3,885  | 571   | 194   | 192   | 193   | 203   | 287   | 1,418 | 2,177 | 4,113 | 6,908 |
| 1944         | Dry          | 8,346  | 8,048  | 7,363 | 6,075 | 1,309 | 498   | 1,315 | 1,910 | 3,125 | 3,675 | 5,552 | 7,488 |
| 1945         | Below Normal | 8,818  | 7,161  | 4,218 | 4,604 | 553   | 243   | 619   | 1,063 | 1,892 | 2,346 | 4,550 | 6,694 |
| 1946         | Below Normal | 7,656  | 7,195  | 451   | 185   | 210   | 487   | 827   | 898   | 1,930 | 2,473 | 4,492 | 7,336 |
| 1947         | Dry          | 8,514  | 8,768  | 5,450 | 4,945 | 2,636 | 859   | 1,123 | 2,041 | 3,558 | 3,466 | 5,778 | 8,494 |
| 1948         | Below Normal | 9,220  | 8,477  | 8,002 | 5,489 | 1,340 | 1,231 | 510   | 297   | 911   | 2,479 | 3,912 | 5,588 |
| 1949         | Dry          | 7,396  | 8,106  | 7,096 | 6,438 | 1,442 | 212   | 721   | 1,238 | 2,352 | 3,929 | 5,243 | 7,364 |
| 1950         | Below Normal | 8,755  | 8,571  | 8,073 | 3,695 | 379   | 394   | 604   | 746   | 1,730 | 3,069 | 5,183 | 6,541 |
| 1951         | Above Normal | 7,763  | 638    | 188   | 204   | 193   | 198   | 433   | 679   | 1,655 | 1,486 | 3,545 | 5,839 |
| 1952         | Wet          | 6,856  | 7,278  | 844   | 202   | 185   | 192   | 187   | 180   | 187   | 689   | 2,931 | 1,707 |
| 1953         | Wet          | 2,621  | 5,296  | 760   | 184   | 213   | 418   | 694   | 290   | 393   | 1,493 | 4,241 | 4,598 |
| 1954         | Above Normal | 5,080  | 5,349  | 5,330 | 1,004 | 190   | 183   | 183   | 224   | 1,505 | 1,659 | 3,552 | 6,300 |
| 1955         | Dry          | 7,989  | 7,503  | 2,206 | 1,104 | 1,250 | 2,059 | 2,601 | 2,286 | 3,395 | 4,031 | 6,275 | 8,002 |
| 1956         | Wet          | 8,461  | 8,733  | 498   | 190   | 192   | 190   | 321   | 192   | 337   | 1,474 | 4,280 | 3,537 |
| 1957         | Above Normal | 3,722  | 5,478  | 5,901 | 5,141 | 637   | 189   | 273   | 523   | 1,494 | 1,992 | 3,998 | 6,929 |
| 1958         | Wet          | 3,953  | 3,434  | 1,583 | 251   | 187   | 189   | 191   | 183   | 188   | 1,127 | 3,562 | 2,108 |
| 1959         | Below Normal | 2,840  | 5,461  | 6,503 | 1,022 | 199   | 235   | 1,287 | 2,286 | 2,992 | 2,421 | 4,578 | 7,510 |
| 1960         | Dry          | 8,854  | 8,464  | 7,239 | 6,880 | 1,253 | 576   | 1,125 | 1,737 | 3,552 | 3,548 | 5,819 | 7,969 |
| 1961         | Dry          | 8,548  | 8,293  | 5,895 | 5,638 | 1,085 | 669   | 1,416 | 2,442 | 3,999 | 4,437 | 4,835 | 7,272 |
| 1962         | Below Normal | 8,804  | 9,060  | 6,117 | 6,108 | 584   | 273   | 909   | 1,213 | 2,654 | 2,099 | 4,103 | 7,552 |
| 1963         | Wet          | 1,094  | 1,418  | 749   | 1,272 | 265   | 205   | 184   | 227   | 754   | 1,038 | 3,283 | 5,975 |
| 1964         | Dry          | 6,894  | 2,006  | 2,599 | 1,514 | 1,147 | 2,256 | 2,571 | 1,979 | 3,456 | 4,004 | 5,304 | 7,752 |
| 1965         | Wet          | 8,454  | 6,946  | 413   | 183   | 194   | 275   | 192   | 228   | 1,338 | 2,043 | 4,328 | 6,668 |
| 1966         | Below Normal | 8,096  | 3,437  | 2,300 | 476   | 282   | 301   | 1,063 | 1,410 | 2,626 | 2,343 | 4,060 | 6,623 |
| 1967         | Wet          | 7,272  | 6,816  | 971   | 221   | 190   | 187   | 202   | 188   | 188   | 373   | 2,501 | 1,686 |
| 1968         | Below Normal | 2,165  | 5,152  | 5,453 | 1,030 | 192   | 191   | 507   | 1,583 | 2,771 | 2,193 | 4,129 | 7,302 |
| 1969         | Wet          | 8,096  | 7,226  | 2,464 | 210   | 205   | 223   | 211   | 197   | 211   | 1,012 | 3,942 | 2,992 |
| 1970         | Wet          | 2,586  | 4,535  | 386   | 182   | 188   | 187   | 337   | 929   | 1,863 | 1,584 | 3,605 | 6,868 |
| 1971         | Wet          | 7,964  | 4,301  | 312   | 184   | 190   | 189   | 244   | 226   | 736   | 1,146 | 3,504 | 3,982 |
| 1972         | Below Normal | 5,421  | 7,194  | 5,399 | 3,999 | 1,694 | 274   | 916   | 2,155 | 3,069 | 2,791 | 4,494 | 7,271 |
| 1973         | Above Normal | 8,815  | 3,731  | 805   | 205   | 194   | 187   | 313   | 608   | 1,240 | 1,604 | 3,984 | 6,139 |
| 1974         | Wet          | 6,993  | 501    | 183   | 180   | 185   | 182   | 182   | 282   | 566   | 1,430 | 4,130 | 2,973 |
| 1975         | Wet          | 3,592  | 5,534  | 4,050 | 3,074 | 351   | 186   | 216   | 224   | 323   | 1,463 | 4,176 | 3,189 |
| 1976         | Critical     | 3,018  | 4,024  | 4,727 | 5,517 | 4,235 | 2,008 | 3,072 | 5,426 | 6,940 | 6,412 | 7,806 | 9,784 |
| 1977         | Critical     | 9,616  | 9,653  | 8,405 | 7,758 | 6,254 | 5,158 | 4,989 | 6,603 | 7,876 | 7,824 | 8,203 | 9,261 |
| 1978         | Above Normal | 9,761  | 9,752  | 6,720 | 382   | 200   | 202   | 214   | 281   | 579   | 1,744 | 4,355 | 6,539 |
| 1979         | Below Normal | 7,560  | 8,156  | 7,219 | 2,432 | 295   | 214   | 397   | 652   | 1,091 | 2,691 | 5,263 | 7,514 |
| 1980         | Above Normal | 8,319  | 7,039  | 3,393 | 236   | 199   | 210   | 308   | 536   | 834   | 1,912 | 4,569 | 6,536 |
| 1981         | Dry          | 7,970  | 8,403  | 7,243 | 1,552 | 387   | 273   | 854   | 2,176 | 3,691 | 3,901 | 5,963 | 8,134 |
| 1982         | Wet          | 8,038  | 1,155  | 185   | 196   | 188   | 201   | 185   | 189   | 272   | 1,406 | 4,343 | 1,556 |
| 1983         | Wet          | 398    | 203    | 196   | 221   | 197   | 186   | 196   | 194   | 195   | 208   | 344   | 263   |
| 1984         | Wet          | 722    | 203    | 184   | 200   | 198   | 188   | 313   | 882   | 1,810 | 1,667 | 3,820 | 6,889 |
| 1985         | Dry          | 7,369  | 1,249  | 675   | 2,355 | 2,695 | 1,909 | 2,112 | 1,697 | 3,427 | 3,805 | 5,024 | 7,084 |
| 1986         | Wet          | 7,681  | 7,582  | 4,706 | 1,880 | 191   | 193   | 248   | 571   | 1,317 | 2,132 | 4,398 | 6,536 |
| 1987         | Dry          | 7,880  | 8,303  | 8,187 | 5,977 | 2,592 | 512   | 986   | 2,266 | 3,878 | 3,859 | 6,179 | 8,481 |
| 1988         | Critical     | 9,306  | 9,077  | 6,220 | 1,247 | 1,149 | 2,296 | 3,222 | 4,033 | 4,477 | 5,666 | 7,404 | 8,672 |
| 1989         | Dry          | 10,321 | 9,165  | 9,128 | 5,816 | 4,527 | 413   | 334   | 1,105 | 3,050 | 3,554 | 4,956 | 7,602 |
| 1990         | Critical     | 8,848  | 8,782  | 6,988 | 3,656 | 2,227 | 2,665 | 2,763 | 4,765 | 7,114 | 6,888 | 7,525 | 8,920 |
| 1991         | Critical     | 10,024 | 10,029 | 9,874 | 9,242 | 7,517 | 1,197 | 924   | 3,894 | 7,226 | 7,140 | 7,385 | 8,932 |
| 1992         | Critical     | 10,615 | 9,681  | 9,850 | 8,053 | 1,206 | 683   | 1,359 | 3,654 | 4,492 | 6,168 | 8,292 | 9,496 |
| 1993         | Above Normal | 9,505  | 9,120  | 7,646 | 472   | 207   | 206   | 192   | 213   | 265   | 1,325 | 4,209 | 6,419 |
| 1994         | Critical     | 7,626  | 8,238  | 7,085 | 6,027 | 2,447 | 1,573 | 2,142 | 3,087 | 4,472 | 5,357 | 4,834 | 6,865 |
| 1995         | Wet          | 9,019  | 8,212  | 7,122 | 380   | 191   | 181   | 192   | 182   | 187   | 249   | 1,299 | 1,227 |
| 1996         | Wet          | 2,568  | 5,555  | 1,503 | 214   | 190   | 192   | 188   | 188   | 416   | 1,786 | 4,445 | 4,246 |
| 1997         | Wet          | 5,405  | 4,934  | 248   | 186   | 200   | 231   | 491   | 989   | 2,356 | 2,358 | 4,253 | 7,479 |
| 1998         | Wet          | 8,662  | 7,875  | 3,861 | 294   | 189   | 199   | 192   | 191   | 187   | 214   | 601   | 388   |
| 1999         | Wet          | 1,064  | 546    | 210   | 190   | 188   | 184   | 202   | 331   | 1,080 | 1,637 | 3,958 | 4,941 |
| 2000         | Above Normal | 5,977  | 6,493  | 6,685 | 1,127 | 195   | 189   | 273   | 482   | 1,820 | 1,791 | 3,808 | 6,527 |
| 2001         | Dry          | 7,419  | 7,535  | 5,485 | 3,540 | 1,191 | 417   | 1,074 | 2,492 | 4,475 | 4,475 | 6,330 | 8,543 |
| 2002         | Dry          | 9,263  | 9,182  | 1,413 | 203   | 208   | 373   | 804   | 1,439 | 3,091 | 3,804 | 4,864 | 7,662 |
| 2003         | Above Normal | 8,629  | 4,949  | 616   | 188   | 204   | 329   | 308   | 190   | 702   | 1,387 | 3,639 | 6,048 |
| Average      |              | 7,190  | 6,584  | 4,406 | 2,500 | 1,058 | 703   | 914   | 1,385 | 2,282 | 2,869 | 4,807 | 6,407 |
| Wet          |              | 5,592  | 4,719  | 1,368 | 435   | 201   | 206   | 243   | 313   | 693   | 1,294 | 3,523 | 4,001 |
| Above Normal |              | 7,524  | 6,055  | 4,396 | 1,208 | 288   | 207   | 259   | 386   | 1,129 | 1,617 | 3,910 | 6,349 |
| Below Normal |              | 7,379  | 7,379  | 5,667 | 2,631 | 552   | 410   | 635   | 985   | 1,890 | 2,437 | 4,540 | 6,938 |
| Dry          |              | 8,272  | 7,702  | 5,625 | 4,036 | 1,570 | 845   | 1,234 | 1,758 | 3,299 | 3,950 | 5,751 | 7,950 |
| Critical     |              | 8,480  | 8,552  | 7,698 | 5,807 | 3,505 | 2,406 | 2,872 | 4,615 | 5,813 | 6,415 | 7,383 | 8,744 |

Source: DSM2 Modeling (Node RSAC081)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 92: Simulated Electrical Conductivity at Sacramento River at Collinsville (umhos/cm) - Proposed Action

| WY           | Year Type    | Oct    | Nov    | Dec   | Jan   | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Sep   |
|--------------|--------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1922         | Above Normal | 6,921  | 7,221  | 4,329 | 2,967 | 499   | 231   | 186   | 187   | 930   | 3,873 | 6,292 | 6,292 |
| 1923         | Below Normal | 7,215  | 7,165  | 1,255 | 240   | 470   | 990   | 539   | 459   | 1,608 | 2,419 | 4,428 | 6,175 |
| 1924         | Critical     | 7,099  | 8,032  | 7,782 | 6,371 | 2,897 | 1,865 | 3,439 | 5,831 | 6,190 | 6,771 | 7,406 | 8,386 |
| 1925         | Dry          | 10,217 | 9,738  | 7,468 | 6,794 | 442   | 217   | 275   | 688   | 1,665 | 3,668 | 6,197 | 8,276 |
| 1926         | Dry          | 9,152  | 8,793  | 8,805 | 4,970 | 475   | 817   | 591   | 895   | 3,416 | 5,072 | 6,355 | 7,601 |
| 1927         | Wet          | 8,828  | 3,505  | 1,891 | 439   | 187   | 189   | 181   | 225   | 916   | 1,195 | 3,478 | 6,033 |
| 1928         | Above Normal | 7,343  | 4,710  | 3,622 | 1,383 | 519   | 186   | 199   | 378   | 1,727 | 2,214 | 4,005 | 6,221 |
| 1929         | Critical     | 7,859  | 8,112  | 7,227 | 6,670 | 3,808 | 2,532 | 3,590 | 4,125 | 4,942 | 6,109 | 7,381 | 8,737 |
| 1930         | Dry          | 9,970  | 10,184 | 5,897 | 2,193 | 969   | 258   | 674   | 1,742 | 3,901 | 4,740 | 6,729 | 8,710 |
| 1931         | Critical     | 9,182  | 8,755  | 8,512 | 6,842 | 5,134 | 4,768 | 4,993 | 6,585 | 6,430 | 6,505 | 7,496 | 8,446 |
| 1932         | Dry          | 10,012 | 9,882  | 3,305 | 1,164 | 818   | 1,000 | 1,610 | 1,282 | 1,600 | 3,466 | 6,255 | 8,123 |
| 1933         | Critical     | 8,557  | 8,350  | 8,334 | 5,072 | 3,695 | 2,870 | 2,297 | 3,614 | 5,159 | 6,286 | 7,366 | 8,487 |
| 1934         | Critical     | 9,993  | 9,842  | 7,371 | 2,776 | 1,239 | 1,188 | 1,634 | 3,763 | 4,394 | 5,767 | 7,536 | 8,932 |
| 1935         | Below Normal | 9,717  | 8,887  | 8,607 | 1,605 | 804   | 414   | 192   | 210   | 756   | 1,990 | 4,684 | 7,043 |
| 1936         | Below Normal | 8,586  | 8,617  | 8,064 | 798   | 217   | 215   | 238   | 395   | 1,405 | 2,072 | 4,498 | 6,620 |
| 1937         | Below Normal | 8,147  | 8,523  | 8,198 | 5,855 | 597   | 237   | 236   | 408   | 1,032 | 2,666 | 5,099 | 7,458 |
| 1938         | Wet          | 8,522  | 2,280  | 199   | 203   | 207   | 192   | 194   | 189   | 197   | 921   | 3,822 | 3,127 |
| 1939         | Dry          | 2,620  | 4,563  | 5,697 | 5,614 | 3,785 | 1,786 | 1,865 | 2,110 | 3,948 | 3,529 | 5,876 | 8,623 |
| 1940         | Above Normal | 8,408  | 8,065  | 7,488 | 1,180 | 216   | 185   | 182   | 314   | 1,520 | 1,359 | 3,386 | 6,152 |
| 1941         | Wet          | 6,985  | 7,831  | 917   | 194   | 191   | 189   | 184   | 186   | 351   | 1,540 | 4,105 | 4,347 |
| 1942         | Wet          | 4,978  | 6,671  | 539   | 193   | 181   | 205   | 191   | 192   | 231   | 1,270 | 4,130 | 3,728 |
| 1943         | Wet          | 4,443  | 3,786  | 551   | 192   | 191   | 191   | 202   | 286   | 1,410 | 2,197 | 4,136 | 6,804 |
| 1944         | Dry          | 7,885  | 8,095  | 7,258 | 5,953 | 1,325 | 486   | 1,165 | 1,858 | 3,097 | 3,685 | 5,806 | 8,023 |
| 1945         | Below Normal | 9,162  | 7,142  | 4,162 | 4,602 | 553   | 241   | 632   | 1,077 | 1,888 | 2,351 | 4,554 | 6,701 |
| 1946         | Below Normal | 7,583  | 6,974  | 434   | 185   | 209   | 447   | 735   | 896   | 1,924 | 2,485 | 4,426 | 7,308 |
| 1947         | Dry          | 8,517  | 8,767  | 5,429 | 4,924 | 2,641 | 846   | 1,174 | 1,953 | 3,584 | 3,547 | 5,867 | 8,524 |
| 1948         | Below Normal | 9,273  | 8,444  | 8,635 | 5,762 | 1,381 | 1,198 | 466   | 296   | 822   | 2,365 | 3,906 | 5,735 |
| 1949         | Dry          | 7,490  | 7,996  | 6,577 | 6,475 | 4,963 | 477   | 642   | 1,193 | 2,327 | 3,905 | 5,247 | 7,270 |
| 1950         | Below Normal | 8,743  | 8,606  | 8,129 | 3,726 | 387   | 387   | 555   | 694   | 1,676 | 3,095 | 5,150 | 6,520 |
| 1951         | Above Normal | 7,708  | 614    | 187   | 204   | 193   | 197   | 430   | 702   | 1,652 | 1,489 | 3,559 | 5,848 |
| 1952         | Wet          | 6,826  | 7,308  | 846   | 202   | 185   | 191   | 186   | 180   | 187   | 692   | 2,930 | 1,701 |
| 1953         | Wet          | 2,590  | 5,284  | 758   | 184   | 213   | 402   | 661   | 289   | 392   | 1,486 | 4,299 | 4,340 |
| 1954         | Above Normal | 4,861  | 5,157  | 5,192 | 968   | 189   | 183   | 183   | 224   | 1,504 | 1,657 | 3,558 | 6,295 |
| 1955         | Dry          | 7,973  | 7,329  | 2,130 | 1,095 | 1,237 | 1,970 | 2,439 | 2,314 | 3,414 | 4,377 | 6,555 | 8,223 |
| 1956         | Wet          | 8,562  | 8,780  | 496   | 190   | 192   | 190   | 319   | 192   | 295   | 1,389 | 4,297 | 3,274 |
| 1957         | Above Normal | 3,030  | 4,944  | 5,721 | 5,189 | 650   | 190   | 277   | 493   | 1,470 | 1,962 | 3,971 | 6,907 |
| 1958         | Wet          | 3,919  | 3,329  | 1,536 | 249   | 187   | 189   | 190   | 183   | 188   | 1,129 | 3,561 | 2,100 |
| 1959         | Below Normal | 2,807  | 5,452  | 6,387 | 1,001 | 199   | 238   | 1,207 | 2,253 | 3,042 | 2,412 | 4,543 | 7,493 |
| 1960         | Dry          | 8,887  | 8,480  | 7,291 | 6,927 | 1,255 | 551   | 1,101 | 1,733 | 3,541 | 3,520 | 5,797 | 7,970 |
| 1961         | Dry          | 8,557  | 8,299  | 5,896 | 5,645 | 1,059 | 643   | 1,389 | 2,415 | 3,982 | 4,343 | 4,873 | 7,293 |
| 1962         | Below Normal | 8,830  | 9,104  | 6,150 | 6,134 | 585   | 266   | 851   | 1,174 | 2,733 | 2,129 | 4,086 | 7,533 |
| 1963         | Wet          | 1,113  | 1,393  | 736   | 1,272 | 265   | 205   | 184   | 227   | 752   | 1,037 | 3,282 | 5,978 |
| 1964         | Dry          | 6,915  | 1,935  | 2,521 | 1,494 | 1,147 | 2,166 | 2,558 | 1,974 | 3,439 | 3,986 | 5,303 | 7,751 |
| 1965         | Wet          | 8,470  | 6,838  | 402   | 183   | 194   | 273   | 192   | 226   | 1,340 | 2,055 | 4,325 | 6,696 |
| 1966         | Below Normal | 8,083  | 3,413  | 2,245 | 477   | 282   | 314   | 984   | 1,388 | 2,624 | 2,339 | 4,057 | 6,609 |
| 1967         | Wet          | 7,236  | 6,667  | 948   | 220   | 190   | 187   | 201   | 188   | 187   | 365   | 2,473 | 1,674 |
| 1968         | Below Normal | 2,138  | 5,014  | 5,339 | 1,022 | 192   | 190   | 503   | 1,571 | 2,804 | 2,185 | 4,109 | 7,295 |
| 1969         | Wet          | 8,098  | 7,213  | 2,453 | 209   | 205   | 223   | 211   | 197   | 211   | 1,039 | 3,960 | 2,989 |
| 1970         | Wet          | 2,557  | 4,406  | 374   | 182   | 188   | 187   | 338   | 933   | 1,885 | 1,571 | 3,594 | 6,887 |
| 1971         | Wet          | 7,970  | 4,227  | 303   | 184   | 191   | 187   | 237   | 223   | 733   | 1,142 | 3,500 | 3,982 |
| 1972         | Below Normal | 5,424  | 7,085  | 5,332 | 3,986 | 1,700 | 278   | 869   | 2,133 | 3,078 | 2,813 | 4,476 | 7,253 |
| 1973         | Above Normal | 8,804  | 3,844  | 842   | 205   | 194   | 187   | 307   | 539   | 1,240 | 1,617 | 3,976 | 6,593 |
| 1974         | Wet          | 7,487  | 506    | 183   | 180   | 185   | 182   | 182   | 278   | 556   | 1,435 | 4,140 | 2,949 |
| 1975         | Wet          | 3,484  | 5,458  | 4,010 | 3,124 | 357   | 186   | 215   | 223   | 310   | 1,439 | 4,162 | 3,180 |
| 1976         | Critical     | 3,011  | 3,911  | 4,624 | 5,476 | 4,222 | 1,937 | 2,986 | 5,393 | 6,976 | 6,349 | 7,793 | 9,808 |
| 1977         | Critical     | 9,567  | 9,608  | 8,520 | 7,858 | 6,282 | 5,167 | 4,993 | 6,605 | 7,876 | 7,825 | 8,201 | 9,258 |
| 1978         | Above Normal | 9,742  | 9,728  | 6,725 | 383   | 199   | 200   | 211   | 284   | 528   | 1,670 | 4,323 | 6,527 |
| 1979         | Below Normal | 7,567  | 8,173  | 6,995 | 2,373 | 299   | 214   | 395   | 627   | 1,080 | 2,696 | 5,288 | 7,517 |
| 1980         | Above Normal | 8,325  | 6,897  | 3,285 | 233   | 199   | 210   | 310   | 519   | 687   | 1,771 | 4,524 | 6,496 |
| 1981         | Dry          | 7,949  | 8,407  | 7,122 | 1,443 | 373   | 276   | 790   | 2,162 | 3,659 | 3,936 | 5,938 | 8,092 |
| 1982         | Wet          | 8,048  | 1,158  | 185   | 196   | 188   | 201   | 184   | 190   | 264   | 1,383 | 4,326 | 1,549 |
| 1983         | Wet          | 395    | 203    | 196   | 221   | 196   | 186   | 196   | 194   | 195   | 208   | 344   | 262   |
| 1984         | Wet          | 713    | 202    | 184   | 200   | 198   | 188   | 315   | 890   | 1,794 | 1,673 | 3,837 | 6,843 |
| 1985         | Dry          | 7,143  | 1,160  | 634   | 2,314 | 2,657 | 1,789 | 1,850 | 1,659 | 3,424 | 3,814 | 4,995 | 7,049 |
| 1986         | Wet          | 7,668  | 7,598  | 4,706 | 1,895 | 191   | 193   | 250   | 602   | 1,251 | 2,151 | 4,477 | 6,563 |
| 1987         | Dry          | 7,900  | 8,320  | 8,224 | 6,041 | 2,549 | 476   | 981   | 2,252 | 3,865 | 3,833 | 6,169 | 8,489 |
| 1988         | Critical     | 9,303  | 9,115  | 6,204 | 1,242 | 1,148 | 2,303 | 3,197 | 4,036 | 4,477 | 5,656 | 7,420 | 8,696 |
| 1989         | Dry          | 10,283 | 9,171  | 9,112 | 5,881 | 4,605 | 414   | 318   | 1,108 | 3,104 | 3,549 | 5,068 | 7,717 |
| 1990         | Critical     | 8,886  | 8,832  | 6,855 | 3,588 | 2,220 | 2,580 | 2,689 | 4,727 | 7,130 | 6,840 | 7,521 | 8,934 |
| 1991         | Critical     | 10,015 | 9,938  | 9,953 | 9,117 | 7,327 | 1,166 | 907   | 3,654 | 6,949 | 7,371 | 7,422 | 8,788 |
| 1992         | Critical     | 10,542 | 9,643  | 9,849 | 8,063 | 1,203 | 663   | 1,341 | 3,682 | 4,456 | 6,160 | 8,272 | 9,494 |
| 1993         | Above Normal | 9,469  | 9,080  | 7,641 | 471   | 207   | 205   | 191   | 208   | 237   | 1,250 | 4,146 | 6,401 |
| 1994         | Critical     | 7,609  | 8,020  | 6,634 | 6,076 | 2,579 | 1,603 | 2,127 | 3,071 | 4,705 | 5,232 | 5,675 | 7,754 |
| 1995         | Wet          | 9,088  | 7,600  | 6,880 | 386   | 190   | 181   | 192   | 182   | 187   | 249   | 1,295 | 1,220 |
| 1996         | Wet          | 2,530  | 5,534  | 1,498 | 213   | 190   | 192   | 188   | 188   | 417   | 1,784 | 4,472 | 4,252 |
| 1997         | Wet          | 5,398  | 4,850  | 245   | 186   | 200   | 233   | 499   | 940   | 2,244 | 2,376 | 4,323 | 7,567 |
| 1998         | Wet          | 8,681  | 7,843  | 3,818 | 288   | 189   | 200   | 191   | 191   | 186   | 214   | 601   | 387   |
| 1999         | Wet          | 1,051  | 534    | 209   | 190   | 188   | 184   | 201   | 329   | 1,081 | 1,647 | 3,967 | 4,912 |
| 2000         | Above Normal | 5,947  | 6,337  | 6,288 | 1,112 | 195   | 189   | 271   | 488   | 1,812 | 1,795 | 3,815 | 6,545 |
| 2001         | Dry          | 7,434  | 7,644  | 5,820 | 3,722 | 1,204 | 404   | 1,063 | 2,487 | 4,245 | 4,479 | 6,467 | 8,810 |
| 2002         | Dry          | 9,311  | 9,205  | 1,376 | 202   | 208   | 374   | 753   | 1,423 | 3,067 | 3,818 | 4,759 | 7,538 |
| 2003         | Above Normal | 8,581  | 4,853  | 608   | 188   | 204   | 330   | 292   | 190   | 701   | 1,390 | 3,643 | 6,021 |
| Average      |              | 7,169  | 6,527  | 4,382 | 2,508 | 1,098 | 696   | 893   | 1,373 | 2,274 | 2,864 | 4,825 | 6,423 |
| Wet          |              | 5,601  | 4,654  | 1,349 | 437   | 201   | 205   | 242   | 312   | 683   | 1,292 | 3,532 | 3,975 |
| Above Normal |              | 7,428  | 5,954  | 4,327 | 2,097 | 289   | 207   | 257   | 377   | 1,106 | 1,592 | 3,898 | 6,358 |
| Below Normal |              | 7,377  | 7,328  | 5,709 | 2,697 | 562   | 402   | 600   | 970   | 1,891 | 2,430 | 4,522 | 6,947 |
| Dry          |              | 8,234  | 7,665  | 5,587 | 4,047 | 1,762 | 831   | 1,180 | 1,736 | 3,293 | 3,959 | 5,792 | 8,005 |
| Critical     |              | 8,469  | 8,513  | 7,655 | 5,763 | 3,479 | 2,387 | 2,849 | 4,591 | 5,807 | 6,406 | 7,457 | 8,810 |

Source: DSM2 Modeling (Node RSAC081)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 93: Simulated Electrical Conductivity at Sacramento River at Emmanton (umhos/cm) - No-Action Alternative

| WY           | Year Type    | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Sep   |
|--------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1922         | Above Normal | 1,949 | 2,124 | 892   | 607   | 234   | 190   | 185   | 179   | 182   | 252   | 875   | 1,687 |
| 1923         | Below Normal | 1,899 | 1,779 | 357   | 203   | 210   | 233   | 205   | 202   | 338   | 435   | 1,036 | 1,641 |
| 1924         | Critical     | 1,829 | 2,368 | 2,139 | 1,555 | 564   | 379   | 772   | 1,578 | 1,629 | 2,146 | 2,574 | 3,051 |
| 1925         | Dry          | 3,871 | 3,728 | 1,853 | 1,642 | 210   | 193   | 191   | 217   | 361   | 813   | 1,683 | 2,740 |
| 1926         | Dry          | 3,178 | 2,822 | 2,817 | 1,009 | 235   | 241   | 215   | 242   | 802   | 1,311 | 1,704 | 2,222 |
| 1927         | Wet          | 3,162 | 683   | 378   | 218   | 184   | 183   | 179   | 185   | 232   | 250   | 766   | 1,577 |
| 1928         | Above Normal | 2,219 | 1,061 | 770   | 335   | 210   | 180   | 183   | 195   | 352   | 413   | 853   | 1,625 |
| 1929         | Critical     | 2,214 | 2,245 | 1,923 | 1,656 | 770   | 486   | 794   | 916   | 1,365 | 1,678 | 2,553 | 3,207 |
| 1930         | Dry          | 3,722 | 3,796 | 1,249 | 446   | 259   | 190   | 219   | 335   | 947   | 1,052 | 2,017 | 2,952 |
| 1931         | Critical     | 3,098 | 2,769 | 2,666 | 1,637 | 1,228 | 1,118 | 1,144 | 1,909 | 1,934 | 1,736 | 2,578 | 3,014 |
| 1932         | Dry          | 3,711 | 3,601 | 629   | 275   | 250   | 248   | 326   | 287   | 337   | 793   | 1,696 | 2,535 |
| 1933         | Critical     | 2,842 | 2,609 | 2,517 | 1,060 | 768   | 508   | 422   | 816   | 1,449 | 1,942 | 2,490 | 3,040 |
| 1934         | Critical     | 3,709 | 3,599 | 1,741 | 587   | 308   | 280   | 322   | 845   | 1,090 | 1,659 | 2,610 | 3,346 |
| 1935         | Below Normal | 3,559 | 2,755 | 2,469 | 400   | 242   | 201   | 183   | 185   | 219   | 375   | 1,189 | 2,220 |
| 1936         | Below Normal | 2,840 | 2,621 | 2,176 | 273   | 201   | 192   | 186   | 196   | 305   | 383   | 1,126 | 1,801 |
| 1937         | Below Normal | 2,476 | 2,594 | 2,305 | 1,144 | 233   | 209   | 198   | 201   | 251   | 542   | 1,308 | 1,966 |
| 1938         | Wet          | 2,744 | 480   | 181   | 194   | 195   | 183   | 182   | 180   | 185   | 273   | 893   | 585   |
| 1939         | Dry          | 457   | 951   | 1,335 | 1,307 | 774   | 356   | 419   | 403   | 879   | 683   | 1,945 | 3,234 |
| 1940         | Above Normal | 2,780 | 2,484 | 2,136 | 351   | 202   | 182   | 178   | 194   | 334   | 273   | 706   | 1,812 |
| 1941         | Wet          | 2,282 | 2,425 | 293   | 188   | 187   | 182   | 180   | 180   | 190   | 319   | 922   | 931   |
| 1942         | Wet          | 1,212 | 1,809 | 225   | 187   | 179   | 188   | 183   | 183   | 183   | 295   | 983   | 728   |
| 1943         | Wet          | 1,033 | 772   | 223   | 186   | 184   | 183   | 187   | 190   | 342   | 399   | 927   | 1,998 |
| 1944         | Dry          | 2,482 | 2,217 | 1,950 | 1,400 | 348   | 207   | 296   | 384   | 635   | 726   | 1,415 | 2,190 |
| 1945         | Below Normal | 2,834 | 1,742 | 831   | 1,002 | 222   | 208   | 230   | 253   | 356   | 434   | 1,045 | 1,832 |
| 1946         | Below Normal | 2,118 | 1,784 | 208   | 182   | 190   | 204   | 227   | 235   | 374   | 455   | 1,046 | 2,240 |
| 1947         | Dry          | 2,580 | 2,571 | 1,178 | 1,115 | 515   | 240   | 258   | 378   | 763   | 664   | 1,598 | 3,119 |
| 1948         | Below Normal | 3,005 | 2,350 | 2,365 | 1,149 | 341   | 271   | 199   | 187   | 226   | 467   | 900   | 1,385 |
| 1949         | Dry          | 2,026 | 2,336 | 1,731 | 1,591 | 346   | 189   | 227   | 261   | 492   | 809   | 1,239 | 2,270 |
| 1950         | Below Normal | 2,875 | 2,488 | 2,370 | 733   | 213   | 192   | 201   | 218   | 341   | 601   | 1,306 | 1,691 |
| 1951         | Above Normal | 2,391 | 220   | 182   | 189   | 183   | 184   | 195   | 214   | 327   | 286   | 760   | 1,499 |
| 1952         | Wet          | 1,940 | 2,054 | 296   | 193   | 180   | 185   | 179   | 177   | 182   | 225   | 595   | 340   |
| 1953         | Wet          | 522   | 1,303 | 284   | 181   | 187   | 192   | 214   | 186   | 187   | 302   | 986   | 993   |
| 1954         | Above Normal | 1,224 | 1,225 | 1,265 | 342   | 183   | 180   | 179   | 184   | 331   | 316   | 783   | 1,700 |
| 1955         | Dry          | 2,326 | 1,884 | 474   | 267   | 268   | 380   | 482   | 420   | 768   | 806   | 2,009 | 2,609 |
| 1956         | Wet          | 2,909 | 2,778 | 218   | 183   | 183   | 183   | 190   | 182   | 188   | 307   | 988   | 707   |
| 1957         | Above Normal | 773   | 1,347 | 1,430 | 1,251 | 247   | 181   | 191   | 207   | 301   | 375   | 882   | 2,023 |
| 1958         | Wet          | 796   | 685   | 354   | 205   | 184   | 184   | 182   | 179   | 182   | 293   | 790   | 379   |
| 1959         | Below Normal | 530   | 1,294 | 1,679 | 320   | 189   | 190   | 306   | 452   | 576   | 455   | 1,178 | 2,475 |
| 1960         | Dry          | 2,747 | 2,459 | 1,882 | 1,768 | 363   | 211   | 268   | 339   | 769   | 693   | 1,577 | 2,433 |
| 1961         | Dry          | 2,816 | 2,248 | 1,321 | 1,347 | 313   | 216   | 295   | 436   | 873   | 976   | 1,078 | 2,375 |
| 1962         | Below Normal | 2,903 | 2,905 | 1,342 | 1,618 | 237   | 194   | 233   | 256   | 528   | 395   | 949   | 2,481 |
| 1963         | Wet          | 332   | 329   | 244   | 304   | 188   | 189   | 181   | 186   | 219   | 231   | 698   | 1,577 |
| 1964         | Dry          | 1,771 | 467   | 518   | 338   | 262   | 423   | 492   | 359   | 754   | 802   | 1,285 | 2,681 |
| 1965         | Wet          | 2,845 | 1,788 | 205   | 181   | 185   | 188   | 181   | 187   | 305   | 380   | 1,034 | 1,910 |
| 1966         | Below Normal | 2,409 | 595   | 428   | 213   | 190   | 185   | 252   | 282   | 508   | 435   | 905   | 1,857 |
| 1967         | Wet          | 2,057 | 1,807 | 328   | 211   | 184   | 185   | 191   | 180   | 182   | 210   | 545   | 334   |
| 1968         | Below Normal | 373   | 1,173 | 1,243 | 324   | 183   | 181   | 206   | 328   | 530   | 410   | 918   | 2,326 |
| 1969         | Wet          | 2,510 | 1,975 | 504   | 191   | 192   | 194   | 188   | 183   | 194   | 280   | 922   | 564   |
| 1970         | Wet          | 495   | 1,030 | 203   | 180   | 182   | 182   | 190   | 241   | 353   | 299   | 782   | 2,062 |
| 1971         | Wet          | 2,511 | 911   | 199   | 182   | 182   | 180   | 183   | 184   | 211   | 246   | 733   | 845   |
| 1972         | Below Normal | 1,258 | 1,858 | 1,196 | 788   | 371   | 191   | 248   | 405   | 617   | 532   | 1,005 | 2,292 |
| 1973         | Above Normal | 3,152 | 761   | 253   | 194   | 187   | 182   | 191   | 210   | 265   | 302   | 912   | 1,614 |
| 1974         | Wet          | 1,973 | 206   | 181   | 179   | 182   | 180   | 179   | 189   | 202   | 287   | 953   | 574   |
| 1975         | Wet          | 796   | 1,378 | 892   | 612   | 198   | 182   | 186   | 186   | 186   | 300   | 946   | 628   |
| 1976         | Critical     | 544   | 762   | 969   | 1,247 | 885   | 375   | 664   | 1,460 | 2,002 | 1,653 | 2,604 | 3,901 |
| 1977         | Critical     | 3,467 | 3,220 | 2,605 | 2,221 | 1,607 | 1,260 | 1,151 | 2,064 | 2,685 | 2,648 | 2,795 | 3,545 |
| 1978         | Above Normal | 3,849 | 3,778 | 1,690 | 219   | 192   | 192   | 194   | 198   | 217   | 342   | 1,004 | 1,794 |
| 1979         | Below Normal | 1,997 | 2,350 | 1,912 | 521   | 213   | 192   | 199   | 218   | 251   | 516   | 1,366 | 2,221 |
| 1980         | Above Normal | 2,713 | 1,867 | 712   | 189   | 190   | 189   | 200   | 213   | 246   | 406   | 1,165 | 1,765 |
| 1981         | Dry          | 2,371 | 2,454 | 1,800 | 407   | 203   | 186   | 232   | 433   | 783   | 810   | 1,663 | 2,599 |
| 1982         | Wet          | 2,369 | 322   | 180   | 192   | 181   | 192   | 180   | 182   | 188   | 328   | 1,050 | 341   |
| 1983         | Wet          | 186   | 184   | 184   | 196   | 186   | 181   | 184   | 182   | 182   | 190   | 190   | 180   |
| 1984         | Wet          | 212   | 178   | 180   | 187   | 186   | 181   | 192   | 248   | 355   | 314   | 869   | 2,078 |
| 1985         | Dry          | 1,967 | 312   | 214   | 440   | 513   | 365   | 404   | 306   | 724   | 768   | 1,180 | 2,071 |
| 1986         | Wet          | 2,373 | 2,177 | 1,038 | 412   | 183   | 184   | 201   | 215   | 314   | 403   | 1,009 | 1,804 |
| 1987         | Dry          | 2,288 | 2,440 | 2,403 | 1,393 | 504   | 213   | 258   | 425   | 852   | 789   | 2,004 | 3,122 |
| 1988         | Critical     | 3,123 | 2,914 | 1,400 | 350   | 294   | 480   | 627   | 871   | 1,004 | 1,366 | 2,613 | 3,212 |
| 1989         | Dry          | 3,958 | 2,949 | 2,835 | 1,315 | 1,074 | 195   | 188   | 242   | 615   | 709   | 1,166 | 2,549 |
| 1990         | Critical     | 2,737 | 2,619 | 1,769 | 712   | 465   | 497   | 510   | 1,279 | 2,194 | 1,920 | 2,636 | 3,336 |
| 1991         | Critical     | 3,772 | 3,713 | 3,605 | 3,226 | 2,094 | 331   | 256   | 987   | 2,542 | 2,024 | 2,486 | 3,335 |
| 1992         | Critical     | 4,169 | 3,556 | 3,513 | 2,349 | 334   | 230   | 295   | 803   | 1,094 | 1,833 | 2,826 | 3,580 |
| 1993         | Above Normal | 3,634 | 3,410 | 2,183 | 233   | 198   | 188   | 181   | 182   | 181   | 288   | 979   | 1,743 |
| 1994         | Critical     | 2,068 | 2,522 | 1,786 | 1,434 | 517   | 332   | 397   | 631   | 1,011 | 1,241 | 1,073 | 2,171 |
| 1995         | Wet          | 3,275 | 2,845 | 1,888 | 217   | 185   | 179   | 182   | 178   | 181   | 199   | 299   | 255   |
| 1996         | Wet          | 536   | 1,447 | 384   | 191   | 185   | 183   | 182   | 181   | 196   | 353   | 1,053 | 884   |
| 1997         | Wet          | 1,531 | 1,098 | 186   | 181   | 187   | 193   | 203   | 261   | 485   | 439   | 971   | 2,424 |
| 1998         | Wet          | 3,020 | 2,322 | 891   | 199   | 185   | 184   | 182   | 181   | 179   | 191   | 207   | 185   |
| 1999         | Wet          | 251   | 197   | 179   | 183   | 183   | 180   | 183   | 195   | 257   | 309   | 876   | 1,140 |
| 2000         | Above Normal | 1,591 | 1,647 | 1,835 | 338   | 187   | 181   | 188   | 203   | 368   | 337   | 838   | 1,832 |
| 2001         | Dry          | 2,026 | 1,939 | 1,171 | 712   | 304   | 202   | 260   | 524   | 1,066 | 950   | 1,992 | 3,137 |
| 2002         | Dry          | 3,165 | 2,865 | 391   | 190   | 190   | 197   | 217   | 316   | 642   | 762   | 1,133 | 2,586 |
| 2003         | Above Normal | 3,047 | 1,097 | 256   | 184   | 187   | 188   | 187   | 181   | 211   | 275   | 782   | 1,576 |
| Average      |              | 2,260 | 1,920 | 1,185 | 659   | 332   | 251   | 278   | 383   | 584   | 667   | 1,280 | 1,967 |
| Wet          |              | 1,687 | 1,276 | 397   | 220   | 185   | 184   | 186   | 192   | 233   | 293   | 807   | 1,001 |
| Above Normal |              | 2,443 | 1,752 | 1,134 | 369   | 200   | 185   | 188   | 197   | 276   | 322   | 878   | 1,722 |
| Below Normal |              | 2,220 | 2,021 | 1,491 | 634   | 231   | 203   | 219   | 258   | 387   | 460   | 1,084 | 2,031 |
| Dry          |              | 2,637 | 2,336 | 1,431 | 942   | 385   | 247   | 291   | 350   | 726   | 829   | 1,577 | 2,635 |
| Critical     |              | 2,798 | 2,741 | 2,219 | 1,503 | 820   | 523   | 613   | 1,180 | 1,667 | 1,821 | 2,486 | 3,228 |

Source: DSM2 Modeling (Node RSAC092)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 94: Simulated Electrical Conductivity at Sacramento River at Emmanton (umhos/cm) - Proposed Action

| WY           | Year Type    | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Sep   |
|--------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1922         | Above Normal | 1,935 | 2,114 | 890   | 607   | 234   | 190   | 185   | 179   | 182   | 252   | 875   | 1,689 |
| 1923         | Below Normal | 1,884 | 1,790 | 354   | 203   | 209   | 232   | 203   | 201   | 338   | 443   | 1,020 | 1,622 |
| 1924         | Critical     | 1,847 | 2,381 | 2,142 | 1,553 | 563   | 388   | 775   | 1,580 | 1,630 | 2,122 | 2,569 | 3,048 |
| 1925         | Dry          | 3,862 | 3,559 | 1,827 | 1,688 | 210   | 195   | 194   | 217   | 361   | 811   | 1,692 | 2,752 |
| 1926         | Dry          | 3,166 | 2,781 | 2,811 | 1,006 | 235   | 245   | 208   | 243   | 808   | 1,215 | 1,716 | 2,238 |
| 1927         | Wet          | 3,161 | 671   | 370   | 218   | 184   | 183   | 179   | 185   | 231   | 250   | 766   | 1,580 |
| 1928         | Above Normal | 2,215 | 1,027 | 741   | 331   | 209   | 180   | 184   | 195   | 353   | 413   | 852   | 1,652 |
| 1929         | Critical     | 2,204 | 2,255 | 1,912 | 1,635 | 770   | 479   | 792   | 923   | 1,368 | 1,669 | 2,554 | 3,207 |
| 1930         | Dry          | 3,709 | 3,766 | 1,248 | 449   | 259   | 190   | 219   | 335   | 956   | 1,059 | 2,021 | 2,971 |
| 1931         | Critical     | 3,105 | 2,774 | 2,664 | 1,636 | 1,228 | 1,120 | 1,144 | 1,906 | 1,915 | 1,727 | 2,579 | 3,019 |
| 1932         | Dry          | 3,686 | 3,580 | 624   | 275   | 246   | 249   | 335   | 279   | 329   | 813   | 1,687 | 2,531 |
| 1933         | Critical     | 2,833 | 2,603 | 2,511 | 1,013 | 731   | 497   | 423   | 810   | 1,451 | 1,876 | 2,522 | 3,032 |
| 1934         | Critical     | 3,684 | 3,543 | 1,750 | 556   | 286   | 277   | 322   | 852   | 1,094 | 1,658 | 2,615 | 3,351 |
| 1935         | Below Normal | 3,543 | 2,638 | 2,582 | 438   | 247   | 200   | 183   | 185   | 218   | 373   | 1,195 | 2,006 |
| 1936         | Below Normal | 2,740 | 2,636 | 2,264 | 278   | 201   | 192   | 186   | 195   | 305   | 369   | 1,124 | 1,789 |
| 1937         | Below Normal | 2,466 | 2,626 | 2,354 | 1,303 | 242   | 209   | 197   | 199   | 252   | 534   | 1,307 | 2,281 |
| 1938         | Wet          | 2,908 | 468   | 181   | 194   | 195   | 183   | 182   | 180   | 185   | 273   | 894   | 572   |
| 1939         | Dry          | 446   | 952   | 1,326 | 1,310 | 774   | 344   | 403   | 401   | 876   | 691   | 1,935 | 3,241 |
| 1940         | Above Normal | 2,760 | 2,519 | 2,172 | 355   | 202   | 182   | 178   | 192   | 330   | 273   | 709   | 1,643 |
| 1941         | Wet          | 1,992 | 2,371 | 304   | 188   | 186   | 182   | 180   | 180   | 193   | 320   | 921   | 928   |
| 1942         | Wet          | 1,212 | 1,840 | 222   | 186   | 179   | 187   | 184   | 183   | 183   | 295   | 982   | 727   |
| 1943         | Wet          | 1,032 | 746   | 219   | 186   | 183   | 182   | 187   | 189   | 340   | 403   | 931   | 1,930 |
| 1944         | Dry          | 2,223 | 2,328 | 1,863 | 1,369 | 352   | 208   | 274   | 379   | 630   | 729   | 1,555 | 2,504 |
| 1945         | Below Normal | 3,018 | 1,731 | 812   | 1,001 | 220   | 208   | 230   | 253   | 355   | 435   | 1,046 | 1,836 |
| 1946         | Below Normal | 2,075 | 1,697 | 205   | 182   | 189   | 202   | 220   | 234   | 374   | 458   | 1,010 | 2,247 |
| 1947         | Dry          | 2,579 | 2,569 | 1,172 | 1,107 | 515   | 238   | 263   | 377   | 774   | 683   | 1,631 | 3,133 |
| 1948         | Below Normal | 3,104 | 2,327 | 2,760 | 1,240 | 346   | 266   | 194   | 186   | 216   | 444   | 803   | 1,451 |
| 1949         | Dry          | 2,046 | 2,196 | 1,550 | 1,607 | 1,053 | 214   | 221   | 258   | 488   | 801   | 1,244 | 2,174 |
| 1950         | Below Normal | 2,875 | 2,521 | 2,389 | 742   | 214   | 192   | 197   | 213   | 332   | 615   | 1,280 | 1,686 |
| 1951         | Above Normal | 2,357 | 217   | 181   | 189   | 183   | 184   | 195   | 216   | 325   | 287   | 764   | 1,503 |
| 1952         | Wet          | 1,924 | 2,070 | 297   | 193   | 180   | 185   | 179   | 177   | 182   | 226   | 595   | 339   |
| 1953         | Wet          | 514   | 1,304 | 282   | 181   | 187   | 191   | 211   | 186   | 187   | 301   | 1,028 | 906   |
| 1954         | Above Normal | 1,156 | 1,162 | 1,216 | 336   | 183   | 181   | 179   | 184   | 330   | 316   | 786   | 1,696 |
| 1955         | Dry          | 2,313 | 1,815 | 455   | 265   | 266   | 368   | 457   | 426   | 777   | 926   | 2,012 | 2,753 |
| 1956         | Wet          | 2,957 | 2,798 | 218   | 183   | 182   | 183   | 190   | 182   | 187   | 298   | 1,031 | 643   |
| 1957         | Above Normal | 581   | 1,178 | 1,364 | 1,264 | 251   | 181   | 195   | 205   | 299   | 368   | 876   | 2,013 |
| 1958         | Wet          | 787   | 657   | 343   | 204   | 184   | 184   | 182   | 179   | 181   | 293   | 790   | 378   |
| 1959         | Below Normal | 522   | 1,298 | 1,621 | 317   | 189   | 192   | 299   | 450   | 592   | 453   | 1,160 | 2,469 |
| 1960         | Dry          | 2,794 | 2,468 | 1,903 | 1,785 | 363   | 210   | 265   | 339   | 767   | 685   | 1,570 | 2,436 |
| 1961         | Dry          | 2,821 | 2,250 | 1,322 | 1,350 | 311   | 215   | 292   | 431   | 868   | 944   | 1,095 | 2,337 |
| 1962         | Below Normal | 2,919 | 2,951 | 1,349 | 1,629 | 237   | 194   | 229   | 258   | 551   | 402   | 934   | 2,469 |
| 1963         | Wet          | 335   | 325   | 241   | 304   | 188   | 189   | 181   | 186   | 219   | 231   | 697   | 1,580 |
| 1964         | Dry          | 1,783 | 453   | 503   | 334   | 262   | 406   | 491   | 356   | 752   | 797   | 1,285 | 2,664 |
| 1965         | Wet          | 2,853 | 1,747 | 203   | 181   | 185   | 187   | 181   | 187   | 305   | 382   | 1,030 | 1,929 |
| 1966         | Below Normal | 2,380 | 593   | 416   | 213   | 190   | 185   | 242   | 281   | 508   | 434   | 904   | 1,849 |
| 1967         | Wet          | 2,040 | 1,749 | 321   | 210   | 184   | 185   | 191   | 180   | 181   | 210   | 540   | 332   |
| 1968         | Below Normal | 369   | 1,125 | 1,201 | 322   | 183   | 181   | 207   | 328   | 540   | 408   | 910   | 2,324 |
| 1969         | Wet          | 2,511 | 1,969 | 501   | 190   | 192   | 194   | 188   | 183   | 194   | 284   | 927   | 564   |
| 1970         | Wet          | 489   | 988   | 201   | 180   | 182   | 182   | 192   | 244   | 359   | 297   | 778   | 2,087 |
| 1971         | Wet          | 2,512 | 894   | 197   | 182   | 182   | 179   | 183   | 183   | 211   | 246   | 732   | 845   |
| 1972         | Below Normal | 1,261 | 1,803 | 1,175 | 785   | 372   | 192   | 241   | 403   | 620   | 537   | 996   | 2,285 |
| 1973         | Above Normal | 3,144 | 788   | 257   | 194   | 187   | 183   | 192   | 208   | 267   | 304   | 909   | 1,872 |
| 1974         | Wet          | 2,194 | 206   | 181   | 179   | 182   | 180   | 179   | 189   | 201   | 288   | 956   | 569   |
| 1975         | Wet          | 762   | 1,357 | 879   | 621   | 199   | 182   | 186   | 186   | 186   | 298   | 943   | 626   |
| 1976         | Critical     | 543   | 731   | 939   | 1,234 | 882   | 364   | 641   | 1,449 | 2,025 | 1,624 | 2,602 | 3,913 |
| 1977         | Critical     | 3,433 | 3,194 | 2,682 | 2,265 | 1,619 | 1,263 | 1,152 | 2,065 | 2,684 | 2,649 | 2,796 | 3,543 |
| 1978         | Above Normal | 3,837 | 3,763 | 1,691 | 219   | 192   | 191   | 193   | 200   | 214   | 333   | 995   | 1,791 |
| 1979         | Below Normal | 2,003 | 2,357 | 1,784 | 514   | 214   | 192   | 200   | 215   | 251   | 517   | 1,390 | 2,219 |
| 1980         | Above Normal | 2,721 | 1,812 | 680   | 189   | 189   | 189   | 200   | 212   | 234   | 389   | 1,178 | 1,748 |
| 1981         | Dry          | 2,361 | 2,456 | 1,744 | 393   | 202   | 186   | 225   | 434   | 774   | 821   | 1,644 | 2,580 |
| 1982         | Wet          | 2,376 | 321   | 180   | 192   | 181   | 192   | 180   | 182   | 188   | 326   | 1,045 | 340   |
| 1983         | Wet          | 186   | 184   | 184   | 196   | 186   | 181   | 184   | 182   | 182   | 191   | 190   | 180   |
| 1984         | Wet          | 211   | 178   | 180   | 187   | 186   | 181   | 194   | 249   | 352   | 315   | 874   | 2,047 |
| 1985         | Dry          | 1,871 | 294   | 209   | 432   | 506   | 350   | 360   | 303   | 726   | 770   | 1,169 | 2,057 |
| 1986         | Wet          | 2,367 | 2,186 | 1,038 | 414   | 183   | 184   | 201   | 218   | 304   | 412   | 1,033 | 1,815 |
| 1987         | Dry          | 2,303 | 2,451 | 2,418 | 1,415 | 498   | 209   | 260   | 422   | 850   | 781   | 2,006 | 3,127 |
| 1988         | Critical     | 3,119 | 2,967 | 1,392 | 349   | 294   | 486   | 621   | 874   | 1,004 | 1,361 | 2,617 | 3,224 |
| 1989         | Dry          | 3,933 | 2,949 | 2,826 | 1,329 | 1,102 | 196   | 187   | 244   | 632   | 707   | 1,215 | 2,602 |
| 1990         | Critical     | 2,755 | 2,659 | 1,710 | 695   | 463   | 480   | 496   | 1,264 | 2,241 | 1,874 | 2,641 | 3,345 |
| 1991         | Critical     | 3,767 | 3,661 | 3,642 | 3,180 | 2,011 | 322   | 254   | 882   | 2,403 | 2,164 | 2,491 | 3,249 |
| 1992         | Critical     | 4,118 | 3,526 | 3,506 | 2,357 | 333   | 229   | 293   | 823   | 1,077 | 1,826 | 2,796 | 3,579 |
| 1993         | Above Normal | 3,610 | 3,386 | 2,180 | 233   | 198   | 188   | 181   | 183   | 182   | 281   | 955   | 1,742 |
| 1994         | Critical     | 2,058 | 2,291 | 1,646 | 1,441 | 555   | 342   | 395   | 628   | 1,111 | 1,185 | 1,394 | 2,632 |
| 1995         | Wet          | 3,153 | 2,321 | 1,794 | 218   | 184   | 179   | 183   | 178   | 181   | 199   | 298   | 254   |
| 1996         | Wet          | 526   | 1,448 | 381   | 191   | 185   | 182   | 182   | 181   | 195   | 352   | 1,065 | 886   |
| 1997         | Wet          | 1,527 | 1,073 | 185   | 181   | 187   | 192   | 203   | 254   | 477   | 436   | 994   | 2,495 |
| 1998         | Wet          | 3,023 | 2,308 | 877   | 198   | 185   | 184   | 182   | 181   | 179   | 192   | 207   | 185   |
| 1999         | Wet          | 250   | 196   | 179   | 183   | 183   | 180   | 184   | 195   | 257   | 311   | 879   | 1,130 |
| 2000         | Above Normal | 1,580 | 1,587 | 1,617 | 335   | 187   | 182   | 188   | 203   | 368   | 336   | 840   | 1,844 |
| 2001         | Dry          | 2,038 | 2,026 | 1,262 | 757   | 307   | 202   | 259   | 523   | 1,068 | 951   | 1,987 | 3,298 |
| 2002         | Dry          | 3,195 | 2,875 | 385   | 190   | 190   | 197   | 213   | 314   | 637   | 766   | 1,090 | 2,509 |
| 2003         | Above Normal | 3,005 | 1,071 | 253   | 184   | 187   | 189   | 186   | 181   | 211   | 275   | 783   | 1,563 |
| Average      |              | 2,249 | 1,896 | 1,178 | 662   | 340   | 250   | 275   | 382   | 584   | 665   | 1,286 | 1,978 |
| Wet          |              | 1,685 | 1,245 | 391   | 221   | 185   | 184   | 186   | 192   | 232   | 293   | 813   | 995   |
| Above Normal |              | 2,408 | 1,719 | 1,104 | 369   | 200   | 185   | 188   | 197   | 275   | 319   | 877   | 1,730 |
| Below Normal |              | 2,226 | 2,007 | 1,519 | 655   | 232   | 203   | 216   | 257   | 389   | 459   | 1,077 | 2,038 |
| Dry          |              | 2,618 | 2,320 | 1,414 | 948   | 425   | 246   | 285   | 349   | 726   | 831   | 1,586 | 2,661 |
| Critical     |              | 2,789 | 2,715 | 2,208 | 1,493 | 811   | 521   | 609   | 1,171 | 1,667 | 1,811 | 2,515 | 3,262 |

Source: DSM2 Modeling (Node RSAC092)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

San Joaquin River Restoration Program

Table 95: Simulated Electrical Conductivity at San Joaquin River at Jersey Point (umhos/cm) - No-Action Alternative

| WY   | Year Type    | Oct   | Nov   | Dec   | Jan   | Feb   | Mar | Apr | May   | Jun   | Jul   | Aug   | Sep   |
|------|--------------|-------|-------|-------|-------|-------|-----|-----|-------|-------|-------|-------|-------|
| 1922 | Above Normal | 2,366 | 2,068 | 1,584 | 1,006 | 443   | 225 | 203 | 205   | 207   | 243   | 938   | 2,032 |
| 1923 | Below Normal | 2,292 | 2,462 | 970   | 248   | 228   | 245 | 233 | 232   | 269   | 622   | 1,270 | 2,038 |
| 1924 | Critical     | 2,187 | 2,222 | 2,366 | 1,894 | 781   | 324 | 456 | 1,116 | 1,654 | 1,473 | 1,434 | 1,933 |
| 1925 | Dry          | 2,630 | 2,477 | 2,475 | 2,338 | 553   | 232 | 222 | 230   | 253   | 612   | 1,480 | 2,486 |
| 1926 | Dry          | 2,282 | 2,143 | 2,364 | 2,000 | 604   | 271 | 311 | 254   | 558   | 1,168 | 1,632 | 2,472 |
| 1927 | Wet          | 2,484 | 1,162 | 665   | 359   | 231   | 212 | 193 | 213   | 225   | 305   | 878   | 1,997 |
| 1928 | Above Normal | 2,338 | 1,504 | 1,152 | 617   | 311   | 204 | 200 | 223   | 315   | 395   | 1,175 | 2,156 |
| 1929 | Critical     | 2,520 | 2,580 | 2,290 | 2,340 | 1,621 | 550 | 487 | 554   | 744   | 1,273 | 1,451 | 2,081 |
| 1930 | Dry          | 2,479 | 2,592 | 2,214 | 968   | 418   | 238 | 211 | 299   | 591   | 1,162 | 1,609 | 2,653 |
| 1931 | Critical     | 2,299 | 2,012 | 2,058 | 2,420 | 1,534 | 850 | 809 | 1,234 | 1,295 | 1,745 | 1,577 | 1,944 |
| 1932 | Dry          | 2,500 | 2,405 | 1,012 | 418   | 303   | 260 | 265 | 282   | 259   | 489   | 1,589 | 2,847 |
| 1933 | Critical     | 2,086 | 1,819 | 2,095 | 1,494 | 946   | 667 | 369 | 533   | 824   | 1,121 | 1,378 | 1,949 |
| 1934 | Critical     | 2,501 | 2,416 | 2,381 | 1,162 | 471   | 277 | 279 | 530   | 665   | 993   | 1,460 | 2,183 |
| 1935 | Below Normal | 2,349 | 2,565 | 2,392 | 1,166 | 303   | 246 | 210 | 219   | 219   | 473   | 1,029 | 2,192 |
| 1936 | Below Normal | 2,418 | 2,233 | 2,382 | 804   | 284   | 242 | 204 | 221   | 246   | 542   | 976   | 2,075 |
| 1937 | Below Normal | 2,184 | 2,123 | 2,333 | 1,453 | 418   | 303 | 250 | 219   | 221   | 397   | 981   | 2,073 |
| 1938 | Wet          | 2,136 | 814   | 219   | 221   | 326   | 283 | 226 | 213   | 224   | 234   | 754   | 700   |
| 1939 | Dry          | 422   | 1,157 | 2,184 | 2,068 | 1,234 | 490 | 314 | 387   | 846   | 1,244 | 1,174 | 2,125 |
| 1940 | Above Normal | 2,224 | 2,185 | 2,335 | 1,048 | 276   | 212 | 198 | 218   | 279   | 318   | 908   | 2,078 |
| 1941 | Wet          | 2,286 | 2,591 | 909   | 236   | 251   | 228 | 208 | 203   | 198   | 278   | 989   | 1,328 |
| 1942 | Wet          | 1,320 | 2,241 | 673   | 231   | 220   | 207 | 211 | 211   | 195   | 246   | 874   | 878   |
| 1943 | Wet          | 1,027 | 1,032 | 454   | 230   | 219   | 234 | 225 | 214   | 248   | 358   | 970   | 2,182 |
| 1944 | Dry          | 2,515 | 2,385 | 2,428 | 2,225 | 986   | 278 | 262 | 350   | 603   | 1,212 | 1,553 | 2,575 |
| 1945 | Below Normal | 2,475 | 2,364 | 1,491 | 1,339 | 462   | 279 | 254 | 253   | 328   | 611   | 1,264 | 2,311 |
| 1946 | Below Normal | 2,334 | 2,388 | 527   | 199   | 221   | 235 | 230 | 249   | 310   | 704   | 1,254 | 2,387 |
| 1947 | Dry          | 2,541 | 2,742 | 2,036 | 1,362 | 1,160 | 416 | 241 | 354   | 705   | 1,196 | 1,500 | 2,175 |
| 1948 | Below Normal | 2,457 | 2,560 | 2,187 | 2,163 | 863   | 313 | 290 | 219   | 228   | 584   | 1,246 | 1,930 |
| 1949 | Dry          | 2,222 | 2,166 | 2,437 | 2,089 | 663   | 248 | 216 | 246   | 335   | 1,087 | 1,601 | 2,216 |
| 1950 | Below Normal | 2,164 | 2,292 | 2,180 | 1,335 | 378   | 215 | 238 | 237   | 297   | 631   | 1,203 | 2,237 |
| 1951 | Above Normal | 2,663 | 483   | 221   | 256   | 228   | 203 | 205 | 231   | 299   | 366   | 1,013 | 2,079 |
| 1952 | Wet          | 2,287 | 2,633 | 818   | 242   | 203   | 225 | 207 | 189   | 207   | 220   | 528   | 390   |
| 1953 | Wet          | 511   | 1,625 | 809   | 209   | 203   | 215 | 225 | 213   | 216   | 366   | 1,053 | 1,526 |
| 1954 | Above Normal | 1,493 | 1,841 | 2,145 | 1,051 | 232   | 195 | 192 | 211   | 293   | 377   | 861   | 2,066 |
| 1955 | Dry          | 2,438 | 2,723 | 1,097 | 362   | 345   | 358 | 380 | 360   | 502   | 1,088 | 1,302 | 2,085 |
| 1956 | Wet          | 2,153 | 2,819 | 514   | 273   | 238   | 212 | 205 | 215   | 195   | 267   | 942   | 894   |
| 1957 | Above Normal | 809   | 1,393 | 2,191 | 1,686 | 655   | 216 | 211 | 231   | 279   | 360   | 1,097 | 2,369 |
| 1958 | Wet          | 1,326 | 946   | 725   | 281   | 229   | 246 | 224 | 190   | 200   | 250   | 693   | 475   |
| 1959 | Below Normal | 511   | 1,517 | 2,352 | 1,008 | 241   | 212 | 256 | 403   | 680   | 711   | 973   | 1,993 |
| 1960 | Dry          | 2,615 | 2,513 | 2,233 | 2,334 | 1,256 | 296 | 231 | 297   | 693   | 1,216 | 1,619 | 2,849 |
| 1961 | Dry          | 2,097 | 2,622 | 2,416 | 1,900 | 927   | 288 | 252 | 395   | 907   | 1,241 | 1,618 | 2,045 |
| 1962 | Below Normal | 2,152 | 2,314 | 2,342 | 1,754 | 539   | 233 | 231 | 268   | 507   | 652   | 1,185 | 2,472 |
| 1963 | Wet          | 1,238 | 438   | 522   | 413   | 270   | 203 | 206 | 215   | 207   | 263   | 866   | 1,972 |
| 1964 | Dry          | 2,242 | 1,264 | 722   | 598   | 312   | 383 | 372 | 331   | 606   | 1,338 | 1,757 | 2,127 |
| 1965 | Wet          | 2,340 | 2,679 | 493   | 203   | 205   | 203 | 205 | 219   | 249   | 354   | 988   | 1,977 |
| 1966 | Below Normal | 2,305 | 972   | 493   | 332   | 214   | 206 | 240 | 275   | 499   | 687   | 1,275 | 2,323 |
| 1967 | Wet          | 2,678 | 2,701 | 1,024 | 275   | 220   | 203 | 234 | 202   | 209   | 230   | 471   | 372   |
| 1968 | Below Normal | 366   | 1,393 | 1,808 | 877   | 226   | 194 | 212 | 334   | 614   | 657   | 1,152 | 2,170 |
| 1969 | Wet          | 2,520 | 2,357 | 1,112 | 278   | 313   | 299 | 253 | 224   | 226   | 242   | 821   | 743   |
| 1970 | Wet          | 443   | 1,226 | 504   | 231   | 215   | 201 | 205 | 241   | 321   | 389   | 953   | 2,128 |
| 1971 | Wet          | 2,444 | 1,353 | 323   | 199   | 194   | 190 | 196 | 211   | 218   | 324   | 1,003 | 1,340 |
| 1972 | Below Normal | 1,414 | 2,291 | 1,983 | 1,423 | 891   | 284 | 221 | 400   | 706   | 679   | 1,335 | 2,249 |
| 1973 | Above Normal | 2,658 | 1,226 | 499   | 245   | 225   | 205 | 202 | 230   | 242   | 376   | 1,045 | 1,992 |
| 1974 | Wet          | 2,317 | 482   | 196   | 195   | 197   | 200 | 197 | 215   | 202   | 302   | 1,052 | 903   |
| 1975 | Wet          | 728   | 1,589 | 1,384 | 991   | 346   | 210 | 207 | 220   | 194   | 312   | 1,054 | 947   |
| 1976 | Critical     | 515   | 895   | 1,559 | 2,024 | 1,618 | 735 | 518 | 947   | 1,768 | 2,193 | 2,150 | 2,765 |
| 1977 | Critical     | 2,359 | 2,680 | 2,142 | 1,902 | 1,369 | 853 | 801 | 1,128 | 1,828 | 1,738 | 1,869 | 2,400 |
| 1978 | Above Normal | 2,646 | 2,679 | 2,334 | 516   | 237   | 257 | 270 | 242   | 224   | 362   | 1,177 | 2,126 |
| 1979 | Below Normal | 2,642 | 2,702 | 2,229 | 882   | 286   | 232 | 217 | 233   | 232   | 647   | 1,330 | 2,487 |
| 1980 | Above Normal | 2,633 | 2,499 | 1,336 | 288   | 279   | 274 | 239 | 234   | 232   | 288   | 833   | 1,941 |
| 1981 | Dry          | 2,143 | 2,232 | 2,685 | 1,291 | 298   | 211 | 222 | 376   | 807   | 1,338 | 1,649 | 2,680 |
| 1982 | Wet          | 2,828 | 1,091 | 214   | 225   | 219   | 242 | 216 | 198   | 201   | 254   | 884   | 382   |
| 1983 | Wet          | 188   | 201   | 243   | 308   | 297   | 261 | 236 | 226   | 224   | 216   | 198   | 186   |
| 1984 | Wet          | 198   | 191   | 228   | 247   | 223   | 197 | 208 | 248   | 295   | 416   | 990   | 2,105 |
| 1985 | Dry          | 2,203 | 959   | 278   | 669   | 796   | 403 | 370 | 322   | 705   | 1,292 | 1,685 | 2,361 |
| 1986 | Wet          | 2,304 | 2,317 | 1,745 | 763   | 276   | 267 | 243 | 217   | 238   | 338   | 988   | 1,903 |
| 1987 | Dry          | 2,194 | 2,371 | 2,525 | 1,862 | 1,081 | 338 | 234 | 430   | 858   | 1,306 | 1,323 | 2,070 |
| 1988 | Critical     | 2,362 | 2,300 | 2,328 | 1,000 | 305   | 335 | 545 | 592   | 817   | 1,823 | 1,675 | 2,095 |
| 1989 | Dry          | 2,666 | 2,274 | 2,739 | 1,709 | 839   | 310 | 203 | 237   | 579   | 1,260 | 1,732 | 2,311 |
| 1990 | Critical     | 2,584 | 2,572 | 2,219 | 1,498 | 607   | 499 | 430 | 753   | 1,770 | 1,881 | 1,590 | 2,205 |
| 1991 | Critical     | 2,534 | 2,509 | 2,521 | 2,241 | 1,765 | 868 | 262 | 651   | 1,624 | 1,993 | 1,587 | 2,190 |
| 1992 | Critical     | 2,905 | 2,338 | 2,645 | 2,204 | 968   | 299 | 269 | 548   | 780   | 1,227 | 2,163 | 2,690 |
| 1993 | Above Normal | 2,510 | 2,391 | 2,520 | 553   | 252   | 218 | 196 | 201   | 193   | 283   | 1,103 | 2,159 |
| 1994 | Critical     | 2,572 | 2,294 | 2,481 | 2,184 | 1,358 | 422 | 359 | 475   | 983   | 2,149 | 2,072 | 1,990 |
| 1995 | Wet          | 2,702 | 2,067 | 2,772 | 580   | 221   | 244 | 219 | 194   | 204   | 225   | 268   | 272   |
| 1996 | Wet          | 496   | 1,613 | 1,113 | 257   | 239   | 230 | 210 | 211   | 201   | 318   | 1,066 | 1,254 |
| 1997 | Wet          | 1,127 | 1,186 | 276   | 254   | 241   | 228 | 217 | 252   | 368   | 413   | 1,160 | 2,365 |
| 1998 | Wet          | 2,578 | 2,803 | 1,568 | 349   | 315   | 255 | 221 | 214   | 213   | 217   | 209   | 212   |
| 1999 | Wet          | 219   | 253   | 191   | 197   | 217   | 199 | 200 | 227   | 227   | 345   | 1,085 | 1,583 |
| 2000 | Above Normal | 1,692 | 2,214 | 2,223 | 1,073 | 254   | 219 | 202 | 231   | 306   | 364   | 1,011 | 2,119 |
| 2001 | Dry          | 2,199 | 2,427 | 2,248 | 1,358 | 668   | 273 | 227 | 387   | 684   | 1,204 | 1,301 | 2,074 |
| 2002 | Dry          | 2,270 | 2,627 | 1,096 | 241   | 213   | 222 | 237 | 297   | 587   | 1,298 | 1,585 | 2,181 |
| 2003 | Above Normal | 2,321 | 1,719 | 600   | 215   | 204   | 211 | 215 | 210   | 218   | 329   | 1,047 | 2,179 |
|      | Average      | 2,017 | 1,945 | 1,546 | 975   | 506   | 295 | 265 | 328   | 490   | 740   | 1,202 | 1,902 |
|      | Wet          | 1,649 | 1,554 | 757   | 317   | 243   | 227 | 215 | 215   | 227   | 295   | 836   | 1,193 |
|      | Above Normal | 2,196 | 1,850 | 1,595 | 713   | 300   | 220 | 211 | 222   | 257   | 338   | 1,017 | 2,108 |
|      | Below Normal | 2,005 | 2,155 | 1,833 | 1,070 | 397   | 246 | 235 | 269   | 383   | 614   | 1,177 | 2,210 |
|      | Dry          | 2,259 | 2,227 | 1,955 | 1,433 | 703   | 306 | 265 | 324   | 615   | 1,153 | 1,539 | 2,352 |
|      | Critical     | 2,285 | 2,220 | 2,257 | 1,864 | 1,112 | 557 | 465 | 755   | 1,229 | 1,634 | 1,700 | 2,202 |

Source: DSM2 Modeling (Node RSAN018)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 96: Simulated Electrical Conductivity at San Joaquin River at Jersey Point (umhos/cm) - Proposed Action

| WY           | Year Type    | Oct   | Nov   | Dec   | Jan   | Feb   | Mar | Apr | May   | Jun   | Jul   | Aug   | Sep   |
|--------------|--------------|-------|-------|-------|-------|-------|-----|-----|-------|-------|-------|-------|-------|
| 1922         | Above Normal | 2,353 | 2,057 | 1,578 | 1,005 | 440   | 227 | 204 | 205   | 207   | 243   | 938   | 2,028 |
| 1923         | Below Normal | 2,277 | 2,412 | 955   | 247   | 228   | 244 | 229 | 231   | 267   | 631   | 1,259 | 2,002 |
| 1924         | Critical     | 2,177 | 2,229 | 2,369 | 1,887 | 781   | 328 | 464 | 1,121 | 1,656 | 1,484 | 1,434 | 1,931 |
| 1925         | Dry          | 2,620 | 2,301 | 2,470 | 2,422 | 559   | 242 | 233 | 230   | 253   | 613   | 1,484 | 2,491 |
| 1926         | Dry          | 2,266 | 2,157 | 2,363 | 1,992 | 600   | 266 | 276 | 254   | 563   | 1,204 | 1,649 | 2,507 |
| 1927         | Wet          | 2,487 | 1,118 | 645   | 361   | 231   | 214 | 193 | 212   | 225   | 304   | 878   | 1,993 |
| 1928         | Above Normal | 2,325 | 1,426 | 1,096 | 604   | 308   | 205 | 202 | 224   | 315   | 392   | 1,172 | 2,156 |
| 1929         | Critical     | 2,510 | 2,602 | 2,264 | 2,305 | 1,619 | 564 | 485 | 556   | 743   | 1,280 | 1,453 | 2,082 |
| 1930         | Dry          | 2,466 | 2,559 | 2,221 | 978   | 418   | 236 | 211 | 300   | 586   | 1,161 | 1,611 | 2,652 |
| 1931         | Critical     | 2,308 | 2,018 | 2,058 | 2,419 | 1,534 | 852 | 808 | 1,233 | 1,285 | 1,724 | 1,575 | 1,948 |
| 1932         | Dry          | 2,474 | 2,383 | 997   | 416   | 302   | 258 | 273 | 280   | 258   | 474   | 1,573 | 2,834 |
| 1933         | Critical     | 2,076 | 1,813 | 2,088 | 1,386 | 877   | 617 | 358 | 532   | 822   | 1,145 | 1,397 | 1,942 |
| 1934         | Critical     | 2,476 | 2,360 | 2,419 | 1,044 | 410   | 271 | 280 | 534   | 664   | 991   | 1,462 | 2,187 |
| 1935         | Below Normal | 2,332 | 2,378 | 2,610 | 1,347 | 315   | 241 | 212 | 218   | 218   | 471   | 1,028 | 2,220 |
| 1936         | Below Normal | 2,347 | 2,166 | 2,434 | 836   | 280   | 243 | 206 | 220   | 246   | 547   | 931   | 2,044 |
| 1937         | Below Normal | 2,173 | 2,104 | 2,357 | 1,792 | 481   | 303 | 248 | 219   | 220   | 410   | 984   | 2,114 |
| 1938         | Wet          | 2,323 | 797   | 214   | 218   | 328   | 285 | 226 | 214   | 223   | 234   | 755   | 687   |
| 1939         | Dry          | 408   | 1,123 | 2,162 | 2,078 | 1,230 | 459 | 306 | 385   | 836   | 1,234 | 1,184 | 2,134 |
| 1940         | Above Normal | 2,246 | 2,166 | 2,356 | 1,065 | 276   | 214 | 199 | 213   | 276   | 316   | 909   | 2,061 |
| 1941         | Wet          | 2,286 | 2,600 | 951   | 238   | 247   | 228 | 205 | 202   | 203   | 281   | 987   | 1,321 |
| 1942         | Wet          | 1,306 | 2,218 | 650   | 226   | 212   | 205 | 213 | 209   | 195   | 245   | 874   | 876   |
| 1943         | Wet          | 1,020 | 976   | 429   | 224   | 217   | 228 | 222 | 214   | 247   | 361   | 987   | 2,181 |
| 1944         | Dry          | 2,359 | 2,207 | 2,488 | 2,183 | 1,014 | 278 | 245 | 347   | 594   | 1,212 | 1,550 | 2,652 |
| 1945         | Below Normal | 2,572 | 2,298 | 1,445 | 1,335 | 464   | 276 | 251 | 251   | 328   | 612   | 1,266 | 2,310 |
| 1946         | Below Normal | 2,319 | 2,230 | 490   | 199   | 220   | 233 | 225 | 248   | 308   | 707   | 1,310 | 2,378 |
| 1947         | Dry          | 2,531 | 2,739 | 2,019 | 1,349 | 1,144 | 402 | 250 | 354   | 713   | 1,217 | 1,541 | 2,188 |
| 1948         | Below Normal | 2,364 | 2,520 | 2,385 | 2,297 | 858   | 305 | 263 | 217   | 223   | 588   | 1,240 | 1,942 |
| 1949         | Dry          | 2,335 | 2,448 | 2,313 | 2,216 | 1,779 | 472 | 221 | 246   | 332   | 1,103 | 1,605 | 2,336 |
| 1950         | Below Normal | 2,200 | 2,269 | 2,198 | 1,357 | 388   | 214 | 225 | 234   | 290   | 577   | 1,196 | 2,230 |
| 1951         | Above Normal | 2,645 | 467   | 216   | 255   | 227   | 204 | 206 | 232   | 298   | 367   | 1,019 | 2,081 |
| 1952         | Wet          | 2,275 | 2,649 | 822   | 242   | 204   | 223 | 206 | 189   | 207   | 220   | 527   | 388   |
| 1953         | Wet          | 500   | 1,583 | 797   | 209   | 203   | 212 | 220 | 213   | 216   | 366   | 978   | 1,394 |
| 1954         | Above Normal | 1,374 | 1,712 | 2,051 | 1,026 | 230   | 194 | 192 | 211   | 292   | 374   | 854   | 2,059 |
| 1955         | Dry          | 2,447 | 2,596 | 1,015 | 355   | 364   | 344 | 335 | 367   | 507   | 1,091 | 1,465 | 2,153 |
| 1956         | Wet          | 2,183 | 2,840 | 515   | 272   | 237   | 213 | 206 | 214   | 198   | 262   | 841   | 750   |
| 1957         | Above Normal | 593   | 1,123 | 2,085 | 1,749 | 691   | 218 | 219 | 232   | 273   | 359   | 1,087 | 2,358 |
| 1958         | Wet          | 1,304 | 888   | 688   | 278   | 229   | 243 | 221 | 188   | 199   | 250   | 692   | 472   |
| 1959         | Below Normal | 499   | 1,478 | 2,324 | 993   | 240   | 220 | 261 | 405   | 690   | 716   | 978   | 1,991 |
| 1960         | Dry          | 2,554 | 2,483 | 2,246 | 2,357 | 1,254 | 292 | 229 | 298   | 686   | 1,211 | 1,609 | 2,840 |
| 1961         | Dry          | 2,099 | 2,625 | 2,416 | 1,903 | 936   | 282 | 249 | 393   | 902   | 1,239 | 1,631 | 2,151 |
| 1962         | Below Normal | 2,190 | 2,302 | 2,353 | 1,768 | 539   | 232 | 231 | 273   | 538   | 671   | 1,239 | 2,508 |
| 1963         | Wet          | 1,253 | 427   | 507   | 412   | 267   | 203 | 207 | 217   | 207   | 262   | 864   | 1,968 |
| 1964         | Dry          | 2,231 | 1,213 | 695   | 587   | 310   | 359 | 360 | 331   | 600   | 1,329 | 1,757 | 2,155 |
| 1965         | Wet          | 2,357 | 2,577 | 472   | 202   | 204   | 201 | 206 | 217   | 249   | 354   | 999   | 1,984 |
| 1966         | Below Normal | 2,361 | 965   | 477   | 329   | 214   | 209 | 228 | 275   | 498   | 685   | 1,273 | 2,317 |
| 1967         | Wet          | 2,658 | 2,578 | 978   | 273   | 220   | 203 | 231 | 202   | 207   | 231   | 466   | 369   |
| 1968         | Below Normal | 358   | 1,304 | 1,735 | 865   | 226   | 194 | 215 | 339   | 625   | 654   | 1,152 | 2,168 |
| 1969         | Wet          | 2,517 | 2,344 | 1,102 | 272   | 314   | 302 | 254 | 223   | 227   | 245   | 825   | 741   |
| 1970         | Wet          | 434   | 1,150 | 475   | 231   | 215   | 202 | 209 | 250   | 329   | 390   | 958   | 2,102 |
| 1971         | Wet          | 2,433 | 1,300 | 311   | 198   | 194   | 190 | 194 | 210   | 217   | 324   | 1,002 | 1,337 |
| 1972         | Below Normal | 1,406 | 2,271 | 1,949 | 1,416 | 896   | 288 | 219 | 399   | 704   | 675   | 1,331 | 2,236 |
| 1973         | Above Normal | 2,650 | 1,232 | 515   | 246   | 225   | 207 | 206 | 234   | 244   | 380   | 1,040 | 2,017 |
| 1974         | Wet          | 2,487 | 479   | 196   | 194   | 196   | 199 | 198 | 214   | 202   | 303   | 1,056 | 888   |
| 1975         | Wet          | 687   | 1,509 | 1,348 | 1,020 | 355   | 209 | 207 | 220   | 195   | 309   | 1,048 | 941   |
| 1976         | Critical     | 513   | 858   | 1,502 | 1,999 | 1,610 | 697 | 492 | 938   | 1,779 | 2,173 | 2,154 | 2,784 |
| 1977         | Critical     | 2,335 | 2,653 | 2,173 | 1,944 | 1,381 | 856 | 802 | 1,129 | 1,828 | 1,738 | 1,866 | 2,399 |
| 1978         | Above Normal | 2,633 | 2,665 | 2,340 | 518   | 234   | 251 | 264 | 247   | 226   | 351   | 1,163 | 2,114 |
| 1979         | Below Normal | 2,624 | 2,708 | 2,282 | 891   | 288   | 232 | 217 | 232   | 232   | 645   | 1,295 | 2,466 |
| 1980         | Above Normal | 2,619 | 2,371 | 1,258 | 281   | 278   | 274 | 239 | 234   | 234   | 279   | 777   | 1,896 |
| 1981         | Dry          | 2,129 | 2,234 | 2,697 | 1,252 | 289   | 212 | 216 | 372   | 790   | 1,329 | 1,639 | 2,650 |
| 1982         | Wet          | 2,829 | 1,081 | 213   | 225   | 219   | 240 | 215 | 199   | 203   | 254   | 879   | 381   |
| 1983         | Wet          | 188   | 200   | 243   | 308   | 299   | 261 | 236 | 226   | 225   | 216   | 198   | 186   |
| 1984         | Wet          | 197   | 191   | 228   | 247   | 223   | 199 | 215 | 249   | 293   | 419   | 996   | 2,100 |
| 1985         | Dry          | 2,043 | 851   | 266   | 654   | 780   | 377 | 316 | 321   | 705   | 1,294 | 1,674 | 2,336 |
| 1986         | Wet          | 2,296 | 2,322 | 1,743 | 766   | 274   | 268 | 244 | 219   | 237   | 342   | 1,016 | 1,914 |
| 1987         | Dry          | 2,186 | 2,363 | 2,548 | 1,904 | 1,058 | 317 | 235 | 428   | 846   | 1,296 | 1,316 | 2,074 |
| 1988         | Critical     | 2,364 | 2,268 | 2,298 | 993   | 305   | 335 | 537 | 593   | 816   | 1,830 | 1,689 | 2,107 |
| 1989         | Dry          | 2,637 | 2,280 | 2,720 | 1,742 | 870   | 309 | 201 | 238   | 584   | 1,263 | 1,728 | 2,353 |
| 1990         | Critical     | 2,598 | 2,550 | 2,147 | 1,456 | 601   | 471 | 406 | 744   | 1,713 | 1,894 | 1,605 | 2,213 |
| 1991         | Critical     | 2,529 | 2,454 | 2,571 | 2,182 | 1,675 | 806 | 256 | 604   | 1,513 | 2,067 | 1,607 | 2,118 |
| 1992         | Critical     | 2,860 | 2,314 | 2,655 | 2,213 | 962   | 294 | 265 | 542   | 762   | 1,227 | 2,189 | 2,701 |
| 1993         | Above Normal | 2,491 | 2,371 | 2,519 | 553   | 252   | 218 | 197 | 206   | 196   | 277   | 1,111 | 2,156 |
| 1994         | Critical     | 2,566 | 2,530 | 2,301 | 2,275 | 1,499 | 430 | 355 | 473   | 1,019 | 2,108 | 2,053 | 2,185 |
| 1995         | Wet          | 2,870 | 2,057 | 2,726 | 588   | 221   | 246 | 221 | 195   | 205   | 225   | 267   | 270   |
| 1996         | Wet          | 482   | 1,564 | 1,094 | 256   | 238   | 228 | 212 | 210   | 200   | 319   | 1,067 | 1,253 |
| 1997         | Wet          | 1,124 | 1,140 | 271   | 255   | 241   | 227 | 217 | 245   | 323   | 416   | 1,190 | 2,339 |
| 1998         | Wet          | 2,560 | 2,757 | 1,532 | 344   | 313   | 258 | 221 | 214   | 212   | 217   | 209   | 211   |
| 1999         | Wet          | 217   | 247   | 190   | 197   | 217   | 200 | 201 | 226   | 228   | 346   | 1,088 | 1,569 |
| 2000         | Above Normal | 1,673 | 2,091 | 2,198 | 1,026 | 256   | 220 | 202 | 230   | 302   | 364   | 1,014 | 2,106 |
| 2001         | Dry          | 2,174 | 2,288 | 2,321 | 1,459 | 681   | 270 | 228 | 386   | 680   | 1,206 | 1,453 | 2,227 |
| 2002         | Dry          | 2,288 | 2,646 | 1,089 | 239   | 214   | 223 | 228 | 295   | 576   | 1,301 | 1,581 | 2,170 |
| 2003         | Above Normal | 2,336 | 1,652 | 578   | 214   | 204   | 211 | 212 | 210   | 218   | 330   | 1,049 | 2,175 |
| Average      |              | 2,010 | 1,908 | 1,537 | 984   | 520   | 294 | 262 | 327   | 487   | 741   | 1,205 | 1,905 |
| Wet          |              | 1,664 | 1,523 | 744   | 318   | 243   | 226 | 215 | 215   | 226   | 296   | 833   | 1,177 |
| Above Normal |              | 2,161 | 1,778 | 1,566 | 712   | 302   | 220 | 212 | 223   | 257   | 336   | 1,011 | 2,101 |
| Below Normal |              | 2,002 | 2,100 | 1,857 | 1,119 | 403   | 245 | 231 | 269   | 385   | 613   | 1,177 | 2,209 |
| Dry          |              | 2,236 | 2,194 | 1,947 | 1,449 | 767   | 311 | 256 | 324   | 612   | 1,154 | 1,558 | 2,384 |
| Critical     |              | 2,276 | 2,221 | 2,237 | 1,842 | 1,104 | 543 | 459 | 750   | 1,217 | 1,638 | 1,707 | 2,216 |

Source: DSM2 Modeling (Node RSAN018)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 97: Simulated Electrical Conductivity at San Joaquin River at Brandt Bridge (umhos/cm) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan   | Feb   | Mar   | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-------|-------|-------|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 677 | 653 | 763 | 806   | 659   | 555   | 358 | 354 | 340 | 530 | 521 | 523 |
| 1923         | Below Normal | 554 | 573 | 654 | 569   | 542   | 734   | 381 | 379 | 561 | 634 | 539 | 499 |
| 1924         | Critical     | 521 | 577 | 776 | 823   | 989   | 1,014 | 702 | 664 | 707 | 678 | 650 | 629 |
| 1925         | Dry          | 668 | 656 | 809 | 897   | 908   | 951   | 448 | 418 | 653 | 674 | 624 | 588 |
| 1926         | Dry          | 616 | 632 | 810 | 863   | 991   | 1,005 | 561 | 544 | 704 | 687 | 636 | 594 |
| 1927         | Wet          | 640 | 608 | 801 | 855   | 775   | 796   | 424 | 394 | 644 | 666 | 596 | 558 |
| 1928         | Above Normal | 540 | 542 | 764 | 783   | 906   | 511   | 426 | 457 | 677 | 677 | 621 | 583 |
| 1929         | Critical     | 592 | 618 | 803 | 826   | 990   | 1,005 | 623 | 584 | 704 | 687 | 645 | 605 |
| 1930         | Dry          | 658 | 660 | 846 | 906   | 995   | 1,002 | 621 | 582 | 706 | 685 | 643 | 599 |
| 1931         | Critical     | 655 | 655 | 844 | 907   | 994   | 1,011 | 747 | 697 | 709 | 685 | 652 | 628 |
| 1932         | Dry          | 682 | 693 | 750 | 843   | 748   | 896   | 572 | 505 | 669 | 661 | 609 | 579 |
| 1933         | Critical     | 601 | 619 | 820 | 877   | 994   | 1,003 | 627 | 580 | 699 | 680 | 635 | 607 |
| 1934         | Critical     | 644 | 674 | 819 | 881   | 996   | 1,006 | 727 | 662 | 706 | 678 | 651 | 630 |
| 1935         | Below Normal | 681 | 686 | 843 | 819   | 1,010 | 893   | 421 | 410 | 640 | 633 | 607 | 572 |
| 1936         | Below Normal | 586 | 618 | 824 | 846   | 566   | 335   | 360 | 413 | 596 | 646 | 540 | 529 |
| 1937         | Below Normal | 541 | 591 | 783 | 769   | 415   | 382   | 280 | 267 | 591 | 636 | 540 | 528 |
| 1938         | Wet          | 556 | 554 | 522 | 551   | 376   | 330   | 251 | 258 | 251 | 384 | 355 | 350 |
| 1939         | Dry          | 417 | 509 | 728 | 762   | 836   | 818   | 509 | 502 | 702 | 681 | 627 | 576 |
| 1940         | Above Normal | 595 | 635 | 824 | 736   | 732   | 343   | 332 | 381 | 538 | 636 | 592 | 532 |
| 1941         | Wet          | 549 | 579 | 645 | 628   | 420   | 310   | 263 | 273 | 467 | 488 | 484 | 507 |
| 1942         | Wet          | 508 | 523 | 650 | 454   | 298   | 417   | 317 | 281 | 413 | 465 | 371 | 361 |
| 1943         | Wet          | 487 | 498 | 653 | 346   | 266   | 304   | 294 | 375 | 457 | 615 | 520 | 521 |
| 1944         | Dry          | 527 | 530 | 716 | 751   | 815   | 796   | 432 | 464 | 647 | 662 | 618 | 591 |
| 1945         | Below Normal | 585 | 593 | 776 | 780   | 506   | 351   | 387 | 373 | 510 | 601 | 506 | 514 |
| 1946         | Below Normal | 494 | 552 | 495 | 564   | 460   | 497   | 398 | 378 | 539 | 649 | 589 | 553 |
| 1947         | Dry          | 534 | 558 | 705 | 745   | 841   | 992   | 609 | 570 | 688 | 692 | 648 | 607 |
| 1948         | Below Normal | 616 | 628 | 796 | 850   | 991   | 1,002 | 582 | 545 | 635 | 643 | 621 | 597 |
| 1949         | Dry          | 615 | 635 | 809 | 868   | 993   | 957   | 625 | 600 | 659 | 681 | 638 | 609 |
| 1950         | Below Normal | 636 | 631 | 798 | 853   | 991   | 993   | 541 | 448 | 596 | 669 | 633 | 592 |
| 1951         | Above Normal | 618 | 629 | 387 | 325   | 253   | 443   | 395 | 261 | 525 | 659 | 623 | 594 |
| 1952         | Wet          | 588 | 616 | 755 | 569   | 621   | 428   | 229 | 203 | 301 | 385 | 352 | 363 |
| 1953         | Wet          | 535 | 549 | 723 | 610   | 635   | 904   | 383 | 348 | 527 | 614 | 607 | 579 |
| 1954         | Above Normal | 581 | 621 | 782 | 808   | 941   | 982   | 529 | 489 | 663 | 679 | 634 | 607 |
| 1955         | Dry          | 617 | 639 | 775 | 770   | 987   | 1,002 | 613 | 592 | 703 | 702 | 658 | 617 |
| 1956         | Wet          | 657 | 663 | 701 | 371   | 365   | 365   | 385 | 376 | 411 | 490 | 476 | 431 |
| 1957         | Above Normal | 507 | 569 | 751 | 776   | 895   | 943   | 391 | 359 | 564 | 651 | 612 | 575 |
| 1958         | Wet          | 565 | 619 | 774 | 790   | 746   | 481   | 210 | 195 | 327 | 433 | 362 | 363 |
| 1959         | Below Normal | 518 | 560 | 718 | 750   | 720   | 838   | 478 | 480 | 691 | 689 | 641 | 578 |
| 1960         | Dry          | 615 | 661 | 814 | 840   | 946   | 1,001 | 615 | 579 | 707 | 701 | 673 | 642 |
| 1961         | Dry          | 697 | 689 | 830 | 914   | 1,022 | 1,005 | 702 | 665 | 708 | 707 | 695 | 665 |
| 1962         | Below Normal | 716 | 700 | 826 | 942   | 741   | 734   | 510 | 481 | 696 | 671 | 624 | 594 |
| 1963         | Wet          | 632 | 679 | 829 | 859   | 841   | 939   | 458 | 421 | 596 | 641 | 599 | 564 |
| 1964         | Dry          | 587 | 610 | 817 | 827   | 990   | 1,004 | 620 | 582 | 703 | 693 | 656 | 617 |
| 1965         | Wet          | 647 | 669 | 750 | 468   | 392   | 513   | 354 | 351 | 481 | 636 | 464 | 480 |
| 1966         | Below Normal | 541 | 464 | 612 | 645   | 604   | 870   | 512 | 504 | 702 | 700 | 661 | 629 |
| 1967         | Wet          | 630 | 687 | 757 | 778   | 914   | 560   | 268 | 227 | 289 | 300 | 340 | 347 |
| 1968         | Below Normal | 493 | 576 | 735 | 763   | 743   | 917   | 461 | 453 | 682 | 693 | 636 | 603 |
| 1969         | Wet          | 615 | 646 | 793 | 653   | 378   | 401   | 277 | 245 | 245 | 383 | 364 | 369 |
| 1970         | Wet          | 408 | 505 | 626 | 280   | 336   | 366   | 363 | 401 | 490 | 640 | 609 | 560 |
| 1971         | Wet          | 547 | 615 | 788 | 764   | 924   | 850   | 385 | 372 | 562 | 627 | 612 | 578 |
| 1972         | Below Normal | 552 | 636 | 797 | 823   | 936   | 1,003 | 573 | 535 | 705 | 697 | 649 | 624 |
| 1973         | Above Normal | 634 | 634 | 798 | 849   | 703   | 614   | 433 | 440 | 523 | 650 | 533 | 516 |
| 1974         | Wet          | 502 | 517 | 619 | 527   | 612   | 318   | 368 | 394 | 446 | 587 | 501 | 472 |
| 1975         | Wet          | 431 | 487 | 710 | 729   | 344   | 317   | 378 | 376 | 436 | 576 | 492 | 507 |
| 1976         | Critical     | 428 | 512 | 762 | 776   | 921   | 1,003 | 612 | 574 | 706 | 703 | 645 | 630 |
| 1977         | Critical     | 658 | 676 | 820 | 887   | 993   | 1,010 | 698 | 631 | 710 | 697 | 715 | 727 |
| 1978         | Above Normal | 761 | 756 | 865 | 772   | 660   | 682   | 387 | 324 | 404 | 555 | 495 | 451 |
| 1979         | Below Normal | 584 | 523 | 753 | 680   | 370   | 323   | 390 | 306 | 448 | 653 | 538 | 540 |
| 1980         | Above Normal | 518 | 561 | 770 | 396   | 341   | 396   | 358 | 367 | 388 | 464 | 464 | 494 |
| 1981         | Dry          | 480 | 509 | 731 | 751   | 903   | 868   | 489 | 454 | 694 | 673 | 645 | 609 |
| 1982         | Wet          | 588 | 637 | 792 | 727   | 292   | 307   | 225 | 210 | 367 | 421 | 346 | 250 |
| 1983         | Wet          | 203 | 268 | 380 | 346   | 325   | 258   | 281 | 270 | 241 | 225 | 189 | 234 |
| 1984         | Wet          | 350 | 208 | 303 | 339   | 223   | 364   | 369 | 364 | 530 | 633 | 537 | 463 |
| 1985         | Dry          | 447 | 499 | 779 | 775   | 831   | 886   | 540 | 506 | 691 | 701 | 620 | 569 |
| 1986         | Wet          | 580 | 589 | 766 | 825   | 460   | 310   | 244 | 225 | 405 | 608 | 496 | 445 |
| 1987         | Dry          | 436 | 444 | 716 | 775   | 983   | 922   | 597 | 554 | 706 | 703 | 666 | 631 |
| 1988         | Critical     | 649 | 665 | 813 | 876   | 993   | 1,010 | 683 | 643 | 707 | 709 | 712 | 669 |
| 1989         | Dry          | 741 | 706 | 833 | 932   | 1,166 | 1,019 | 718 | 617 | 708 | 689 | 668 | 601 |
| 1990         | Critical     | 689 | 694 | 836 | 946   | 1,152 | 1,023 | 713 | 651 | 710 | 697 | 687 | 666 |
| 1991         | Critical     | 698 | 688 | 854 | 985   | 1,255 | 1,007 | 699 | 653 | 708 | 703 | 695 | 699 |
| 1992         | Critical     | 734 | 731 | 888 | 1,012 | 988   | 1,002 | 746 | 791 | 784 | 697 | 704 | 720 |
| 1993         | Above Normal | 794 | 798 | 911 | 700   | 772   | 849   | 583 | 556 | 487 | 570 | 548 | 517 |
| 1994         | Critical     | 572 | 612 | 834 | 956   | 1,000 | 1,011 | 684 | 637 | 748 | 735 | 708 | 688 |
| 1995         | Wet          | 754 | 739 | 866 | 742   | 821   | 364   | 252 | 210 | 326 | 262 | 342 | 478 |
| 1996         | Wet          | 508 | 534 | 755 | 768   | 356   | 324   | 360 | 317 | 452 | 635 | 525 | 503 |
| 1997         | Wet          | 507 | 442 | 317 | 243   | 308   | 238   | 339 | 365 | 546 | 644 | 577 | 527 |
| 1998         | Wet          | 531 | 617 | 781 | 667   | 358   | 336   | 283 | 275 | 245 | 256 | 304 | 325 |
| 1999         | Wet          | 357 | 477 | 657 | 543   | 229   | 401   | 383 | 352 | 472 | 658 | 577 | 540 |
| 2000         | Above Normal | 546 | 595 | 796 | 778   | 434   | 325   | 394 | 388 | 558 | 667 | 594 | 526 |
| 2001         | Dry          | 509 | 554 | 774 | 780   | 937   | 740   | 557 | 538 | 705 | 702 | 662 | 609 |
| 2002         | Dry          | 642 | 657 | 806 | 795   | 990   | 1,002 | 622 | 587 | 706 | 703 | 655 | 621 |
| 2003         | Above Normal | 695 | 703 | 830 | 904   | 996   | 1,002 | 564 | 529 | 707 | 697 | 651 | 623 |
| Average      |              | 578 | 599 | 747 | 735   | 727   | 707   | 469 | 446 | 572 | 618 | 573 | 549 |
| Wet          |              | 534 | 559 | 681 | 593   | 485   | 442   | 321 | 311 | 420 | 510 | 461 | 449 |
| Above Normal |              | 622 | 641 | 770 | 719   | 691   | 637   | 429 | 409 | 531 | 620 | 574 | 545 |
| Below Normal |              | 578 | 595 | 744 | 761   | 685   | 705   | 448 | 427 | 614 | 658 | 595 | 568 |
| Dry          |              | 583 | 602 | 780 | 822   | 938   | 937   | 580 | 548 | 692 | 689 | 647 | 607 |
| Critical     |              | 620 | 644 | 822 | 896   | 1,022 | 1,009 | 688 | 647 | 716 | 696 | 675 | 658 |

Source: DSM2 Modeling (Node RSAN072)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 98: Simulated Electrical Conductivity at San Joaquin River at Brandt Bridge (umhos/cm) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan   | Feb   | Mar   | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-------|-------|-------|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 670 | 619 | 762 | 806   | 650   | 501   | 350 | 356 | 340 | 530 | 520 | 522 |
| 1923         | Below Normal | 549 | 548 | 654 | 574   | 535   | 768   | 353 | 381 | 560 | 634 | 538 | 498 |
| 1924         | Critical     | 521 | 572 | 767 | 823   | 989   | 996   | 698 | 663 | 707 | 678 | 650 | 629 |
| 1925         | Dry          | 663 | 624 | 807 | 897   | 882   | 791   | 391 | 416 | 654 | 676 | 625 | 589 |
| 1926         | Dry          | 610 | 592 | 791 | 853   | 980   | 943   | 496 | 546 | 704 | 689 | 637 | 595 |
| 1927         | Wet          | 636 | 582 | 799 | 854   | 759   | 692   | 376 | 383 | 640 | 667 | 597 | 556 |
| 1928         | Above Normal | 535 | 516 | 755 | 779   | 876   | 462   | 386 | 448 | 675 | 678 | 622 | 582 |
| 1929         | Critical     | 589 | 587 | 799 | 824   | 969   | 927   | 620 | 595 | 703 | 690 | 647 | 607 |
| 1930         | Dry          | 656 | 635 | 844 | 905   | 994   | 878   | 612 | 578 | 705 | 702 | 654 | 601 |
| 1931         | Critical     | 654 | 655 | 843 | 907   | 994   | 1,007 | 743 | 694 | 709 | 685 | 652 | 628 |
| 1932         | Dry          | 678 | 653 | 747 | 841   | 736   | 759   | 464 | 493 | 673 | 663 | 610 | 581 |
| 1933         | Critical     | 597 | 595 | 834 | 877   | 992   | 905   | 569 | 588 | 704 | 683 | 638 | 610 |
| 1934         | Critical     | 641 | 637 | 811 | 880   | 994   | 966   | 719 | 664 | 707 | 679 | 651 | 634 |
| 1935         | Below Normal | 675 | 644 | 831 | 816   | 970   | 753   | 372 | 411 | 640 | 634 | 607 | 572 |
| 1936         | Below Normal | 582 | 581 | 816 | 844   | 626   | 321   | 331 | 411 | 598 | 654 | 540 | 528 |
| 1937         | Below Normal | 534 | 561 | 778 | 762   | 456   | 379   | 279 | 289 | 588 | 636 | 539 | 527 |
| 1938         | Wet          | 553 | 530 | 521 | 560   | 393   | 332   | 265 | 261 | 254 | 384 | 355 | 350 |
| 1939         | Dry          | 413 | 492 | 727 | 762   | 814   | 722   | 504 | 502 | 702 | 683 | 628 | 576 |
| 1940         | Above Normal | 593 | 606 | 822 | 736   | 722   | 332   | 312 | 381 | 547 | 638 | 591 | 530 |
| 1941         | Wet          | 546 | 552 | 644 | 629   | 453   | 304   | 248 | 251 | 403 | 487 | 484 | 506 |
| 1942         | Wet          | 502 | 504 | 650 | 481   | 297   | 397   | 295 | 281 | 412 | 465 | 372 | 361 |
| 1943         | Wet          | 484 | 481 | 653 | 394   | 268   | 313   | 286 | 378 | 458 | 621 | 519 | 520 |
| 1944         | Dry          | 523 | 511 | 716 | 751   | 793   | 701   | 383 | 466 | 646 | 663 | 619 | 592 |
| 1945         | Below Normal | 583 | 569 | 775 | 780   | 581   | 341   | 369 | 373 | 546 | 602 | 505 | 513 |
| 1946         | Below Normal | 493 | 525 | 481 | 563   | 457   | 465   | 377 | 379 | 538 | 650 | 589 | 540 |
| 1947         | Dry          | 515 | 527 | 697 | 744   | 818   | 913   | 520 | 548 | 694 | 695 | 649 | 607 |
| 1948         | Below Normal | 612 | 611 | 816 | 850   | 990   | 890   | 488 | 543 | 638 | 644 | 622 | 597 |
| 1949         | Dry          | 609 | 603 | 804 | 863   | 983   | 808   | 559 | 601 | 661 | 683 | 638 | 610 |
| 1950         | Below Normal | 632 | 601 | 796 | 852   | 957   | 811   | 447 | 453 | 597 | 670 | 634 | 592 |
| 1951         | Above Normal | 610 | 599 | 451 | 342   | 254   | 419   | 365 | 266 | 536 | 660 | 624 | 594 |
| 1952         | Wet          | 583 | 578 | 747 | 552   | 586   | 429   | 223 | 213 | 307 | 385 | 352 | 363 |
| 1953         | Wet          | 530 | 525 | 722 | 610   | 624   | 817   | 350 | 350 | 531 | 616 | 608 | 579 |
| 1954         | Above Normal | 575 | 587 | 777 | 807   | 941   | 821   | 460 | 484 | 661 | 680 | 635 | 605 |
| 1955         | Dry          | 611 | 605 | 772 | 769   | 969   | 877   | 536 | 593 | 704 | 702 | 659 | 617 |
| 1956         | Wet          | 651 | 627 | 832 | 378   | 369   | 351   | 366 | 332 | 365 | 489 | 476 | 391 |
| 1957         | Above Normal | 499 | 535 | 736 | 775   | 898   | 836   | 356 | 360 | 566 | 652 | 612 | 574 |
| 1958         | Wet          | 561 | 590 | 773 | 790   | 729   | 477   | 203 | 188 | 328 | 433 | 362 | 363 |
| 1959         | Below Normal | 514 | 539 | 717 | 750   | 705   | 739   | 419 | 480 | 696 | 691 | 641 | 577 |
| 1960         | Dry          | 611 | 627 | 812 | 840   | 915   | 935   | 610 | 577 | 706 | 703 | 674 | 644 |
| 1961         | Dry          | 697 | 689 | 830 | 914   | 995   | 945   | 695 | 664 | 708 | 707 | 695 | 665 |
| 1962         | Below Normal | 709 | 656 | 822 | 942   | 729   | 648   | 406 | 469 | 694 | 671 | 625 | 594 |
| 1963         | Wet          | 627 | 648 | 838 | 859   | 829   | 779   | 397 | 420 | 595 | 641 | 599 | 563 |
| 1964         | Dry          | 579 | 571 | 804 | 822   | 989   | 931   | 614 | 579 | 703 | 694 | 656 | 617 |
| 1965         | Wet          | 642 | 632 | 748 | 493   | 391   | 481   | 326 | 351 | 488 | 636 | 464 | 479 |
| 1966         | Below Normal | 536 | 450 | 611 | 644   | 594   | 749   | 419 | 483 | 699 | 701 | 662 | 628 |
| 1967         | Wet          | 626 | 643 | 753 | 776   | 881   | 534   | 263 | 228 | 307 | 297 | 340 | 346 |
| 1968         | Below Normal | 490 | 538 | 734 | 763   | 727   | 782   | 455 | 453 | 685 | 694 | 636 | 603 |
| 1969         | Wet          | 610 | 612 | 792 | 746   | 398   | 412   | 277 | 242 | 256 | 383 | 364 | 369 |
| 1970         | Wet          | 406 | 487 | 625 | 283   | 332   | 351   | 341 | 402 | 500 | 641 | 609 | 559 |
| 1971         | Wet          | 543 | 579 | 786 | 764   | 893   | 735   | 349 | 372 | 573 | 628 | 612 | 578 |
| 1972         | Below Normal | 547 | 601 | 794 | 822   | 950   | 905   | 493 | 535 | 704 | 697 | 649 | 624 |
| 1973         | Above Normal | 627 | 602 | 795 | 847   | 690   | 555   | 378 | 417 | 508 | 648 | 532 | 514 |
| 1974         | Wet          | 498 | 487 | 622 | 577   | 603   | 312   | 346 | 381 | 435 | 586 | 500 | 463 |
| 1975         | Wet          | 425 | 467 | 702 | 741   | 347   | 306   | 361 | 378 | 417 | 575 | 491 | 505 |
| 1976         | Critical     | 428 | 508 | 753 | 775   | 921   | 933   | 604 | 574 | 706 | 703 | 645 | 630 |
| 1977         | Critical     | 658 | 676 | 821 | 888   | 993   | 1,010 | 698 | 632 | 710 | 697 | 715 | 727 |
| 1978         | Above Normal | 751 | 725 | 861 | 772   | 785   | 729   | 422 | 329 | 369 | 554 | 495 | 450 |
| 1979         | Below Normal | 579 | 506 | 752 | 679   | 368   | 315   | 368 | 298 | 450 | 653 | 538 | 538 |
| 1980         | Above Normal | 515 | 532 | 758 | 442   | 351   | 407   | 364 | 350 | 348 | 463 | 464 | 493 |
| 1981         | Dry          | 478 | 493 | 730 | 751   | 874   | 744   | 430 | 454 | 695 | 674 | 646 | 609 |
| 1982         | Wet          | 585 | 605 | 790 | 721   | 304   | 306   | 225 | 218 | 353 | 421 | 346 | 250 |
| 1983         | Wet          | 204 | 283 | 389 | 349   | 339   | 257   | 282 | 273 | 243 | 225 | 189 | 234 |
| 1984         | Wet          | 347 | 210 | 311 | 348   | 224   | 352   | 352 | 366 | 531 | 633 | 537 | 463 |
| 1985         | Dry          | 425 | 479 | 773 | 775   | 809   | 756   | 464 | 509 | 692 | 702 | 620 | 570 |
| 1986         | Wet          | 577 | 563 | 762 | 825   | 487   | 316   | 246 | 229 | 390 | 607 | 495 | 444 |
| 1987         | Dry          | 434 | 433 | 716 | 775   | 944   | 782   | 587 | 560 | 706 | 703 | 667 | 633 |
| 1988         | Critical     | 644 | 625 | 804 | 875   | 991   | 1,005 | 684 | 648 | 707 | 708 | 701 | 670 |
| 1989         | Dry          | 728 | 668 | 831 | 932   | 1,085 | 956   | 616 | 627 | 708 | 690 | 671 | 602 |
| 1990         | Critical     | 682 | 653 | 833 | 946   | 997   | 1,003 | 708 | 655 | 709 | 701 | 690 | 669 |
| 1991         | Critical     | 694 | 656 | 850 | 983   | 1,186 | 835   | 645 | 657 | 707 | 706 | 699 | 705 |
| 1992         | Critical     | 725 | 684 | 880 | 1,009 | 956   | 935   | 732 | 705 | 720 | 701 | 710 | 726 |
| 1993         | Above Normal | 781 | 735 | 901 | 700   | 753   | 724   | 469 | 471 | 410 | 568 | 548 | 515 |
| 1994         | Critical     | 567 | 580 | 830 | 953   | 998   | 1,007 | 676 | 639 | 709 | 714 | 710 | 693 |
| 1995         | Wet          | 744 | 688 | 852 | 743   | 1,063 | 361   | 259 | 219 | 319 | 261 | 341 | 477 |
| 1996         | Wet          | 501 | 513 | 752 | 766   | 337   | 321   | 335 | 333 | 453 | 635 | 524 | 502 |
| 1997         | Wet          | 503 | 436 | 340 | 245   | 312   | 234   | 328 | 345 | 481 | 642 | 580 | 495 |
| 1998         | Wet          | 524 | 572 | 764 | 670   | 377   | 330   | 286 | 289 | 262 | 256 | 304 | 325 |
| 1999         | Wet          | 355 | 463 | 657 | 543   | 229   | 386   | 366 | 353 | 480 | 659 | 577 | 540 |
| 2000         | Above Normal | 543 | 559 | 783 | 777   | 413   | 311   | 370 | 371 | 545 | 667 | 594 | 524 |
| 2001         | Dry          | 503 | 527 | 765 | 780   | 903   | 665   | 486 | 542 | 705 | 702 | 663 | 610 |
| 2002         | Dry          | 639 | 620 | 801 | 795   | 989   | 876   | 527 | 590 | 706 | 703 | 656 | 622 |
| 2003         | Above Normal | 689 | 658 | 826 | 903   | 994   | 906   | 449 | 511 | 706 | 699 | 652 | 623 |
| Average      |              | 573 | 571 | 747 | 738   | 723   | 650   | 437 | 443 | 568 | 618 | 573 | 548 |
| Wet          |              | 529 | 533 | 685 | 604   | 493   | 419   | 306 | 309 | 415 | 511 | 461 | 445 |
| Above Normal |              | 616 | 606 | 769 | 724   | 694   | 584   | 390 | 395 | 517 | 620 | 574 | 544 |
| Below Normal |              | 574 | 567 | 741 | 760   | 689   | 633   | 398 | 426 | 617 | 659 | 595 | 567 |
| Dry          |              | 576 | 575 | 776 | 821   | 915   | 832   | 527 | 547 | 693 | 691 | 648 | 608 |
| Critical     |              | 617 | 619 | 819 | 895   | 998   | 961   | 675 | 643 | 708 | 695 | 676 | 661 |

Source: DSM2 Modeling (Node RSAN072)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 99: Simulated Electrical Conductivity at San Joaquin River at Vernalis (umhos/cm) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan   | Feb   | Mar   | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-------|-------|-------|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 684 | 649 | 765 | 798   | 647   | 551   | 349 | 351 | 335 | 530 | 515 | 520 |
| 1923         | Below Normal | 554 | 572 | 653 | 563   | 540   | 737   | 366 | 376 | 559 | 633 | 528 | 495 |
| 1924         | Critical     | 521 | 578 | 786 | 821   | 1,000 | 1,008 | 656 | 662 | 698 | 667 | 644 | 623 |
| 1925         | Dry          | 669 | 654 | 815 | 898   | 904   | 951   | 419 | 420 | 653 | 671 | 616 | 582 |
| 1926         | Dry          | 616 | 632 | 820 | 861   | 1,000 | 1,001 | 527 | 547 | 698 | 679 | 626 | 587 |
| 1927         | Wet          | 641 | 605 | 814 | 853   | 767   | 795   | 402 | 392 | 647 | 663 | 587 | 552 |
| 1928         | Above Normal | 538 | 541 | 773 | 779   | 913   | 495   | 414 | 456 | 678 | 672 | 612 | 576 |
| 1929         | Critical     | 591 | 618 | 814 | 821   | 1,000 | 1,000 | 582 | 589 | 698 | 679 | 637 | 598 |
| 1930         | Dry          | 659 | 660 | 864 | 898   | 1,000 | 1,000 | 577 | 588 | 698 | 677 | 635 | 593 |
| 1931         | Critical     | 656 | 654 | 856 | 904   | 1,000 | 1,005 | 693 | 694 | 698 | 673 | 644 | 622 |
| 1932         | Dry          | 684 | 692 | 749 | 845   | 738   | 900   | 542 | 506 | 667 | 656 | 600 | 573 |
| 1933         | Critical     | 600 | 618 | 832 | 871   | 1,000 | 1,000 | 582 | 585 | 692 | 672 | 626 | 601 |
| 1934         | Critical     | 645 | 674 | 829 | 881   | 1,001 | 1,001 | 676 | 661 | 696 | 667 | 644 | 624 |
| 1935         | Below Normal | 682 | 685 | 851 | 811   | 1,023 | 883   | 399 | 409 | 641 | 626 | 599 | 566 |
| 1936         | Below Normal | 585 | 619 | 837 | 841   | 556   | 329   | 356 | 411 | 593 | 643 | 528 | 525 |
| 1937         | Below Normal | 540 | 593 | 793 | 762   | 403   | 376   | 275 | 264 | 592 | 633 | 529 | 524 |
| 1938         | Wet          | 556 | 553 | 520 | 549   | 368   | 328   | 249 | 256 | 249 | 382 | 348 | 346 |
| 1939         | Dry          | 417 | 511 | 736 | 759   | 838   | 802   | 477 | 507 | 698 | 673 | 617 | 569 |
| 1940         | Above Normal | 594 | 636 | 835 | 722   | 719   | 328   | 330 | 378 | 531 | 635 | 583 | 524 |
| 1941         | Wet          | 549 | 579 | 645 | 621   | 409   | 306   | 261 | 271 | 466 | 485 | 479 | 504 |
| 1942         | Wet          | 507 | 523 | 653 | 443   | 293   | 419   | 313 | 278 | 411 | 463 | 363 | 357 |
| 1943         | Wet          | 490 | 497 | 658 | 337   | 263   | 303   | 293 | 373 | 452 | 615 | 509 | 517 |
| 1944         | Dry          | 526 | 529 | 723 | 750   | 813   | 792   | 406 | 466 | 643 | 657 | 609 | 585 |
| 1945         | Below Normal | 584 | 592 | 784 | 776   | 496   | 347   | 382 | 370 | 502 | 600 | 495 | 511 |
| 1946         | Below Normal | 492 | 553 | 492 | 564   | 456   | 496   | 385 | 375 | 534 | 650 | 578 | 547 |
| 1947         | Dry          | 532 | 557 | 710 | 744   | 844   | 1,000 | 564 | 575 | 679 | 688 | 639 | 599 |
| 1948         | Below Normal | 616 | 628 | 807 | 849   | 1,000 | 1,000 | 543 | 551 | 625 | 638 | 613 | 592 |
| 1949         | Dry          | 615 | 635 | 821 | 865   | 1,000 | 952   | 588 | 604 | 648 | 678 | 629 | 603 |
| 1950         | Below Normal | 635 | 630 | 807 | 845   | 1,000 | 991   | 497 | 448 | 587 | 669 | 625 | 586 |
| 1951         | Above Normal | 618 | 627 | 378 | 320   | 249   | 446   | 388 | 252 | 525 | 662 | 614 | 588 |
| 1952         | Wet          | 587 | 616 | 756 | 549   | 622   | 422   | 224 | 200 | 300 | 383 | 345 | 360 |
| 1953         | Wet          | 539 | 548 | 730 | 603   | 635   | 912   | 347 | 345 | 520 | 612 | 601 | 572 |
| 1954         | Above Normal | 579 | 622 | 792 | 803   | 949   | 979   | 492 | 487 | 662 | 675 | 626 | 601 |
| 1955         | Dry          | 615 | 639 | 780 | 759   | 1,000 | 1,000 | 579 | 597 | 697 | 698 | 650 | 610 |
| 1956         | Wet          | 658 | 663 | 699 | 356   | 364   | 363   | 381 | 374 | 406 | 488 | 470 | 425 |
| 1957         | Above Normal | 509 | 571 | 762 | 773   | 901   | 944   | 354 | 360 | 558 | 650 | 603 | 569 |
| 1958         | Wet          | 564 | 621 | 782 | 782   | 726   | 465   | 203 | 193 | 327 | 431 | 354 | 359 |
| 1959         | Below Normal | 521 | 561 | 725 | 747   | 713   | 838   | 442 | 481 | 689 | 681 | 632 | 573 |
| 1960         | Dry          | 614 | 663 | 826 | 834   | 949   | 1,000 | 573 | 593 | 698 | 692 | 666 | 635 |
| 1961         | Dry          | 698 | 687 | 842 | 911   | 1,030 | 1,000 | 658 | 662 | 698 | 698 | 691 | 659 |
| 1962         | Below Normal | 717 | 698 | 835 | 948   | 723   | 733   | 487 | 485 | 693 | 663 | 616 | 588 |
| 1963         | Wet          | 633 | 681 | 839 | 856   | 837   | 941   | 428 | 423 | 590 | 638 | 592 | 559 |
| 1964         | Dry          | 588 | 609 | 833 | 821   | 1,000 | 1,000 | 579 | 587 | 698 | 687 | 648 | 610 |
| 1965         | Wet          | 648 | 669 | 750 | 455   | 389   | 514   | 347 | 346 | 475 | 640 | 451 | 477 |
| 1966         | Below Normal | 542 | 459 | 616 | 644   | 601   | 877   | 470 | 509 | 698 | 696 | 653 | 623 |
| 1967         | Wet          | 628 | 690 | 759 | 752   | 922   | 543   | 258 | 224 | 287 | 298 | 335 | 343 |
| 1968         | Below Normal | 496 | 578 | 745 | 755   | 740   | 924   | 426 | 453 | 684 | 688 | 628 | 597 |
| 1969         | Wet          | 614 | 647 | 798 | 640   | 367   | 401   | 274 | 243 | 242 | 381 | 357 | 365 |
| 1970         | Wet          | 408 | 508 | 629 | 268   | 336   | 365   | 353 | 398 | 476 | 644 | 601 | 552 |
| 1971         | Wet          | 545 | 613 | 784 | 760   | 934   | 843   | 355 | 371 | 554 | 623 | 604 | 572 |
| 1972         | Below Normal | 549 | 639 | 808 | 817   | 943   | 999   | 526 | 542 | 698 | 692 | 640 | 620 |
| 1973         | Above Normal | 634 | 628 | 807 | 810   | 682   | 609   | 421 | 438 | 514 | 653 | 520 | 511 |
| 1974         | Wet          | 500 | 515 | 620 | 521   | 614   | 308   | 367 | 391 | 439 | 587 | 490 | 466 |
| 1975         | Wet          | 428 | 488 | 718 | 727   | 328   | 315   | 377 | 371 | 430 | 576 | 483 | 503 |
| 1976         | Critical     | 424 | 514 | 774 | 771   | 928   | 999   | 566 | 578 | 698 | 699 | 637 | 627 |
| 1977         | Critical     | 658 | 675 | 831 | 886   | 1,000 | 1,000 | 632 | 634 | 699 | 685 | 718 | 726 |
| 1978         | Above Normal | 762 | 755 | 871 | 756   | 653   | 677   | 379 | 321 | 401 | 554 | 486 | 446 |
| 1979         | Below Normal | 587 | 519 | 763 | 670   | 357   | 320   | 387 | 300 | 440 | 658 | 527 | 535 |
| 1980         | Above Normal | 516 | 562 | 781 | 382   | 337   | 396   | 354 | 363 | 385 | 463 | 458 | 492 |
| 1981         | Dry          | 478 | 510 | 741 | 745   | 912   | 863   | 460 | 452 | 697 | 664 | 639 | 602 |
| 1982         | Wet          | 586 | 637 | 797 | 712   | 279   | 302   | 223 | 207 | 366 | 418 | 338 | 246 |
| 1983         | Wet          | 202 | 266 | 381 | 338   | 322   | 253   | 281 | 269 | 238 | 222 | 185 | 233 |
| 1984         | Wet          | 352 | 203 | 302 | 339   | 220   | 365   | 362 | 359 | 525 | 632 | 525 | 455 |
| 1985         | Dry          | 446 | 498 | 790 | 771   | 833   | 886   | 506 | 506 | 688 | 699 | 610 | 562 |
| 1986         | Wet          | 579 | 587 | 777 | 821   | 443   | 305   | 241 | 222 | 405 | 608 | 484 | 440 |
| 1987         | Dry          | 433 | 443 | 728 | 774   | 996   | 911   | 553 | 566 | 698 | 698 | 659 | 624 |
| 1988         | Critical     | 648 | 665 | 829 | 872   | 1,000 | 1,005 | 637 | 643 | 699 | 698 | 711 | 661 |
| 1989         | Dry          | 745 | 702 | 841 | 937   | 1,185 | 1,001 | 618 | 620 | 697 | 656 | 662 | 595 |
| 1990         | Critical     | 694 | 693 | 849 | 949   | 1,169 | 1,000 | 638 | 654 | 699 | 682 | 683 | 660 |
| 1991         | Critical     | 698 | 686 | 868 | 994   | 1,281 | 981   | 657 | 650 | 699 | 691 | 693 | 696 |
| 1992         | Critical     | 736 | 730 | 902 | 1,023 | 979   | 1,000 | 698 | 850 | 712 | 675 | 707 | 719 |
| 1993         | Above Normal | 799 | 797 | 919 | 670   | 752   | 843   | 552 | 567 | 474 | 568 | 542 | 511 |
| 1994         | Critical     | 573 | 613 | 847 | 961   | 1,000 | 1,008 | 617 | 641 | 751 | 703 | 707 | 683 |
| 1995         | Wet          | 758 | 737 | 889 | 706   | 824   | 348   | 250 | 208 | 324 | 258 | 337 | 480 |
| 1996         | Wet          | 507 | 534 | 763 | 748   | 330   | 321   | 359 | 314 | 449 | 636 | 512 | 499 |
| 1997         | Wet          | 507 | 438 | 312 | 238   | 309   | 234   | 330 | 361 | 542 | 643 | 567 | 520 |
| 1998         | Wet          | 530 | 618 | 792 | 643   | 335   | 335   | 281 | 274 | 242 | 253 | 299 | 323 |
| 1999         | Wet          | 357 | 480 | 662 | 536   | 218   | 403   | 378 | 348 | 465 | 664 | 566 | 534 |
| 2000         | Above Normal | 545 | 597 | 807 | 769   | 411   | 322   | 389 | 386 | 554 | 669 | 583 | 520 |
| 2001         | Dry          | 507 | 555 | 784 | 773   | 942   | 729   | 540 | 543 | 699 | 698 | 655 | 603 |
| 2002         | Dry          | 642 | 656 | 808 | 787   | 1,001 | 1,000 | 548 | 585 | 698 | 698 | 646 | 615 |
| 2003         | Above Normal | 698 | 701 | 834 | 905   | 1,001 | 1,000 | 514 | 540 | 699 | 692 | 644 | 618 |
| Average      |              | 578 | 599 | 755 | 728   | 726   | 703   | 443 | 447 | 567 | 613 | 565 | 543 |
| Wet          |              | 534 | 558 | 686 | 583   | 479   | 439   | 313 | 308 | 416 | 509 | 453 | 445 |
| Above Normal |              | 623 | 641 | 777 | 707   | 684   | 632   | 411 | 408 | 526 | 619 | 565 | 540 |
| Below Normal |              | 579 | 595 | 751 | 757   | 682   | 704   | 424 | 427 | 610 | 655 | 585 | 563 |
| Dry          |              | 582 | 602 | 789 | 818   | 943   | 933   | 540 | 551 | 686 | 682 | 639 | 600 |
| Critical     |              | 620 | 643 | 835 | 896   | 1,030 | 1,001 | 636 | 653 | 703 | 683 | 671 | 653 |

Source: DSM2 Modeling (Node RSAN112)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 100: Simulated Electrical Conductivity at San Joaquin River at Vernalis (umhos/cm) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan   | Feb   | Mar   | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-------|-------|-------|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 676 | 615 | 765 | 798   | 637   | 496   | 343 | 354 | 335 | 529 | 514 | 518 |
| 1923         | Below Normal | 549 | 546 | 654 | 568   | 533   | 772   | 337 | 378 | 558 | 633 | 528 | 494 |
| 1924         | Critical     | 521 | 573 | 777 | 821   | 1,000 | 990   | 655 | 661 | 698 | 667 | 644 | 623 |
| 1925         | Dry          | 665 | 621 | 814 | 898   | 876   | 785   | 373 | 418 | 655 | 673 | 617 | 583 |
| 1926         | Dry          | 609 | 591 | 802 | 851   | 987   | 936   | 468 | 548 | 699 | 682 | 628 | 588 |
| 1927         | Wet          | 637 | 579 | 814 | 852   | 750   | 688   | 362 | 380 | 644 | 664 | 587 | 550 |
| 1928         | Above Normal | 533 | 514 | 765 | 776   | 881   | 446   | 377 | 445 | 676 | 673 | 613 | 576 |
| 1929         | Critical     | 587 | 586 | 812 | 819   | 977   | 918   | 586 | 598 | 698 | 683 | 639 | 601 |
| 1930         | Dry          | 657 | 633 | 864 | 897   | 998   | 870   | 581 | 584 | 699 | 698 | 646 | 595 |
| 1931         | Critical     | 656 | 654 | 856 | 903   | 1,000 | 1,002 | 690 | 692 | 698 | 673 | 644 | 622 |
| 1932         | Dry          | 679 | 650 | 747 | 844   | 725   | 758   | 444 | 495 | 671 | 658 | 602 | 574 |
| 1933         | Critical     | 596 | 593 | 848 | 870   | 998   | 896   | 537 | 592 | 698 | 675 | 628 | 604 |
| 1934         | Critical     | 641 | 636 | 822 | 880   | 999   | 959   | 678 | 663 | 698 | 667 | 644 | 628 |
| 1935         | Below Normal | 675 | 640 | 841 | 809   | 980   | 740   | 358 | 410 | 641 | 627 | 600 | 566 |
| 1936         | Below Normal | 581 | 580 | 829 | 840   | 617   | 313   | 327 | 409 | 596 | 652 | 527 | 524 |
| 1937         | Below Normal | 533 | 562 | 789 | 754   | 445   | 372   | 275 | 286 | 589 | 633 | 528 | 523 |
| 1938         | Wet          | 552 | 528 | 519 | 559   | 386   | 330   | 263 | 259 | 251 | 382 | 348 | 346 |
| 1939         | Dry          | 414 | 493 | 736 | 759   | 814   | 704   | 478 | 506 | 698 | 675 | 619 | 569 |
| 1940         | Above Normal | 592 | 606 | 835 | 722   | 708   | 317   | 310 | 379 | 541 | 637 | 582 | 523 |
| 1941         | Wet          | 546 | 552 | 645 | 622   | 443   | 299   | 246 | 248 | 401 | 484 | 478 | 503 |
| 1942         | Wet          | 501 | 503 | 654 | 470   | 291   | 398   | 291 | 278 | 410 | 463 | 363 | 357 |
| 1943         | Wet          | 487 | 479 | 658 | 385   | 263   | 312   | 284 | 376 | 453 | 622 | 508 | 516 |
| 1944         | Dry          | 522 | 510 | 723 | 750   | 790   | 695   | 365 | 468 | 643 | 658 | 610 | 586 |
| 1945         | Below Normal | 581 | 567 | 784 | 776   | 573   | 335   | 364 | 370 | 541 | 600 | 494 | 510 |
| 1946         | Below Normal | 490 | 526 | 478 | 564   | 452   | 464   | 367 | 375 | 533 | 651 | 579 | 534 |
| 1947         | Dry          | 512 | 526 | 703 | 743   | 819   | 915   | 486 | 551 | 686 | 690 | 640 | 600 |
| 1948         | Below Normal | 611 | 610 | 829 | 847   | 998   | 881   | 461 | 548 | 627 | 639 | 614 | 592 |
| 1949         | Dry          | 608 | 602 | 818 | 860   | 990   | 796   | 536 | 605 | 651 | 680 | 630 | 604 |
| 1950         | Below Normal | 631 | 599 | 807 | 844   | 963   | 801   | 421 | 454 | 588 | 670 | 625 | 586 |
| 1951         | Above Normal | 610 | 597 | 444 | 335   | 249   | 422   | 359 | 258 | 536 | 663 | 615 | 588 |
| 1952         | Wet          | 582 | 577 | 750 | 532   | 587   | 424   | 218 | 210 | 306 | 383 | 345 | 359 |
| 1953         | Wet          | 534 | 524 | 730 | 603   | 624   | 820   | 322 | 347 | 525 | 613 | 602 | 572 |
| 1954         | Above Normal | 573 | 587 | 788 | 803   | 949   | 808   | 437 | 482 | 660 | 676 | 627 | 599 |
| 1955         | Dry          | 610 | 604 | 779 | 758   | 980   | 868   | 514 | 597 | 698 | 698 | 651 | 611 |
| 1956         | Wet          | 651 | 625 | 837 | 360   | 368   | 348   | 362 | 329 | 361 | 488 | 469 | 384 |
| 1957         | Above Normal | 501 | 536 | 747 | 773   | 903   | 831   | 330 | 361 | 561 | 651 | 603 | 569 |
| 1958         | Wet          | 560 | 591 | 782 | 782   | 708   | 462   | 196 | 186 | 328 | 431 | 354 | 359 |
| 1959         | Below Normal | 517 | 539 | 725 | 747   | 697   | 736   | 395 | 481 | 695 | 683 | 632 | 572 |
| 1960         | Dry          | 610 | 627 | 826 | 834   | 916   | 931   | 577 | 582 | 698 | 695 | 668 | 638 |
| 1961         | Dry          | 698 | 687 | 842 | 911   | 1,000 | 939   | 657 | 662 | 698 | 698 | 691 | 659 |
| 1962         | Below Normal | 710 | 652 | 835 | 948   | 712   | 645   | 388 | 472 | 691 | 663 | 616 | 588 |
| 1963         | Wet          | 628 | 649 | 851 | 855   | 824   | 774   | 378 | 422 | 589 | 638 | 591 | 558 |
| 1964         | Dry          | 579 | 569 | 820 | 817   | 998   | 923   | 581 | 583 | 698 | 689 | 648 | 611 |
| 1965         | Wet          | 643 | 630 | 750 | 481   | 387   | 482   | 320 | 347 | 482 | 639 | 450 | 476 |
| 1966         | Below Normal | 537 | 445 | 615 | 643   | 591   | 752   | 394 | 485 | 698 | 697 | 654 | 622 |
| 1967         | Wet          | 624 | 642 | 757 | 750   | 887   | 518   | 254 | 225 | 306 | 294 | 335 | 343 |
| 1968         | Below Normal | 493 | 539 | 745 | 755   | 723   | 782   | 428 | 453 | 687 | 689 | 629 | 596 |
| 1969         | Wet          | 610 | 611 | 798 | 736   | 385   | 412   | 273 | 240 | 254 | 381 | 357 | 365 |
| 1970         | Wet          | 405 | 489 | 629 | 272   | 332   | 350   | 333 | 398 | 487 | 644 | 600 | 551 |
| 1971         | Wet          | 541 | 576 | 784 | 760   | 900   | 726   | 330 | 371 | 567 | 623 | 604 | 571 |
| 1972         | Below Normal | 544 | 603 | 808 | 816   | 958   | 895   | 460 | 541 | 698 | 693 | 640 | 620 |
| 1973         | Above Normal | 627 | 595 | 806 | 809   | 669   | 549   | 367 | 415 | 498 | 651 | 519 | 510 |
| 1974         | Wet          | 497 | 485 | 624 | 572   | 602   | 303   | 345 | 378 | 428 | 587 | 490 | 456 |
| 1975         | Wet          | 422 | 467 | 710 | 740   | 330   | 304   | 360 | 373 | 410 | 575 | 482 | 502 |
| 1976         | Critical     | 424 | 509 | 765 | 771   | 928   | 924   | 566 | 578 | 698 | 699 | 637 | 627 |
| 1977         | Critical     | 659 | 675 | 831 | 887   | 1,000 | 1,000 | 631 | 634 | 699 | 685 | 718 | 726 |
| 1978         | Above Normal | 752 | 722 | 870 | 756   | 783   | 722   | 413 | 326 | 365 | 554 | 486 | 445 |
| 1979         | Below Normal | 581 | 502 | 762 | 670   | 355   | 312   | 366 | 292 | 442 | 658 | 526 | 534 |
| 1980         | Above Normal | 514 | 532 | 769 | 430   | 346   | 408   | 360 | 346 | 344 | 462 | 458 | 490 |
| 1981         | Dry          | 476 | 494 | 741 | 745   | 880   | 736   | 411 | 452 | 698 | 665 | 639 | 602 |
| 1982         | Wet          | 583 | 604 | 797 | 706   | 291   | 301   | 223 | 215 | 352 | 418 | 338 | 246 |
| 1983         | Wet          | 203 | 282 | 389 | 341   | 336   | 251   | 282 | 272 | 240 | 222 | 185 | 233 |
| 1984         | Wet          | 348 | 206 | 310 | 348   | 220   | 353   | 346 | 361 | 527 | 633 | 525 | 455 |
| 1985         | Dry          | 423 | 477 | 783 | 771   | 809   | 751   | 443 | 510 | 690 | 699 | 610 | 563 |
| 1986         | Wet          | 576 | 561 | 773 | 821   | 470   | 311   | 244 | 226 | 389 | 607 | 483 | 439 |
| 1987         | Dry          | 431 | 432 | 728 | 774   | 953   | 767   | 555 | 571 | 699 | 698 | 660 | 626 |
| 1988         | Critical     | 644 | 623 | 823 | 872   | 998   | 1,001 | 643 | 647 | 699 | 698 | 699 | 664 |
| 1989         | Dry          | 730 | 663 | 841 | 937   | 1,095 | 944   | 579 | 627 | 697 | 662 | 665 | 596 |
| 1990         | Critical     | 687 | 650 | 849 | 949   | 998   | 997   | 650 | 656 | 699 | 688 | 686 | 663 |
| 1991         | Critical     | 693 | 652 | 866 | 992   | 1,203 | 809   | 625 | 652 | 699 | 697 | 697 | 701 |
| 1992         | Critical     | 726 | 681 | 898 | 1,020 | 945   | 930   | 698 | 695 | 710 | 683 | 712 | 724 |
| 1993         | Above Normal | 785 | 730 | 915 | 670   | 732   | 713   | 452 | 473 | 400 | 568 | 541 | 509 |
| 1994         | Critical     | 568 | 579 | 844 | 958   | 998   | 1,004 | 623 | 642 | 700 | 703 | 710 | 688 |
| 1995         | Wet          | 747 | 682 | 883 | 707   | 1,078 | 339   | 257 | 217 | 318 | 258 | 337 | 478 |
| 1996         | Wet          | 500 | 513 | 760 | 746   | 311   | 318   | 334 | 330 | 451 | 636 | 511 | 498 |
| 1997         | Wet          | 503 | 433 | 336 | 239   | 313   | 231   | 321 | 341 | 476 | 644 | 571 | 487 |
| 1998         | Wet          | 524 | 572 | 776 | 646   | 354   | 329   | 285 | 288 | 259 | 253 | 299 | 323 |
| 1999         | Wet          | 355 | 465 | 662 | 536   | 218   | 388   | 362 | 349 | 473 | 665 | 567 | 534 |
| 2000         | Above Normal | 542 | 559 | 795 | 769   | 390   | 308   | 366 | 368 | 541 | 670 | 583 | 517 |
| 2001         | Dry          | 501 | 527 | 775 | 773   | 906   | 654   | 474 | 546 | 699 | 698 | 656 | 604 |
| 2002         | Dry          | 639 | 618 | 805 | 788   | 999   | 867   | 495 | 587 | 698 | 698 | 647 | 616 |
| 2003         | Above Normal | 692 | 654 | 834 | 904   | 999   | 899   | 419 | 520 | 699 | 694 | 645 | 617 |
| Average      |              | 573 | 570 | 755 | 732   | 721   | 643   | 418 | 442 | 563 | 615 | 565 | 542 |
| Wet          |              | 529 | 532 | 691 | 593   | 487   | 414   | 300 | 306 | 411 | 510 | 453 | 441 |
| Above Normal |              | 616 | 604 | 778 | 712   | 687   | 577   | 378 | 394 | 513 | 619 | 565 | 538 |
| Below Normal |              | 574 | 565 | 750 | 756   | 685   | 629   | 381 | 425 | 613 | 656 | 585 | 561 |
| Dry          |              | 576 | 574 | 786 | 817   | 919   | 824   | 501 | 550 | 687 | 684 | 640 | 601 |
| Critical     |              | 617 | 618 | 833 | 895   | 1,004 | 952   | 632 | 643 | 700 | 685 | 671 | 656 |

Source: DSM2 Modeling (Node RSAN112)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 101: Simulated Electrical Conductivity at Old River near Tracy Road Bridge (umhos/cm) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan   | Feb   | Mar   | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-------|-------|-------|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 666 | 665 | 768 | 847   | 721   | 576   | 432 | 424 | 345 | 532 | 538 | 537 |
| 1923         | Below Normal | 558 | 583 | 673 | 605   | 566   | 738   | 441 | 460 | 564 | 638 | 568 | 522 |
| 1924         | Critical     | 526 | 578 | 768 | 840   | 989   | 1,021 | 786 | 694 | 721 | 634 | 582 | 615 |
| 1925         | Dry          | 667 | 666 | 810 | 915   | 930   | 956   | 568 | 465 | 649 | 681 | 667 | 621 |
| 1926         | Dry          | 620 | 638 | 803 | 876   | 996   | 1,011 | 654 | 598 | 712 | 698 | 663 | 623 |
| 1927         | Wet          | 641 | 621 | 800 | 869   | 800   | 806   | 518 | 458 | 641 | 672 | 620 | 584 |
| 1928         | Above Normal | 548 | 550 | 759 | 801   | 911   | 534   | 535 | 524 | 675 | 687 | 639 | 609 |
| 1929         | Critical     | 599 | 621 | 801 | 844   | 994   | 1,012 | 763 | 648 | 662 | 681 | 578 | 602 |
| 1930         | Dry          | 658 | 669 | 845 | 925   | 1,004 | 1,007 | 732 | 613 | 660 | 674 | 629 | 607 |
| 1931         | Critical     | 652 | 664 | 835 | 923   | 1,001 | 1,019 | 818 | 709 | 711 | 692 | 618 | 625 |
| 1932         | Dry          | 681 | 699 | 765 | 861   | 810   | 901   | 721 | 573 | 675 | 672 | 633 | 598 |
| 1933         | Critical     | 607 | 625 | 812 | 898   | 1,002 | 1,013 | 772 | 635 | 699 | 668 | 596 | 622 |
| 1934         | Critical     | 647 | 678 | 818 | 896   | 1,004 | 1,015 | 816 | 685 | 664 | 578 | 549 | 618 |
| 1935         | Below Normal | 680 | 695 | 838 | 839   | 1,011 | 904   | 502 | 481 | 640 | 643 | 628 | 597 |
| 1936         | Below Normal | 591 | 624 | 817 | 865   | 583   | 353   | 420 | 485 | 600 | 649 | 565 | 543 |
| 1937         | Below Normal | 547 | 592 | 777 | 809   | 435   | 421   | 342 | 356 | 578 | 641 | 567 | 544 |
| 1938         | Wet          | 562 | 560 | 529 | 576   | 398   | 339   | 263 | 262 | 255 | 387 | 372 | 364 |
| 1939         | Dry          | 420 | 510 | 723 | 782   | 849   | 839   | 703 | 589 | 706 | 688 | 654 | 609 |
| 1940         | Above Normal | 600 | 637 | 818 | 780   | 829   | 370   | 368 | 447 | 544 | 636 | 612 | 559 |
| 1941         | Wet          | 555 | 582 | 651 | 665   | 462   | 322   | 301 | 345 | 469 | 495 | 500 | 517 |
| 1942         | Wet          | 514 | 529 | 653 | 502   | 312   | 425   | 354 | 348 | 417 | 471 | 391 | 373 |
| 1943         | Wet          | 486 | 506 | 651 | 362   | 285   | 307   | 326 | 421 | 466 | 610 | 544 | 534 |
| 1944         | Dry          | 534 | 536 | 712 | 767   | 850   | 806   | 575 | 520 | 651 | 668 | 639 | 615 |
| 1945         | Below Normal | 593 | 602 | 781 | 801   | 523   | 364   | 485 | 456 | 520 | 605 | 530 | 526 |
| 1946         | Below Normal | 503 | 553 | 502 | 584   | 483   | 508   | 515 | 461 | 545 | 650 | 612 | 575 |
| 1947         | Dry          | 544 | 563 | 703 | 760   | 851   | 993   | 747 | 636 | 702 | 697 | 680 | 639 |
| 1948         | Below Normal | 621 | 635 | 791 | 861   | 994   | 1,008 | 703 | 594 | 652 | 650 | 636 | 622 |
| 1949         | Dry          | 620 | 639 | 806 | 880   | 997   | 966   | 728 | 627 | 688 | 686 | 661 | 631 |
| 1950         | Below Normal | 640 | 639 | 792 | 883   | 995   | 999   | 689 | 530 | 609 | 670 | 654 | 624 |
| 1951         | Above Normal | 619 | 636 | 405 | 361   | 282   | 454   | 486 | 369 | 527 | 654 | 642 | 618 |
| 1952         | Wet          | 595 | 618 | 763 | 696   | 644   | 436   | 263 | 214 | 303 | 389 | 367 | 373 |
| 1953         | Wet          | 530 | 556 | 728 | 637   | 652   | 900   | 522 | 426 | 538 | 619 | 625 | 603 |
| 1954         | Above Normal | 588 | 622 | 781 | 823   | 946   | 988   | 628 | 550 | 665 | 687 | 657 | 628 |
| 1955         | Dry          | 623 | 644 | 777 | 831   | 991   | 1,008 | 721 | 626 | 725 | 708 | 633 | 624 |
| 1956         | Wet          | 659 | 669 | 717 | 435   | 382   | 379   | 451 | 440 | 418 | 495 | 493 | 450 |
| 1957         | Above Normal | 509 | 569 | 749 | 794   | 903   | 948   | 542 | 420 | 572 | 652 | 636 | 601 |
| 1958         | Wet          | 571 | 619 | 771 | 817   | 845   | 571   | 226 | 221 | 330 | 437 | 378 | 373 |
| 1959         | Below Normal | 513 | 565 | 715 | 769   | 748   | 844   | 645 | 557 | 691 | 695 | 672 | 614 |
| 1960         | Dry          | 619 | 661 | 810 | 860   | 959   | 1,007 | 752 | 628 | 717 | 705 | 687 | 665 |
| 1961         | Dry          | 694 | 701 | 830 | 935   | 1,030 | 1,014 | 751 | 647 | 717 | 711 | 702 | 678 |
| 1962         | Below Normal | 714 | 711 | 824 | 954   | 813   | 750   | 676 | 554 | 699 | 680 | 641 | 615 |
| 1963         | Wet          | 633 | 680 | 828 | 872   | 859   | 941   | 584 | 497 | 605 | 646 | 618 | 589 |
| 1964         | Dry          | 591 | 616 | 816 | 842   | 993   | 1,011 | 744 | 637 | 715 | 699 | 676 | 645 |
| 1965         | Wet          | 649 | 672 | 760 | 502   | 413   | 519   | 384 | 437 | 493 | 632 | 496 | 490 |
| 1966         | Below Normal | 543 | 480 | 616 | 668   | 630   | 869   | 670 | 569 | 707 | 706 | 673 | 652 |
| 1967         | Wet          | 637 | 686 | 760 | 910   | 927   | 581   | 315 | 255 | 292 | 304 | 354 | 357 |
| 1968         | Below Normal | 490 | 573 | 735 | 786   | 760   | 915   | 616 | 521 | 681 | 698 | 679 | 634 |
| 1969         | Wet          | 619 | 650 | 797 | 720   | 410   | 405   | 282 | 248 | 247 | 387 | 380 | 380 |
| 1970         | Wet          | 414 | 503 | 625 | 304   | 354   | 377   | 482 | 477 | 511 | 635 | 626 | 588 |
| 1971         | Wet          | 555 | 619 | 842 | 790   | 929   | 858   | 506 | 436 | 569 | 631 | 630 | 608 |
| 1972         | Below Normal | 561 | 631 | 794 | 836   | 940   | 1,008 | 726 | 605 | 713 | 703 | 672 | 644 |
| 1973         | Above Normal | 638 | 661 | 805 | 1,014 | 830   | 653   | 526 | 515 | 537 | 648 | 563 | 535 |
| 1974         | Wet          | 509 | 526 | 631 | 559   | 632   | 334   | 397 | 460 | 456 | 585 | 525 | 490 |
| 1975         | Wet          | 442 | 489 | 704 | 745   | 371   | 327   | 431 | 471 | 445 | 573 | 517 | 517 |
| 1976         | Critical     | 438 | 510 | 757 | 791   | 925   | 1,008 | 748 | 638 | 717 | 709 | 699 | 656 |
| 1977         | Critical     | 659 | 680 | 815 | 900   | 998   | 1,021 | 832 | 677 | 695 | 649 | 611 | 632 |
| 1978         | Above Normal | 756 | 768 | 865 | 821   | 685   | 701   | 408 | 411 | 409 | 556 | 517 | 471 |
| 1979         | Below Normal | 580 | 537 | 746 | 727   | 401   | 333   | 449 | 399 | 459 | 644 | 572 | 553 |
| 1980         | Above Normal | 526 | 563 | 769 | 422   | 363   | 402   | 415 | 431 | 393 | 468 | 477 | 503 |
| 1981         | Dry          | 489 | 514 | 725 | 773   | 912   | 877   | 627 | 530 | 686 | 682 | 658 | 638 |
| 1982         | Wet          | 596 | 639 | 791 | 793   | 308   | 326   | 228 | 217 | 369 | 426 | 361 | 256 |
| 1983         | Wet          | 209 | 286 | 382 | 391   | 341   | 281   | 291 | 273 | 243 | 228 | 197 | 238 |
| 1984         | Wet          | 350 | 216 | 310 | 348   | 239   | 371   | 476 | 461 | 538 | 634 | 563 | 482 |
| 1985         | Dry          | 454 | 513 | 779 | 794   | 840   | 892   | 687 | 581 | 693 | 705 | 642 | 604 |
| 1986         | Wet          | 585 | 596 | 765 | 840   | 506   | 318   | 287 | 311 | 408 | 600 | 518 | 465 |
| 1987         | Dry          | 445 | 451 | 707 | 794   | 985   | 937   | 751 | 629 | 716 | 708 | 634 | 633 |
| 1988         | Critical     | 653 | 669 | 818 | 890   | 995   | 1,018 | 749 | 656 | 718 | 712 | 643 | 657 |
| 1989         | Dry          | 731 | 720 | 831 | 943   | 1,152 | 1,025 | 704 | 612 | 720 | 685 | 677 | 640 |
| 1990         | Critical     | 680 | 700 | 834 | 954   | 1,145 | 1,036 | 781 | 633 | 720 | 693 | 595 | 631 |
| 1991         | Critical     | 699 | 702 | 846 | 989   | 1,234 | 1,014 | 754 | 657 | 616 | 665 | 619 | 638 |
| 1992         | Critical     | 731 | 745 | 883 | 1,018 | 1,007 | 1,006 | 733 | 684 | 584 | 466 | 531 | 663 |
| 1993         | Above Normal | 739 | 799 | 913 | 853   | 923   | 915   | 666 | 575 | 500 | 573 | 564 | 535 |
| 1994         | Critical     | 573 | 615 | 829 | 967   | 1,006 | 1,018 | 746 | 628 | 747 | 723 | 710 | 701 |
| 1995         | Wet          | 744 | 758 | 874 | 897   | 839   | 399   | 290 | 216 | 328 | 266 | 352 | 469 |
| 1996         | Wet          | 514 | 539 | 753 | 870   | 490   | 358   | 391 | 373 | 458 | 628 | 549 | 519 |
| 1997         | Wet          | 513 | 455 | 326 | 260   | 321   | 251   | 462 | 449 | 552 | 643 | 600 | 551 |
| 1998         | Wet          | 538 | 617 | 782 | 785   | 455   | 352   | 299 | 280 | 248 | 259 | 314 | 333 |
| 1999         | Wet          | 361 | 474 | 654 | 585   | 259   | 410   | 439 | 433 | 485 | 650 | 599 | 559 |
| 2000         | Above Normal | 553 | 598 | 791 | 807   | 536   | 342   | 474 | 464 | 564 | 662 | 612 | 552 |
| 2001         | Dry          | 516 | 557 | 771 | 808   | 949   | 755   | 680 | 600 | 720 | 708 | 677 | 630 |
| 2002         | Dry          | 645 | 663 | 821 | 836   | 991   | 1,008 | 718 | 665 | 716 | 707 | 675 | 644 |
| 2003         | Above Normal | 689 | 709 | 834 | 918   | 1,000 | 1,008 | 677 | 570 | 712 | 703 | 670 | 640 |
| Average      |              | 580 | 605 | 748 | 769   | 752   | 720   | 557 | 498 | 573 | 614 | 579 | 562 |
| Wet          |              | 538 | 564 | 686 | 643   | 517   | 457   | 376 | 363 | 426 | 512 | 480 | 464 |
| Above Normal |              | 619 | 648 | 771 | 770   | 744   | 658   | 513 | 475 | 537 | 622 | 594 | 566 |
| Below Normal |              | 581 | 601 | 743 | 785   | 706   | 715   | 563 | 502 | 618 | 662 | 619 | 590 |
| Dry          |              | 586 | 609 | 780 | 843   | 949   | 945   | 698 | 599 | 698 | 693 | 660 | 630 |
| Critical     |              | 622 | 649 | 818 | 909   | 1,025 | 1,017 | 775 | 662 | 688 | 656 | 611 | 638 |

Source: DSM2 Modeling (Node ROLD059)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 102: Simulated Electrical Conductivity at Old River near Tracy Road Bridge (umhos/cm) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan   | Feb   | Mar   | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-------|-------|-------|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 659 | 634 | 764 | 849   | 711   | 521   | 420 | 425 | 345 | 532 | 537 | 536 |
| 1923         | Below Normal | 553 | 559 | 672 | 610   | 558   | 769   | 411 | 455 | 563 | 638 | 568 | 520 |
| 1924         | Critical     | 526 | 573 | 760 | 840   | 989   | 1,004 | 786 | 698 | 721 | 643 | 582 | 615 |
| 1925         | Dry          | 663 | 638 | 807 | 914   | 906   | 806   | 481 | 464 | 649 | 682 | 667 | 621 |
| 1926         | Dry          | 614 | 603 | 784 | 866   | 985   | 953   | 558 | 602 | 712 | 698 | 664 | 624 |
| 1927         | Wet          | 638 | 597 | 798 | 868   | 784   | 707   | 442 | 449 | 635 | 672 | 621 | 583 |
| 1928         | Above Normal | 544 | 526 | 749 | 798   | 882   | 483   | 478 | 517 | 671 | 688 | 640 | 609 |
| 1929         | Critical     | 596 | 594 | 796 | 842   | 974   | 938   | 752 | 652 | 674 | 689 | 580 | 605 |
| 1930         | Dry          | 657 | 647 | 844 | 924   | 1,002 | 889   | 715 | 616 | 705 | 701 | 648 | 614 |
| 1931         | Critical     | 652 | 664 | 837 | 921   | 1,000 | 1,015 | 818 | 711 | 711 | 692 | 616 | 624 |
| 1932         | Dry          | 677 | 666 | 761 | 860   | 798   | 772   | 592 | 557 | 678 | 674 | 635 | 599 |
| 1933         | Critical     | 604 | 603 | 823 | 901   | 1,002 | 921   | 672 | 642 | 713 | 712 | 591 | 608 |
| 1934         | Critical     | 644 | 648 | 808 | 895   | 1,002 | 978   | 803 | 691 | 679 | 587 | 549 | 619 |
| 1935         | Below Normal | 676 | 658 | 825 | 836   | 974   | 772   | 428 | 477 | 640 | 644 | 628 | 598 |
| 1936         | Below Normal | 588 | 590 | 807 | 863   | 643   | 338   | 392 | 477 | 602 | 656 | 565 | 542 |
| 1937         | Below Normal | 541 | 565 | 771 | 802   | 476   | 417   | 339 | 370 | 578 | 640 | 566 | 542 |
| 1938         | Wet          | 558 | 539 | 526 | 586   | 416   | 341   | 278 | 265 | 258 | 387 | 372 | 363 |
| 1939         | Dry          | 416 | 493 | 722 | 782   | 827   | 748   | 692 | 590 | 706 | 690 | 668 | 611 |
| 1940         | Above Normal | 598 | 611 | 815 | 781   | 819   | 357   | 345 | 441 | 552 | 639 | 611 | 558 |
| 1941         | Wet          | 552 | 558 | 648 | 667   | 498   | 315   | 288 | 329 | 407 | 491 | 500 | 516 |
| 1942         | Wet          | 509 | 512 | 652 | 529   | 312   | 404   | 331 | 342 | 416 | 471 | 391 | 373 |
| 1943         | Wet          | 483 | 489 | 650 | 412   | 287   | 317   | 316 | 422 | 466 | 616 | 545 | 533 |
| 1944         | Dry          | 530 | 519 | 711 | 767   | 831   | 714   | 499 | 524 | 651 | 668 | 640 | 615 |
| 1945         | Below Normal | 591 | 581 | 779 | 801   | 598   | 355   | 452 | 456 | 552 | 608 | 529 | 525 |
| 1946         | Below Normal | 501 | 528 | 488 | 584   | 479   | 477   | 483 | 461 | 544 | 650 | 611 | 563 |
| 1947         | Dry          | 525 | 534 | 694 | 759   | 829   | 917   | 646 | 625 | 706 | 700 | 681 | 639 |
| 1948         | Below Normal | 618 | 620 | 809 | 862   | 993   | 902   | 566 | 593 | 654 | 651 | 636 | 621 |
| 1949         | Dry          | 614 | 611 | 801 | 875   | 989   | 825   | 634 | 632 | 688 | 688 | 661 | 631 |
| 1950         | Below Normal | 637 | 612 | 790 | 883   | 963   | 825   | 572 | 534 | 611 | 671 | 652 | 623 |
| 1951         | Above Normal | 613 | 609 | 472 | 381   | 282   | 428   | 440 | 371 | 537 | 656 | 642 | 617 |
| 1952         | Wet          | 591 | 585 | 754 | 677   | 610   | 436   | 258 | 228 | 309 | 390 | 367 | 373 |
| 1953         | Wet          | 525 | 534 | 726 | 637   | 642   | 817   | 469 | 428 | 542 | 620 | 625 | 603 |
| 1954         | Above Normal | 583 | 592 | 775 | 823   | 946   | 835   | 532 | 547 | 661 | 687 | 657 | 627 |
| 1955         | Dry          | 618 | 614 | 773 | 830   | 975   | 889   | 601 | 629 | 725 | 708 | 677 | 645 |
| 1956         | Wet          | 654 | 637 | 840 | 445   | 387   | 364   | 419 | 406 | 371 | 493 | 492 | 410 |
| 1957         | Above Normal | 498 | 539 | 733 | 792   | 905   | 846   | 486 | 424 | 573 | 653 | 636 | 601 |
| 1958         | Wet          | 568 | 594 | 769 | 817   | 830   | 566   | 217 | 206 | 331 | 437 | 378 | 373 |
| 1959         | Below Normal | 510 | 545 | 714 | 769   | 733   | 750   | 558 | 560 | 695 | 697 | 670 | 614 |
| 1960         | Dry          | 615 | 632 | 808 | 859   | 929   | 943   | 742 | 632 | 717 | 707 | 689 | 667 |
| 1961         | Dry          | 695 | 701 | 830 | 935   | 1,004 | 956   | 743 | 650 | 717 | 710 | 701 | 682 |
| 1962         | Below Normal | 708 | 672 | 819 | 953   | 802   | 667   | 545 | 545 | 697 | 680 | 640 | 615 |
| 1963         | Wet          | 628 | 652 | 835 | 872   | 848   | 789   | 501 | 495 | 604 | 646 | 618 | 588 |
| 1964         | Dry          | 583 | 581 | 802 | 837   | 989   | 942   | 736 | 639 | 714 | 700 | 677 | 646 |
| 1965         | Wet          | 644 | 639 | 757 | 528   | 413   | 488   | 356 | 431 | 499 | 633 | 496 | 489 |
| 1966         | Below Normal | 539 | 466 | 614 | 666   | 621   | 755   | 548 | 552 | 698 | 706 | 673 | 652 |
| 1967         | Wet          | 633 | 648 | 755 | 908   | 896   | 555   | 305 | 256 | 310 | 301 | 353 | 357 |
| 1968         | Below Normal | 487 | 541 | 732 | 786   | 745   | 787   | 605 | 523 | 683 | 699 | 680 | 634 |
| 1969         | Wet          | 615 | 621 | 794 | 813   | 434   | 417   | 282 | 245 | 258 | 387 | 381 | 380 |
| 1970         | Wet          | 411 | 487 | 624 | 309   | 348   | 361   | 446 | 479 | 520 | 637 | 626 | 587 |
| 1971         | Wet          | 551 | 590 | 839 | 789   | 899   | 748   | 454 | 438 | 579 | 633 | 630 | 607 |
| 1972         | Below Normal | 557 | 601 | 791 | 837   | 954   | 915   | 619 | 608 | 713 | 704 | 672 | 645 |
| 1973         | Above Normal | 632 | 634 | 802 | 1,012 | 818   | 594   | 467 | 500 | 523 | 645 | 562 | 533 |
| 1974         | Wet          | 505 | 498 | 633 | 611   | 623   | 326   | 368 | 447 | 444 | 584 | 525 | 482 |
| 1975         | Wet          | 435 | 471 | 696 | 757   | 374   | 316   | 400 | 471 | 427 | 571 | 516 | 516 |
| 1976         | Critical     | 438 | 506 | 748 | 790   | 925   | 941   | 739 | 638 | 717 | 709 | 699 | 655 |
| 1977         | Critical     | 659 | 680 | 814 | 901   | 998   | 1,021 | 832 | 678 | 695 | 649 | 611 | 632 |
| 1978         | Above Normal | 751 | 740 | 861 | 821   | 806   | 748   | 485 | 436 | 374 | 555 | 516 | 470 |
| 1979         | Below Normal | 575 | 521 | 745 | 727   | 398   | 325   | 412 | 393 | 460 | 644 | 571 | 552 |
| 1980         | Above Normal | 523 | 536 | 756 | 470   | 373   | 414   | 424 | 420 | 353 | 466 | 477 | 502 |
| 1981         | Dry          | 487 | 499 | 724 | 773   | 884   | 759   | 534 | 533 | 688 | 683 | 659 | 638 |
| 1982         | Wet          | 593 | 612 | 789 | 787   | 320   | 325   | 228 | 226 | 355 | 425 | 361 | 256 |
| 1983         | Wet          | 210 | 302 | 391 | 395   | 356   | 279   | 289 | 276 | 245 | 227 | 196 | 238 |
| 1984         | Wet          | 346 | 218 | 319 | 358   | 240   | 359   | 447 | 462 | 539 | 635 | 563 | 482 |
| 1985         | Dry          | 433 | 493 | 771 | 793   | 819   | 768   | 573 | 585 | 694 | 705 | 642 | 604 |
| 1986         | Wet          | 583 | 573 | 759 | 840   | 535   | 324   | 287 | 314 | 393 | 599 | 517 | 464 |
| 1987         | Dry          | 443 | 441 | 707 | 793   | 948   | 806   | 734 | 634 | 716 | 708 | 634 | 634 |
| 1988         | Critical     | 649 | 636 | 810 | 890   | 994   | 1,013 | 748 | 663 | 717 | 711 | 646 | 659 |
| 1989         | Dry          | 724 | 685 | 827 | 943   | 1,081 | 965   | 632 | 622 | 719 | 688 | 680 | 643 |
| 1990         | Critical     | 675 | 665 | 830 | 953   | 1,003 | 1,010 | 776 | 643 | 720 | 700 | 596 | 634 |
| 1991         | Critical     | 697 | 675 | 840 | 987   | 1,174 | 850   | 660 | 666 | 618 | 662 | 634 | 648 |
| 1992         | Critical     | 726 | 709 | 874 | 1,015 | 978   | 940   | 718 | 640 | 590 | 469 | 532 | 667 |
| 1993         | Above Normal | 754 | 756 | 902 | 852   | 908   | 805   | 546 | 501 | 419 | 568 | 563 | 534 |
| 1994         | Critical     | 568 | 586 | 823 | 965   | 1,004 | 1,013 | 745 | 636 | 716 | 712 | 712 | 702 |
| 1995         | Wet          | 739 | 707 | 863 | 898   | 1,070 | 398   | 312 | 227 | 322 | 265 | 351 | 468 |
| 1996         | Wet          | 508 | 519 | 749 | 868   | 462   | 354   | 363 | 378 | 460 | 628 | 548 | 518 |
| 1997         | Wet          | 509 | 449 | 351 | 262   | 323   | 250   | 448 | 432 | 488 | 636 | 602 | 521 |
| 1998         | Wet          | 529 | 579 | 765 | 787   | 482   | 342   | 304 | 298 | 265 | 259 | 312 | 332 |
| 1999         | Wet          | 359 | 462 | 654 | 585   | 258   | 395   | 410 | 435 | 492 | 652 | 599 | 559 |
| 2000         | Above Normal | 550 | 566 | 778 | 807   | 512   | 328   | 440 | 447 | 549 | 660 | 612 | 549 |
| 2001         | Dry          | 511 | 531 | 761 | 807   | 919   | 684   | 566 | 603 | 719 | 708 | 682 | 647 |
| 2002         | Dry          | 643 | 631 | 815 | 836   | 990   | 890   | 619 | 670 | 715 | 707 | 675 | 645 |
| 2003         | Above Normal | 685 | 670 | 830 | 916   | 998   | 918   | 559 | 557 | 712 | 705 | 671 | 640 |
| Average      |              | 576 | 581 | 747 | 772   | 747   | 665   | 514 | 497 | 571 | 616 | 580 | 562 |
| Wet          |              | 534 | 541 | 690 | 654   | 525   | 434   | 354 | 361 | 421 | 511 | 480 | 460 |
| Above Normal |              | 616 | 618 | 770 | 775   | 747   | 606   | 469 | 465 | 522 | 621 | 594 | 565 |
| Below Normal |              | 577 | 576 | 740 | 784   | 710   | 647   | 495 | 500 | 621 | 663 | 619 | 589 |
| Dry          |              | 580 | 584 | 775 | 842   | 928   | 846   | 628 | 600 | 701 | 696 | 666 | 634 |
| Critical     |              | 620 | 628 | 814 | 908   | 1,004 | 970   | 754 | 663 | 689 | 661 | 612 | 639 |

Source: DSM2 Modeling (Node ROLD059)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 103: Simulated Electrical Conductivity at Old River at Middle River (umhos/cm) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan   | Feb   | Mar   | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-------|-------|-------|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 678 | 655 | 764 | 805   | 660   | 556   | 389 | 358 | 340 | 531 | 521 | 525 |
| 1923         | Below Normal | 556 | 576 | 655 | 571   | 543   | 735   | 403 | 385 | 562 | 635 | 539 | 500 |
| 1924         | Critical     | 523 | 578 | 780 | 825   | 994   | 1,014 | 708 | 671 | 707 | 678 | 651 | 630 |
| 1925         | Dry          | 669 | 658 | 812 | 899   | 908   | 952   | 500 | 440 | 655 | 675 | 624 | 589 |
| 1926         | Dry          | 617 | 633 | 814 | 864   | 996   | 1,005 | 594 | 549 | 705 | 686 | 635 | 595 |
| 1927         | Wet          | 641 | 610 | 807 | 856   | 775   | 796   | 443 | 397 | 647 | 667 | 596 | 559 |
| 1928         | Above Normal | 542 | 544 | 766 | 784   | 909   | 511   | 446 | 461 | 679 | 678 | 621 | 583 |
| 1929         | Critical     | 594 | 620 | 808 | 827   | 994   | 1,005 | 641 | 592 | 705 | 686 | 646 | 606 |
| 1930         | Dry          | 659 | 662 | 855 | 904   | 998   | 1,002 | 636 | 589 | 706 | 684 | 642 | 600 |
| 1931         | Critical     | 655 | 657 | 848 | 908   | 998   | 1,011 | 745 | 702 | 710 | 683 | 652 | 629 |
| 1932         | Dry          | 684 | 695 | 750 | 845   | 749   | 897   | 581 | 508 | 670 | 662 | 609 | 580 |
| 1933         | Critical     | 602 | 621 | 824 | 878   | 997   | 1,003 | 641 | 593 | 700 | 681 | 636 | 608 |
| 1934         | Critical     | 646 | 676 | 824 | 883   | 999   | 1,006 | 727 | 668 | 707 | 679 | 652 | 631 |
| 1935         | Below Normal | 682 | 688 | 846 | 819   | 1,016 | 890   | 423 | 414 | 642 | 633 | 607 | 573 |
| 1936         | Below Normal | 587 | 620 | 829 | 846   | 567   | 336   | 381 | 418 | 598 | 646 | 540 | 530 |
| 1937         | Below Normal | 543 | 593 | 787 | 770   | 415   | 383   | 296 | 269 | 592 | 637 | 540 | 529 |
| 1938         | Wet          | 558 | 555 | 522 | 552   | 376   | 331   | 252 | 258 | 252 | 384 | 356 | 351 |
| 1939         | Dry          | 418 | 510 | 729 | 763   | 839   | 819   | 516 | 508 | 703 | 680 | 628 | 577 |
| 1940         | Above Normal | 597 | 637 | 828 | 735   | 733   | 343   | 337 | 385 | 539 | 637 | 592 | 532 |
| 1941         | Wet          | 551 | 580 | 645 | 629   | 420   | 310   | 268 | 275 | 467 | 489 | 485 | 508 |
| 1942         | Wet          | 509 | 525 | 651 | 455   | 298   | 419   | 346 | 316 | 414 | 466 | 372 | 362 |
| 1943         | Wet          | 489 | 500 | 654 | 347   | 267   | 304   | 333 | 379 | 458 | 616 | 519 | 522 |
| 1944         | Dry          | 529 | 532 | 717 | 753   | 816   | 796   | 451 | 466 | 647 | 662 | 618 | 592 |
| 1945         | Below Normal | 587 | 595 | 780 | 780   | 506   | 352   | 404 | 379 | 511 | 602 | 506 | 515 |
| 1946         | Below Normal | 496 | 554 | 495 | 565   | 461   | 498   | 409 | 381 | 540 | 651 | 588 | 554 |
| 1947         | Dry          | 536 | 559 | 706 | 746   | 843   | 996   | 625 | 581 | 688 | 692 | 647 | 608 |
| 1948         | Below Normal | 618 | 630 | 800 | 850   | 995   | 1,003 | 611 | 555 | 636 | 643 | 620 | 598 |
| 1949         | Dry          | 617 | 637 | 815 | 869   | 996   | 956   | 634 | 605 | 659 | 682 | 637 | 609 |
| 1950         | Below Normal | 637 | 633 | 801 | 852   | 995   | 993   | 551 | 455 | 596 | 670 | 633 | 593 |
| 1951         | Above Normal | 619 | 630 | 387 | 326   | 254   | 444   | 426 | 273 | 528 | 660 | 622 | 595 |
| 1952         | Wet          | 590 | 617 | 755 | 570   | 622   | 428   | 230 | 204 | 301 | 386 | 353 | 365 |
| 1953         | Wet          | 536 | 550 | 726 | 611   | 636   | 907   | 425 | 357 | 529 | 616 | 608 | 579 |
| 1954         | Above Normal | 582 | 622 | 786 | 807   | 945   | 982   | 551 | 495 | 665 | 679 | 634 | 608 |
| 1955         | Dry          | 619 | 640 | 778 | 770   | 992   | 1,002 | 651 | 603 | 704 | 702 | 658 | 618 |
| 1956         | Wet          | 659 | 665 | 701 | 371   | 366   | 367   | 393 | 379 | 412 | 491 | 477 | 432 |
| 1957         | Above Normal | 508 | 570 | 756 | 778   | 898   | 944   | 394 | 361 | 566 | 652 | 611 | 576 |
| 1958         | Wet          | 567 | 620 | 777 | 789   | 745   | 482   | 210 | 196 | 328 | 434 | 363 | 364 |
| 1959         | Below Normal | 519 | 562 | 720 | 751   | 720   | 839   | 483 | 484 | 691 | 687 | 640 | 579 |
| 1960         | Dry          | 616 | 663 | 820 | 840   | 948   | 1,002 | 639 | 598 | 707 | 698 | 672 | 642 |
| 1961         | Dry          | 698 | 691 | 836 | 915   | 1,026 | 1,003 | 685 | 648 | 708 | 704 | 694 | 665 |
| 1962         | Below Normal | 717 | 702 | 830 | 947   | 741   | 735   | 551 | 490 | 696 | 670 | 624 | 594 |
| 1963         | Wet          | 633 | 681 | 834 | 859   | 841   | 940   | 507 | 444 | 597 | 642 | 600 | 564 |
| 1964         | Dry          | 589 | 611 | 825 | 826   | 994   | 1,004 | 630 | 591 | 703 | 692 | 654 | 617 |
| 1965         | Wet          | 648 | 671 | 751 | 469   | 393   | 514   | 381 | 358 | 483 | 639 | 465 | 481 |
| 1966         | Below Normal | 543 | 466 | 613 | 646   | 605   | 871   | 515 | 508 | 702 | 700 | 660 | 629 |
| 1967         | Wet          | 632 | 689 | 758 | 777   | 917   | 560   | 269 | 228 | 289 | 301 | 341 | 348 |
| 1968         | Below Normal | 494 | 577 | 740 | 763   | 743   | 920   | 471 | 457 | 685 | 692 | 635 | 604 |
| 1969         | Wet          | 616 | 648 | 795 | 654   | 378   | 401   | 277 | 245 | 245 | 383 | 365 | 370 |
| 1970         | Wet          | 410 | 507 | 627 | 280   | 337   | 367   | 394 | 406 | 491 | 641 | 609 | 561 |
| 1971         | Wet          | 549 | 615 | 788 | 765   | 928   | 849   | 414 | 377 | 563 | 627 | 611 | 579 |
| 1972         | Below Normal | 553 | 637 | 802 | 821   | 939   | 1,003 | 586 | 543 | 705 | 697 | 648 | 625 |
| 1973         | Above Normal | 635 | 635 | 803 | 844   | 702   | 615   | 453 | 445 | 524 | 652 | 532 | 517 |
| 1974         | Wet          | 503 | 519 | 619 | 528   | 613   | 319   | 382 | 398 | 447 | 588 | 501 | 473 |
| 1975         | Wet          | 433 | 488 | 711 | 730   | 344   | 318   | 394 | 381 | 437 | 577 | 492 | 508 |
| 1976         | Critical     | 430 | 513 | 766 | 777   | 925   | 1,005 | 631 | 581 | 706 | 703 | 644 | 631 |
| 1977         | Critical     | 659 | 677 | 825 | 888   | 996   | 1,010 | 706 | 652 | 711 | 698 | 715 | 728 |
| 1978         | Above Normal | 762 | 758 | 868 | 771   | 660   | 683   | 388 | 325 | 405 | 556 | 495 | 452 |
| 1979         | Below Normal | 585 | 525 | 755 | 681   | 370   | 324   | 408 | 323 | 450 | 655 | 539 | 541 |
| 1980         | Above Normal | 519 | 563 | 775 | 396   | 342   | 396   | 384 | 370 | 389 | 465 | 465 | 496 |
| 1981         | Dry          | 482 | 511 | 734 | 751   | 907   | 867   | 503 | 458 | 696 | 672 | 645 | 609 |
| 1982         | Wet          | 589 | 638 | 794 | 728   | 292   | 308   | 225 | 210 | 367 | 422 | 346 | 250 |
| 1983         | Wet          | 204 | 268 | 380 | 346   | 325   | 258   | 281 | 271 | 241 | 225 | 190 | 235 |
| 1984         | Wet          | 351 | 209 | 303 | 339   | 224   | 365   | 389 | 368 | 532 | 634 | 537 | 464 |
| 1985         | Dry          | 448 | 502 | 782 | 775   | 833   | 887   | 569 | 514 | 692 | 702 | 620 | 569 |
| 1986         | Wet          | 581 | 590 | 770 | 825   | 461   | 311   | 245 | 227 | 406 | 608 | 495 | 446 |
| 1987         | Dry          | 437 | 446 | 719 | 777   | 989   | 921   | 609 | 568 | 706 | 702 | 666 | 631 |
| 1988         | Critical     | 650 | 666 | 824 | 877   | 996   | 1,010 | 694 | 645 | 708 | 705 | 711 | 669 |
| 1989         | Dry          | 742 | 708 | 836 | 937   | 1,171 | 1,013 | 659 | 626 | 708 | 672 | 666 | 602 |
| 1990         | Critical     | 690 | 696 | 843 | 948   | 1,157 | 1,015 | 699 | 642 | 710 | 694 | 687 | 667 |
| 1991         | Critical     | 699 | 690 | 861 | 990   | 1,262 | 998   | 687 | 649 | 709 | 700 | 696 | 700 |
| 1992         | Critical     | 735 | 733 | 895 | 1,020 | 987   | 1,003 | 713 | 812 | 771 | 694 | 705 | 721 |
| 1993         | Above Normal | 793 | 800 | 916 | 700   | 769   | 848   | 601 | 566 | 487 | 570 | 549 | 518 |
| 1994         | Critical     | 573 | 613 | 839 | 960   | 1,001 | 1,011 | 671 | 623 | 751 | 715 | 708 | 689 |
| 1995         | Wet          | 755 | 741 | 882 | 739   | 823   | 363   | 253 | 210 | 326 | 262 | 343 | 480 |
| 1996         | Wet          | 510 | 536 | 757 | 766   | 356   | 325   | 394 | 337 | 453 | 636 | 524 | 504 |
| 1997         | Wet          | 509 | 444 | 317 | 244   | 309   | 239   | 355 | 368 | 547 | 644 | 577 | 528 |
| 1998         | Wet          | 533 | 617 | 796 | 667   | 358   | 336   | 283 | 276 | 245 | 256 | 305 | 326 |
| 1999         | Wet          | 358 | 479 | 658 | 544   | 229   | 402   | 401 | 361 | 474 | 661 | 577 | 541 |
| 2000         | Above Normal | 548 | 597 | 800 | 777   | 436   | 326   | 416 | 404 | 560 | 669 | 593 | 527 |
| 2001         | Dry          | 510 | 556 | 776 | 780   | 939   | 739   | 617 | 545 | 706 | 702 | 662 | 610 |
| 2002         | Dry          | 643 | 658 | 807 | 796   | 993   | 1,002 | 617 | 611 | 706 | 702 | 654 | 622 |
| 2003         | Above Normal | 696 | 704 | 833 | 907   | 998   | 1,002 | 588 | 543 | 706 | 697 | 650 | 624 |
| Average      |              | 579 | 601 | 751 | 736   | 729   | 707   | 483 | 452 | 573 | 618 | 572 | 550 |
| Wet          |              | 535 | 560 | 683 | 594   | 486   | 443   | 336 | 316 | 421 | 511 | 462 | 450 |
| Above Normal |              | 623 | 643 | 773 | 719   | 692   | 638   | 448 | 416 | 532 | 621 | 574 | 546 |
| Below Normal |              | 580 | 597 | 747 | 762   | 687   | 706   | 464 | 433 | 615 | 659 | 594 | 569 |
| Dry          |              | 584 | 604 | 784 | 823   | 941   | 937   | 595 | 555 | 693 | 687 | 646 | 608 |
| Critical     |              | 621 | 645 | 828 | 898   | 1,025 | 1,008 | 689 | 653 | 716 | 693 | 675 | 659 |

Source: DSM2 Modeling (Node RMD041)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 104: Simulated Electrical Conductivity at Old River at Middle River (umhos/cm) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan   | Feb   | Mar   | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-------|-------|-------|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 671 | 622 | 763 | 805   | 650   | 502   | 380 | 360 | 340 | 530 | 521 | 523 |
| 1923         | Below Normal | 550 | 551 | 654 | 576   | 536   | 769   | 375 | 387 | 561 | 635 | 538 | 499 |
| 1924         | Critical     | 523 | 573 | 770 | 824   | 994   | 996   | 706 | 670 | 707 | 678 | 651 | 630 |
| 1925         | Dry          | 664 | 627 | 811 | 899   | 882   | 792   | 432 | 438 | 656 | 676 | 625 | 590 |
| 1926         | Dry          | 611 | 594 | 795 | 854   | 983   | 943   | 517 | 552 | 704 | 688 | 636 | 596 |
| 1927         | Wet          | 637 | 584 | 805 | 856   | 759   | 693   | 399 | 388 | 643 | 667 | 597 | 557 |
| 1928         | Above Normal | 537 | 517 | 757 | 780   | 879   | 462   | 399 | 451 | 677 | 678 | 622 | 583 |
| 1929         | Critical     | 590 | 589 | 805 | 825   | 973   | 926   | 639 | 602 | 704 | 689 | 648 | 608 |
| 1930         | Dry          | 658 | 637 | 854 | 904   | 996   | 877   | 633 | 586 | 706 | 701 | 654 | 602 |
| 1931         | Critical     | 655 | 657 | 848 | 907   | 998   | 1,007 | 741 | 700 | 710 | 683 | 652 | 629 |
| 1932         | Dry          | 679 | 655 | 747 | 844   | 737   | 760   | 471 | 496 | 674 | 663 | 610 | 581 |
| 1933         | Critical     | 599 | 597 | 839 | 877   | 995   | 904   | 577 | 600 | 704 | 684 | 638 | 611 |
| 1934         | Critical     | 642 | 639 | 816 | 882   | 997   | 966   | 723 | 670 | 708 | 679 | 652 | 635 |
| 1935         | Below Normal | 676 | 646 | 835 | 816   | 974   | 751   | 378 | 414 | 642 | 634 | 607 | 573 |
| 1936         | Below Normal | 583 | 583 | 820 | 845   | 626   | 321   | 353 | 415 | 600 | 654 | 540 | 529 |
| 1937         | Below Normal | 536 | 563 | 782 | 762   | 456   | 380   | 298 | 292 | 589 | 636 | 539 | 528 |
| 1938         | Wet          | 554 | 532 | 521 | 562   | 394   | 333   | 265 | 261 | 254 | 384 | 356 | 351 |
| 1939         | Dry          | 414 | 493 | 729 | 763   | 816   | 723   | 513 | 507 | 703 | 682 | 629 | 577 |
| 1940         | Above Normal | 594 | 608 | 827 | 735   | 722   | 332   | 336 | 389 | 548 | 639 | 591 | 531 |
| 1941         | Wet          | 548 | 554 | 645 | 630   | 454   | 304   | 250 | 252 | 404 | 487 | 484 | 507 |
| 1942         | Wet          | 504 | 506 | 651 | 482   | 297   | 398   | 349 | 309 | 413 | 466 | 372 | 362 |
| 1943         | Wet          | 485 | 483 | 654 | 394   | 268   | 314   | 324 | 382 | 459 | 622 | 519 | 521 |
| 1944         | Dry          | 525 | 513 | 716 | 753   | 794   | 701   | 395 | 468 | 647 | 663 | 619 | 593 |
| 1945         | Below Normal | 584 | 572 | 779 | 780   | 581   | 341   | 387 | 380 | 547 | 603 | 505 | 515 |
| 1946         | Below Normal | 494 | 527 | 482 | 565   | 458   | 467   | 395 | 383 | 539 | 651 | 588 | 542 |
| 1947         | Dry          | 517 | 529 | 698 | 746   | 819   | 915   | 528 | 554 | 694 | 695 | 648 | 608 |
| 1948         | Below Normal | 613 | 613 | 821 | 850   | 994   | 889   | 506 | 553 | 638 | 644 | 621 | 598 |
| 1949         | Dry          | 610 | 605 | 811 | 864   | 986   | 806   | 568 | 606 | 661 | 683 | 638 | 610 |
| 1950         | Below Normal | 633 | 604 | 800 | 852   | 960   | 810   | 461 | 460 | 598 | 671 | 633 | 592 |
| 1951         | Above Normal | 611 | 600 | 451 | 342   | 255   | 421   | 395 | 278 | 539 | 662 | 623 | 594 |
| 1952         | Wet          | 585 | 580 | 747 | 552   | 588   | 429   | 223 | 213 | 307 | 386 | 353 | 365 |
| 1953         | Wet          | 531 | 527 | 725 | 611   | 626   | 818   | 386 | 359 | 533 | 617 | 608 | 579 |
| 1954         | Above Normal | 577 | 588 | 781 | 807   | 945   | 819   | 477 | 490 | 662 | 680 | 634 | 605 |
| 1955         | Dry          | 613 | 607 | 775 | 769   | 974   | 875   | 560 | 605 | 704 | 702 | 658 | 618 |
| 1956         | Wet          | 653 | 629 | 833 | 378   | 370   | 352   | 377 | 336 | 366 | 490 | 477 | 391 |
| 1957         | Above Normal | 500 | 537 | 740 | 777   | 901   | 836   | 359 | 363 | 568 | 653 | 611 | 575 |
| 1958         | Wet          | 563 | 592 | 776 | 789   | 728   | 478   | 203 | 189 | 329 | 433 | 362 | 364 |
| 1959         | Below Normal | 515 | 541 | 719 | 751   | 705   | 740   | 426 | 484 | 697 | 689 | 641 | 578 |
| 1960         | Dry          | 612 | 629 | 819 | 840   | 917   | 935   | 638 | 588 | 706 | 701 | 673 | 644 |
| 1961         | Dry          | 698 | 691 | 836 | 915   | 998   | 944   | 684 | 650 | 708 | 704 | 694 | 665 |
| 1962         | Below Normal | 710 | 659 | 828 | 947   | 730   | 649   | 444 | 475 | 694 | 670 | 624 | 594 |
| 1963         | Wet          | 628 | 650 | 844 | 859   | 829   | 780   | 441 | 429 | 596 | 642 | 600 | 564 |
| 1964         | Dry          | 580 | 572 | 811 | 822   | 992   | 930   | 627 | 588 | 703 | 694 | 655 | 618 |
| 1965         | Wet          | 643 | 634 | 749 | 494   | 392   | 482   | 367 | 357 | 490 | 639 | 464 | 480 |
| 1966         | Below Normal | 538 | 452 | 612 | 645   | 595   | 750   | 425 | 487 | 699 | 700 | 660 | 629 |
| 1967         | Wet          | 627 | 645 | 755 | 776   | 884   | 533   | 264 | 228 | 308 | 297 | 341 | 348 |
| 1968         | Below Normal | 491 | 540 | 739 | 763   | 727   | 783   | 466 | 456 | 687 | 693 | 635 | 603 |
| 1969         | Wet          | 612 | 614 | 794 | 747   | 398   | 412   | 277 | 243 | 256 | 384 | 365 | 370 |
| 1970         | Wet          | 407 | 488 | 626 | 284   | 333   | 352   | 361 | 406 | 501 | 642 | 609 | 560 |
| 1971         | Wet          | 544 | 580 | 786 | 765   | 896   | 734   | 379 | 383 | 574 | 628 | 611 | 579 |
| 1972         | Below Normal | 549 | 602 | 800 | 821   | 953   | 904   | 509 | 543 | 704 | 697 | 648 | 625 |
| 1973         | Above Normal | 629 | 604 | 801 | 842   | 689   | 556   | 390 | 421 | 509 | 650 | 531 | 515 |
| 1974         | Wet          | 500 | 489 | 623 | 578   | 604   | 312   | 366 | 386 | 435 | 587 | 500 | 464 |
| 1975         | Wet          | 427 | 468 | 703 | 743   | 347   | 307   | 380 | 382 | 418 | 576 | 491 | 507 |
| 1976         | Critical     | 430 | 509 | 757 | 776   | 925   | 932   | 628 | 582 | 706 | 703 | 644 | 631 |
| 1977         | Critical     | 659 | 678 | 825 | 889   | 997   | 1,010 | 706 | 652 | 711 | 698 | 715 | 728 |
| 1978         | Above Normal | 752 | 727 | 866 | 771   | 786   | 729   | 422 | 331 | 370 | 555 | 495 | 451 |
| 1979         | Below Normal | 579 | 508 | 754 | 680   | 368   | 316   | 389 | 315 | 452 | 655 | 539 | 540 |
| 1980         | Above Normal | 517 | 534 | 762 | 443   | 352   | 408   | 390 | 355 | 348 | 464 | 464 | 494 |
| 1981         | Dry          | 480 | 495 | 734 | 751   | 877   | 743   | 442 | 458 | 697 | 673 | 646 | 609 |
| 1982         | Wet          | 587 | 607 | 792 | 721   | 304   | 307   | 226 | 218 | 353 | 421 | 346 | 250 |
| 1983         | Wet          | 205 | 284 | 389 | 350   | 340   | 257   | 282 | 274 | 243 | 225 | 190 | 235 |
| 1984         | Wet          | 348 | 211 | 311 | 349   | 225   | 353   | 373 | 370 | 533 | 634 | 537 | 464 |
| 1985         | Dry          | 426 | 481 | 775 | 775   | 810   | 756   | 489 | 517 | 693 | 702 | 620 | 570 |
| 1986         | Wet          | 579 | 565 | 766 | 825   | 487   | 317   | 248 | 232 | 391 | 607 | 495 | 445 |
| 1987         | Dry          | 436 | 435 | 719 | 777   | 948   | 781   | 603 | 573 | 706 | 702 | 667 | 633 |
| 1988         | Critical     | 646 | 628 | 817 | 876   | 994   | 1,005 | 699 | 651 | 708 | 705 | 702 | 671 |
| 1989         | Dry          | 729 | 671 | 835 | 937   | 1,088 | 953   | 605 | 635 | 707 | 676 | 669 | 603 |
| 1990         | Critical     | 683 | 656 | 841 | 947   | 998   | 1,002 | 703 | 648 | 709 | 697 | 690 | 670 |
| 1991         | Critical     | 695 | 658 | 857 | 988   | 1,190 | 829   | 632 | 655 | 709 | 704 | 700 | 705 |
| 1992         | Critical     | 726 | 687 | 889 | 1,017 | 954   | 935   | 709 | 706 | 721 | 698 | 710 | 726 |
| 1993         | Above Normal | 781 | 737 | 909 | 699   | 750   | 723   | 494 | 480 | 410 | 569 | 548 | 516 |
| 1994         | Critical     | 568 | 581 | 835 | 957   | 999   | 1,007 | 680 | 630 | 709 | 709 | 711 | 694 |
| 1995         | Wet          | 745 | 689 | 874 | 740   | 1,066 | 360   | 261 | 219 | 320 | 262 | 342 | 478 |
| 1996         | Wet          | 503 | 515 | 754 | 764   | 336   | 322   | 370 | 349 | 454 | 636 | 524 | 503 |
| 1997         | Wet          | 505 | 438 | 341 | 245   | 313   | 235   | 349 | 348 | 482 | 644 | 580 | 496 |
| 1998         | Wet          | 525 | 573 | 769 | 670   | 377   | 331   | 287 | 290 | 262 | 256 | 305 | 327 |
| 1999         | Wet          | 356 | 464 | 657 | 544   | 229   | 387   | 388 | 363 | 482 | 662 | 577 | 541 |
| 2000         | Above Normal | 545 | 561 | 787 | 777   | 415   | 312   | 396 | 386 | 546 | 669 | 594 | 525 |
| 2001         | Dry          | 504 | 529 | 767 | 780   | 905   | 664   | 532 | 549 | 706 | 702 | 663 | 611 |
| 2002         | Dry          | 641 | 622 | 803 | 796   | 992   | 875   | 550 | 616 | 706 | 702 | 655 | 623 |
| 2003         | Above Normal | 690 | 660 | 830 | 906   | 996   | 905   | 484 | 523 | 706 | 699 | 651 | 624 |
| Average      |              | 574 | 573 | 750 | 739   | 724   | 650   | 452 | 449 | 569 | 618 | 573 | 549 |
| Wet          |              | 531 | 535 | 688 | 604   | 494   | 419   | 323 | 314 | 416 | 511 | 462 | 446 |
| Above Normal |              | 617 | 608 | 773 | 724   | 695   | 584   | 410 | 402 | 519 | 621 | 574 | 545 |
| Below Normal |              | 575 | 568 | 745 | 761   | 690   | 634   | 415 | 432 | 618 | 660 | 594 | 568 |
| Dry          |              | 578 | 577 | 780 | 822   | 917   | 832   | 544 | 555 | 693 | 689 | 648 | 608 |
| Critical     |              | 618 | 621 | 825 | 897   | 1,001 | 960   | 679 | 647 | 709 | 694 | 676 | 662 |

Source: DSM2 Modeling (Node RMID041)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 105: Simulated Electrical Conductivity at Old R. at Hwy 4 (CCWD Intake) (umhos/cm) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 674 | 657 | 621 | 520 | 481 | 325 | 288 | 290 | 308 | 273 | 292 | 522 |
| 1923         | Below Normal | 637 | 661 | 644 | 365 | 352 | 329 | 306 | 319 | 267 | 270 | 362 | 561 |
| 1924         | Critical     | 594 | 635 | 740 | 798 | 648 | 655 | 549 | 505 | 600 | 505 | 531 | 606 |
| 1925         | Dry          | 780 | 850 | 835 | 884 | 613 | 655 | 377 | 302 | 303 | 289 | 398 | 640 |
| 1926         | Dry          | 779 | 668 | 764 | 807 | 598 | 336 | 307 | 370 | 316 | 372 | 474 | 634 |
| 1927         | Wet          | 793 | 534 | 326 | 358 | 411 | 331 | 266 | 293 | 238 | 232 | 278 | 529 |
| 1928         | Above Normal | 651 | 556 | 434 | 430 | 310 | 290 | 269 | 316 | 259 | 266 | 318 | 601 |
| 1929         | Critical     | 709 | 731 | 830 | 842 | 889 | 586 | 464 | 477 | 458 | 431 | 477 | 605 |
| 1930         | Dry          | 769 | 832 | 813 | 606 | 401 | 307 | 298 | 364 | 332 | 365 | 463 | 697 |
| 1931         | Critical     | 808 | 681 | 721 | 818 | 947 | 694 | 599 | 551 | 599 | 508 | 583 | 615 |
| 1932         | Dry          | 759 | 818 | 602 | 364 | 405 | 435 | 455 | 413 | 367 | 325 | 404 | 733 |
| 1933         | Critical     | 801 | 613 | 696 | 681 | 587 | 467 | 428 | 417 | 433 | 439 | 488 | 590 |
| 1934         | Critical     | 746 | 831 | 788 | 665 | 456 | 505 | 513 | 483 | 447 | 385 | 454 | 621 |
| 1935         | Below Normal | 783 | 806 | 841 | 743 | 403 | 323 | 320 | 315 | 257 | 251 | 326 | 548 |
| 1936         | Below Normal | 751 | 690 | 770 | 605 | 483 | 346 | 285 | 313 | 273 | 258 | 323 | 515 |
| 1937         | Below Normal | 654 | 650 | 732 | 753 | 657 | 635 | 379 | 279 | 284 | 278 | 318 | 512 |
| 1938         | Wet          | 671 | 462 | 293 | 372 | 405 | 341 | 330 | 312 | 303 | 289 | 286 | 318 |
| 1939         | Dry          | 253 | 311 | 649 | 844 | 758 | 497 | 505 | 384 | 325 | 413 | 436 | 604 |
| 1940         | Above Normal | 755 | 683 | 774 | 738 | 428 | 320 | 276 | 304 | 266 | 249 | 274 | 546 |
| 1941         | Wet          | 667 | 715 | 660 | 376 | 467 | 369 | 293 | 259 | 283 | 277 | 302 | 424 |
| 1942         | Wet          | 391 | 567 | 546 | 400 | 375 | 287 | 292 | 282 | 275 | 274 | 293 | 350 |
| 1943         | Wet          | 318 | 376 | 325 | 374 | 321 | 315 | 306 | 298 | 305 | 276 | 298 | 543 |
| 1944         | Dry          | 705 | 682 | 777 | 853 | 718 | 364 | 317 | 328 | 302 | 368 | 489 | 664 |
| 1945         | Below Normal | 784 | 690 | 607 | 543 | 546 | 542 | 382 | 326 | 267 | 276 | 364 | 597 |
| 1946         | Below Normal | 668 | 649 | 492 | 294 | 401 | 359 | 322 | 329 | 276 | 284 | 372 | 611 |
| 1947         | Dry          | 775 | 749 | 766 | 614 | 586 | 384 | 344 | 364 | 310 | 394 | 472 | 626 |
| 1948         | Below Normal | 772 | 715 | 842 | 908 | 785 | 378 | 290 | 317 | 237 | 255 | 374 | 540 |
| 1949         | Dry          | 654 | 661 | 757 | 853 | 867 | 390 | 297 | 393 | 348 | 339 | 497 | 605 |
| 1950         | Below Normal | 737 | 691 | 757 | 630 | 394 | 271 | 264 | 315 | 255 | 264 | 347 | 578 |
| 1951         | Above Normal | 729 | 432 | 348 | 505 | 417 | 285 | 289 | 275 | 237 | 241 | 289 | 578 |
| 1952         | Wet          | 677 | 732 | 647 | 404 | 301 | 349 | 305 | 245 | 278 | 286 | 260 | 261 |
| 1953         | Wet          | 246 | 415 | 568 | 303 | 319 | 282 | 275 | 269 | 232 | 234 | 309 | 472 |
| 1954         | Above Normal | 447 | 551 | 700 | 780 | 296 | 248 | 259 | 321 | 260 | 254 | 274 | 540 |
| 1955         | Dry          | 709 | 774 | 653 | 346 | 334 | 335 | 356 | 379 | 332 | 340 | 453 | 597 |
| 1956         | Wet          | 716 | 779 | 629 | 680 | 456 | 319 | 282 | 304 | 279 | 272 | 297 | 363 |
| 1957         | Above Normal | 298 | 398 | 670 | 815 | 497 | 271 | 342 | 298 | 247 | 246 | 309 | 615 |
| 1958         | Wet          | 553 | 329 | 374 | 320 | 382 | 512 | 384 | 242 | 269 | 279 | 276 | 282 |
| 1959         | Below Normal | 248 | 376 | 721 | 734 | 334 | 391 | 385 | 348 | 310 | 304 | 325 | 527 |
| 1960         | Dry          | 748 | 749 | 784 | 909 | 792 | 345 | 342 | 387 | 307 | 397 | 466 | 735 |
| 1961         | Dry          | 794 | 701 | 889 | 789 | 668 | 338 | 337 | 353 | 329 | 395 | 475 | 591 |
| 1962         | Below Normal | 703 | 704 | 794 | 808 | 571 | 342 | 295 | 307 | 271 | 292 | 335 | 654 |
| 1963         | Wet          | 665 | 290 | 342 | 321 | 322 | 296 | 321 | 297 | 238 | 229 | 266 | 525 |
| 1964         | Dry          | 632 | 595 | 317 | 393 | 333 | 327 | 380 | 410 | 307 | 408 | 543 | 635 |
| 1965         | Wet          | 740 | 770 | 486 | 324 | 287 | 309 | 309 | 307 | 256 | 250 | 291 | 516 |
| 1966         | Below Normal | 643 | 470 | 299 | 329 | 306 | 269 | 279 | 325 | 272 | 294 | 364 | 641 |
| 1967         | Wet          | 785 | 803 | 749 | 413 | 306 | 293 | 376 | 265 | 286 | 307 | 265 | 257 |
| 1968         | Below Normal | 237 | 346 | 597 | 634 | 307 | 258 | 341 | 346 | 292 | 298 | 339 | 584 |
| 1969         | Wet          | 753 | 735 | 574 | 477 | 404 | 411 | 314 | 259 | 253 | 282 | 291 | 333 |
| 1970         | Wet          | 255 | 336 | 391 | 439 | 345 | 288 | 275 | 302 | 265 | 247 | 291 | 566 |
| 1971         | Wet          | 739 | 533 | 341 | 257 | 247 | 245 | 252 | 273 | 228 | 229 | 291 | 461 |
| 1972         | Below Normal | 422 | 593 | 748 | 625 | 581 | 301 | 270 | 337 | 314 | 299 | 370 | 617 |
| 1973         | Above Normal | 832 | 582 | 377 | 371 | 372 | 319 | 297 | 331 | 279 | 244 | 309 | 539 |
| 1974         | Wet          | 659 | 398 | 272 | 308 | 282 | 291 | 271 | 301 | 284 | 250 | 308 | 380 |
| 1975         | Wet          | 289 | 420 | 574 | 489 | 392 | 299 | 275 | 299 | 263 | 250 | 313 | 377 |
| 1976         | Critical     | 274 | 299 | 474 | 738 | 856 | 511 | 393 | 436 | 568 | 650 | 683 | 797 |
| 1977         | Critical     | 889 | 784 | 917 | 758 | 787 | 727 | 634 | 579 | 652 | 635 | 615 | 695 |
| 1978         | Above Normal | 877 | 904 | 887 | 570 | 413 | 488 | 461 | 324 | 330 | 280 | 336 | 568 |
| 1979         | Below Normal | 690 | 751 | 760 | 599 | 384 | 326 | 301 | 309 | 263 | 262 | 390 | 616 |
| 1980         | Above Normal | 783 | 729 | 614 | 424 | 372 | 450 | 348 | 333 | 341 | 315 | 310 | 479 |
| 1981         | Dry          | 620 | 641 | 829 | 840 | 359 | 275 | 299 | 338 | 328 | 416 | 505 | 711 |
| 1982         | Wet          | 835 | 589 | 265 | 355 | 383 | 434 | 239 | 259 | 280 | 287 | 296 | 288 |
| 1983         | Wet          | 208 | 248 | 420 | 391 | 340 | 276 | 297 | 278 | 250 | 251 | 225 | 207 |
| 1984         | Wet          | 223 | 235 | 313 | 414 | 327 | 262 | 304 | 327 | 280 | 248 | 301 | 555 |
| 1985         | Dry          | 641 | 519 | 273 | 298 | 454 | 410 | 373 | 353 | 302 | 412 | 522 | 665 |
| 1986         | Wet          | 716 | 673 | 700 | 496 | 532 | 337 | 317 | 250 | 299 | 294 | 304 | 496 |
| 1987         | Dry          | 606 | 662 | 811 | 781 | 669 | 409 | 412 | 380 | 333 | 426 | 466 | 594 |
| 1988         | Critical     | 758 | 726 | 813 | 732 | 504 | 537 | 431 | 447 | 388 | 473 | 656 | 658 |
| 1989         | Dry          | 796 | 838 | 848 | 902 | 670 | 362 | 251 | 320 | 268 | 401 | 530 | 676 |
| 1990         | Critical     | 792 | 763 | 810 | 682 | 651 | 433 | 400 | 405 | 524 | 637 | 551 | 653 |
| 1991         | Critical     | 831 | 854 | 871 | 917 | 907 | 589 | 405 | 386 | 484 | 638 | 593 | 627 |
| 1992         | Critical     | 870 | 914 | 842 | 982 | 658 | 361 | 344 | 370 | 374 | 379 | 580 | 795 |
| 1993         | Above Normal | 870 | 819 | 920 | 628 | 403 | 328 | 266 | 300 | 267 | 257 | 315 | 574 |
| 1994         | Critical     | 697 | 725 | 793 | 888 | 807 | 500 | 365 | 377 | 359 | 605 | 720 | 608 |
| 1995         | Wet          | 808 | 814 | 824 | 719 | 332 | 499 | 357 | 234 | 283 | 324 | 245 | 226 |
| 1996         | Wet          | 244 | 413 | 615 | 360 | 496 | 487 | 308 | 305 | 287 | 262 | 312 | 421 |
| 1997         | Wet          | 371 | 427 | 461 | 263 | 340 | 320 | 273 | 315 | 284 | 269 | 320 | 609 |
| 1998         | Wet          | 804 | 803 | 731 | 474 | 418 | 495 | 365 | 314 | 294 | 311 | 241 | 221 |
| 1999         | Wet          | 227 | 236 | 230 | 295 | 347 | 278 | 274 | 312 | 262 | 238 | 306 | 486 |
| 2000         | Above Normal | 474 | 610 | 744 | 693 | 492 | 329 | 268 | 313 | 272 | 255 | 294 | 563 |
| 2001         | Dry          | 641 | 638 | 807 | 675 | 494 | 326 | 333 | 392 | 359 | 383 | 441 | 594 |
| 2002         | Dry          | 755 | 757 | 707 | 336 | 564 | 449 | 327 | 388 | 303 | 406 | 505 | 611 |
| 2003         | Above Normal | 760 | 613 | 496 | 271 | 441 | 305 | 251 | 295 | 223 | 229 | 300 | 593 |
| Average      |              | 639 | 621 | 634 | 574 | 487 | 384 | 338 | 337 | 315 | 330 | 384 | 546 |
| Wet          |              | 552 | 524 | 487 | 399 | 367 | 343 | 302 | 285 | 271 | 267 | 287 | 402 |
| Above Normal |              | 679 | 628 | 632 | 562 | 410 | 330 | 301 | 308 | 274 | 259 | 302 | 560 |
| Below Normal |              | 623 | 628 | 686 | 605 | 464 | 362 | 316 | 320 | 274 | 278 | 351 | 579 |
| Dry          |              | 690 | 691 | 716 | 666 | 571 | 386 | 350 | 368 | 321 | 380 | 474 | 645 |
| Critical     |              | 731 | 713 | 774 | 792 | 725 | 547 | 460 | 453 | 491 | 524 | 578 | 656 |

Source: DSM2 Modeling (Node ROLD034)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 106: Simulated Electrical Conductivity at Old R. at Hwy 4 (CCWD Intake) (umhos/cm) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 671 | 651 | 617 | 519 | 481 | 329 | 287 | 290 | 309 | 273 | 292 | 522 |
| 1923         | Below Normal | 634 | 650 | 629 | 364 | 353 | 332 | 312 | 314 | 268 | 272 | 362 | 551 |
| 1924         | Critical     | 591 | 637 | 741 | 797 | 645 | 713 | 582 | 516 | 602 | 505 | 530 | 605 |
| 1925         | Dry          | 779 | 828 | 798 | 923 | 626 | 686 | 399 | 303 | 304 | 289 | 398 | 642 |
| 1926         | Dry          | 777 | 662 | 762 | 804 | 596 | 353 | 321 | 375 | 318 | 375 | 478 | 646 |
| 1927         | Wet          | 796 | 529 | 317 | 354 | 410 | 341 | 277 | 294 | 239 | 232 | 278 | 528 |
| 1928         | Above Normal | 647 | 542 | 413 | 421 | 310 | 296 | 279 | 320 | 261 | 267 | 318 | 600 |
| 1929         | Critical     | 708 | 728 | 832 | 827 | 882 | 566 | 461 | 479 | 465 | 433 | 478 | 605 |
| 1930         | Dry          | 768 | 825 | 808 | 612 | 403 | 319 | 314 | 368 | 337 | 367 | 465 | 697 |
| 1931         | Critical     | 810 | 682 | 721 | 817 | 947 | 689 | 607 | 556 | 598 | 502 | 579 | 616 |
| 1932         | Dry          | 756 | 811 | 594 | 362 | 402 | 439 | 450 | 394 | 351 | 332 | 405 | 729 |
| 1933         | Critical     | 797 | 609 | 690 | 668 | 553 | 460 | 437 | 429 | 439 | 434 | 481 | 590 |
| 1934         | Critical     | 742 | 818 | 781 | 668 | 419 | 493 | 526 | 493 | 453 | 386 | 453 | 621 |
| 1935         | Below Normal | 781 | 774 | 829 | 845 | 424 | 342 | 330 | 311 | 257 | 250 | 325 | 552 |
| 1936         | Below Normal | 736 | 675 | 765 | 622 | 474 | 352 | 279 | 305 | 272 | 259 | 321 | 505 |
| 1937         | Below Normal | 649 | 645 | 729 | 799 | 673 | 581 | 367 | 280 | 285 | 274 | 318 | 520 |
| 1938         | Wet          | 716 | 471 | 283 | 362 | 424 | 343 | 348 | 314 | 320 | 290 | 286 | 317 |
| 1939         | Dry          | 252 | 307 | 635 | 843 | 762 | 500 | 512 | 385 | 325 | 409 | 434 | 604 |
| 1940         | Above Normal | 755 | 682 | 771 | 747 | 429 | 325 | 273 | 296 | 269 | 248 | 274 | 542 |
| 1941         | Wet          | 651 | 713 | 677 | 378 | 456 | 368 | 274 | 252 | 287 | 280 | 301 | 423 |
| 1942         | Wet          | 388 | 561 | 533 | 385 | 326 | 280 | 291 | 276 | 275 | 274 | 292 | 350 |
| 1943         | Wet          | 318 | 369 | 313 | 364 | 310 | 364 | 308 | 296 | 304 | 275 | 299 | 544 |
| 1944         | Dry          | 674 | 638 | 762 | 866 | 708 | 372 | 330 | 334 | 301 | 367 | 492 | 682 |
| 1945         | Below Normal | 815 | 688 | 583 | 537 | 532 | 545 | 363 | 323 | 268 | 277 | 364 | 596 |
| 1946         | Below Normal | 664 | 619 | 466 | 294 | 390 | 357 | 326 | 328 | 277 | 284 | 384 | 619 |
| 1947         | Dry          | 748 | 735 | 759 | 608 | 581 | 387 | 341 | 373 | 314 | 397 | 483 | 633 |
| 1948         | Below Normal | 767 | 703 | 865 | 875 | 799 | 391 | 300 | 316 | 236 | 254 | 378 | 539 |
| 1949         | Dry          | 670 | 700 | 786 | 826 | 897 | 468 | 324 | 404 | 353 | 343 | 501 | 620 |
| 1950         | Below Normal | 747 | 690 | 751 | 638 | 394 | 278 | 274 | 314 | 255 | 262 | 339 | 577 |
| 1951         | Above Normal | 725 | 427 | 341 | 525 | 403 | 289 | 285 | 275 | 238 | 241 | 290 | 578 |
| 1952         | Wet          | 675 | 731 | 649 | 405 | 303 | 346 | 299 | 239 | 279 | 287 | 260 | 261 |
| 1953         | Wet          | 245 | 406 | 555 | 302 | 319 | 289 | 283 | 272 | 232 | 234 | 300 | 440 |
| 1954         | Above Normal | 417 | 519 | 657 | 759 | 293 | 256 | 269 | 325 | 261 | 253 | 273 | 537 |
| 1955         | Dry          | 707 | 749 | 605 | 339 | 328 | 341 | 376 | 384 | 334 | 339 | 470 | 616 |
| 1956         | Wet          | 730 | 784 | 620 | 689 | 457 | 323 | 282 | 298 | 284 | 273 | 292 | 336 |
| 1957         | Above Normal | 269 | 342 | 615 | 810 | 515 | 277 | 406 | 304 | 247 | 245 | 307 | 612 |
| 1958         | Wet          | 549 | 322 | 358 | 317 | 383 | 492 | 370 | 241 | 267 | 279 | 276 | 281 |
| 1959         | Below Normal | 248 | 370 | 706 | 730 | 334 | 419 | 414 | 355 | 312 | 306 | 325 | 527 |
| 1960         | Dry          | 742 | 739 | 779 | 817 | 794 | 350 | 359 | 395 | 309 | 396 | 464 | 733 |
| 1961         | Dry          | 793 | 702 | 889 | 790 | 668 | 344 | 350 | 356 | 328 | 394 | 477 | 609 |
| 1962         | Below Normal | 717 | 707 | 793 | 817 | 573 | 347 | 299 | 301 | 274 | 297 | 347 | 674 |
| 1963         | Wet          | 673 | 291 | 334 | 320 | 326 | 304 | 331 | 305 | 238 | 229 | 266 | 524 |
| 1964         | Dry          | 629 | 578 | 308 | 386 | 333 | 336 | 393 | 414 | 306 | 406 | 541 | 639 |
| 1965         | Wet          | 744 | 751 | 466 | 323 | 285 | 298 | 303 | 299 | 256 | 250 | 293 | 519 |
| 1966         | Below Normal | 649 | 473 | 296 | 327 | 307 | 271 | 294 | 331 | 274 | 294 | 363 | 640 |
| 1967         | Wet          | 780 | 774 | 709 | 410 | 307 | 292 | 356 | 262 | 284 | 311 | 264 | 256 |
| 1968         | Below Normal | 237 | 334 | 564 | 623 | 307 | 269 | 361 | 352 | 295 | 298 | 338 | 585 |
| 1969         | Wet          | 752 | 730 | 569 | 469 | 426 | 428 | 315 | 255 | 265 | 286 | 292 | 334 |
| 1970         | Wet          | 255 | 326 | 373 | 431 | 343 | 292 | 288 | 310 | 265 | 247 | 291 | 563 |
| 1971         | Wet          | 733 | 524 | 331 | 257 | 254 | 255 | 258 | 271 | 228 | 229 | 291 | 460 |
| 1972         | Below Normal | 421 | 588 | 738 | 620 | 580 | 309 | 288 | 342 | 314 | 299 | 369 | 614 |
| 1973         | Above Normal | 829 | 582 | 381 | 373 | 374 | 327 | 297 | 324 | 277 | 244 | 308 | 541 |
| 1974         | Wet          | 698 | 407 | 272 | 302 | 281 | 286 | 271 | 298 | 284 | 250 | 309 | 378 |
| 1975         | Wet          | 284 | 404 | 552 | 488 | 400 | 293 | 274 | 299 | 266 | 251 | 312 | 376 |
| 1976         | Critical     | 274 | 295 | 457 | 724 | 850 | 512 | 394 | 434 | 568 | 649 | 677 | 804 |
| 1977         | Critical     | 887 | 775 | 915 | 772 | 798 | 733 | 637 | 580 | 653 | 635 | 615 | 695 |
| 1978         | Above Normal | 875 | 899 | 884 | 572 | 401 | 485 | 453 | 334 | 330 | 277 | 333 | 564 |
| 1979         | Below Normal | 686 | 747 | 762 | 617 | 389 | 321 | 299 | 306 | 263 | 262 | 386 | 608 |
| 1980         | Above Normal | 779 | 705 | 574 | 413 | 390 | 473 | 350 | 332 | 341 | 314 | 311 | 469 |
| 1981         | Dry          | 614 | 638 | 831 | 835 | 354 | 274 | 305 | 341 | 327 | 411 | 503 | 702 |
| 1982         | Wet          | 832 | 585 | 264 | 356 | 370 | 400 | 238 | 253 | 281 | 287 | 296 | 288 |
| 1983         | Wet          | 208 | 250 | 411 | 395 | 355 | 275 | 299 | 282 | 252 | 251 | 225 | 207 |
| 1984         | Wet          | 224 | 234 | 324 | 420 | 327 | 267 | 315 | 328 | 282 | 249 | 302 | 555 |
| 1985         | Dry          | 615 | 475 | 266 | 294 | 450 | 416 | 387 | 357 | 304 | 412 | 521 | 658 |
| 1986         | Wet          | 712 | 671 | 699 | 496 | 517 | 342 | 321 | 252 | 301 | 295 | 309 | 499 |
| 1987         | Dry          | 605 | 658 | 810 | 793 | 677 | 416 | 433 | 386 | 332 | 424 | 463 | 595 |
| 1988         | Critical     | 759 | 722 | 800 | 726 | 503 | 547 | 451 | 457 | 390 | 476 | 661 | 662 |
| 1989         | Dry          | 795 | 829 | 845 | 895 | 672 | 371 | 271 | 329 | 272 | 403 | 525 | 682 |
| 1990         | Critical     | 798 | 762 | 790 | 661 | 640 | 439 | 418 | 417 | 520 | 631 | 552 | 657 |
| 1991         | Critical     | 832 | 845 | 861 | 921 | 888 | 571 | 411 | 392 | 464 | 635 | 621 | 615 |
| 1992         | Critical     | 854 | 899 | 833 | 985 | 657 | 365 | 353 | 380 | 381 | 379 | 585 | 799 |
| 1993         | Above Normal | 869 | 811 | 913 | 628 | 404 | 336 | 278 | 305 | 285 | 262 | 316 | 577 |
| 1994         | Critical     | 696 | 736 | 814 | 845 | 896 | 535 | 390 | 388 | 367 | 605 | 689 | 645 |
| 1995         | Wet          | 853 | 786 | 798 | 725 | 322 | 473 | 367 | 278 | 291 | 323 | 245 | 226 |
| 1996         | Wet          | 243 | 403 | 600 | 358 | 489 | 462 | 307 | 303 | 288 | 262 | 313 | 421 |
| 1997         | Wet          | 371 | 422 | 440 | 265 | 352 | 312 | 271 | 313 | 301 | 272 | 325 | 608 |
| 1998         | Wet          | 793 | 790 | 711 | 469 | 457 | 538 | 371 | 311 | 332 | 318 | 242 | 221 |
| 1999         | Wet          | 227 | 236 | 229 | 295 | 344 | 282 | 280 | 313 | 263 | 238 | 307 | 484 |
| 2000         | Above Normal | 470 | 588 | 710 | 702 | 500 | 330 | 271 | 314 | 275 | 255 | 295 | 561 |
| 2001         | Dry          | 636 | 616 | 784 | 716 | 508 | 331 | 335 | 396 | 362 | 384 | 454 | 631 |
| 2002         | Dry          | 778 | 757 | 706 | 338 | 577 | 450 | 350 | 394 | 304 | 406 | 507 | 607 |
| 2003         | Above Normal | 759 | 601 | 477 | 270 | 445 | 316 | 265 | 284 | 224 | 230 | 301 | 593 |
| Average      |              | 638 | 613 | 624 | 576 | 488 | 389 | 346 | 339 | 317 | 330 | 384 | 547 |
| Wet          |              | 556 | 518 | 476 | 397 | 367 | 344 | 304 | 285 | 275 | 268 | 287 | 400 |
| Above Normal |              | 672 | 612 | 613 | 562 | 412 | 337 | 309 | 309 | 276 | 259 | 302 | 558 |
| Below Normal |              | 625 | 619 | 677 | 622 | 466 | 365 | 322 | 320 | 275 | 278 | 351 | 579 |
| Dry          |              | 685 | 680 | 707 | 669 | 574 | 397 | 364 | 372 | 321 | 381 | 477 | 651 |
| Critical     |              | 729 | 709 | 770 | 784 | 723 | 552 | 472 | 460 | 492 | 523 | 577 | 659 |

Source: DSM2 Modeling (Node ROLD034)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 107: Simulated Electrical Conductivity at Delta Mendota Canal at Tracy Pumping Plant (umhos/cm) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb   | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 601 | 603 | 643 | 632 | 617   | 473 | 356 | 356 | 355 | 389 | 343 | 477 |
| 1923         | Below Normal | 562 | 583 | 637 | 514 | 490   | 543 | 380 | 369 | 379 | 331 | 379 | 500 |
| 1924         | Critical     | 530 | 564 | 692 | 766 | 822   | 993 | 666 | 566 | 568 | 496 | 519 | 557 |
| 1925         | Dry          | 670 | 715 | 763 | 832 | 753   | 928 | 469 | 374 | 391 | 338 | 415 | 559 |
| 1926         | Dry          | 667 | 609 | 723 | 773 | 736   | 611 | 436 | 474 | 395 | 378 | 465 | 562 |
| 1927         | Wet          | 678 | 529 | 477 | 575 | 690   | 572 | 374 | 361 | 339 | 304 | 319 | 485 |
| 1928         | Above Normal | 568 | 519 | 527 | 558 | 536   | 429 | 356 | 413 | 337 | 329 | 341 | 539 |
| 1929         | Critical     | 622 | 637 | 751 | 785 | 892   | 872 | 644 | 534 | 531 | 453 | 484 | 553 |
| 1930         | Dry          | 665 | 721 | 759 | 682 | 642   | 598 | 471 | 441 | 377 | 378 | 480 | 599 |
| 1931         | Critical     | 696 | 629 | 717 | 792 | 931   | 884 | 703 | 600 | 602 | 502 | 552 | 570 |
| 1932         | Dry          | 664 | 721 | 646 | 545 | 642   | 741 | 582 | 500 | 469 | 492 | 426 | 622 |
| 1933         | Critical     | 693 | 582 | 687 | 764 | 809   | 778 | 629 | 503 | 502 | 473 | 527 | 547 |
| 1934         | Critical     | 650 | 722 | 741 | 716 | 784   | 960 | 671 | 559 | 505 | 421 | 475 | 558 |
| 1935         | Below Normal | 680 | 708 | 784 | 755 | 679   | 597 | 421 | 401 | 368 | 321 | 392 | 498 |
| 1936         | Below Normal | 643 | 618 | 726 | 684 | 585   | 361 | 348 | 394 | 383 | 313 | 368 | 475 |
| 1937         | Below Normal | 573 | 582 | 691 | 757 | 455   | 466 | 321 | 288 | 451 | 367 | 392 | 474 |
| 1938         | Wet          | 583 | 468 | 453 | 551 | 433   | 353 | 264 | 268 | 269 | 370 | 321 | 326 |
| 1939         | Dry          | 306 | 347 | 619 | 771 | 779   | 682 | 602 | 422 | 360 | 402 | 470 | 542 |
| 1940         | Above Normal | 650 | 615 | 730 | 736 | 629   | 365 | 323 | 364 | 357 | 352 | 316 | 493 |
| 1941         | Wet          | 582 | 614 | 633 | 540 | 466   | 334 | 283 | 283 | 424 | 405 | 349 | 416 |
| 1942         | Wet          | 399 | 507 | 581 | 479 | 329   | 380 | 326 | 300 | 396 | 401 | 329 | 346 |
| 1943         | Wet          | 347 | 396 | 459 | 365 | 295   | 321 | 305 | 361 | 413 | 358 | 343 | 488 |
| 1944         | Dry          | 602 | 590 | 691 | 765 | 761   | 572 | 416 | 379 | 376 | 378 | 476 | 581 |
| 1945         | Below Normal | 670 | 611 | 629 | 618 | 533   | 366 | 401 | 370 | 351 | 345 | 380 | 524 |
| 1946         | Below Normal | 572 | 565 | 499 | 469 | 468   | 464 | 395 | 375 | 367 | 325 | 384 | 536 |
| 1947         | Dry          | 651 | 632 | 692 | 653 | 679   | 632 | 542 | 447 | 364 | 382 | 473 | 563 |
| 1948         | Below Normal | 665 | 633 | 765 | 764 | 840   | 654 | 441 | 415 | 339 | 301 | 380 | 499 |
| 1949         | Dry          | 586 | 600 | 709 | 809 | 966   | 634 | 458 | 499 | 430 | 352 | 470 | 542 |
| 1950         | Below Normal | 645 | 622 | 712 | 692 | 614   | 579 | 386 | 378 | 352 | 304 | 361 | 523 |
| 1951         | Above Normal | 631 | 473 | 402 | 389 | 300   | 395 | 369 | 288 | 306 | 307 | 320 | 523 |
| 1952         | Wet          | 598 | 632 | 664 | 564 | 477   | 428 | 254 | 216 | 311 | 369 | 308 | 300 |
| 1953         | Wet          | 303 | 417 | 600 | 473 | 509   | 531 | 357 | 316 | 306 | 284 | 333 | 453 |
| 1954         | Above Normal | 440 | 517 | 669 | 765 | 533   | 530 | 392 | 431 | 348 | 340 | 310 | 494 |
| 1955         | Dry          | 623 | 667 | 664 | 537 | 587   | 648 | 534 | 472 | 388 | 355 | 494 | 545 |
| 1956         | Wet          | 634 | 677 | 692 | 446 | 386   | 374 | 357 | 366 | 399 | 400 | 346 | 369 |
| 1957         | Above Normal | 339 | 410 | 640 | 766 | 646   | 547 | 465 | 335 | 323 | 311 | 335 | 543 |
| 1958         | Wet          | 522 | 374 | 495 | 510 | 615   | 564 | 238 | 212 | 333 | 382 | 319 | 312 |
| 1959         | Below Normal | 307 | 391 | 650 | 725 | 533   | 802 | 489 | 396 | 349 | 328 | 345 | 486 |
| 1960         | Dry          | 642 | 661 | 739 | 767 | 831   | 568 | 581 | 488 | 347 | 378 | 451 | 635 |
| 1961         | Dry          | 700 | 631 | 796 | 788 | 790   | 624 | 567 | 454 | 343 | 372 | 445 | 537 |
| 1962         | Below Normal | 629 | 641 | 740 | 809 | 704   | 548 | 419 | 364 | 339 | 329 | 354 | 566 |
| 1963         | Wet          | 617 | 357 | 483 | 508 | 564   | 591 | 421 | 358 | 340 | 318 | 309 | 484 |
| 1964         | Dry          | 566 | 560 | 471 | 543 | 605   | 589 | 511 | 506 | 380 | 390 | 506 | 567 |
| 1965         | Wet          | 650 | 671 | 593 | 453 | 368   | 469 | 359 | 363 | 339 | 320 | 334 | 465 |
| 1966         | Below Normal | 561 | 459 | 460 | 501 | 484   | 528 | 401 | 405 | 335 | 323 | 368 | 569 |
| 1967         | Wet          | 681 | 697 | 727 | 628 | 556   | 445 | 304 | 242 | 301 | 310 | 304 | 296 |
| 1968         | Below Normal | 301 | 373 | 591 | 668 | 515   | 540 | 507 | 391 | 342 | 322 | 362 | 525 |
| 1969         | Wet          | 652 | 650 | 623 | 656 | 433   | 406 | 290 | 257 | 259 | 368 | 324 | 338 |
| 1970         | Wet          | 309 | 363 | 486 | 313 | 348   | 357 | 337 | 366 | 333 | 319 | 318 | 505 |
| 1971         | Wet          | 631 | 518 | 523 | 472 | 522   | 497 | 335 | 326 | 296 | 277 | 318 | 444 |
| 1972         | Below Normal | 424 | 541 | 707 | 654 | 693   | 520 | 417 | 397 | 354 | 324 | 380 | 550 |
| 1973         | Above Normal | 698 | 568 | 517 | 628 | 611   | 509 | 397 | 417 | 389 | 314 | 344 | 489 |
| 1974         | Wet          | 566 | 424 | 461 | 474 | 467   | 330 | 334 | 377 | 412 | 349 | 346 | 387 |
| 1975         | Wet          | 332 | 411 | 584 | 571 | 380   | 325 | 346 | 352 | 400 | 353 | 352 | 387 |
| 1976         | Critical     | 323 | 346 | 535 | 706 | 848   | 701 | 531 | 495 | 541 | 593 | 615 | 666 |
| 1977         | Critical     | 736 | 687 | 812 | 782 | 892   | 945 | 715 | 612 | 621 | 595 | 559 | 613 |
| 1978         | Above Normal | 748 | 783 | 816 | 683 | 610   | 662 | 415 | 340 | 407 | 383 | 366 | 493 |
| 1979         | Below Normal | 599 | 628 | 693 | 643 | 399   | 337 | 367 | 328 | 333 | 301 | 397 | 541 |
| 1980         | Above Normal | 647 | 623 | 631 | 423 | 386   | 401 | 365 | 373 | 398 | 421 | 361 | 446 |
| 1981         | Dry          | 536 | 555 | 719 | 783 | 574   | 554 | 429 | 388 | 361 | 407 | 475 | 614 |
| 1982         | Wet          | 708 | 567 | 457 | 564 | 311   | 343 | 235 | 221 | 365 | 391 | 326 | 267 |
| 1983         | Wet          | 212 | 272 | 385 | 420 | 360   | 304 | 296 | 278 | 256 | 236 | 209 | 230 |
| 1984         | Wet          | 278 | 218 | 322 | 347 | 253   | 342 | 380 | 381 | 380 | 322 | 339 | 486 |
| 1985         | Dry          | 538 | 495 | 447 | 474 | 609   | 664 | 502 | 416 | 350 | 408 | 490 | 583 |
| 1986         | Wet          | 626 | 599 | 673 | 600 | 511   | 341 | 266 | 245 | 400 | 378 | 349 | 448 |
| 1987         | Dry          | 513 | 547 | 702 | 749 | 780   | 656 | 586 | 441 | 358 | 411 | 502 | 549 |
| 1988         | Critical     | 661 | 651 | 746 | 755 | 939   | 955 | 574 | 516 | 417 | 426 | 604 | 599 |
| 1989         | Dry          | 693 | 744 | 774 | 871 | 1,038 | 585 | 369 | 415 | 293 | 374 | 487 | 592 |
| 1990         | Critical     | 688 | 677 | 761 | 714 | 935   | 672 | 546 | 524 | 496 | 578 | 532 | 590 |
| 1991         | Critical     | 714 | 745 | 811 | 916 | 1,058 | 730 | 595 | 472 | 465 | 578 | 558 | 567 |
| 1992         | Critical     | 734 | 802 | 798 | 927 | 788   | 588 | 563 | 423 | 379 | 358 | 501 | 678 |
| 1993         | Above Normal | 757 | 738 | 847 | 726 | 648   | 591 | 407 | 437 | 441 | 377 | 354 | 511 |
| 1994         | Critical     | 604 | 635 | 732 | 847 | 844   | 763 | 492 | 478 | 365 | 531 | 641 | 558 |
| 1995         | Wet          | 694 | 731 | 762 | 781 | 592   | 400 | 273 | 219 | 333 | 274 | 291 | 292 |
| 1996         | Wet          | 306 | 410 | 626 | 571 | 470   | 371 | 350 | 334 | 411 | 342 | 349 | 416 |
| 1997         | Wet          | 392 | 419 | 335 | 281 | 317   | 263 | 317 | 370 | 375 | 327 | 351 | 530 |
| 1998         | Wet          | 661 | 679 | 703 | 627 | 506   | 354 | 295 | 282 | 259 | 266 | 280 | 273 |
| 1999         | Wet          | 283 | 309 | 411 | 462 | 273   | 369 | 355 | 367 | 356 | 298 | 336 | 458 |
| 2000         | Above Normal | 455 | 549 | 692 | 715 | 519   | 346 | 344 | 372 | 374 | 362 | 329 | 504 |
| 2001         | Dry          | 560 | 561 | 730 | 698 | 663   | 528 | 535 | 431 | 394 | 387 | 445 | 550 |
| 2002         | Dry          | 657 | 663 | 717 | 544 | 949   | 840 | 467 | 482 | 351 | 387 | 475 | 545 |
| 2003         | Above Normal | 665 | 582 | 599 | 483 | 927   | 567 | 398 | 374 | 265 | 286 | 326 | 536 |
| Average      |              | 570 | 568 | 638 | 635 | 614   | 549 | 426 | 392 | 379 | 371 | 399 | 498 |
| Wet          |              | 509 | 497 | 546 | 509 | 440   | 399 | 317 | 308 | 346 | 335 | 323 | 392 |
| Above Normal |              | 600 | 582 | 643 | 625 | 580   | 485 | 382 | 375 | 358 | 348 | 337 | 504 |
| Below Normal |              | 559 | 568 | 663 | 661 | 571   | 522 | 407 | 376 | 360 | 324 | 374 | 519 |
| Dry          |              | 602 | 612 | 687 | 699 | 744   | 647 | 503 | 446 | 374 | 387 | 469 | 571 |
| Critical     |              | 638 | 640 | 732 | 789 | 878   | 820 | 611 | 524 | 499 | 500 | 547 | 588 |

Source: DSM2 Modeling (Node CHDMC006)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 108: Simulated Electrical Conductivity at Delta Mendota Canal at Tracy Pumping Plant (umhos/cm) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb   | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 598 | 595 | 640 | 632 | 613   | 452 | 347 | 357 | 355 | 390 | 343 | 477 |
| 1923         | Below Normal | 559 | 571 | 629 | 516 | 487   | 561 | 365 | 366 | 381 | 333 | 379 | 495 |
| 1924         | Critical     | 528 | 564 | 689 | 765 | 820   | 991 | 687 | 576 | 570 | 498 | 518 | 556 |
| 1925         | Dry          | 669 | 690 | 739 | 854 | 754   | 793 | 447 | 375 | 394 | 339 | 416 | 561 |
| 1926         | Dry          | 666 | 599 | 712 | 768 | 733   | 638 | 432 | 480 | 403 | 384 | 467 | 571 |
| 1927         | Wet          | 680 | 524 | 471 | 565 | 680   | 550 | 361 | 360 | 342 | 305 | 319 | 485 |
| 1928         | Above Normal | 566 | 506 | 513 | 553 | 532   | 414 | 353 | 415 | 342 | 331 | 341 | 538 |
| 1929         | Critical     | 620 | 629 | 750 | 776 | 881   | 790 | 637 | 542 | 543 | 455 | 485 | 554 |
| 1930         | Dry          | 665 | 712 | 754 | 686 | 650   | 589 | 486 | 446 | 390 | 384 | 486 | 599 |
| 1931         | Critical     | 697 | 629 | 717 | 792 | 931   | 887 | 710 | 604 | 601 | 499 | 548 | 567 |
| 1932         | Dry          | 663 | 708 | 639 | 544 | 635   | 677 | 515 | 482 | 448 | 496 | 429 | 619 |
| 1933         | Critical     | 689 | 576 | 698 | 783 | 797   | 747 | 588 | 516 | 513 | 472 | 494 | 546 |
| 1934         | Critical     | 647 | 708 | 731 | 728 | 773   | 938 | 684 | 572 | 517 | 424 | 474 | 558 |
| 1935         | Below Normal | 678 | 683 | 763 | 809 | 683   | 578 | 395 | 399 | 369 | 320 | 392 | 502 |
| 1936         | Below Normal | 634 | 603 | 716 | 693 | 629   | 352 | 327 | 386 | 384 | 319 | 368 | 469 |
| 1937         | Below Normal | 568 | 574 | 685 | 763 | 504   | 454 | 318 | 305 | 453 | 364 | 390 | 477 |
| 1938         | Wet          | 609 | 472 | 440 | 557 | 454   | 355 | 278 | 271 | 272 | 370 | 321 | 325 |
| 1939         | Dry          | 306 | 345 | 611 | 770 | 773   | 654 | 593 | 423 | 363 | 399 | 470 | 542 |
| 1940         | Above Normal | 650 | 610 | 725 | 740 | 627   | 358 | 308 | 363 | 362 | 354 | 316 | 491 |
| 1941         | Wet          | 571 | 607 | 639 | 542 | 495   | 328 | 265 | 263 | 392 | 403 | 349 | 416 |
| 1942         | Wet          | 397 | 500 | 573 | 491 | 323   | 368 | 310 | 295 | 396 | 401 | 328 | 346 |
| 1943         | Wet          | 347 | 391 | 453 | 405 | 295   | 324 | 298 | 362 | 414 | 356 | 343 | 490 |
| 1944         | Dry          | 583 | 559 | 680 | 774 | 745   | 553 | 402 | 383 | 377 | 377 | 483 | 591 |
| 1945         | Below Normal | 688 | 607 | 614 | 615 | 591   | 359 | 379 | 369 | 361 | 347 | 380 | 523 |
| 1946         | Below Normal | 569 | 543 | 482 | 469 | 462   | 447 | 386 | 376 | 369 | 326 | 387 | 541 |
| 1947         | Dry          | 630 | 614 | 684 | 650 | 671   | 626 | 471 | 441 | 369 | 385 | 480 | 568 |
| 1948         | Below Normal | 661 | 624 | 777 | 904 | 850   | 645 | 420 | 415 | 341 | 300 | 383 | 498 |
| 1949         | Dry          | 596 | 618 | 727 | 787 | 894   | 632 | 462 | 509 | 436 | 356 | 474 | 553 |
| 1950         | Below Normal | 653 | 618 | 706 | 695 | 604   | 540 | 381 | 381 | 355 | 304 | 352 | 522 |
| 1951         | Above Normal | 627 | 467 | 450 | 414 | 299   | 387 | 351 | 290 | 310 | 308 | 321 | 523 |
| 1952         | Wet          | 596 | 625 | 662 | 556 | 466   | 427 | 247 | 224 | 316 | 369 | 308 | 300 |
| 1953         | Wet          | 304 | 410 | 591 | 472 | 505   | 521 | 353 | 319 | 309 | 284 | 328 | 432 |
| 1954         | Above Normal | 420 | 494 | 641 | 751 | 533   | 504 | 383 | 435 | 351 | 340 | 309 | 492 |
| 1955         | Dry          | 622 | 647 | 634 | 532 | 574   | 634 | 511 | 476 | 393 | 356 | 506 | 557 |
| 1956         | Wet          | 644 | 676 | 758 | 454 | 390   | 364 | 346 | 343 | 369 | 398 | 346 | 348 |
| 1957         | Above Normal | 320 | 375 | 604 | 760 | 657   | 520 | 435 | 340 | 325 | 311 | 333 | 541 |
| 1958         | Wet          | 519 | 370 | 485 | 508 | 610   | 545 | 224 | 203 | 333 | 382 | 319 | 312 |
| 1959         | Below Normal | 308 | 388 | 642 | 723 | 530   | 736 | 479 | 401 | 353 | 330 | 344 | 486 |
| 1960         | Dry          | 637 | 650 | 733 | 771 | 824   | 574 | 593 | 495 | 353 | 377 | 451 | 634 |
| 1961         | Dry          | 700 | 632 | 796 | 789 | 778   | 623 | 572 | 459 | 343 | 372 | 445 | 548 |
| 1962         | Below Normal | 639 | 639 | 736 | 815 | 700   | 527 | 387 | 356 | 342 | 332 | 359 | 580 |
| 1963         | Wet          | 622 | 360 | 480 | 507 | 564   | 551 | 407 | 362 | 341 | 318 | 309 | 483 |
| 1964         | Dry          | 563 | 543 | 461 | 538 | 606   | 611 | 528 | 511 | 383 | 389 | 505 | 570 |
| 1965         | Wet          | 651 | 654 | 580 | 467 | 368   | 433 | 337 | 362 | 340 | 320 | 335 | 467 |
| 1966         | Below Normal | 564 | 457 | 458 | 499 | 482   | 489 | 392 | 409 | 340 | 324 | 368 | 569 |
| 1967         | Wet          | 677 | 673 | 701 | 626 | 551   | 436 | 294 | 242 | 317 | 308 | 303 | 296 |
| 1968         | Below Normal | 302 | 364 | 572 | 661 | 511   | 522 | 504 | 395 | 346 | 324 | 362 | 526 |
| 1969         | Wet          | 651 | 642 | 618 | 707 | 454   | 417 | 290 | 254 | 270 | 369 | 324 | 339 |
| 1970         | Wet          | 308 | 357 | 476 | 318 | 344   | 348 | 341 | 364 | 334 | 319 | 319 | 504 |
| 1971         | Wet          | 625 | 509 | 517 | 471 | 538   | 485 | 328 | 332 | 299 | 277 | 317 | 444 |
| 1972         | Below Normal | 424 | 534 | 699 | 651 | 696   | 518 | 418 | 403 | 357 | 325 | 380 | 549 |
| 1973         | Above Normal | 694 | 564 | 518 | 628 | 608   | 492 | 372 | 395 | 381 | 313 | 344 | 489 |
| 1974         | Wet          | 589 | 427 | 461 | 493 | 466   | 322 | 323 | 370 | 406 | 348 | 346 | 385 |
| 1975         | Wet          | 329 | 399 | 570 | 572 | 384   | 314 | 335 | 353 | 393 | 353 | 351 | 387 |
| 1976         | Critical     | 323 | 343 | 524 | 697 | 844   | 700 | 533 | 495 | 542 | 593 | 610 | 670 |
| 1977         | Critical     | 735 | 681 | 810 | 790 | 897   | 946 | 716 | 612 | 621 | 595 | 559 | 612 |
| 1978         | Above Normal | 747 | 775 | 811 | 684 | 664   | 692 | 452 | 349 | 379 | 379 | 364 | 491 |
| 1979         | Below Normal | 595 | 619 | 692 | 651 | 400   | 329 | 353 | 321 | 334 | 302 | 395 | 536 |
| 1980         | Above Normal | 643 | 602 | 605 | 460 | 393   | 413 | 371 | 363 | 362 | 418 | 365 | 440 |
| 1981         | Dry          | 532 | 550 | 719 | 781 | 566   | 505 | 409 | 391 | 363 | 404 | 473 | 608 |
| 1982         | Wet          | 704 | 561 | 455 | 563 | 324   | 339 | 235 | 230 | 355 | 390 | 326 | 267 |
| 1983         | Wet          | 213 | 283 | 394 | 423 | 374   | 302 | 295 | 281 | 258 | 236 | 208 | 230 |
| 1984         | Wet          | 278 | 220 | 330 | 357 | 254   | 338 | 373 | 383 | 384 | 323 | 341 | 486 |
| 1985         | Dry          | 515 | 463 | 441 | 472 | 601   | 624 | 478 | 422 | 355 | 408 | 490 | 578 |
| 1986         | Wet          | 622 | 593 | 670 | 600 | 535   | 347 | 269 | 249 | 390 | 377 | 351 | 450 |
| 1987         | Dry          | 512 | 540 | 699 | 754 | 776   | 628 | 591 | 449 | 362 | 410 | 501 | 550 |
| 1988         | Critical     | 661 | 644 | 735 | 751 | 939   | 981 | 595 | 528 | 425 | 429 | 607 | 602 |
| 1989         | Dry          | 693 | 730 | 770 | 865 | 983   | 590 | 395 | 435 | 303 | 376 | 484 | 595 |
| 1990         | Critical     | 692 | 673 | 748 | 701 | 851   | 695 | 584 | 539 | 501 | 573 | 532 | 593 |
| 1991         | Critical     | 715 | 735 | 799 | 925 | 1,026 | 687 | 573 | 483 | 456 | 573 | 582 | 563 |
| 1992         | Critical     | 723 | 784 | 786 | 927 | 780   | 589 | 573 | 451 | 393 | 360 | 504 | 682 |
| 1993         | Above Normal | 757 | 727 | 838 | 725 | 643   | 563 | 390 | 420 | 406 | 377 | 354 | 512 |
| 1994         | Critical     | 602 | 634 | 746 | 813 | 897   | 792 | 525 | 492 | 379 | 533 | 617 | 581 |
| 1995         | Wet          | 730 | 707 | 740 | 785 | 649   | 397 | 283 | 228 | 328 | 273 | 291 | 292 |
| 1996         | Wet          | 307 | 404 | 616 | 570 | 438   | 362 | 335 | 341 | 414 | 342 | 349 | 416 |
| 1997         | Wet          | 391 | 415 | 359 | 283 | 320   | 261 | 316 | 362 | 397 | 329 | 356 | 524 |
| 1998         | Wet          | 650 | 662 | 685 | 626 | 517   | 348 | 299 | 296 | 276 | 267 | 280 | 274 |
| 1999         | Wet          | 283 | 309 | 411 | 462 | 271   | 364 | 349 | 368 | 359 | 299 | 336 | 458 |
| 2000         | Above Normal | 453 | 531 | 666 | 723 | 503   | 334 | 339 | 367 | 376 | 361 | 329 | 503 |
| 2001         | Dry          | 555 | 544 | 710 | 719 | 663   | 513 | 462 | 437 | 400 | 389 | 452 | 570 |
| 2002         | Dry          | 673 | 658 | 714 | 546 | 950   | 757 | 474 | 491 | 357 | 387 | 476 | 544 |
| 2003         | Above Normal | 664 | 571 | 586 | 482 | 928   | 571 | 376 | 355 | 270 | 287 | 327 | 536 |
| Average      |              | 569 | 558 | 632 | 638 | 614   | 535 | 418 | 393 | 380 | 371 | 399 | 499 |
| Wet          |              | 511 | 490 | 544 | 515 | 445   | 390 | 311 | 308 | 346 | 335 | 323 | 390 |
| Above Normal |              | 595 | 568 | 633 | 629 | 583   | 475 | 373 | 371 | 352 | 348 | 337 | 503 |
| Below Normal |              | 560 | 559 | 655 | 669 | 581   | 504 | 393 | 377 | 363 | 325 | 374 | 520 |
| Dry          |              | 599 | 600 | 679 | 700 | 732   | 623 | 490 | 450 | 377 | 388 | 472 | 575 |
| Critical     |              | 636 | 633 | 728 | 787 | 870   | 812 | 617 | 534 | 505 | 500 | 544 | 590 |

Source: DSM2 Modeling (Node CHDMC006)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 109: Simulated Electrical Conductivity at Contra Costa Canal Pumping Plant #1 (umhos/cm) - No-Action Alternative

| WY           | Year Type    | Oct   | Nov   | Dec   | Jan   | Feb   | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 763   | 748   | 742   | 628   | 648   | 292 | 290 | 284 | 274 | 248 | 291 | 581 |
| 1923         | Below Normal | 726   | 740   | 781   | 353   | 300   | 281 | 301 | 306 | 232 | 267 | 387 | 634 |
| 1924         | Critical     | 679   | 714   | 833   | 909   | 683   | 535 | 529 | 444 | 665 | 562 | 615 | 697 |
| 1925         | Dry          | 918   | 1,012 | 940   | 983   | 698   | 445 | 323 | 286 | 250 | 270 | 434 | 701 |
| 1926         | Dry          | 923   | 746   | 890   | 916   | 691   | 304 | 265 | 328 | 286 | 401 | 530 | 722 |
| 1927         | Wet          | 932   | 620   | 331   | 371   | 305   | 310 | 230 | 274 | 222 | 231 | 288 | 599 |
| 1928         | Above Normal | 741   | 642   | 455   | 494   | 312   | 256 | 287 | 300 | 238 | 257 | 335 | 672 |
| 1929         | Critical     | 810   | 829   | 951   | 930   | 1,022 | 575 | 434 | 418 | 417 | 451 | 554 | 696 |
| 1930         | Dry          | 907   | 980   | 934   | 701   | 406   | 268 | 260 | 310 | 307 | 390 | 521 | 805 |
| 1931         | Critical     | 958   | 762   | 816   | 910   | 1,071 | 643 | 528 | 508 | 636 | 552 | 691 | 704 |
| 1932         | Dry          | 893   | 967   | 711   | 379   | 413   | 342 | 348 | 369 | 305 | 274 | 430 | 842 |
| 1933         | Critical     | 947   | 668   | 779   | 765   | 616   | 432 | 355 | 355 | 409 | 438 | 547 | 671 |
| 1934         | Critical     | 867   | 985   | 893   | 756   | 458   | 407 | 397 | 379 | 400 | 380 | 525 | 729 |
| 1935         | Below Normal | 931   | 920   | 963   | 851   | 368   | 260 | 264 | 304 | 232 | 249 | 346 | 617 |
| 1936         | Below Normal | 875   | 777   | 872   | 725   | 505   | 364 | 263 | 296 | 236 | 255 | 339 | 570 |
| 1937         | Below Normal | 753   | 732   | 825   | 866   | 696   | 698 | 387 | 278 | 251 | 247 | 322 | 553 |
| 1938         | Wet          | 769   | 526   | 268   | 313   | 697   | 555 | 448 | 361 | 351 | 268 | 279 | 343 |
| 1939         | Dry          | 240   | 287   | 657   | 986   | 921   | 522 | 431 | 365 | 326 | 457 | 488 | 669 |
| 1940         | Above Normal | 894   | 781   | 865   | 892   | 555   | 305 | 260 | 294 | 238 | 282 | 282 | 621 |
| 1941         | Wet          | 768   | 809   | 815   | 457   | 524   | 378 | 287 | 259 | 246 | 238 | 300 | 477 |
| 1942         | Wet          | 409   | 588   | 771   | 448   | 366   | 261 | 274 | 282 | 246 | 238 | 287 | 386 |
| 1943         | Wet          | 319   | 402   | 346   | 403   | 325   | 400 | 415 | 288 | 260 | 255 | 301 | 598 |
| 1944         | Dry          | 819   | 787   | 859   | 945   | 857   | 338 | 302 | 312 | 292 | 399 | 549 | 727 |
| 1945         | Below Normal | 913   | 787   | 689   | 578   | 581   | 516 | 379 | 314 | 244 | 273 | 389 | 682 |
| 1946         | Below Normal | 773   | 728   | 587   | 257   | 325   | 329 | 284 | 317 | 246 | 289 | 404 | 667 |
| 1947         | Dry          | 910   | 850   | 886   | 674   | 636   | 387 | 326 | 313 | 303 | 434 | 526 | 706 |
| 1948         | Below Normal | 899   | 802   | 979   | 878   | 875   | 338 | 257 | 290 | 217 | 256 | 410 | 607 |
| 1949         | Dry          | 744   | 740   | 840   | 963   | 899   | 414 | 290 | 325 | 294 | 352 | 562 | 685 |
| 1950         | Below Normal | 860   | 771   | 862   | 733   | 414   | 233 | 243 | 300 | 238 | 268 | 376 | 661 |
| 1951         | Above Normal | 832   | 501   | 349   | 565   | 446   | 258 | 261 | 280 | 229 | 244 | 303 | 647 |
| 1952         | Wet          | 777   | 823   | 797   | 528   | 292   | 318 | 382 | 253 | 263 | 261 | 249 | 267 |
| 1953         | Wet          | 230   | 416   | 749   | 312   | 265   | 253 | 281 | 271 | 228 | 236 | 326 | 537 |
| 1954         | Above Normal | 482   | 604   | 716   | 1,012 | 284   | 224 | 272 | 291 | 231 | 254 | 283 | 599 |
| 1955         | Dry          | 811   | 864   | 781   | 375   | 312   | 285 | 320 | 328 | 305 | 360 | 519 | 661 |
| 1956         | Wet          | 829   | 873   | 780   | 858   | 519   | 304 | 251 | 295 | 242 | 234 | 292 | 395 |
| 1957         | Above Normal | 295   | 403   | 717   | 941   | 587   | 248 | 292 | 294 | 231 | 245 | 327 | 693 |
| 1958         | Wet          | 641   | 323   | 413   | 342   | 494   | 589 | 551 | 255 | 251 | 249 | 269 | 295 |
| 1959         | Below Normal | 235   | 366   | 770   | 986   | 374   | 307 | 357 | 328 | 312 | 324 | 350 | 579 |
| 1960         | Dry          | 857   | 867   | 891   | 889   | 947   | 346 | 319 | 330 | 299 | 443 | 525 | 812 |
| 1961         | Dry          | 944   | 773   | 1,027 | 903   | 750   | 319 | 279 | 286 | 338 | 439 | 536 | 678 |
| 1962         | Below Normal | 816   | 793   | 905   | 907   | 686   | 301 | 257 | 295 | 262 | 306 | 359 | 754 |
| 1963         | Wet          | 773   | 277   | 360   | 379   | 314   | 246 | 262 | 293 | 218 | 222 | 275 | 581 |
| 1964         | Dry          | 719   | 681   | 328   | 435   | 316   | 278 | 349 | 356 | 284 | 448 | 619 | 716 |
| 1965         | Wet          | 851   | 864   | 597   | 323   | 258   | 252 | 269 | 302 | 232 | 243 | 294 | 577 |
| 1966         | Below Normal | 736   | 553   | 301   | 307   | 268   | 241 | 274 | 306 | 264 | 314 | 398 | 708 |
| 1967         | Wet          | 906   | 912   | 880   | 514   | 270   | 277 | 295 | 277 | 269 | 293 | 261 | 259 |
| 1968         | Below Normal | 219   | 331   | 664   | 833   | 309   | 227 | 295 | 331 | 291 | 318 | 362 | 647 |
| 1969         | Wet          | 854   | 844   | 689   | 547   | 770   | 568 | 457 | 370 | 308 | 264 | 287 | 364 |
| 1970         | Wet          | 241   | 319   | 451   | 496   | 361   | 262 | 300 | 293 | 243 | 249 | 304 | 621 |
| 1971         | Wet          | 854   | 667   | 388   | 243   | 231   | 221 | 265 | 271 | 219 | 233 | 308 | 525 |
| 1972         | Below Normal | 451   | 619   | 877   | 742   | 687   | 305 | 289 | 311 | 321 | 317 | 406 | 686 |
| 1973         | Above Normal | 967   | 705   | 404   | 469   | 424   | 290 | 266 | 310 | 243 | 235 | 321 | 603 |
| 1974         | Wet          | 750   | 461   | 276   | 269   | 252   | 259 | 293 | 291 | 246 | 231 | 317 | 422 |
| 1975         | Wet          | 281   | 430   | 669   | 539   | 408   | 303 | 311 | 296 | 233 | 229 | 322 | 417 |
| 1976         | Critical     | 263   | 285   | 482   | 789   | 1,010 | 566 | 419 | 407 | 624 | 725 | 792 | 963 |
| 1977         | Critical     | 1,076 | 885   | 1,104 | 825   | 869   | 680 | 566 | 525 | 724 | 729 | 716 | 832 |
| 1978         | Above Normal | 1,065 | 1,071 | 1,025 | 692   | 405   | 458 | 416 | 329 | 300 | 250 | 348 | 649 |
| 1979         | Below Normal | 796   | 864   | 882   | 717   | 395   | 315 | 278 | 305 | 242 | 264 | 425 | 705 |
| 1980         | Above Normal | 918   | 838   | 721   | 449   | 726   | 567 | 361 | 313 | 307 | 272 | 297 | 524 |
| 1981         | Dry          | 711   | 721   | 934   | 999   | 376   | 232 | 272 | 318 | 339 | 459 | 568 | 800 |
| 1982         | Wet          | 980   | 678   | 265   | 450   | 347   | 423 | 424 | 264 | 256 | 259 | 293 | 312 |
| 1983         | Wet          | 206   | 271   | 433   | 826   | 749   | 636 | 565 | 377 | 316 | 310 | 239 | 206 |
| 1984         | Wet          | 207   | 240   | 405   | 432   | 344   | 254 | 303 | 316 | 254 | 248 | 313 | 618 |
| 1985         | Dry          | 748   | 643   | 266   | 279   | 470   | 357 | 348 | 326 | 299 | 454 | 582 | 742 |
| 1986         | Wet          | 834   | 762   | 826   | 579   | 646   | 709 | 363 | 250 | 275 | 273 | 308 | 555 |
| 1987         | Dry          | 695   | 758   | 926   | 887   | 748   | 402 | 357 | 335 | 344 | 473 | 530 | 689 |
| 1988         | Critical     | 883   | 822   | 920   | 836   | 433   | 427 | 359 | 381 | 382 | 522 | 789 | 759 |
| 1989         | Dry          | 945   | 977   | 943   | 1,039 | 633   | 356 | 241 | 269 | 262 | 446 | 601 | 774 |
| 1990         | Critical     | 919   | 863   | 922   | 761   | 680   | 376 | 357 | 339 | 575 | 731 | 635 | 768 |
| 1991         | Critical     | 996   | 1,005 | 1,022 | 1,060 | 1,010 | 637 | 345 | 314 | 537 | 729 | 687 | 733 |
| 1992         | Critical     | 1,049 | 1,098 | 952   | 1,151 | 754   | 348 | 288 | 311 | 379 | 416 | 689 | 957 |
| 1993         | Above Normal | 1,049 | 949   | 1,062 | 752   | 461   | 349 | 241 | 254 | 229 | 229 | 323 | 658 |
| 1994         | Critical     | 803   | 831   | 885   | 1,007 | 951   | 496 | 343 | 307 | 373 | 688 | 835 | 693 |
| 1995         | Wet          | 943   | 952   | 902   | 906   | 287   | 536 | 402 | 291 | 274 | 306 | 241 | 218 |
| 1996         | Wet          | 225   | 411   | 745   | 441   | 604   | 487 | 289 | 290 | 251 | 236 | 321 | 471 |
| 1997         | Wet          | 377   | 465   | 559   | 587   | 390   | 329 | 314 | 304 | 260 | 262 | 337 | 664 |
| 1998         | Wet          | 945   | 937   | 917   | 638   | 1,087 | 661 | 347 | 296 | 346 | 296 | 232 | 208 |
| 1999         | Wet          | 205   | 211   | 211   | 291   | 333   | 271 | 289 | 301 | 236 | 233 | 319 | 555 |
| 2000         | Above Normal | 513   | 664   | 815   | 954   | 730   | 346 | 249 | 302 | 243 | 244 | 304 | 623 |
| 2001         | Dry          | 748   | 705   | 921   | 783   | 553   | 307 | 285 | 352 | 347 | 413 | 495 | 662 |
| 2002         | Dry          | 884   | 859   | 871   | 341   | 366   | 349 | 266 | 352 | 285 | 450 | 577 | 699 |
| 2003         | Above Normal | 889   | 695   | 590   | 259   | 318   | 253 | 225 | 280 | 220 | 235 | 317 | 660 |
| Average      |              | 734   | 700   | 725   | 665   | 545   | 378 | 328 | 317 | 304 | 339 | 417 | 614 |
| Wet          |              | 620   | 580   | 571   | 480   | 440   | 387 | 341 | 293 | 259 | 254 | 291 | 441 |
| Above Normal |              | 784   | 717   | 705   | 676   | 491   | 320 | 285 | 294 | 249 | 246 | 311 | 628 |
| Below Normal |              | 713   | 699   | 783   | 695   | 485   | 337 | 295 | 306 | 256 | 282 | 377 | 648 |
| Dry          |              | 801   | 790   | 811   | 749   | 611   | 347 | 310 | 326 | 304 | 409 | 533 | 727 |
| Critical     |              | 854   | 812   | 880   | 892   | 797   | 510 | 410 | 391 | 510 | 577 | 673 | 767 |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 110: Simulated Electrical Conductivity at Contra Costa Canal Pumping Plant #1 (umhos/cm) - Proposed Action

| WY           | Year Type    | Oct   | Nov   | Dec   | Jan   | Feb   | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 760   | 740   | 738   | 627   | 648   | 298 | 295 | 284 | 274 | 249 | 291 | 590 |
| 1923         | Below Normal | 722   | 727   | 762   | 352   | 300   | 282 | 302 | 303 | 232 | 268 | 388 | 622 |
| 1924         | Critical     | 673   | 716   | 834   | 908   | 680   | 553 | 566 | 454 | 667 | 562 | 615 | 696 |
| 1925         | Dry          | 916   | 984   | 888   | 1,032 | 713   | 493 | 360 | 286 | 251 | 270 | 435 | 704 |
| 1926         | Dry          | 920   | 738   | 890   | 913   | 688   | 307 | 264 | 329 | 287 | 405 | 535 | 737 |
| 1927         | Wet          | 934   | 614   | 320   | 367   | 303   | 317 | 238 | 274 | 222 | 230 | 288 | 598 |
| 1928         | Above Normal | 737   | 627   | 428   | 482   | 310   | 262 | 294 | 303 | 239 | 256 | 334 | 671 |
| 1929         | Critical     | 809   | 824   | 958   | 910   | 1,013 | 564 | 423 | 419 | 421 | 452 | 555 | 696 |
| 1930         | Dry          | 905   | 969   | 926   | 710   | 407   | 271 | 263 | 313 | 308 | 390 | 522 | 804 |
| 1931         | Critical     | 960   | 764   | 817   | 910   | 1,072 | 640 | 530 | 510 | 636 | 546 | 687 | 705 |
| 1932         | Dry          | 887   | 955   | 703   | 377   | 412   | 345 | 347 | 362 | 296 | 275 | 428 | 837 |
| 1933         | Critical     | 941   | 662   | 774   | 752   | 571   | 416 | 354 | 366 | 412 | 438 | 546 | 673 |
| 1934         | Critical     | 862   | 966   | 884   | 762   | 408   | 394 | 408 | 386 | 403 | 381 | 525 | 730 |
| 1935         | Below Normal | 928   | 884   | 939   | 980   | 388   | 268 | 278 | 301 | 232 | 248 | 346 | 622 |
| 1936         | Below Normal | 855   | 759   | 864   | 749   | 500   | 367 | 264 | 290 | 235 | 256 | 336 | 558 |
| 1937         | Below Normal | 747   | 727   | 822   | 916   | 753   | 629 | 370 | 278 | 248 | 246 | 323 | 560 |
| 1938         | Wet          | 825   | 542   | 258   | 304   | 710   | 576 | 450 | 344 | 354 | 269 | 279 | 342 |
| 1939         | Dry          | 237   | 283   | 639   | 981   | 926   | 521 | 437 | 366 | 325 | 452 | 486 | 670 |
| 1940         | Above Normal | 895   | 781   | 862   | 904   | 556   | 311 | 264 | 284 | 239 | 238 | 282 | 617 |
| 1941         | Wet          | 747   | 806   | 837   | 461   | 515   | 376 | 276 | 254 | 256 | 245 | 300 | 476 |
| 1942         | Wet          | 405   | 582   | 755   | 435   | 332   | 255 | 283 | 277 | 246 | 238 | 287 | 385 |
| 1943         | Wet          | 318   | 394   | 330   | 393   | 317   | 373 | 426 | 286 | 259 | 255 | 304 | 602 |
| 1944         | Dry          | 788   | 724   | 825   | 971   | 844   | 345 | 305 | 316 | 291 | 398 | 553 | 747 |
| 1945         | Below Normal | 954   | 788   | 659   | 572   | 563   | 483 | 362 | 311 | 244 | 273 | 389 | 682 |
| 1946         | Below Normal | 769   | 695   | 549   | 257   | 314   | 326 | 292 | 316 | 247 | 290 | 418 | 682 |
| 1947         | Dry          | 877   | 833   | 880   | 667   | 629   | 382 | 314 | 336 | 308 | 437 | 540 | 715 |
| 1948         | Below Normal | 894   | 786   | 1,013 | 963   | 888   | 342 | 255 | 289 | 216 | 255 | 415 | 606 |
| 1949         | Dry          | 763   | 787   | 889   | 915   | 1,016 | 517 | 310 | 332 | 297 | 357 | 568 | 703 |
| 1950         | Below Normal | 870   | 770   | 855   | 743   | 416   | 235 | 244 | 298 | 237 | 262 | 365 | 660 |
| 1951         | Above Normal | 827   | 493   | 341   | 536   | 421   | 261 | 264 | 280 | 229 | 244 | 305 | 648 |
| 1952         | Wet          | 774   | 821   | 802   | 530   | 294   | 316 | 378 | 247 | 263 | 262 | 249 | 266 |
| 1953         | Wet          | 229   | 406   | 731   | 311   | 265   | 254 | 283 | 273 | 228 | 236 | 314 | 497 |
| 1954         | Above Normal | 444   | 568   | 663   | 981   | 281   | 225 | 273 | 293 | 232 | 254 | 282 | 595 |
| 1955         | Dry          | 809   | 843   | 722   | 366   | 310   | 289 | 324 | 332 | 307 | 356 | 536 | 689 |
| 1956         | Wet          | 847   | 879   | 767   | 839   | 515   | 308 | 255 | 292 | 253 | 238 | 283 | 360 |
| 1957         | Above Normal | 259   | 331   | 646   | 932   | 611   | 249 | 337 | 302 | 231 | 244 | 325 | 690 |
| 1958         | Wet          | 635   | 314   | 391   | 339   | 494   | 581 | 527 | 254 | 249 | 249 | 269 | 294 |
| 1959         | Below Normal | 234   | 359   | 748   | 980   | 373   | 333 | 398 | 336 | 314 | 327 | 349 | 580 |
| 1960         | Dry          | 851   | 854   | 884   | 899   | 950   | 344 | 322 | 336 | 298 | 441 | 523 | 809 |
| 1961         | Dry          | 942   | 774   | 1,027 | 904   | 750   | 319 | 282 | 288 | 337 | 439 | 537 | 699 |
| 1962         | Below Normal | 833   | 797   | 904   | 918   | 689   | 304 | 261 | 297 | 267 | 312 | 373 | 778 |
| 1963         | Wet          | 782   | 278   | 350   | 378   | 315   | 249 | 264 | 299 | 218 | 222 | 274 | 580 |
| 1964         | Dry          | 716   | 661   | 316   | 427   | 315   | 279 | 347 | 358 | 283 | 446 | 617 | 720 |
| 1965         | Wet          | 856   | 844   | 569   | 320   | 255   | 247 | 271 | 295 | 232 | 244 | 295 | 581 |
| 1966         | Below Normal | 744   | 558   | 298   | 304   | 268   | 240 | 275 | 311 | 264 | 313 | 397 | 707 |
| 1967         | Wet          | 901   | 892   | 831   | 511   | 270   | 277 | 295 | 274 | 266 | 296 | 261 | 258 |
| 1968         | Below Normal | 218   | 319   | 619   | 816   | 308   | 230 | 304 | 337 | 294 | 318 | 361 | 648 |
| 1969         | Wet          | 852   | 841   | 683   | 536   | 783   | 603 | 473 | 369 | 316 | 269 | 288 | 364 |
| 1970         | Wet          | 240   | 309   | 425   | 488   | 356   | 266 | 305 | 302 | 245 | 250 | 305 | 619 |
| 1971         | Wet          | 846   | 658   | 375   | 243   | 232   | 223 | 267 | 269 | 219 | 232 | 308 | 524 |
| 1972         | Below Normal | 449   | 613   | 866   | 735   | 685   | 305 | 292 | 315 | 321 | 316 | 404 | 683 |
| 1973         | Above Normal | 963   | 704   | 408   | 471   | 425   | 298 | 273 | 313 | 242 | 236 | 320 | 602 |
| 1974         | Wet          | 799   | 476   | 276   | 263   | 247   | 256 | 286 | 289 | 247 | 231 | 318 | 420 |
| 1975         | Wet          | 276   | 410   | 640   | 533   | 419   | 299 | 309 | 296 | 235 | 230 | 321 | 415 |
| 1976         | Critical     | 263   | 282   | 462   | 770   | 1,001 | 560 | 407 | 403 | 623 | 726 | 783 | 973 |
| 1977         | Critical     | 1,073 | 873   | 1,104 | 846   | 883   | 686 | 568 | 526 | 724 | 729 | 716 | 831 |
| 1978         | Above Normal | 1,062 | 1,063 | 1,021 | 695   | 391   | 442 | 406 | 338 | 304 | 250 | 345 | 645 |
| 1979         | Below Normal | 791   | 860   | 880   | 743   | 400   | 314 | 280 | 303 | 243 | 263 | 420 | 694 |
| 1980         | Above Normal | 913   | 812   | 671   | 433   | 736   | 588 | 358 | 314 | 313 | 275 | 294 | 510 |
| 1981         | Dry          | 703   | 718   | 937   | 995   | 368   | 230 | 273 | 321 | 336 | 453 | 565 | 789 |
| 1982         | Wet          | 976   | 673   | 264   | 450   | 341   | 397 | 402 | 258 | 258 | 260 | 292 | 311 |
| 1983         | Wet          | 206   | 270   | 417   | 822   | 799   | 661 | 563 | 380 | 320 | 312 | 239 | 206 |
| 1984         | Wet          | 207   | 239   | 410   | 435   | 340   | 257 | 314 | 317 | 255 | 248 | 314 | 619 |
| 1985         | Dry          | 725   | 584   | 257   | 275   | 464   | 356 | 355 | 327 | 299 | 454 | 582 | 734 |
| 1986         | Wet          | 828   | 760   | 826   | 578   | 633   | 699 | 370 | 252 | 278 | 275 | 314 | 560 |
| 1987         | Dry          | 695   | 754   | 925   | 901   | 759   | 399 | 366 | 340 | 341 | 470 | 526 | 690 |
| 1988         | Critical     | 882   | 819   | 906   | 829   | 433   | 432 | 368 | 386 | 383 | 525 | 794 | 764 |
| 1989         | Dry          | 943   | 964   | 943   | 1,031 | 644   | 361 | 243 | 274 | 263 | 448 | 594 | 783 |
| 1990         | Critical     | 927   | 862   | 899   | 735   | 666   | 375 | 358 | 344 | 565 | 722 | 638 | 772 |
| 1991         | Critical     | 996   | 992   | 1,007 | 1,076 | 969   | 606 | 341 | 318 | 502 | 726 | 723 | 712 |
| 1992         | Critical     | 1,026 | 1,078 | 945   | 1,158 | 753   | 348 | 289 | 317 | 377 | 415 | 693 | 961 |
| 1993         | Above Normal | 1,046 | 936   | 1,056 | 752   | 461   | 351 | 245 | 264 | 245 | 236 | 325 | 662 |
| 1994         | Critical     | 801   | 840   | 928   | 930   | 1,066 | 526 | 354 | 313 | 379 | 689 | 796 | 741 |
| 1995         | Wet          | 996   | 911   | 869   | 915   | 284   | 548 | 418 | 289 | 278 | 305 | 241 | 218 |
| 1996         | Wet          | 224   | 400   | 725   | 439   | 601   | 468 | 291 | 288 | 251 | 236 | 321 | 471 |
| 1997         | Wet          | 376   | 459   | 495   | 567   | 394   | 324 | 314 | 302 | 267 | 261 | 343 | 665 |
| 1998         | Wet          | 933   | 928   | 893   | 630   | 1,111 | 737 | 355 | 294 | 318 | 293 | 232 | 208 |
| 1999         | Wet          | 205   | 211   | 210   | 291   | 331   | 274 | 295 | 301 | 236 | 233 | 320 | 553 |
| 2000         | Above Normal | 507   | 646   | 755   | 962   | 727   | 349 | 254 | 302 | 245 | 244 | 305 | 621 |
| 2001         | Dry          | 741   | 682   | 885   | 834   | 571   | 309 | 287 | 356 | 348 | 413 | 508 | 714 |
| 2002         | Dry          | 914   | 858   | 872   | 340   | 372   | 352 | 274 | 355 | 284 | 449 | 579 | 693 |
| 2003         | Above Normal | 885   | 682   | 567   | 258   | 319   | 256 | 225 | 277 | 220 | 235 | 317 | 659 |
| Average      |              | 733   | 690   | 711   | 665   | 547   | 381 | 332 | 318 | 304 | 339 | 418 | 615 |
| Wet          |              | 624   | 574   | 556   | 476   | 441   | 390 | 343 | 291 | 260 | 254 | 291 | 438 |
| Above Normal |              | 775   | 699   | 680   | 669   | 490   | 324 | 291 | 296 | 251 | 247 | 310 | 625 |
| Below Normal |              | 715   | 689   | 770   | 716   | 489   | 333 | 298 | 306 | 257 | 282 | 377 | 649 |
| Dry          |              | 796   | 776   | 800   | 752   | 619   | 357 | 315 | 329 | 303 | 408 | 535 | 735 |
| Critical     |              | 851   | 807   | 876   | 882   | 793   | 508 | 414 | 395 | 508 | 576 | 673 | 771 |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 111: Simulated Electrical Conductivity at West Canal at mouth of CCForebay Intake (umhos/cm) - No-Action Alternative

| WY   | Year Type    | Oct | Nov | Dec | Jan | Feb   | Mar | Apr | May | Jun | Jul | Aug | Sep |
|------|--------------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|
| 1922 | Above Normal | 588 | 587 | 605 | 560 | 560   | 429 | 342 | 336 | 338 | 305 | 295 | 463 |
| 1923 | Below Normal | 559 | 582 | 622 | 466 | 468   | 509 | 366 | 347 | 319 | 277 | 340 | 495 |
| 1924 | Critical     | 528 | 555 | 679 | 754 | 807   | 934 | 640 | 549 | 558 | 484 | 505 | 544 |
| 1925 | Dry          | 671 | 726 | 751 | 815 | 698   | 913 | 453 | 349 | 350 | 308 | 374 | 542 |
| 1926 | Dry          | 671 | 599 | 717 | 746 | 668   | 569 | 401 | 445 | 367 | 354 | 436 | 550 |
| 1927 | Wet          | 682 | 505 | 398 | 529 | 612   | 522 | 336 | 334 | 276 | 244 | 271 | 467 |
| 1928 | Above Normal | 567 | 509 | 468 | 490 | 432   | 391 | 326 | 381 | 291 | 288 | 300 | 527 |
| 1929 | Critical     | 620 | 635 | 743 | 774 | 873   | 805 | 588 | 519 | 510 | 432 | 468 | 544 |
| 1930 | Dry          | 667 | 729 | 740 | 628 | 576   | 564 | 443 | 420 | 360 | 346 | 452 | 590 |
| 1931 | Critical     | 698 | 622 | 710 | 770 | 925   | 845 | 668 | 586 | 595 | 489 | 542 | 563 |
| 1932 | Dry          | 665 | 726 | 615 | 461 | 587   | 697 | 561 | 476 | 442 | 454 | 388 | 618 |
| 1933 | Critical     | 699 | 572 | 678 | 724 | 746   | 711 | 564 | 487 | 478 | 458 | 510 | 536 |
| 1934 | Critical     | 648 | 728 | 726 | 683 | 672   | 864 | 622 | 541 | 487 | 404 | 458 | 549 |
| 1935 | Below Normal | 680 | 708 | 780 | 730 | 637   | 535 | 400 | 367 | 313 | 260 | 339 | 477 |
| 1936 | Below Normal | 650 | 610 | 714 | 630 | 551   | 355 | 334 | 372 | 333 | 266 | 317 | 456 |
| 1937 | Below Normal | 570 | 574 | 679 | 739 | 442   | 411 | 326 | 281 | 407 | 312 | 344 | 455 |
| 1938 | Wet          | 580 | 444 | 415 | 504 | 389   | 335 | 255 | 259 | 253 | 336 | 298 | 311 |
| 1939 | Dry          | 271 | 312 | 591 | 767 | 763   | 648 | 571 | 401 | 327 | 380 | 447 | 536 |
| 1940 | Above Normal | 657 | 604 | 716 | 720 | 552   | 358 | 313 | 342 | 307 | 286 | 268 | 477 |
| 1941 | Wet          | 581 | 616 | 627 | 481 | 443   | 337 | 282 | 276 | 372 | 332 | 305 | 392 |
| 1942 | Wet          | 372 | 500 | 552 | 454 | 332   | 365 | 323 | 294 | 354 | 336 | 301 | 335 |
| 1943 | Wet          | 316 | 368 | 389 | 360 | 301   | 306 | 303 | 344 | 375 | 307 | 297 | 474 |
| 1944 | Dry          | 610 | 597 | 686 | 764 | 735   | 509 | 398 | 357 | 324 | 345 | 448 | 572 |
| 1945 | Below Normal | 675 | 610 | 589 | 574 | 520   | 363 | 399 | 352 | 308 | 283 | 345 | 520 |
| 1946 | Below Normal | 583 | 566 | 494 | 410 | 461   | 450 | 383 | 356 | 322 | 283 | 345 | 524 |
| 1947 | Dry          | 661 | 639 | 689 | 628 | 633   | 596 | 487 | 427 | 325 | 363 | 445 | 556 |
| 1948 | Below Normal | 667 | 627 | 765 | 741 | 818   | 611 | 391 | 377 | 279 | 260 | 345 | 479 |
| 1949 | Dry          | 576 | 588 | 692 | 801 | 947   | 532 | 433 | 479 | 401 | 326 | 445 | 522 |
| 1950 | Below Normal | 632 | 611 | 708 | 643 | 523   | 535 | 332 | 359 | 308 | 268 | 323 | 506 |
| 1951 | Above Normal | 627 | 432 | 383 | 343 | 291   | 376 | 355 | 281 | 266 | 257 | 275 | 506 |
| 1952 | Wet          | 594 | 630 | 639 | 503 | 414   | 412 | 260 | 210 | 299 | 337 | 280 | 269 |
| 1953 | Wet          | 262 | 387 | 568 | 420 | 470   | 459 | 338 | 292 | 258 | 242 | 295 | 427 |
| 1954 | Above Normal | 415 | 497 | 644 | 751 | 413   | 447 | 332 | 398 | 299 | 292 | 266 | 473 |
| 1955 | Dry          | 617 | 669 | 634 | 448 | 520   | 611 | 503 | 444 | 358 | 327 | 473 | 525 |
| 1956 | Wet          | 624 | 671 | 663 | 392 | 392   | 360 | 339 | 343 | 356 | 322 | 306 | 348 |
| 1957 | Above Normal | 303 | 381 | 611 | 762 | 563   | 445 | 434 | 315 | 278 | 262 | 292 | 530 |
| 1958 | Wet          | 508 | 328 | 422 | 422 | 532   | 509 | 222 | 214 | 320 | 333 | 288 | 285 |
| 1959 | Below Normal | 264 | 358 | 632 | 710 | 458   | 724 | 475 | 375 | 316 | 294 | 306 | 457 |
| 1960 | Dry          | 636 | 652 | 730 | 746 | 785   | 487 | 516 | 457 | 321 | 362 | 422 | 626 |
| 1961 | Dry          | 704 | 617 | 786 | 758 | 742   | 579 | 491 | 421 | 327 | 360 | 422 | 511 |
| 1962 | Below Normal | 618 | 628 | 720 | 794 | 654   | 487 | 394 | 335 | 287 | 286 | 313 | 550 |
| 1963 | Wet          | 610 | 310 | 403 | 404 | 461   | 568 | 387 | 323 | 281 | 245 | 262 | 463 |
| 1964 | Dry          | 559 | 546 | 394 | 462 | 548   | 547 | 493 | 477 | 338 | 373 | 484 | 554 |
| 1965 | Wet          | 647 | 669 | 540 | 411 | 348   | 446 | 354 | 340 | 302 | 267 | 289 | 456 |
| 1966 | Below Normal | 557 | 448 | 403 | 441 | 432   | 468 | 376 | 385 | 294 | 285 | 332 | 555 |
| 1967 | Wet          | 680 | 694 | 715 | 541 | 446   | 397 | 293 | 245 | 290 | 304 | 277 | 267 |
| 1968 | Below Normal | 259 | 335 | 557 | 640 | 454   | 483 | 472 | 373 | 304 | 289 | 317 | 503 |
| 1969 | Wet          | 648 | 644 | 585 | 594 | 387   | 402 | 279 | 246 | 246 | 334 | 300 | 323 |
| 1970 | Wet          | 273 | 330 | 445 | 300 | 346   | 345 | 324 | 347 | 303 | 263 | 280 | 488 |
| 1971 | Wet          | 636 | 497 | 444 | 377 | 415   | 376 | 309 | 297 | 250 | 236 | 278 | 418 |
| 1972 | Below Normal | 397 | 525 | 686 | 610 | 641   | 409 | 393 | 374 | 315 | 292 | 339 | 530 |
| 1973 | Above Normal | 705 | 544 | 451 | 527 | 532   | 462 | 374 | 393 | 343 | 257 | 298 | 479 |
| 1974 | Wet          | 576 | 398 | 388 | 418 | 399   | 322 | 319 | 352 | 365 | 277 | 302 | 362 |
| 1975 | Wet          | 298 | 391 | 546 | 518 | 389   | 321 | 327 | 324 | 340 | 278 | 308 | 359 |
| 1976 | Critical     | 289 | 306 | 476 | 682 | 832   | 660 | 508 | 475 | 526 | 579 | 610 | 677 |
| 1977 | Critical     | 752 | 683 | 818 | 770 | 868   | 870 | 684 | 602 | 619 | 594 | 556 | 604 |
| 1978 | Above Normal | 749 | 791 | 808 | 634 | 562   | 632 | 421 | 336 | 386 | 309 | 326 | 499 |
| 1979 | Below Normal | 601 | 644 | 681 | 613 | 401   | 336 | 354 | 323 | 295 | 264 | 361 | 534 |
| 1980 | Above Normal | 665 | 633 | 592 | 415 | 350   | 397 | 362 | 362 | 383 | 371 | 326 | 430 |
| 1981 | Dry          | 542 | 559 | 720 | 784 | 470   | 487 | 405 | 367 | 330 | 380 | 450 | 605 |
| 1982 | Wet          | 719 | 551 | 368 | 472 | 305   | 327 | 228 | 214 | 343 | 350 | 306 | 275 |
| 1983 | Wet          | 215 | 262 | 380 | 358 | 331   | 272 | 282 | 271 | 243 | 226 | 215 | 220 |
| 1984 | Wet          | 244 | 220 | 303 | 345 | 262   | 327 | 362 | 359 | 339 | 259 | 290 | 483 |
| 1985 | Dry          | 560 | 488 | 370 | 391 | 558   | 632 | 478 | 394 | 312 | 378 | 467 | 578 |
| 1986 | Wet          | 623 | 594 | 650 | 541 | 472   | 317 | 266 | 242 | 377 | 328 | 305 | 441 |
| 1987 | Dry          | 527 | 569 | 707 | 742 | 756   | 628 | 539 | 421 | 331 | 387 | 481 | 540 |
| 1988 | Critical     | 660 | 644 | 731 | 724 | 858   | 852 | 549 | 497 | 404 | 421 | 597 | 589 |
| 1989 | Dry          | 691 | 749 | 771 | 864 | 953   | 483 | 328 | 384 | 279 | 364 | 467 | 580 |
| 1990 | Critical     | 680 | 664 | 754 | 662 | 858   | 642 | 491 | 498 | 491 | 578 | 521 | 583 |
| 1991 | Critical     | 717 | 751 | 810 | 903 | 1,012 | 651 | 537 | 448 | 463 | 577 | 548 | 556 |
| 1992 | Critical     | 739 | 807 | 793 | 921 | 730   | 538 | 478 | 407 | 377 | 358 | 492 | 676 |
| 1993 | Above Normal | 760 | 734 | 839 | 681 | 562   | 495 | 352 | 391 | 372 | 292 | 308 | 503 |
| 1994 | Critical     | 607 | 631 | 712 | 825 | 799   | 723 | 467 | 450 | 357 | 528 | 635 | 539 |
| 1995 | Wet          | 681 | 725 | 738 | 748 | 488   | 370 | 283 | 212 | 322 | 268 | 258 | 241 |
| 1996 | Wet          | 263 | 385 | 587 | 476 | 406   | 350 | 345 | 326 | 367 | 293 | 306 | 392 |
| 1997 | Wet          | 365 | 406 | 321 | 254 | 310   | 265 | 307 | 346 | 332 | 285 | 304 | 520 |
| 1998 | Wet          | 673 | 687 | 690 | 573 | 380   | 342 | 298 | 281 | 247 | 259 | 256 | 240 |
| 1999 | Wet          | 251 | 263 | 326 | 403 | 271   | 353 | 333 | 346 | 314 | 252 | 293 | 439 |
| 2000 | Above Normal | 437 | 540 | 674 | 685 | 497   | 345 | 323 | 351 | 320 | 301 | 285 | 495 |
| 2001 | Dry          | 565 | 559 | 719 | 661 | 570   | 453 | 484 | 419 | 374 | 360 | 420 | 541 |
| 2002 | Dry          | 649 | 655 | 686 | 455 | 923   | 757 | 442 | 453 | 324 | 369 | 453 | 527 |
| 2003 | Above Normal | 660 | 558 | 546 | 380 | 858   | 467 | 326 | 331 | 236 | 247 | 282 | 519 |
|      | Average      | 564 | 557 | 611 | 593 | 565   | 505 | 400 | 372 | 346 | 333 | 367 | 484 |
|      | Wet          | 497 | 480 | 504 | 454 | 396   | 373 | 306 | 294 | 312 | 289 | 287 | 373 |
|      | Above Normal | 594 | 568 | 611 | 579 | 515   | 437 | 355 | 351 | 318 | 289 | 293 | 492 |
|      | Below Normal | 551 | 559 | 645 | 624 | 533   | 477 | 385 | 355 | 314 | 280 | 333 | 503 |
|      | Dry          | 602 | 610 | 667 | 662 | 691   | 594 | 468 | 422 | 344 | 363 | 443 | 560 |
|      | Critical     | 636 | 633 | 719 | 766 | 832   | 758 | 566 | 505 | 489 | 492 | 537 | 580 |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 112: Simulated Electrical Conductivity at West Canal at mouth of CCForebay Intake (umhos/cm) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 586 | 582 | 601 | 560 | 559 | 420 | 335 | 337 | 338 | 305 | 295 | 462 |
| 1923         | Below Normal | 557 | 573 | 612 | 467 | 465 | 525 | 359 | 343 | 321 | 279 | 340 | 488 |
| 1924         | Critical     | 526 | 555 | 678 | 754 | 804 | 955 | 665 | 560 | 560 | 485 | 504 | 544 |
| 1925         | Dry          | 670 | 703 | 722 | 842 | 706 | 789 | 448 | 350 | 353 | 309 | 374 | 544 |
| 1926         | Dry          | 670 | 593 | 708 | 742 | 667 | 604 | 411 | 452 | 372 | 357 | 438 | 559 |
| 1927         | Wet          | 685 | 502 | 392 | 516 | 606 | 508 | 339 | 335 | 278 | 244 | 271 | 466 |
| 1928         | Above Normal | 565 | 499 | 453 | 484 | 432 | 383 | 334 | 383 | 295 | 290 | 300 | 526 |
| 1929         | Critical     | 619 | 631 | 743 | 764 | 863 | 765 | 585 | 526 | 522 | 434 | 469 | 545 |
| 1930         | Dry          | 667 | 722 | 734 | 633 | 590 | 560 | 461 | 425 | 368 | 349 | 457 | 590 |
| 1931         | Critical     | 699 | 623 | 710 | 769 | 925 | 855 | 676 | 590 | 594 | 485 | 538 | 560 |
| 1932         | Dry          | 666 | 716 | 607 | 460 | 579 | 641 | 508 | 455 | 419 | 464 | 392 | 615 |
| 1933         | Critical     | 695 | 567 | 687 | 722 | 729 | 684 | 539 | 499 | 489 | 454 | 479 | 535 |
| 1934         | Critical     | 645 | 717 | 716 | 703 | 655 | 852 | 638 | 554 | 499 | 406 | 456 | 548 |
| 1935         | Below Normal | 678 | 687 | 760 | 798 | 644 | 534 | 383 | 364 | 314 | 260 | 339 | 484 |
| 1936         | Below Normal | 639 | 599 | 705 | 642 | 589 | 350 | 317 | 364 | 332 | 267 | 318 | 449 |
| 1937         | Below Normal | 566 | 569 | 673 | 753 | 489 | 410 | 322 | 295 | 410 | 308 | 342 | 458 |
| 1938         | Wet          | 611 | 452 | 390 | 505 | 407 | 337 | 271 | 263 | 256 | 337 | 297 | 310 |
| 1939         | Dry          | 270 | 310 | 582 | 766 | 760 | 624 | 569 | 402 | 329 | 377 | 447 | 535 |
| 1940         | Above Normal | 656 | 603 | 711 | 726 | 551 | 354 | 301 | 344 | 311 | 286 | 268 | 476 |
| 1941         | Wet          | 570 | 613 | 636 | 482 | 472 | 335 | 269 | 258 | 359 | 331 | 305 | 391 |
| 1942         | Wet          | 370 | 496 | 543 | 458 | 327 | 353 | 308 | 289 | 354 | 335 | 301 | 335 |
| 1943         | Wet          | 315 | 364 | 382 | 393 | 302 | 315 | 298 | 344 | 375 | 306 | 297 | 476 |
| 1944         | Dry          | 589 | 562 | 672 | 775 | 719 | 503 | 389 | 361 | 325 | 344 | 457 | 581 |
| 1945         | Below Normal | 696 | 609 | 571 | 570 | 574 | 359 | 378 | 352 | 312 | 284 | 345 | 520 |
| 1946         | Below Normal | 581 | 545 | 475 | 409 | 454 | 434 | 376 | 357 | 324 | 283 | 354 | 533 |
| 1947         | Dry          | 642 | 627 | 681 | 624 | 628 | 590 | 450 | 424 | 330 | 366 | 453 | 562 |
| 1948         | Below Normal | 670 | 619 | 778 | 791 | 830 | 606 | 390 | 376 | 278 | 258 | 348 | 478 |
| 1949         | Dry          | 588 | 613 | 714 | 772 | 881 | 565 | 439 | 490 | 407 | 329 | 449 | 535 |
| 1950         | Below Normal | 641 | 611 | 702 | 648 | 504 | 495 | 346 | 360 | 310 | 270 | 316 | 505 |
| 1951         | Above Normal | 624 | 428 | 426 | 363 | 294 | 370 | 339 | 282 | 268 | 256 | 276 | 507 |
| 1952         | Wet          | 592 | 628 | 638 | 498 | 409 | 410 | 256 | 220 | 304 | 338 | 280 | 269 |
| 1953         | Wet          | 262 | 381 | 558 | 419 | 466 | 452 | 337 | 295 | 259 | 242 | 289 | 402 |
| 1954         | Above Normal | 391 | 473 | 611 | 734 | 412 | 422 | 340 | 401 | 301 | 293 | 265 | 471 |
| 1955         | Dry          | 616 | 650 | 598 | 443 | 494 | 600 | 489 | 448 | 362 | 328 | 483 | 542 |
| 1956         | Wet          | 635 | 674 | 702 | 400 | 395 | 352 | 332 | 328 | 342 | 321 | 306 | 328 |
| 1957         | Above Normal | 282 | 342 | 570 | 755 | 578 | 399 | 409 | 320 | 280 | 261 | 291 | 528 |
| 1958         | Wet          | 504 | 325 | 411 | 420 | 530 | 504 | 213 | 206 | 320 | 333 | 288 | 285 |
| 1959         | Below Normal | 264 | 355 | 622 | 707 | 457 | 698 | 470 | 380 | 318 | 295 | 305 | 457 |
| 1960         | Dry          | 634 | 645 | 724 | 751 | 784 | 496 | 535 | 465 | 324 | 362 | 421 | 624 |
| 1961         | Dry          | 703 | 618 | 786 | 759 | 730 | 586 | 502 | 426 | 326 | 360 | 423 | 523 |
| 1962         | Below Normal | 629 | 631 | 717 | 800 | 653 | 480 | 368 | 327 | 289 | 290 | 321 | 567 |
| 1963         | Wet          | 617 | 313 | 397 | 402 | 470 | 528 | 389 | 326 | 281 | 245 | 261 | 462 |
| 1964         | Dry          | 557 | 531 | 386 | 457 | 549 | 575 | 511 | 482 | 339 | 371 | 482 | 557 |
| 1965         | Wet          | 649 | 654 | 524 | 419 | 347 | 417 | 335 | 335 | 302 | 267 | 290 | 458 |
| 1966         | Below Normal | 562 | 450 | 402 | 440 | 431 | 409 | 373 | 388 | 298 | 285 | 332 | 554 |
| 1967         | Wet          | 677 | 672 | 685 | 539 | 447 | 389 | 291 | 244 | 305 | 302 | 277 | 266 |
| 1968         | Below Normal | 259 | 327 | 534 | 631 | 452 | 475 | 476 | 377 | 307 | 289 | 317 | 503 |
| 1969         | Wet          | 647 | 640 | 579 | 626 | 407 | 413 | 279 | 244 | 257 | 337 | 301 | 323 |
| 1970         | Wet          | 273 | 323 | 433 | 303 | 343 | 339 | 329 | 346 | 302 | 261 | 280 | 485 |
| 1971         | Wet          | 631 | 491 | 437 | 377 | 464 | 387 | 310 | 304 | 250 | 236 | 277 | 418 |
| 1972         | Below Normal | 396 | 522 | 678 | 606 | 642 | 399 | 394 | 380 | 317 | 293 | 338 | 527 |
| 1973         | Above Normal | 702 | 544 | 453 | 527 | 530 | 452 | 354 | 371 | 337 | 257 | 298 | 479 |
| 1974         | Wet          | 605 | 406 | 388 | 424 | 399 | 315 | 312 | 347 | 362 | 276 | 302 | 361 |
| 1975         | Wet          | 296 | 380 | 530 | 517 | 394 | 312 | 320 | 325 | 341 | 278 | 308 | 358 |
| 1976         | Critical     | 288 | 304 | 464 | 671 | 828 | 662 | 511 | 474 | 526 | 580 | 604 | 681 |
| 1977         | Critical     | 751 | 677 | 816 | 779 | 874 | 873 | 687 | 603 | 619 | 594 | 556 | 604 |
| 1978         | Above Normal | 747 | 785 | 804 | 636 | 593 | 658 | 453 | 344 | 365 | 305 | 324 | 497 |
| 1979         | Below Normal | 598 | 641 | 679 | 624 | 403 | 329 | 343 | 317 | 295 | 265 | 359 | 528 |
| 1980         | Above Normal | 661 | 615 | 562 | 444 | 360 | 409 | 368 | 353 | 350 | 368 | 331 | 423 |
| 1981         | Dry          | 537 | 557 | 721 | 781 | 466 | 417 | 391 | 372 | 331 | 377 | 448 | 598 |
| 1982         | Wet          | 716 | 547 | 366 | 473 | 319 | 331 | 228 | 224 | 338 | 349 | 307 | 275 |
| 1983         | Wet          | 215 | 269 | 389 | 362 | 343 | 271 | 283 | 274 | 245 | 226 | 215 | 220 |
| 1984         | Wet          | 245 | 223 | 311 | 356 | 262 | 325 | 357 | 361 | 342 | 260 | 291 | 484 |
| 1985         | Dry          | 539 | 453 | 365 | 389 | 551 | 596 | 464 | 400 | 316 | 378 | 466 | 572 |
| 1986         | Wet          | 620 | 592 | 648 | 541 | 496 | 323 | 270 | 246 | 371 | 326 | 308 | 444 |
| 1987         | Dry          | 527 | 565 | 705 | 748 | 755 | 601 | 552 | 428 | 333 | 385 | 479 | 541 |
| 1988         | Critical     | 661 | 642 | 720 | 719 | 859 | 895 | 572 | 509 | 409 | 423 | 601 | 592 |
| 1989         | Dry          | 691 | 738 | 768 | 857 | 915 | 500 | 357 | 401 | 284 | 366 | 462 | 584 |
| 1990         | Critical     | 685 | 663 | 741 | 645 | 805 | 668 | 525 | 513 | 494 | 572 | 521 | 586 |
| 1991         | Critical     | 718 | 744 | 799 | 908 | 990 | 635 | 530 | 458 | 451 | 573 | 573 | 550 |
| 1992         | Critical     | 727 | 790 | 783 | 921 | 726 | 542 | 493 | 427 | 389 | 359 | 493 | 679 |
| 1993         | Above Normal | 760 | 726 | 830 | 681 | 560 | 489 | 357 | 383 | 367 | 295 | 308 | 506 |
| 1994         | Critical     | 606 | 637 | 732 | 780 | 867 | 768 | 501 | 464 | 366 | 530 | 606 | 566 |
| 1995         | Wet          | 717 | 693 | 713 | 752 | 498 | 361 | 283 | 221 | 317 | 268 | 258 | 241 |
| 1996         | Wet          | 263 | 379 | 575 | 474 | 388 | 347 | 333 | 332 | 371 | 293 | 307 | 393 |
| 1997         | Wet          | 365 | 402 | 349 | 256 | 314 | 263 | 304 | 340 | 363 | 292 | 307 | 520 |
| 1998         | Wet          | 663 | 677 | 663 | 570 | 401 | 336 | 303 | 295 | 265 | 260 | 256 | 240 |
| 1999         | Wet          | 251 | 264 | 326 | 403 | 272 | 349 | 333 | 347 | 315 | 253 | 294 | 438 |
| 2000         | Above Normal | 434 | 524 | 642 | 698 | 486 | 336 | 323 | 349 | 323 | 300 | 285 | 493 |
| 2001         | Dry          | 561 | 543 | 697 | 690 | 579 | 450 | 447 | 424 | 379 | 361 | 424 | 564 |
| 2002         | Dry          | 667 | 655 | 683 | 462 | 927 | 713 | 456 | 461 | 328 | 369 | 454 | 524 |
| 2003         | Above Normal | 657 | 550 | 531 | 379 | 862 | 484 | 330 | 312 | 237 | 248 | 283 | 519 |
| Average      |              | 564 | 550 | 604 | 596 | 567 | 498 | 399 | 374 | 348 | 334 | 367 | 484 |
| Wet          |              | 500 | 475 | 499 | 457 | 403 | 368 | 303 | 294 | 314 | 289 | 287 | 371 |
| Above Normal |              | 589 | 556 | 600 | 582 | 518 | 431 | 354 | 348 | 314 | 289 | 294 | 491 |
| Below Normal |              | 553 | 553 | 636 | 635 | 542 | 465 | 378 | 356 | 316 | 280 | 334 | 504 |
| Dry          |              | 600 | 600 | 658 | 664 | 682 | 578 | 466 | 426 | 346 | 364 | 445 | 564 |
| Critical     |              | 635 | 629 | 716 | 761 | 827 | 763 | 577 | 515 | 493 | 491 | 533 | 582 |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 113: Simulated Electrical Conductivity at Middle River at Victoria Canal (umhos/cm) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 432 | 467 | 469 | 479 | 549 | 433 | 376 | 334 | 356 | 351 | 297 | 351 |
| 1923         | Below Normal | 416 | 434 | 531 | 490 | 489 | 470 | 416 | 359 | 343 | 286 | 299 | 371 |
| 1924         | Critical     | 403 | 431 | 489 | 598 | 613 | 649 | 605 | 563 | 470 | 409 | 431 | 444 |
| 1925         | Dry          | 495 | 567 | 564 | 632 | 629 | 662 | 516 | 344 | 371 | 327 | 314 | 402 |
| 1926         | Dry          | 496 | 484 | 508 | 566 | 567 | 428 | 384 | 434 | 365 | 317 | 347 | 407 |
| 1927         | Wet          | 497 | 432 | 312 | 391 | 545 | 465 | 354 | 332 | 292 | 259 | 257 | 353 |
| 1928         | Above Normal | 425 | 413 | 349 | 403 | 369 | 403 | 342 | 359 | 314 | 288 | 269 | 393 |
| 1929         | Critical     | 458 | 471 | 537 | 599 | 717 | 627 | 557 | 517 | 473 | 391 | 396 | 444 |
| 1930         | Dry          | 503 | 563 | 550 | 500 | 444 | 407 | 360 | 437 | 372 | 309 | 344 | 431 |
| 1931         | Critical     | 518 | 513 | 549 | 589 | 762 | 703 | 622 | 566 | 550 | 403 | 445 | 455 |
| 1932         | Dry          | 498 | 573 | 511 | 400 | 536 | 599 | 552 | 465 | 422 | 389 | 337 | 441 |
| 1933         | Critical     | 529 | 492 | 512 | 566 | 580 | 551 | 501 | 486 | 445 | 432 | 429 | 445 |
| 1934         | Critical     | 495 | 564 | 546 | 529 | 499 | 556 | 568 | 549 | 480 | 383 | 380 | 436 |
| 1935         | Below Normal | 512 | 530 | 583 | 622 | 499 | 472 | 440 | 356 | 326 | 273 | 288 | 369 |
| 1936         | Below Normal | 475 | 478 | 506 | 531 | 554 | 373 | 346 | 362 | 352 | 274 | 297 | 354 |
| 1937         | Below Normal | 433 | 455 | 497 | 607 | 520 | 520 | 360 | 284 | 334 | 344 | 320 | 359 |
| 1938         | Wet          | 443 | 395 | 395 | 504 | 411 | 340 | 289 | 279 | 277 | 349 | 313 | 292 |
| 1939         | Dry          | 300 | 317 | 415 | 610 | 659 | 616 | 578 | 416 | 320 | 316 | 359 | 422 |
| 1940         | Above Normal | 482 | 478 | 521 | 627 | 550 | 414 | 329 | 350 | 336 | 284 | 257 | 359 |
| 1941         | Wet          | 433 | 450 | 505 | 480 | 501 | 369 | 300 | 282 | 367 | 384 | 309 | 328 |
| 1942         | Wet          | 338 | 387 | 455 | 494 | 394 | 355 | 364 | 308 | 352 | 379 | 314 | 301 |
| 1943         | Wet          | 310 | 345 | 336 | 412 | 344 | 317 | 315 | 341 | 391 | 345 | 294 | 359 |
| 1944         | Dry          | 443 | 448 | 505 | 595 | 655 | 495 | 419 | 356 | 327 | 300 | 358 | 417 |
| 1945         | Below Normal | 492 | 461 | 444 | 471 | 541 | 482 | 414 | 362 | 327 | 291 | 308 | 383 |
| 1946         | Below Normal | 431 | 418 | 449 | 422 | 490 | 471 | 421 | 364 | 347 | 277 | 298 | 390 |
| 1947         | Dry          | 471 | 466 | 520 | 524 | 543 | 448 | 403 | 443 | 326 | 305 | 347 | 425 |
| 1948         | Below Normal | 492 | 481 | 575 | 564 | 707 | 493 | 360 | 384 | 294 | 263 | 293 | 368 |
| 1949         | Dry          | 441 | 467 | 506 | 626 | 780 | 527 | 381 | 457 | 422 | 301 | 356 | 402 |
| 1950         | Below Normal | 485 | 485 | 539 | 522 | 429 | 366 | 335 | 350 | 300 | 269 | 287 | 375 |
| 1951         | Above Normal | 457 | 400 | 391 | 435 | 366 | 354 | 375 | 291 | 264 | 256 | 251 | 376 |
| 1952         | Wet          | 445 | 461 | 513 | 495 | 398 | 424 | 304 | 233 | 300 | 354 | 305 | 278 |
| 1953         | Wet          | 290 | 341 | 450 | 401 | 461 | 403 | 358 | 295 | 274 | 252 | 272 | 342 |
| 1954         | Above Normal | 354 | 398 | 469 | 636 | 352 | 329 | 334 | 393 | 326 | 271 | 251 | 357 |
| 1955         | Dry          | 460 | 480 | 491 | 410 | 433 | 446 | 459 | 459 | 375 | 299 | 357 | 410 |
| 1956         | Wet          | 483 | 500 | 601 | 505 | 424 | 376 | 352 | 354 | 371 | 374 | 317 | 315 |
| 1957         | Above Normal | 311 | 356 | 444 | 617 | 486 | 347 | 377 | 318 | 293 | 267 | 262 | 387 |
| 1958         | Wet          | 412 | 325 | 327 | 375 | 511 | 567 | 303 | 226 | 307 | 360 | 305 | 285 |
| 1959         | Below Normal | 291 | 328 | 427 | 602 | 434 | 486 | 518 | 384 | 311 | 269 | 279 | 359 |
| 1960         | Dry          | 464 | 491 | 535 | 573 | 665 | 413 | 361 | 454 | 327 | 296 | 332 | 442 |
| 1961         | Dry          | 522 | 475 | 572 | 595 | 597 | 422 | 384 | 447 | 314 | 302 | 323 | 395 |
| 1962         | Below Normal | 470 | 498 | 525 | 620 | 643 | 504 | 396 | 345 | 298 | 270 | 274 | 401 |
| 1963         | Wet          | 498 | 333 | 316 | 330 | 428 | 440 | 428 | 329 | 292 | 266 | 252 | 350 |
| 1964         | Dry          | 420 | 446 | 304 | 366 | 414 | 436 | 438 | 473 | 347 | 308 | 374 | 423 |
| 1965         | Wet          | 485 | 488 | 456 | 409 | 367 | 407 | 403 | 342 | 315 | 284 | 285 | 349 |
| 1966         | Below Normal | 420 | 387 | 360 | 430 | 450 | 389 | 354 | 361 | 298 | 264 | 277 | 408 |
| 1967         | Wet          | 491 | 504 | 600 | 520 | 407 | 412 | 371 | 263 | 300 | 322 | 293 | 278 |
| 1968         | Below Normal | 295 | 317 | 383 | 531 | 403 | 364 | 405 | 381 | 305 | 268 | 279 | 388 |
| 1969         | Wet          | 481 | 487 | 456 | 580 | 425 | 414 | 318 | 260 | 252 | 344 | 312 | 297 |
| 1970         | Wet          | 302 | 321 | 370 | 388 | 357 | 355 | 337 | 330 | 317 | 264 | 261 | 372 |
| 1971         | Wet          | 466 | 417 | 365 | 337 | 333 | 339 | 319 | 302 | 269 | 244 | 253 | 339 |
| 1972         | Below Normal | 348 | 408 | 503 | 471 | 519 | 342 | 310 | 389 | 301 | 275 | 283 | 400 |
| 1973         | Above Normal | 503 | 452 | 366 | 472 | 510 | 448 | 403 | 385 | 360 | 274 | 278 | 365 |
| 1974         | Wet          | 420 | 376 | 365 | 442 | 411 | 368 | 322 | 352 | 376 | 316 | 288 | 321 |
| 1975         | Wet          | 314 | 341 | 407 | 435 | 420 | 343 | 323 | 332 | 347 | 322 | 297 | 319 |
| 1976         | Critical     | 312 | 318 | 352 | 524 | 680 | 539 | 428 | 467 | 445 | 440 | 454 | 493 |
| 1977         | Critical     | 553 | 522 | 635 | 616 | 669 | 703 | 643 | 590 | 553 | 503 | 446 | 451 |
| 1978         | Above Normal | 542 | 595 | 597 | 589 | 585 | 658 | 499 | 346 | 396 | 355 | 307 | 372 |
| 1979         | Below Normal | 430 | 456 | 479 | 539 | 459 | 369 | 354 | 339 | 314 | 264 | 315 | 390 |
| 1980         | Above Normal | 466 | 455 | 444 | 451 | 381 | 415 | 382 | 375 | 396 | 410 | 346 | 339 |
| 1981         | Dry          | 407 | 429 | 513 | 669 | 426 | 398 | 411 | 378 | 323 | 314 | 364 | 438 |
| 1982         | Wet          | 509 | 461 | 315 | 444 | 367 | 420 | 239 | 236 | 330 | 379 | 315 | 266 |
| 1983         | Wet          | 223 | 270 | 392 | 419 | 339 | 277 | 289 | 280 | 248 | 245 | 226 | 226 |
| 1984         | Wet          | 278 | 242 | 312 | 386 | 317 | 316 | 369 | 349 | 340 | 271 | 271 | 366 |
| 1985         | Dry          | 410 | 416 | 309 | 323 | 459 | 534 | 497 | 413 | 314 | 315 | 367 | 427 |
| 1986         | Wet          | 468 | 463 | 486 | 446 | 534 | 341 | 299 | 252 | 347 | 365 | 304 | 347 |
| 1987         | Dry          | 392 | 413 | 509 | 596 | 594 | 519 | 474 | 449 | 316 | 316 | 368 | 422 |
| 1988         | Critical     | 495 | 509 | 533 | 617 | 527 | 563 | 522 | 501 | 405 | 331 | 477 | 477 |
| 1989         | Dry          | 523 | 570 | 571 | 684 | 650 | 464 | 287 | 394 | 284 | 294 | 354 | 434 |
| 1990         | Critical     | 497 | 510 | 558 | 505 | 600 | 545 | 423 | 449 | 432 | 449 | 441 | 455 |
| 1991         | Critical     | 532 | 586 | 651 | 741 | 771 | 602 | 446 | 463 | 431 | 447 | 452 | 441 |
| 1992         | Critical     | 531 | 632 | 628 | 713 | 627 | 448 | 381 | 418 | 364 | 315 | 373 | 480 |
| 1993         | Above Normal | 561 | 579 | 617 | 659 | 553 | 470 | 331 | 370 | 371 | 346 | 295 | 371 |
| 1994         | Critical     | 439 | 479 | 510 | 626 | 673 | 550 | 427 | 450 | 344 | 384 | 466 | 403 |
| 1995         | Wet          | 494 | 570 | 529 | 698 | 475 | 439 | 319 | 233 | 316 | 297 | 277 | 265 |
| 1996         | Wet          | 298 | 337 | 435 | 446 | 517 | 416 | 356 | 345 | 367 | 330 | 296 | 334 |
| 1997         | Wet          | 353 | 361 | 367 | 262 | 333 | 316 | 295 | 331 | 337 | 300 | 275 | 385 |
| 1998         | Wet          | 477 | 487 | 518 | 558 | 453 | 393 | 329 | 299 | 267 | 280 | 272 | 267 |
| 1999         | Wet          | 291 | 307 | 299 | 419 | 379 | 329 | 351 | 346 | 328 | 269 | 271 | 351 |
| 2000         | Above Normal | 368 | 411 | 474 | 588 | 595 | 367 | 329 | 355 | 345 | 291 | 267 | 371 |
| 2001         | Dry          | 425 | 424 | 524 | 543 | 493 | 420 | 430 | 438 | 381 | 318 | 357 | 420 |
| 2002         | Dry          | 495 | 492 | 555 | 427 | 602 | 608 | 444 | 457 | 343 | 301 | 356 | 404 |
| 2003         | Above Normal | 495 | 451 | 451 | 315 | 484 | 437 | 300 | 350 | 248 | 240 | 252 | 385 |
| Average      |              | 437 | 446 | 472 | 514 | 508 | 451 | 394 | 376 | 346 | 319 | 322 | 378 |
| Wet          |              | 404 | 400 | 419 | 445 | 417 | 382 | 331 | 301 | 319 | 314 | 286 | 319 |
| Above Normal |              | 450 | 454 | 466 | 523 | 482 | 423 | 365 | 352 | 334 | 303 | 278 | 369 |
| Below Normal |              | 428 | 438 | 486 | 530 | 510 | 436 | 388 | 359 | 318 | 278 | 293 | 380 |
| Dry          |              | 454 | 473 | 498 | 536 | 564 | 491 | 432 | 429 | 347 | 313 | 351 | 420 |
| Critical     |              | 480 | 502 | 542 | 602 | 643 | 586 | 510 | 502 | 449 | 407 | 433 | 452 |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 114: Simulated Electrical Conductivity at Middle River at Victoria Canal (umhos/cm) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 431 | 463 | 465 | 479 | 550 | 429 | 368 | 334 | 357 | 352 | 297 | 351 |
| 1923         | Below Normal | 415 | 430 | 523 | 490 | 490 | 477 | 418 | 351 | 347 | 288 | 300 | 368 |
| 1924         | Critical     | 402 | 431 | 488 | 597 | 612 | 682 | 635 | 576 | 472 | 407 | 429 | 443 |
| 1925         | Dry          | 495 | 565 | 541 | 650 | 641 | 693 | 520 | 344 | 373 | 329 | 315 | 404 |
| 1926         | Dry          | 497 | 478 | 500 | 563 | 568 | 458 | 432 | 444 | 369 | 316 | 348 | 412 |
| 1927         | Wet          | 499 | 432 | 308 | 386 | 543 | 481 | 376 | 336 | 294 | 260 | 257 | 354 |
| 1928         | Above Normal | 424 | 408 | 340 | 398 | 373 | 405 | 356 | 363 | 318 | 290 | 269 | 393 |
| 1929         | Critical     | 457 | 467 | 536 | 591 | 712 | 625 | 558 | 520 | 482 | 393 | 397 | 445 |
| 1930         | Dry          | 504 | 561 | 543 | 504 | 448 | 440 | 396 | 443 | 378 | 315 | 347 | 431 |
| 1931         | Critical     | 518 | 512 | 549 | 588 | 763 | 706 | 637 | 573 | 548 | 399 | 442 | 454 |
| 1932         | Dry          | 498 | 569 | 503 | 399 | 535 | 603 | 560 | 431 | 411 | 394 | 344 | 439 |
| 1933         | Critical     | 526 | 488 | 505 | 566 | 567 | 561 | 527 | 497 | 453 | 423 | 416 | 444 |
| 1934         | Critical     | 494 | 558 | 535 | 543 | 487 | 556 | 586 | 561 | 487 | 384 | 378 | 434 |
| 1935         | Below Normal | 510 | 521 | 555 | 676 | 518 | 509 | 443 | 351 | 326 | 272 | 287 | 369 |
| 1936         | Below Normal | 471 | 471 | 497 | 540 | 568 | 378 | 331 | 350 | 350 | 275 | 299 | 351 |
| 1937         | Below Normal | 429 | 451 | 489 | 610 | 566 | 511 | 354 | 293 | 343 | 338 | 317 | 363 |
| 1938         | Wet          | 453 | 400 | 384 | 498 | 431 | 343 | 304 | 282 | 280 | 349 | 313 | 292 |
| 1939         | Dry          | 300 | 318 | 408 | 608 | 661 | 625 | 587 | 416 | 323 | 316 | 357 | 420 |
| 1940         | Above Normal | 481 | 478 | 515 | 630 | 551 | 413 | 321 | 344 | 340 | 284 | 257 | 358 |
| 1941         | Wet          | 424 | 443 | 509 | 481 | 521 | 370 | 283 | 266 | 353 | 378 | 308 | 327 |
| 1942         | Wet          | 337 | 384 | 446 | 489 | 371 | 351 | 349 | 301 | 351 | 378 | 313 | 301 |
| 1943         | Wet          | 311 | 344 | 331 | 431 | 346 | 344 | 311 | 338 | 391 | 341 | 291 | 359 |
| 1944         | Dry          | 435 | 434 | 490 | 605 | 641 | 507 | 442 | 361 | 328 | 299 | 360 | 424 |
| 1945         | Below Normal | 503 | 462 | 431 | 466 | 564 | 487 | 396 | 362 | 329 | 294 | 308 | 382 |
| 1946         | Below Normal | 429 | 410 | 435 | 421 | 480 | 465 | 419 | 365 | 349 | 278 | 300 | 397 |
| 1947         | Dry          | 464 | 455 | 513 | 521 | 543 | 471 | 434 | 429 | 329 | 307 | 352 | 429 |
| 1948         | Below Normal | 495 | 478 | 581 | 603 | 721 | 524 | 396 | 385 | 294 | 259 | 295 | 369 |
| 1949         | Dry          | 444 | 469 | 524 | 598 | 719 | 544 | 424 | 468 | 428 | 302 | 359 | 405 |
| 1950         | Below Normal | 493 | 485 | 531 | 525 | 424 | 389 | 367 | 351 | 302 | 276 | 284 | 374 |
| 1951         | Above Normal | 456 | 399 | 413 | 458 | 363 | 355 | 367 | 291 | 266 | 257 | 252 | 377 |
| 1952         | Wet          | 444 | 458 | 511 | 493 | 398 | 422 | 297 | 237 | 305 | 356 | 304 | 277 |
| 1953         | Wet          | 291 | 340 | 440 | 399 | 461 | 425 | 380 | 299 | 275 | 251 | 273 | 330 |
| 1954         | Above Normal | 344 | 387 | 445 | 620 | 350 | 356 | 359 | 399 | 328 | 271 | 252 | 356 |
| 1955         | Dry          | 459 | 472 | 462 | 405 | 424 | 462 | 501 | 469 | 377 | 305 | 353 | 414 |
| 1956         | Wet          | 489 | 500 | 615 | 512 | 426 | 374 | 349 | 340 | 357 | 368 | 325 | 309 |
| 1957         | Above Normal | 303 | 345 | 416 | 605 | 496 | 362 | 420 | 320 | 294 | 266 | 260 | 386 |
| 1958         | Wet          | 410 | 327 | 319 | 372 | 511 | 556 | 283 | 221 | 306 | 360 | 305 | 285 |
| 1959         | Below Normal | 293 | 330 | 420 | 600 | 437 | 511 | 540 | 389 | 313 | 270 | 278 | 359 |
| 1960         | Dry          | 463 | 486 | 528 | 576 | 668 | 433 | 393 | 463 | 331 | 296 | 332 | 441 |
| 1961         | Dry          | 522 | 476 | 572 | 596 | 596 | 440 | 411 | 453 | 314 | 301 | 323 | 400 |
| 1962         | Below Normal | 476 | 500 | 520 | 626 | 643 | 515 | 402 | 323 | 296 | 271 | 276 | 411 |
| 1963         | Wet          | 502 | 338 | 311 | 328 | 436 | 465 | 442 | 335 | 291 | 265 | 251 | 349 |
| 1964         | Dry          | 419 | 438 | 298 | 363 | 415 | 462 | 474 | 481 | 347 | 307 | 372 | 424 |
| 1965         | Wet          | 485 | 482 | 441 | 414 | 370 | 401 | 384 | 331 | 314 | 284 | 284 | 349 |
| 1966         | Below Normal | 420 | 386 | 359 | 429 | 452 | 396 | 385 | 367 | 303 | 264 | 277 | 408 |
| 1967         | Wet          | 489 | 493 | 572 | 518 | 412 | 411 | 361 | 261 | 309 | 324 | 292 | 278 |
| 1968         | Below Normal | 297 | 317 | 368 | 522 | 405 | 396 | 440 | 386 | 307 | 269 | 279 | 389 |
| 1969         | Wet          | 481 | 485 | 450 | 591 | 475 | 429 | 321 | 254 | 272 | 348 | 312 | 297 |
| 1970         | Wet          | 302 | 320 | 360 | 391 | 356 | 351 | 345 | 335 | 314 | 262 | 260 | 372 |
| 1971         | Wet          | 462 | 414 | 359 | 336 | 351 | 371 | 339 | 304 | 269 | 243 | 252 | 339 |
| 1972         | Below Normal | 349 | 406 | 496 | 468 | 519 | 363 | 353 | 396 | 303 | 276 | 283 | 399 |
| 1973         | Above Normal | 501 | 452 | 367 | 473 | 511 | 451 | 391 | 359 | 353 | 273 | 279 | 367 |
| 1974         | Wet          | 431 | 381 | 364 | 441 | 415 | 361 | 317 | 348 | 374 | 315 | 289 | 321 |
| 1975         | Wet          | 314 | 338 | 396 | 430 | 424 | 335 | 320 | 334 | 349 | 322 | 297 | 319 |
| 1976         | Critical     | 312 | 317 | 346 | 515 | 675 | 559 | 450 | 469 | 445 | 441 | 450 | 494 |
| 1977         | Critical     | 554 | 519 | 635 | 623 | 677 | 708 | 646 | 591 | 553 | 503 | 446 | 451 |
| 1978         | Above Normal | 542 | 592 | 592 | 590 | 592 | 683 | 522 | 359 | 383 | 347 | 307 | 370 |
| 1979         | Below Normal | 429 | 451 | 475 | 546 | 462 | 361 | 348 | 334 | 314 | 266 | 316 | 388 |
| 1980         | Above Normal | 464 | 446 | 423 | 463 | 425 | 430 | 388 | 370 | 373 | 401 | 355 | 338 |
| 1981         | Dry          | 405 | 426 | 510 | 669 | 426 | 399 | 418 | 383 | 326 | 313 | 363 | 435 |
| 1982         | Wet          | 506 | 459 | 314 | 446 | 376 | 410 | 239 | 242 | 327 | 376 | 316 | 266 |
| 1983         | Wet          | 224 | 278 | 399 | 432 | 355 | 276 | 291 | 285 | 251 | 245 | 226 | 226 |
| 1984         | Wet          | 278 | 244 | 328 | 397 | 319 | 317 | 369 | 350 | 345 | 273 | 272 | 366 |
| 1985         | Dry          | 401 | 397 | 306 | 321 | 460 | 550 | 521 | 421 | 319 | 315 | 367 | 424 |
| 1986         | Wet          | 467 | 461 | 483 | 446 | 545 | 350 | 303 | 255 | 346 | 362 | 305 | 349 |
| 1987         | Dry          | 392 | 410 | 505 | 601 | 605 | 546 | 507 | 456 | 319 | 315 | 366 | 423 |
| 1988         | Critical     | 496 | 509 | 524 | 612 | 527 | 575 | 559 | 516 | 412 | 332 | 479 | 478 |
| 1989         | Dry          | 524 | 564 | 565 | 677 | 650 | 487 | 339 | 408 | 293 | 295 | 352 | 436 |
| 1990         | Critical     | 500 | 510 | 546 | 492 | 600 | 565 | 456 | 470 | 443 | 444 | 440 | 457 |
| 1991         | Critical     | 534 | 583 | 635 | 751 | 771 | 611 | 471 | 476 | 428 | 443 | 469 | 443 |
| 1992         | Critical     | 525 | 621 | 614 | 712 | 630 | 463 | 402 | 430 | 384 | 318 | 373 | 482 |
| 1993         | Above Normal | 563 | 575 | 608 | 658 | 555 | 490 | 364 | 371 | 381 | 346 | 294 | 373 |
| 1994         | Critical     | 438 | 470 | 527 | 584 | 727 | 589 | 477 | 468 | 356 | 388 | 453 | 423 |
| 1995         | Wet          | 514 | 544 | 504 | 701 | 448 | 433 | 329 | 242 | 316 | 296 | 276 | 265 |
| 1996         | Wet          | 299 | 337 | 425 | 444 | 498 | 403 | 348 | 346 | 373 | 330 | 297 | 335 |
| 1997         | Wet          | 354 | 360 | 391 | 265 | 336 | 308 | 299 | 333 | 365 | 313 | 276 | 387 |
| 1998         | Wet          | 468 | 478 | 504 | 554 | 563 | 397 | 331 | 309 | 287 | 282 | 273 | 267 |
| 1999         | Wet          | 292 | 308 | 299 | 419 | 376 | 331 | 356 | 349 | 330 | 270 | 271 | 351 |
| 2000         | Above Normal | 368 | 405 | 450 | 605 | 595 | 360 | 333 | 356 | 347 | 292 | 267 | 372 |
| 2001         | Dry          | 424 | 420 | 504 | 563 | 505 | 431 | 443 | 443 | 387 | 320 | 352 | 426 |
| 2002         | Dry          | 505 | 490 | 551 | 433 | 613 | 621 | 494 | 468 | 350 | 302 | 357 | 403 |
| 2003         | Above Normal | 494 | 449 | 437 | 314 | 489 | 466 | 347 | 326 | 251 | 241 | 253 | 386 |
| Average      |              | 437 | 442 | 466 | 515 | 512 | 462 | 408 | 378 | 348 | 319 | 322 | 379 |
| Wet          |              | 405 | 398 | 414 | 447 | 426 | 385 | 332 | 301 | 321 | 314 | 286 | 318 |
| Above Normal |              | 447 | 450 | 456 | 525 | 488 | 433 | 378 | 349 | 333 | 302 | 279 | 369 |
| Below Normal |              | 429 | 436 | 477 | 537 | 518 | 449 | 400 | 357 | 320 | 278 | 293 | 380 |
| Dry          |              | 453 | 468 | 490 | 536 | 562 | 510 | 461 | 432 | 350 | 314 | 351 | 422 |
| Critical     |              | 480 | 499 | 537 | 598 | 646 | 600 | 534 | 512 | 455 | 406 | 431 | 454 |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 115: Simulated Chloride Concentration at Contra Costa Canal Pumping Plant #1 (mg/L) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 120 | 121 | 132 | 129 | 125 | 85  | 53  | 53  | 53  | 62  | 50  | 86  |
| 1923         | Below Normal | 109 | 115 | 130 | 96  | 90  | 104 | 60  | 57  | 60  | 46  | 60  | 93  |
| 1924         | Critical     | 101 | 110 | 145 | 165 | 181 | 227 | 138 | 111 | 111 | 92  | 98  | 108 |
| 1925         | Dry          | 139 | 151 | 164 | 183 | 162 | 209 | 84  | 58  | 63  | 48  | 69  | 109 |
| 1926         | Dry          | 138 | 122 | 153 | 167 | 157 | 123 | 75  | 86  | 64  | 59  | 83  | 110 |
| 1927         | Wet          | 141 | 101 | 86  | 113 | 144 | 112 | 58  | 55  | 49  | 39  | 43  | 89  |
| 1928         | Above Normal | 111 | 98  | 100 | 109 | 103 | 73  | 53  | 69  | 48  | 46  | 49  | 103 |
| 1929         | Critical     | 126 | 130 | 161 | 171 | 200 | 194 | 132 | 102 | 101 | 80  | 88  | 107 |
| 1930         | Dry          | 138 | 153 | 163 | 142 | 131 | 119 | 85  | 76  | 59  | 59  | 87  | 120 |
| 1931         | Critical     | 146 | 128 | 152 | 172 | 210 | 197 | 148 | 120 | 120 | 93  | 107 | 112 |
| 1932         | Dry          | 137 | 153 | 133 | 105 | 131 | 158 | 115 | 93  | 84  | 90  | 72  | 126 |
| 1933         | Critical     | 145 | 115 | 144 | 165 | 177 | 169 | 128 | 94  | 93  | 85  | 100 | 105 |
| 1934         | Critical     | 133 | 153 | 158 | 152 | 170 | 218 | 139 | 109 | 94  | 71  | 86  | 108 |
| 1935         | Below Normal | 142 | 149 | 170 | 162 | 142 | 119 | 71  | 66  | 57  | 44  | 63  | 92  |
| 1936         | Below Normal | 132 | 125 | 154 | 143 | 116 | 55  | 51  | 64  | 61  | 41  | 57  | 86  |
| 1937         | Below Normal | 112 | 115 | 145 | 163 | 80  | 83  | 44  | 35  | 79  | 56  | 63  | 85  |
| 1938         | Wet          | 115 | 84  | 80  | 107 | 74  | 52  | 28  | 29  | 30  | 57  | 44  | 45  |
| 1939         | Dry          | 40  | 51  | 125 | 166 | 169 | 142 | 120 | 71  | 54  | 66  | 84  | 104 |
| 1940         | Above Normal | 134 | 124 | 155 | 157 | 128 | 56  | 44  | 55  | 54  | 52  | 42  | 91  |
| 1941         | Wet          | 115 | 124 | 129 | 104 | 83  | 47  | 33  | 33  | 72  | 67  | 51  | 70  |
| 1942         | Wet          | 65  | 94  | 115 | 87  | 46  | 60  | 45  | 38  | 64  | 66  | 46  | 50  |
| 1943         | Wet          | 51  | 64  | 81  | 56  | 37  | 44  | 39  | 55  | 69  | 54  | 50  | 89  |
| 1944         | Dry          | 121 | 117 | 145 | 165 | 164 | 112 | 70  | 59  | 59  | 59  | 86  | 115 |
| 1945         | Below Normal | 139 | 123 | 128 | 125 | 102 | 56  | 65  | 57  | 52  | 50  | 60  | 99  |
| 1946         | Below Normal | 112 | 110 | 92  | 84  | 84  | 83  | 64  | 59  | 56  | 45  | 61  | 102 |
| 1947         | Dry          | 134 | 129 | 145 | 134 | 142 | 129 | 104 | 78  | 55  | 60  | 85  | 110 |
| 1948         | Below Normal | 138 | 129 | 165 | 165 | 186 | 135 | 76  | 69  | 49  | 38  | 60  | 92  |
| 1949         | Dry          | 116 | 120 | 150 | 177 | 220 | 129 | 81  | 92  | 73  | 52  | 84  | 104 |
| 1950         | Below Normal | 132 | 126 | 151 | 145 | 124 | 114 | 61  | 59  | 52  | 39  | 55  | 99  |
| 1951         | Above Normal | 128 | 85  | 66  | 62  | 38  | 64  | 57  | 35  | 40  | 40  | 44  | 99  |
| 1952         | Wet          | 119 | 129 | 137 | 110 | 86  | 73  | 25  | 15  | 41  | 57  | 40  | 38  |
| 1953         | Wet          | 39  | 70  | 120 | 85  | 95  | 101 | 54  | 42  | 40  | 34  | 47  | 80  |
| 1954         | Above Normal | 76  | 97  | 139 | 165 | 102 | 101 | 63  | 74  | 51  | 49  | 41  | 91  |
| 1955         | Dry          | 126 | 138 | 137 | 103 | 116 | 133 | 102 | 85  | 62  | 53  | 91  | 105 |
| 1956         | Wet          | 129 | 141 | 145 | 78  | 61  | 58  | 53  | 56  | 65  | 65  | 51  | 57  |
| 1957         | Above Normal | 49  | 68  | 131 | 165 | 132 | 106 | 83  | 48  | 44  | 41  | 47  | 104 |
| 1958         | Wet          | 99  | 58  | 91  | 95  | 124 | 110 | 21  | 14  | 47  | 60  | 43  | 41  |
| 1959         | Below Normal | 40  | 63  | 134 | 154 | 102 | 175 | 90  | 64  | 51  | 46  | 50  | 89  |
| 1960         | Dry          | 131 | 136 | 158 | 165 | 183 | 111 | 115 | 89  | 51  | 59  | 79  | 130 |
| 1961         | Dry          | 147 | 128 | 173 | 171 | 172 | 126 | 111 | 80  | 50  | 58  | 77  | 103 |
| 1962         | Below Normal | 128 | 131 | 158 | 177 | 148 | 106 | 71  | 55  | 49  | 46  | 53  | 111 |
| 1963         | Wet          | 124 | 54  | 88  | 95  | 110 | 117 | 71  | 54  | 49  | 43  | 41  | 88  |
| 1964         | Dry          | 111 | 109 | 85  | 104 | 121 | 117 | 95  | 94  | 60  | 63  | 94  | 111 |
| 1965         | Wet          | 133 | 139 | 118 | 80  | 57  | 84  | 54  | 55  | 49  | 43  | 47  | 83  |
| 1966         | Below Normal | 109 | 81  | 82  | 93  | 88  | 100 | 66  | 67  | 48  | 44  | 57  | 112 |
| 1967         | Wet          | 142 | 146 | 154 | 128 | 108 | 78  | 39  | 22  | 38  | 41  | 39  | 37  |
| 1968         | Below Normal | 38  | 58  | 118 | 139 | 97  | 104 | 94  | 63  | 49  | 44  | 55  | 99  |
| 1969         | Wet          | 134 | 133 | 126 | 135 | 74  | 67  | 35  | 26  | 27  | 56  | 45  | 48  |
| 1970         | Wet          | 40  | 55  | 89  | 42  | 51  | 53  | 48  | 56  | 47  | 43  | 43  | 94  |
| 1971         | Wet          | 128 | 98  | 99  | 85  | 99  | 92  | 47  | 45  | 37  | 32  | 43  | 77  |
| 1972         | Below Normal | 72  | 104 | 149 | 135 | 145 | 98  | 70  | 65  | 53  | 45  | 60  | 106 |
| 1973         | Above Normal | 147 | 111 | 97  | 128 | 123 | 95  | 64  | 70  | 62  | 42  | 50  | 90  |
| 1974         | Wet          | 111 | 72  | 82  | 85  | 84  | 46  | 47  | 59  | 69  | 51  | 51  | 62  |
| 1975         | Wet          | 47  | 68  | 116 | 112 | 60  | 45  | 51  | 52  | 65  | 52  | 52  | 62  |
| 1976         | Critical     | 44  | 50  | 102 | 149 | 188 | 147 | 101 | 91  | 104 | 118 | 124 | 138 |
| 1977         | Critical     | 157 | 144 | 178 | 170 | 200 | 214 | 151 | 123 | 126 | 119 | 109 | 123 |
| 1978         | Above Normal | 160 | 170 | 179 | 143 | 123 | 137 | 69  | 49  | 67  | 61  | 56  | 91  |
| 1979         | Below Normal | 120 | 127 | 145 | 132 | 65  | 48  | 56  | 46  | 47  | 38  | 64  | 104 |
| 1980         | Above Normal | 133 | 126 | 128 | 72  | 61  | 66  | 56  | 58  | 65  | 71  | 55  | 78  |
| 1981         | Dry          | 103 | 108 | 152 | 170 | 113 | 107 | 73  | 62  | 55  | 67  | 86  | 124 |
| 1982         | Wet          | 149 | 111 | 81  | 110 | 41  | 50  | 20  | 17  | 56  | 63  | 45  | 29  |
| 1983         | Wet          | 14  | 30  | 61  | 71  | 54  | 39  | 37  | 32  | 26  | 21  | 13  | 19  |
| 1984         | Wet          | 32  | 16  | 44  | 51  | 25  | 50  | 60  | 60  | 60  | 44  | 49  | 89  |
| 1985         | Dry          | 103 | 91  | 78  | 85  | 122 | 137 | 93  | 70  | 52  | 67  | 90  | 115 |
| 1986         | Wet          | 127 | 120 | 140 | 120 | 96  | 49  | 29  | 23  | 65  | 59  | 51  | 78  |
| 1987         | Dry          | 96  | 105 | 148 | 161 | 169 | 135 | 116 | 77  | 54  | 68  | 93  | 106 |
| 1988         | Critical     | 136 | 134 | 160 | 162 | 212 | 217 | 113 | 97  | 70  | 72  | 121 | 120 |
| 1989         | Dry          | 145 | 159 | 167 | 194 | 239 | 116 | 57  | 70  | 36  | 58  | 89  | 118 |
| 1990         | Critical     | 144 | 141 | 164 | 151 | 211 | 139 | 105 | 99  | 92  | 114 | 101 | 117 |
| 1991         | Critical     | 151 | 160 | 177 | 206 | 245 | 155 | 119 | 85  | 83  | 114 | 108 | 111 |
| 1992         | Critical     | 157 | 175 | 174 | 209 | 171 | 116 | 110 | 72  | 59  | 54  | 93  | 141 |
| 1993         | Above Normal | 163 | 158 | 187 | 154 | 133 | 118 | 67  | 75  | 77  | 59  | 53  | 96  |
| 1994         | Critical     | 121 | 129 | 156 | 187 | 186 | 164 | 90  | 87  | 56  | 101 | 131 | 108 |
| 1995         | Wet          | 146 | 156 | 164 | 169 | 118 | 65  | 31  | 16  | 47  | 31  | 36  | 36  |
| 1996         | Wet          | 40  | 68  | 127 | 112 | 84  | 57  | 52  | 47  | 68  | 49  | 51  | 70  |
| 1997         | Wet          | 63  | 70  | 47  | 33  | 43  | 28  | 43  | 57  | 59  | 45  | 52  | 101 |
| 1998         | Wet          | 137 | 141 | 148 | 127 | 94  | 53  | 37  | 33  | 27  | 29  | 33  | 31  |
| 1999         | Wet          | 33  | 40  | 68  | 82  | 31  | 57  | 53  | 56  | 53  | 38  | 48  | 81  |
| 2000         | Above Normal | 80  | 106 | 145 | 151 | 98  | 51  | 50  | 58  | 58  | 55  | 46  | 94  |
| 2001         | Dry          | 109 | 109 | 155 | 147 | 137 | 100 | 102 | 74  | 64  | 62  | 78  | 106 |
| 2002         | Dry          | 135 | 137 | 152 | 105 | 215 | 185 | 84  | 88  | 52  | 62  | 86  | 105 |
| 2003         | Above Normal | 138 | 115 | 120 | 88  | 209 | 111 | 65  | 58  | 29  | 34  | 45  | 102 |
| Average      |              | 112 | 111 | 130 | 129 | 124 | 106 | 72  | 63  | 60  | 57  | 65  | 92  |
| Wet          |              | 95  | 92  | 105 | 95  | 76  | 65  | 43  | 40  | 51  | 48  | 44  | 63  |
| Above Normal |              | 120 | 115 | 132 | 127 | 115 | 88  | 60  | 59  | 54  | 51  | 48  | 94  |
| Below Normal |              | 109 | 111 | 137 | 137 | 112 | 99  | 67  | 59  | 54  | 45  | 58  | 98  |
| Dry          |              | 121 | 123 | 144 | 147 | 159 | 133 | 93  | 78  | 58  | 62  | 84  | 112 |
| Critical     |              | 130 | 131 | 156 | 172 | 196 | 180 | 123 | 99  | 92  | 93  | 105 | 117 |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 116: Simulated Chloride Concentration at Contra Costa Canal Pumping Plant #1 (mg/L) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 119 | 118 | 131 | 129 | 124 | 79  | 51  | 54  | 53  | 63  | 50  | 86  |
| 1923         | Below Normal | 109 | 112 | 128 | 97  | 89  | 109 | 56  | 56  | 60  | 47  | 60  | 91  |
| 1924         | Critical     | 100 | 110 | 144 | 165 | 180 | 227 | 144 | 113 | 112 | 92  | 98  | 108 |
| 1925         | Dry          | 139 | 145 | 158 | 189 | 162 | 172 | 78  | 58  | 64  | 49  | 70  | 109 |
| 1926         | Dry          | 138 | 120 | 150 | 166 | 156 | 130 | 74  | 87  | 66  | 61  | 84  | 112 |
| 1927         | Wet          | 142 | 99  | 85  | 110 | 142 | 106 | 55  | 54  | 49  | 39  | 43  | 88  |
| 1928         | Above Normal | 111 | 94  | 96  | 107 | 101 | 69  | 52  | 69  | 49  | 46  | 49  | 103 |
| 1929         | Critical     | 125 | 128 | 161 | 168 | 197 | 172 | 130 | 104 | 104 | 80  | 89  | 107 |
| 1930         | Dry          | 138 | 150 | 162 | 143 | 134 | 117 | 89  | 78  | 62  | 61  | 89  | 120 |
| 1931         | Critical     | 146 | 128 | 152 | 172 | 210 | 198 | 150 | 121 | 120 | 92  | 106 | 111 |
| 1932         | Dry          | 137 | 149 | 131 | 105 | 130 | 141 | 97  | 88  | 78  | 92  | 73  | 125 |
| 1933         | Critical     | 144 | 113 | 147 | 170 | 174 | 160 | 117 | 97  | 96  | 85  | 91  | 105 |
| 1934         | Critical     | 133 | 149 | 156 | 155 | 167 | 212 | 143 | 112 | 97  | 72  | 85  | 108 |
| 1935         | Below Normal | 141 | 142 | 164 | 177 | 143 | 114 | 64  | 65  | 57  | 43  | 63  | 93  |
| 1936         | Below Normal | 129 | 121 | 152 | 145 | 128 | 52  | 45  | 61  | 61  | 43  | 57  | 84  |
| 1937         | Below Normal | 111 | 113 | 143 | 164 | 94  | 80  | 43  | 39  | 80  | 55  | 63  | 86  |
| 1938         | Wet          | 122 | 85  | 76  | 108 | 80  | 53  | 32  | 30  | 30  | 57  | 44  | 45  |
| 1939         | Dry          | 40  | 50  | 123 | 166 | 167 | 135 | 118 | 72  | 55  | 65  | 85  | 104 |
| 1940         | Above Normal | 134 | 123 | 154 | 158 | 127 | 54  | 40  | 55  | 55  | 53  | 43  | 90  |
| 1941         | Wet          | 112 | 122 | 130 | 104 | 91  | 46  | 28  | 28  | 63  | 66  | 51  | 70  |
| 1942         | Wet          | 65  | 92  | 113 | 90  | 44  | 57  | 41  | 37  | 64  | 65  | 46  | 50  |
| 1943         | Wet          | 51  | 63  | 80  | 67  | 37  | 45  | 37  | 55  | 69  | 53  | 50  | 90  |
| 1944         | Dry          | 115 | 109 | 142 | 167 | 160 | 107 | 66  | 61  | 59  | 59  | 88  | 118 |
| 1945         | Below Normal | 144 | 122 | 124 | 124 | 118 | 54  | 59  | 57  | 55  | 51  | 60  | 99  |
| 1946         | Below Normal | 112 | 104 | 88  | 84  | 82  | 78  | 62  | 59  | 57  | 45  | 62  | 104 |
| 1947         | Dry          | 128 | 124 | 143 | 134 | 139 | 127 | 85  | 76  | 57  | 61  | 87  | 111 |
| 1948         | Below Normal | 137 | 126 | 168 | 176 | 188 | 132 | 71  | 69  | 49  | 38  | 61  | 92  |
| 1949         | Dry          | 119 | 125 | 155 | 171 | 200 | 129 | 82  | 95  | 75  | 53  | 85  | 107 |
| 1950         | Below Normal | 134 | 125 | 149 | 146 | 121 | 103 | 60  | 60  | 53  | 39  | 52  | 99  |
| 1951         | Above Normal | 127 | 84  | 79  | 69  | 38  | 62  | 52  | 35  | 41  | 40  | 44  | 99  |
| 1952         | Wet          | 119 | 127 | 137 | 108 | 83  | 73  | 23  | 17  | 42  | 57  | 40  | 38  |
| 1953         | Wet          | 39  | 68  | 117 | 85  | 94  | 98  | 53  | 43  | 40  | 34  | 46  | 74  |
| 1954         | Above Normal | 71  | 91  | 131 | 161 | 102 | 94  | 61  | 75  | 52  | 49  | 41  | 90  |
| 1955         | Dry          | 126 | 133 | 129 | 101 | 113 | 129 | 95  | 86  | 63  | 53  | 94  | 108 |
| 1956         | Wet          | 132 | 141 | 163 | 80  | 63  | 55  | 50  | 50  | 57  | 65  | 51  | 51  |
| 1957         | Above Normal | 43  | 58  | 121 | 164 | 135 | 98  | 75  | 49  | 45  | 41  | 47  | 104 |
| 1958         | Wet          | 98  | 57  | 89  | 95  | 123 | 105 | 17  | 12  | 47  | 60  | 43  | 41  |
| 1959         | Below Normal | 40  | 62  | 131 | 153 | 101 | 157 | 87  | 66  | 52  | 46  | 50  | 89  |
| 1960         | Dry          | 130 | 133 | 156 | 167 | 181 | 113 | 118 | 91  | 52  | 59  | 79  | 129 |
| 1961         | Dry          | 147 | 129 | 174 | 171 | 169 | 126 | 112 | 81  | 50  | 58  | 78  | 106 |
| 1962         | Below Normal | 131 | 131 | 157 | 178 | 147 | 100 | 62  | 53  | 49  | 47  | 54  | 115 |
| 1963         | Wet          | 126 | 54  | 87  | 95  | 110 | 107 | 67  | 55  | 49  | 43  | 40  | 88  |
| 1964         | Dry          | 110 | 104 | 82  | 103 | 122 | 123 | 100 | 96  | 61  | 62  | 94  | 112 |
| 1965         | Wet          | 134 | 135 | 114 | 84  | 57  | 74  | 48  | 55  | 49  | 43  | 47  | 83  |
| 1966         | Below Normal | 110 | 81  | 81  | 92  | 88  | 90  | 63  | 68  | 49  | 44  | 57  | 111 |
| 1967         | Wet          | 141 | 140 | 147 | 127 | 106 | 75  | 36  | 22  | 43  | 40  | 39  | 37  |
| 1968         | Below Normal | 39  | 56  | 112 | 137 | 96  | 99  | 94  | 64  | 51  | 44  | 55  | 100 |
| 1969         | Wet          | 134 | 131 | 125 | 149 | 80  | 70  | 35  | 25  | 30  | 57  | 45  | 49  |
| 1970         | Wet          | 40  | 53  | 86  | 43  | 50  | 51  | 49  | 55  | 47  | 43  | 43  | 94  |
| 1971         | Wet          | 127 | 95  | 97  | 85  | 103 | 89  | 46  | 47  | 38  | 32  | 43  | 77  |
| 1972         | Below Normal | 72  | 102 | 147 | 134 | 146 | 97  | 70  | 66  | 54  | 45  | 60  | 106 |
| 1973         | Above Normal | 146 | 110 | 97  | 128 | 122 | 90  | 58  | 64  | 60  | 42  | 50  | 90  |
| 1974         | Wet          | 117 | 73  | 82  | 91  | 83  | 44  | 44  | 57  | 67  | 51  | 51  | 61  |
| 1975         | Wet          | 46  | 65  | 112 | 112 | 61  | 42  | 48  | 53  | 63  | 52  | 52  | 62  |
| 1976         | Critical     | 44  | 50  | 99  | 147 | 187 | 147 | 102 | 91  | 104 | 118 | 123 | 139 |
| 1977         | Critical     | 157 | 142 | 177 | 172 | 201 | 214 | 152 | 123 | 126 | 119 | 109 | 123 |
| 1978         | Above Normal | 160 | 168 | 178 | 143 | 137 | 145 | 80  | 51  | 60  | 60  | 55  | 90  |
| 1979         | Below Normal | 119 | 125 | 145 | 134 | 65  | 46  | 52  | 44  | 47  | 39  | 64  | 102 |
| 1980         | Above Normal | 132 | 121 | 121 | 82  | 63  | 69  | 57  | 55  | 55  | 70  | 56  | 76  |
| 1981         | Dry          | 101 | 106 | 152 | 169 | 111 | 94  | 68  | 63  | 55  | 67  | 85  | 122 |
| 1982         | Wet          | 148 | 109 | 80  | 110 | 44  | 49  | 20  | 19  | 53  | 63  | 45  | 29  |
| 1983         | Wet          | 14  | 33  | 64  | 72  | 58  | 39  | 37  | 33  | 27  | 21  | 13  | 19  |
| 1984         | Wet          | 32  | 16  | 46  | 54  | 25  | 48  | 58  | 61  | 61  | 44  | 49  | 89  |
| 1985         | Dry          | 97  | 82  | 76  | 85  | 120 | 127 | 87  | 71  | 53  | 68  | 90  | 114 |
| 1986         | Wet          | 126 | 118 | 139 | 120 | 102 | 51  | 29  | 24  | 63  | 59  | 52  | 79  |
| 1987         | Dry          | 96  | 103 | 147 | 162 | 168 | 128 | 117 | 79  | 55  | 68  | 93  | 106 |
| 1988         | Critical     | 136 | 132 | 157 | 161 | 212 | 224 | 119 | 100 | 72  | 73  | 122 | 120 |
| 1989         | Dry          | 145 | 155 | 166 | 192 | 224 | 117 | 64  | 75  | 39  | 59  | 88  | 119 |
| 1990         | Critical     | 145 | 140 | 160 | 147 | 188 | 146 | 116 | 103 | 93  | 113 | 101 | 118 |
| 1991         | Critical     | 151 | 157 | 174 | 209 | 236 | 144 | 113 | 88  | 81  | 113 | 115 | 110 |
| 1992         | Critical     | 153 | 170 | 171 | 209 | 169 | 117 | 113 | 79  | 63  | 54  | 94  | 142 |
| 1993         | Above Normal | 163 | 155 | 185 | 154 | 132 | 110 | 63  | 71  | 67  | 59  | 53  | 96  |
| 1994         | Critical     | 121 | 129 | 160 | 178 | 201 | 172 | 99  | 90  | 60  | 102 | 125 | 115 |
| 1995         | Wet          | 155 | 149 | 158 | 170 | 133 | 65  | 33  | 18  | 46  | 31  | 35  | 36  |
| 1996         | Wet          | 40  | 66  | 124 | 112 | 76  | 55  | 48  | 49  | 69  | 50  | 52  | 70  |
| 1997         | Wet          | 63  | 69  | 54  | 33  | 44  | 27  | 42  | 55  | 64  | 46  | 53  | 99  |
| 1998         | Wet          | 134 | 137 | 143 | 127 | 97  | 51  | 38  | 37  | 31  | 29  | 33  | 31  |
| 1999         | Wet          | 33  | 40  | 68  | 82  | 30  | 55  | 51  | 57  | 54  | 38  | 48  | 81  |
| 2000         | Above Normal | 80  | 101 | 138 | 153 | 93  | 47  | 49  | 56  | 59  | 55  | 46  | 93  |
| 2001         | Dry          | 108 | 105 | 150 | 152 | 137 | 96  | 82  | 75  | 65  | 62  | 80  | 112 |
| 2002         | Dry          | 140 | 136 | 151 | 105 | 216 | 163 | 86  | 90  | 54  | 62  | 86  | 105 |
| 2003         | Above Normal | 137 | 112 | 116 | 88  | 209 | 112 | 59  | 53  | 30  | 34  | 45  | 102 |
| Average      |              | 112 | 109 | 129 | 130 | 124 | 102 | 70  | 63  | 60  | 57  | 65  | 92  |
| Wet          |              | 96  | 90  | 104 | 97  | 78  | 63  | 41  | 40  | 51  | 48  | 44  | 63  |
| Above Normal |              | 119 | 111 | 129 | 128 | 115 | 86  | 58  | 57  | 52  | 51  | 48  | 93  |
| Below Normal |              | 109 | 109 | 135 | 139 | 115 | 94  | 63  | 59  | 55  | 45  | 58  | 98  |
| Dry          |              | 120 | 120 | 142 | 147 | 156 | 126 | 90  | 79  | 59  | 62  | 85  | 113 |
| Critical     |              | 130 | 129 | 155 | 171 | 193 | 178 | 125 | 102 | 94  | 93  | 105 | 117 |

Source: DSM2 Modeling (Node CHCCC006)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 117: Simulated Chloride Concentration at West Canal at mouth of CCForebay Intake (mg/L) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 181 | 176 | 175 | 144 | 150 | 54  | 54  | 52  | 49  | 43  | 54  | 132 |
| 1923         | Below Normal | 170 | 174 | 185 | 71  | 56  | 51  | 57  | 58  | 38  | 47  | 80  | 146 |
| 1924         | Critical     | 158 | 167 | 199 | 220 | 159 | 119 | 118 | 95  | 154 | 127 | 141 | 163 |
| 1925         | Dry          | 222 | 247 | 228 | 239 | 163 | 95  | 63  | 53  | 43  | 48  | 92  | 164 |
| 1926         | Dry          | 223 | 176 | 214 | 221 | 161 | 57  | 47  | 64  | 53  | 83  | 118 | 170 |
| 1927         | Wet          | 226 | 142 | 65  | 75  | 58  | 59  | 38  | 49  | 35  | 38  | 53  | 137 |
| 1928         | Above Normal | 175 | 148 | 98  | 108 | 60  | 45  | 53  | 56  | 40  | 45  | 66  | 156 |
| 1929         | Critical     | 193 | 198 | 231 | 225 | 250 | 130 | 92  | 88  | 88  | 97  | 124 | 162 |
| 1930         | Dry          | 219 | 239 | 226 | 164 | 85  | 48  | 46  | 59  | 58  | 81  | 116 | 192 |
| 1931         | Critical     | 233 | 180 | 195 | 220 | 263 | 148 | 117 | 112 | 147 | 124 | 161 | 165 |
| 1932         | Dry          | 215 | 235 | 166 | 77  | 87  | 68  | 69  | 75  | 58  | 49  | 91  | 202 |
| 1933         | Critical     | 230 | 155 | 185 | 181 | 141 | 92  | 71  | 71  | 86  | 93  | 123 | 156 |
| 1934         | Critical     | 208 | 240 | 215 | 179 | 99  | 85  | 82  | 77  | 83  | 78  | 117 | 171 |
| 1935         | Below Normal | 226 | 223 | 234 | 204 | 75  | 46  | 47  | 58  | 38  | 43  | 69  | 141 |
| 1936         | Below Normal | 210 | 184 | 210 | 170 | 111 | 73  | 46  | 55  | 39  | 44  | 67  | 129 |
| 1937         | Below Normal | 178 | 172 | 197 | 208 | 163 | 163 | 80  | 51  | 43  | 42  | 62  | 124 |
| 1938         | Wet          | 182 | 117 | 48  | 60  | 163 | 125 | 96  | 73  | 70  | 48  | 51  | 68  |
| 1939         | Dry          | 40  | 53  | 152 | 240 | 223 | 116 | 91  | 74  | 63  | 99  | 107 | 155 |
| 1940         | Above Normal | 216 | 185 | 208 | 215 | 125 | 58  | 46  | 55  | 40  | 40  | 52  | 143 |
| 1941         | Wet          | 182 | 193 | 194 | 98  | 116 | 77  | 53  | 45  | 42  | 40  | 56  | 104 |
| 1942         | Wet          | 86  | 134 | 183 | 96  | 74  | 46  | 49  | 52  | 42  | 40  | 53  | 79  |
| 1943         | Wet          | 61  | 84  | 69  | 84  | 63  | 83  | 87  | 53  | 46  | 44  | 57  | 136 |
| 1944         | Dry          | 196 | 187 | 206 | 229 | 206 | 67  | 57  | 60  | 54  | 83  | 123 | 171 |
| 1945         | Below Normal | 221 | 187 | 161 | 131 | 132 | 114 | 77  | 60  | 41  | 49  | 80  | 159 |
| 1946         | Below Normal | 183 | 171 | 133 | 45  | 63  | 64  | 52  | 61  | 42  | 54  | 84  | 155 |
| 1947         | Dry          | 220 | 204 | 213 | 157 | 146 | 80  | 63  | 60  | 57  | 92  | 117 | 165 |
| 1948         | Below Normal | 217 | 191 | 238 | 211 | 211 | 67  | 45  | 54  | 34  | 44  | 86  | 139 |
| 1949         | Dry          | 175 | 174 | 201 | 234 | 217 | 87  | 54  | 63  | 55  | 70  | 127 | 160 |
| 1950         | Below Normal | 206 | 183 | 207 | 172 | 87  | 38  | 41  | 56  | 40  | 48  | 77  | 153 |
| 1951         | Above Normal | 199 | 110 | 69  | 127 | 96  | 45  | 46  | 51  | 37  | 41  | 57  | 149 |
| 1952         | Wet          | 184 | 197 | 190 | 118 | 54  | 61  | 78  | 44  | 46  | 46  | 43  | 47  |
| 1953         | Wet          | 38  | 88  | 177 | 60  | 47  | 44  | 51  | 49  | 37  | 39  | 63  | 120 |
| 1954         | Above Normal | 105 | 138 | 168 | 247 | 52  | 36  | 49  | 54  | 38  | 44  | 52  | 137 |
| 1955         | Dry          | 193 | 207 | 185 | 77  | 60  | 52  | 62  | 64  | 58  | 72  | 115 | 153 |
| 1956         | Wet          | 198 | 210 | 185 | 206 | 115 | 57  | 43  | 55  | 41  | 39  | 54  | 82  |
| 1957         | Above Normal | 55  | 84  | 168 | 228 | 133 | 42  | 54  | 55  | 38  | 42  | 64  | 162 |
| 1958         | Wet          | 148 | 62  | 87  | 68  | 108 | 134 | 124 | 44  | 43  | 43  | 48  | 55  |
| 1959         | Below Normal | 39  | 74  | 182 | 240 | 76  | 58  | 72  | 64  | 60  | 63  | 70  | 131 |
| 1960         | Dry          | 206 | 208 | 215 | 214 | 230 | 69  | 61  | 64  | 56  | 95  | 117 | 194 |
| 1961         | Dry          | 229 | 183 | 251 | 218 | 177 | 61  | 51  | 53  | 67  | 94  | 120 | 158 |
| 1962         | Below Normal | 195 | 188 | 219 | 219 | 160 | 57  | 45  | 55  | 46  | 58  | 72  | 178 |
| 1963         | Wet          | 183 | 50  | 72  | 78  | 60  | 42  | 46  | 55  | 34  | 36  | 50  | 132 |
| 1964         | Dry          | 169 | 159 | 64  | 93  | 61  | 51  | 70  | 71  | 52  | 96  | 142 | 168 |
| 1965         | Wet          | 204 | 208 | 136 | 62  | 45  | 44  | 48  | 57  | 38  | 41  | 55  | 131 |
| 1966         | Below Normal | 173 | 124 | 57  | 58  | 48  | 41  | 49  | 58  | 47  | 60  | 83  | 166 |
| 1967         | Wet          | 219 | 220 | 212 | 114 | 48  | 50  | 55  | 50  | 48  | 55  | 46  | 45  |
| 1968         | Below Normal | 35  | 65  | 154 | 199 | 59  | 37  | 55  | 65  | 54  | 61  | 73  | 149 |
| 1969         | Wet          | 205 | 202 | 161 | 123 | 182 | 128 | 98  | 75  | 58  | 47  | 53  | 74  |
| 1970         | Wet          | 41  | 62  | 97  | 109 | 73  | 46  | 56  | 54  | 41  | 43  | 57  | 142 |
| 1971         | Wet          | 205 | 155 | 80  | 41  | 38  | 35  | 47  | 49  | 35  | 38  | 59  | 117 |
| 1972         | Below Normal | 97  | 142 | 211 | 175 | 160 | 58  | 53  | 59  | 62  | 61  | 85  | 160 |
| 1973         | Above Normal | 235 | 165 | 84  | 102 | 90  | 54  | 47  | 59  | 41  | 39  | 62  | 138 |
| 1974         | Wet          | 177 | 100 | 50  | 48  | 44  | 45  | 54  | 54  | 42  | 38  | 61  | 89  |
| 1975         | Wet          | 51  | 91  | 155 | 121 | 85  | 57  | 59  | 55  | 38  | 37  | 62  | 88  |
| 1976         | Critical     | 47  | 53  | 105 | 187 | 247 | 128 | 88  | 85  | 143 | 170 | 188 | 234 |
| 1977         | Critical     | 264 | 213 | 272 | 197 | 209 | 158 | 128 | 117 | 170 | 171 | 168 | 199 |
| 1978         | Above Normal | 261 | 263 | 251 | 162 | 85  | 99  | 87  | 64  | 56  | 43  | 69  | 150 |
| 1979         | Below Normal | 189 | 208 | 212 | 168 | 82  | 60  | 50  | 58  | 41  | 47  | 90  | 165 |
| 1980         | Above Normal | 222 | 201 | 169 | 96  | 171 | 128 | 73  | 60  | 58  | 49  | 56  | 116 |
| 1981         | Dry          | 167 | 169 | 226 | 244 | 77  | 38  | 49  | 61  | 67  | 99  | 128 | 190 |
| 1982         | Wet          | 239 | 158 | 47  | 97  | 69  | 89  | 90  | 47  | 45  | 45  | 55  | 60  |
| 1983         | Wet          | 31  | 48  | 92  | 197 | 177 | 146 | 127 | 77  | 61  | 59  | 40  | 31  |
| 1984         | Wet          | 32  | 40  | 85  | 92  | 68  | 44  | 57  | 61  | 44  | 42  | 60  | 142 |
| 1985         | Dry          | 176 | 148 | 47  | 51  | 102 | 72  | 69  | 63  | 56  | 98  | 132 | 175 |
| 1986         | Wet          | 200 | 180 | 197 | 131 | 149 | 166 | 73  | 43  | 50  | 49  | 58  | 125 |
| 1987         | Dry          | 162 | 179 | 224 | 214 | 177 | 84  | 72  | 66  | 68  | 103 | 118 | 161 |
| 1988         | Critical     | 213 | 196 | 223 | 200 | 92  | 90  | 72  | 78  | 78  | 116 | 187 | 179 |
| 1989         | Dry          | 229 | 238 | 229 | 255 | 146 | 71  | 41  | 48  | 46  | 96  | 137 | 184 |
| 1990         | Critical     | 222 | 207 | 223 | 180 | 158 | 77  | 72  | 67  | 130 | 172 | 146 | 182 |
| 1991         | Critical     | 243 | 245 | 250 | 260 | 247 | 147 | 69  | 60  | 120 | 171 | 160 | 173 |
| 1992         | Critical     | 257 | 270 | 231 | 284 | 178 | 69  | 53  | 59  | 78  | 88  | 161 | 232 |
| 1993         | Above Normal | 257 | 230 | 261 | 178 | 99  | 69  | 41  | 44  | 37  | 37  | 63  | 152 |
| 1994         | Critical     | 191 | 199 | 213 | 246 | 231 | 109 | 68  | 58  | 76  | 160 | 200 | 162 |
| 1995         | Wet          | 229 | 231 | 218 | 219 | 53  | 120 | 84  | 54  | 49  | 58  | 41  | 34  |
| 1996         | Wet          | 36  | 86  | 176 | 94  | 138 | 107 | 54  | 54  | 43  | 39  | 62  | 102 |
| 1997         | Wet          | 77  | 101 | 126 | 133 | 80  | 64  | 60  | 57  | 46  | 46  | 66  | 154 |
| 1998         | Wet          | 229 | 227 | 222 | 147 | 267 | 153 | 69  | 55  | 69  | 55  | 38  | 32  |
| 1999         | Wet          | 31  | 33  | 33  | 54  | 65  | 49  | 54  | 57  | 39  | 39  | 61  | 125 |
| 2000         | Above Normal | 114 | 154 | 194 | 232 | 172 | 69  | 43  | 57  | 41  | 41  | 58  | 143 |
| 2001         | Dry          | 176 | 165 | 223 | 186 | 124 | 58  | 52  | 70  | 69  | 87  | 109 | 153 |
| 2002         | Dry          | 213 | 206 | 210 | 67  | 74  | 70  | 47  | 70  | 52  | 97  | 131 | 163 |
| 2003         | Above Normal | 214 | 162 | 134 | 45  | 61  | 44  | 36  | 51  | 35  | 39  | 61  | 153 |
| Average      |              | 173 | 164 | 170 | 154 | 122 | 77  | 64  | 61  | 57  | 67  | 88  | 141 |
| Wet          |              | 142 | 131 | 129 | 105 | 94  | 80  | 67  | 55  | 45  | 44  | 54  | 94  |
| Above Normal |              | 186 | 168 | 165 | 157 | 108 | 62  | 52  | 55  | 43  | 42  | 59  | 144 |
| Below Normal |              | 167 | 163 | 186 | 162 | 106 | 66  | 55  | 58  | 45  | 52  | 77  | 150 |
| Dry          |              | 191 | 188 | 193 | 177 | 140 | 69  | 59  | 63  | 57  | 86  | 119 | 171 |
| Critical     |              | 205 | 194 | 212 | 215 | 189 | 113 | 86  | 81  | 113 | 131 | 156 | 181 |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 118: Simulated Chloride Concentration at West Canal at mouth of CCForebay Intake (mg/L) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 180 | 174 | 174 | 144 | 150 | 56  | 55  | 52  | 50  | 43  | 54  | 131 |
| 1923         | Below Normal | 170 | 171 | 180 | 70  | 56  | 52  | 57  | 57  | 38  | 48  | 80  | 143 |
| 1924         | Critical     | 156 | 168 | 200 | 219 | 158 | 124 | 128 | 98  | 155 | 127 | 141 | 162 |
| 1925         | Dry          | 221 | 240 | 214 | 252 | 167 | 108 | 72  | 53  | 43  | 48  | 93  | 165 |
| 1926         | Dry          | 223 | 174 | 215 | 221 | 160 | 58  | 47  | 64  | 53  | 85  | 119 | 173 |
| 1927         | Wet          | 226 | 141 | 62  | 74  | 57  | 61  | 40  | 49  | 35  | 38  | 53  | 136 |
| 1928         | Above Normal | 174 | 144 | 91  | 105 | 59  | 46  | 55  | 57  | 40  | 45  | 66  | 156 |
| 1929         | Critical     | 193 | 197 | 233 | 220 | 247 | 127 | 89  | 88  | 89  | 97  | 125 | 163 |
| 1930         | Dry          | 218 | 236 | 224 | 166 | 85  | 49  | 47  | 60  | 59  | 81  | 116 | 192 |
| 1931         | Critical     | 233 | 181 | 195 | 220 | 263 | 148 | 118 | 113 | 146 | 122 | 160 | 165 |
| 1932         | Dry          | 214 | 232 | 164 | 77  | 86  | 68  | 69  | 73  | 55  | 50  | 91  | 200 |
| 1933         | Critical     | 228 | 154 | 183 | 178 | 129 | 88  | 71  | 74  | 86  | 93  | 122 | 156 |
| 1934         | Critical     | 207 | 235 | 213 | 180 | 85  | 82  | 85  | 79  | 84  | 78  | 117 | 172 |
| 1935         | Below Normal | 225 | 213 | 228 | 239 | 80  | 48  | 50  | 57  | 38  | 43  | 69  | 143 |
| 1936         | Below Normal | 205 | 180 | 208 | 177 | 110 | 74  | 47  | 54  | 39  | 45  | 66  | 126 |
| 1937         | Below Normal | 176 | 171 | 196 | 222 | 178 | 145 | 75  | 51  | 42  | 42  | 63  | 126 |
| 1938         | Wet          | 197 | 121 | 45  | 58  | 166 | 130 | 96  | 68  | 71  | 48  | 51  | 68  |
| 1939         | Dry          | 40  | 52  | 147 | 239 | 224 | 116 | 93  | 74  | 63  | 97  | 106 | 155 |
| 1940         | Above Normal | 216 | 185 | 207 | 218 | 125 | 59  | 47  | 52  | 40  | 40  | 52  | 141 |
| 1941         | Wet          | 176 | 192 | 200 | 100 | 114 | 77  | 50  | 44  | 45  | 42  | 56  | 103 |
| 1942         | Wet          | 85  | 132 | 178 | 93  | 65  | 44  | 52  | 50  | 42  | 40  | 53  | 79  |
| 1943         | Wet          | 61  | 82  | 65  | 81  | 61  | 76  | 90  | 53  | 45  | 44  | 57  | 137 |
| 1944         | Dry          | 187 | 170 | 197 | 236 | 202 | 68  | 58  | 61  | 54  | 83  | 124 | 176 |
| 1945         | Below Normal | 232 | 187 | 152 | 129 | 127 | 105 | 73  | 59  | 41  | 49  | 80  | 159 |
| 1946         | Below Normal | 182 | 162 | 123 | 45  | 60  | 63  | 54  | 61  | 42  | 54  | 88  | 159 |
| 1947         | Dry          | 211 | 199 | 212 | 155 | 145 | 78  | 60  | 66  | 59  | 93  | 121 | 168 |
| 1948         | Below Normal | 216 | 187 | 247 | 234 | 214 | 68  | 44  | 53  | 34  | 44  | 87  | 138 |
| 1949         | Dry          | 181 | 187 | 214 | 221 | 248 | 115 | 59  | 65  | 55  | 72  | 128 | 164 |
| 1950         | Below Normal | 209 | 182 | 205 | 175 | 87  | 39  | 41  | 56  | 40  | 46  | 74  | 153 |
| 1951         | Above Normal | 198 | 108 | 67  | 120 | 89  | 46  | 47  | 51  | 37  | 41  | 58  | 150 |
| 1952         | Wet          | 183 | 196 | 191 | 118 | 55  | 61  | 77  | 42  | 47  | 46  | 43  | 47  |
| 1953         | Wet          | 37  | 85  | 172 | 59  | 47  | 44  | 52  | 49  | 37  | 39  | 60  | 109 |
| 1954         | Above Normal | 95  | 128 | 154 | 239 | 51  | 36  | 49  | 55  | 38  | 44  | 52  | 136 |
| 1955         | Dry          | 193 | 202 | 169 | 74  | 59  | 53  | 63  | 65  | 58  | 72  | 120 | 161 |
| 1956         | Wet          | 203 | 212 | 181 | 201 | 114 | 58  | 44  | 54  | 44  | 40  | 52  | 72  |
| 1957         | Above Normal | 45  | 65  | 149 | 226 | 140 | 43  | 66  | 57  | 38  | 41  | 63  | 161 |
| 1958         | Wet          | 146 | 60  | 81  | 67  | 108 | 132 | 117 | 44  | 43  | 43  | 48  | 55  |
| 1959         | Below Normal | 39  | 72  | 177 | 239 | 76  | 65  | 83  | 66  | 60  | 64  | 70  | 131 |
| 1960         | Dry          | 204 | 205 | 213 | 217 | 231 | 68  | 62  | 66  | 56  | 94  | 116 | 193 |
| 1961         | Dry          | 229 | 183 | 251 | 218 | 177 | 61  | 52  | 53  | 66  | 94  | 120 | 163 |
| 1962         | Below Normal | 199 | 190 | 218 | 222 | 161 | 57  | 46  | 56  | 48  | 60  | 76  | 184 |
| 1963         | Wet          | 186 | 50  | 70  | 77  | 60  | 43  | 47  | 56  | 34  | 36  | 50  | 131 |
| 1964         | Dry          | 168 | 153 | 61  | 90  | 60  | 51  | 69  | 72  | 52  | 95  | 141 | 169 |
| 1965         | Wet          | 205 | 202 | 129 | 62  | 44  | 42  | 49  | 55  | 38  | 41  | 55  | 132 |
| 1966         | Below Normal | 175 | 126 | 56  | 57  | 48  | 40  | 50  | 59  | 47  | 60  | 82  | 165 |
| 1967         | Wet          | 217 | 215 | 199 | 113 | 48  | 50  | 55  | 49  | 47  | 55  | 46  | 45  |
| 1968         | Below Normal | 35  | 61  | 142 | 195 | 59  | 38  | 57  | 66  | 55  | 61  | 73  | 150 |
| 1969         | Wet          | 204 | 201 | 159 | 120 | 186 | 138 | 103 | 75  | 61  | 48  | 53  | 74  |
| 1970         | Wet          | 40  | 59  | 90  | 107 | 71  | 47  | 58  | 57  | 42  | 43  | 58  | 142 |
| 1971         | Wet          | 203 | 152 | 77  | 41  | 38  | 36  | 47  | 48  | 35  | 38  | 59  | 117 |
| 1972         | Below Normal | 96  | 140 | 208 | 173 | 160 | 58  | 54  | 60  | 62  | 61  | 84  | 159 |
| 1973         | Above Normal | 234 | 165 | 85  | 102 | 90  | 56  | 49  | 60  | 41  | 39  | 62  | 137 |
| 1974         | Wet          | 190 | 104 | 50  | 46  | 42  | 45  | 53  | 53  | 42  | 38  | 61  | 89  |
| 1975         | Wet          | 50  | 86  | 147 | 119 | 88  | 56  | 59  | 55  | 39  | 38  | 62  | 87  |
| 1976         | Critical     | 46  | 52  | 100 | 182 | 244 | 126 | 85  | 84  | 143 | 171 | 186 | 237 |
| 1977         | Critical     | 263 | 210 | 272 | 203 | 213 | 160 | 128 | 117 | 170 | 171 | 168 | 199 |
| 1978         | Above Normal | 261 | 261 | 250 | 162 | 81  | 94  | 85  | 66  | 57  | 43  | 68  | 149 |
| 1979         | Below Normal | 188 | 207 | 212 | 175 | 83  | 60  | 51  | 57  | 41  | 47  | 88  | 162 |
| 1980         | Above Normal | 221 | 194 | 156 | 92  | 173 | 133 | 72  | 60  | 60  | 50  | 55  | 113 |
| 1981         | Dry          | 164 | 168 | 227 | 243 | 75  | 38  | 49  | 62  | 66  | 97  | 127 | 187 |
| 1982         | Wet          | 238 | 156 | 47  | 97  | 67  | 82  | 84  | 45  | 45  | 46  | 54  | 59  |
| 1983         | Wet          | 31  | 48  | 88  | 196 | 190 | 153 | 127 | 78  | 62  | 60  | 40  | 31  |
| 1984         | Wet          | 32  | 40  | 86  | 93  | 67  | 45  | 60  | 61  | 44  | 42  | 60  | 142 |
| 1985         | Dry          | 170 | 133 | 45  | 50  | 100 | 72  | 71  | 64  | 56  | 98  | 132 | 173 |
| 1986         | Wet          | 198 | 180 | 197 | 131 | 146 | 163 | 75  | 43  | 50  | 50  | 60  | 126 |
| 1987         | Dry          | 162 | 178 | 224 | 218 | 179 | 83  | 74  | 67  | 67  | 102 | 117 | 161 |
| 1988         | Critical     | 212 | 196 | 219 | 198 | 92  | 92  | 75  | 79  | 79  | 117 | 189 | 181 |
| 1989         | Dry          | 229 | 234 | 229 | 252 | 149 | 73  | 41  | 49  | 46  | 96  | 135 | 186 |
| 1990         | Critical     | 225 | 207 | 217 | 173 | 154 | 76  | 72  | 68  | 128 | 169 | 147 | 183 |
| 1991         | Critical     | 243 | 242 | 246 | 264 | 236 | 138 | 67  | 61  | 111 | 171 | 170 | 167 |
| 1992         | Critical     | 251 | 265 | 229 | 286 | 178 | 69  | 54  | 61  | 77  | 87  | 162 | 233 |
| 1993         | Above Normal | 256 | 227 | 259 | 178 | 100 | 70  | 42  | 47  | 42  | 39  | 63  | 153 |
| 1994         | Critical     | 191 | 201 | 225 | 225 | 262 | 117 | 71  | 60  | 77  | 161 | 189 | 175 |
| 1995         | Wet          | 243 | 220 | 209 | 221 | 52  | 123 | 88  | 54  | 50  | 58  | 41  | 34  |
| 1996         | Wet          | 36  | 83  | 170 | 94  | 137 | 101 | 54  | 53  | 43  | 39  | 62  | 102 |
| 1997         | Wet          | 77  | 99  | 109 | 128 | 82  | 63  | 60  | 57  | 47  | 46  | 68  | 154 |
| 1998         | Wet          | 226 | 225 | 215 | 145 | 274 | 173 | 71  | 55  | 61  | 55  | 38  | 32  |
| 1999         | Wet          | 31  | 32  | 32  | 54  | 65  | 49  | 55  | 57  | 39  | 39  | 62  | 124 |
| 2000         | Above Normal | 112 | 149 | 178 | 234 | 171 | 69  | 44  | 57  | 42  | 41  | 58  | 142 |
| 2001         | Dry          | 174 | 159 | 213 | 200 | 129 | 59  | 53  | 71  | 69  | 87  | 112 | 167 |
| 2002         | Dry          | 221 | 206 | 210 | 67  | 76  | 70  | 49  | 71  | 52  | 96  | 131 | 162 |
| 2003         | Above Normal | 213 | 159 | 128 | 45  | 61  | 44  | 36  | 50  | 35  | 39  | 61  | 153 |
| Average      |              | 172 | 161 | 167 | 154 | 123 | 78  | 65  | 61  | 57  | 67  | 88  | 141 |
| Wet          |              | 143 | 130 | 125 | 104 | 94  | 81  | 68  | 54  | 46  | 44  | 54  | 93  |
| Above Normal |              | 184 | 163 | 158 | 155 | 107 | 63  | 54  | 55  | 43  | 42  | 59  | 143 |
| Below Normal |              | 168 | 161 | 182 | 168 | 107 | 65  | 56  | 58  | 45  | 52  | 77  | 150 |
| Dry          |              | 189 | 184 | 191 | 178 | 142 | 72  | 60  | 64  | 57  | 85  | 119 | 173 |
| Critical     |              | 204 | 192 | 211 | 212 | 188 | 112 | 87  | 82  | 112 | 130 | 156 | 183 |

Source: DSM2 Modeling (Node CHSWP003)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 119: Simulated Chloride Concentration at Middle River at Victoria Canal (mg/L) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 117 | 116 | 121 | 109 | 109 | 73  | 50  | 48  | 49  | 39  | 37  | 82  |
| 1923         | Below Normal | 109 | 115 | 126 | 83  | 84  | 95  | 56  | 51  | 43  | 32  | 49  | 91  |
| 1924         | Critical     | 100 | 108 | 142 | 162 | 176 | 211 | 131 | 106 | 108 | 88  | 94  | 105 |
| 1925         | Dry          | 139 | 154 | 161 | 179 | 147 | 205 | 80  | 51  | 52  | 40  | 58  | 104 |
| 1926         | Dry          | 139 | 120 | 152 | 160 | 139 | 111 | 65  | 78  | 56  | 53  | 75  | 106 |
| 1927         | Wet          | 142 | 94  | 65  | 101 | 123 | 99  | 48  | 47  | 31  | 23  | 30  | 83  |
| 1928         | Above Normal | 111 | 95  | 84  | 90  | 74  | 63  | 45  | 60  | 36  | 35  | 38  | 100 |
| 1929         | Critical     | 125 | 129 | 159 | 168 | 194 | 176 | 117 | 98  | 95  | 74  | 84  | 105 |
| 1930         | Dry          | 138 | 155 | 158 | 128 | 113 | 110 | 77  | 71  | 54  | 51  | 80  | 117 |
| 1931         | Critical     | 147 | 126 | 150 | 166 | 209 | 187 | 138 | 116 | 119 | 90  | 104 | 110 |
| 1932         | Dry          | 138 | 154 | 124 | 82  | 116 | 146 | 109 | 86  | 77  | 80  | 62  | 125 |
| 1933         | Critical     | 147 | 112 | 141 | 154 | 160 | 150 | 110 | 89  | 87  | 81  | 95  | 102 |
| 1934         | Critical     | 133 | 155 | 154 | 142 | 139 | 192 | 126 | 104 | 89  | 66  | 81  | 106 |
| 1935         | Below Normal | 142 | 149 | 169 | 155 | 130 | 102 | 65  | 56  | 42  | 27  | 49  | 86  |
| 1936         | Below Normal | 133 | 123 | 151 | 128 | 107 | 53  | 47  | 58  | 47  | 29  | 43  | 81  |
| 1937         | Below Normal | 112 | 113 | 141 | 158 | 77  | 68  | 45  | 33  | 67  | 41  | 50  | 80  |
| 1938         | Wet          | 114 | 77  | 69  | 94  | 62  | 48  | 26  | 27  | 25  | 48  | 37  | 41  |
| 1939         | Dry          | 30  | 41  | 117 | 166 | 164 | 133 | 112 | 66  | 45  | 60  | 78  | 102 |
| 1940         | Above Normal | 136 | 121 | 152 | 153 | 107 | 54  | 42  | 49  | 40  | 34  | 29  | 86  |
| 1941         | Wet          | 115 | 124 | 127 | 87  | 77  | 48  | 33  | 31  | 58  | 47  | 39  | 63  |
| 1942         | Wet          | 58  | 93  | 107 | 80  | 47  | 56  | 44  | 36  | 53  | 48  | 38  | 48  |
| 1943         | Wet          | 42  | 57  | 62  | 55  | 38  | 40  | 39  | 50  | 58  | 40  | 37  | 85  |
| 1944         | Dry          | 123 | 119 | 143 | 165 | 157 | 95  | 65  | 54  | 45  | 50  | 78  | 112 |
| 1945         | Below Normal | 140 | 123 | 117 | 113 | 98  | 55  | 65  | 52  | 40  | 33  | 50  | 98  |
| 1946         | Below Normal | 115 | 111 | 91  | 68  | 82  | 79  | 61  | 53  | 44  | 33  | 50  | 99  |
| 1947         | Dry          | 137 | 131 | 144 | 127 | 129 | 119 | 89  | 73  | 45  | 55  | 77  | 108 |
| 1948         | Below Normal | 138 | 127 | 165 | 158 | 179 | 123 | 63  | 59  | 32  | 27  | 50  | 87  |
| 1949         | Dry          | 113 | 116 | 145 | 175 | 215 | 101 | 74  | 87  | 65  | 45  | 78  | 99  |
| 1950         | Below Normal | 129 | 123 | 149 | 132 | 99  | 102 | 47  | 54  | 40  | 29  | 44  | 94  |
| 1951         | Above Normal | 127 | 74  | 61  | 50  | 36  | 59  | 53  | 33  | 29  | 26  | 31  | 94  |
| 1952         | Wet          | 118 | 128 | 131 | 93  | 69  | 69  | 27  | 13  | 38  | 48  | 33  | 30  |
| 1953         | Wet          | 28  | 62  | 111 | 71  | 85  | 81  | 48  | 36  | 26  | 22  | 37  | 73  |
| 1954         | Above Normal | 69  | 92  | 132 | 161 | 69  | 78  | 47  | 65  | 38  | 36  | 29  | 85  |
| 1955         | Dry          | 124 | 139 | 129 | 78  | 98  | 123 | 93  | 77  | 54  | 45  | 85  | 99  |
| 1956         | Wet          | 126 | 139 | 137 | 63  | 63  | 54  | 49  | 50  | 53  | 44  | 40  | 51  |
| 1957         | Above Normal | 39  | 60  | 123 | 164 | 110 | 78  | 75  | 42  | 32  | 28  | 36  | 101 |
| 1958         | Wet          | 95  | 46  | 71  | 71  | 101 | 95  | 17  | 15  | 44  | 47  | 35  | 34  |
| 1959         | Below Normal | 28  | 54  | 129 | 150 | 81  | 154 | 86  | 58  | 42  | 36  | 40  | 81  |
| 1960         | Dry          | 130 | 134 | 155 | 160 | 170 | 89  | 97  | 81  | 44  | 55  | 71  | 127 |
| 1961         | Dry          | 148 | 125 | 171 | 163 | 159 | 114 | 90  | 71  | 45  | 54  | 71  | 96  |
| 1962         | Below Normal | 125 | 128 | 153 | 173 | 135 | 89  | 64  | 48  | 35  | 34  | 41  | 106 |
| 1963         | Wet          | 123 | 41  | 66  | 66  | 82  | 111 | 62  | 44  | 33  | 23  | 27  | 82  |
| 1964         | Dry          | 109 | 105 | 64  | 82  | 106 | 106 | 91  | 86  | 48  | 58  | 88  | 107 |
| 1965         | Wet          | 133 | 139 | 104 | 68  | 51  | 78  | 53  | 49  | 38  | 29  | 35  | 81  |
| 1966         | Below Normal | 108 | 78  | 66  | 77  | 74  | 84  | 59  | 61  | 36  | 34  | 47  | 108 |
| 1967         | Wet          | 142 | 146 | 151 | 104 | 78  | 64  | 36  | 23  | 35  | 39  | 32  | 29  |
| 1968         | Below Normal | 27  | 48  | 108 | 131 | 80  | 88  | 85  | 58  | 39  | 35  | 43  | 93  |
| 1969         | Wet          | 133 | 132 | 116 | 118 | 62  | 66  | 32  | 23  | 23  | 47  | 38  | 44  |
| 1970         | Wet          | 31  | 46  | 78  | 38  | 51  | 50  | 45  | 51  | 39  | 28  | 32  | 89  |
| 1971         | Wet          | 130 | 92  | 77  | 59  | 69  | 59  | 40  | 37  | 24  | 21  | 32  | 70  |
| 1972         | Below Normal | 64  | 99  | 143 | 123 | 131 | 68  | 63  | 58  | 42  | 36  | 49  | 101 |
| 1973         | Above Normal | 148 | 105 | 79  | 100 | 101 | 82  | 58  | 63  | 50  | 26  | 37  | 87  |
| 1974         | Wet          | 113 | 65  | 62  | 70  | 65  | 44  | 43  | 52  | 56  | 32  | 38  | 55  |
| 1975         | Wet          | 38  | 63  | 105 | 98  | 62  | 44  | 45  | 45  | 49  | 32  | 40  | 54  |
| 1976         | Critical     | 35  | 40  | 86  | 142 | 183 | 136 | 95  | 86  | 100 | 114 | 123 | 141 |
| 1977         | Critical     | 161 | 143 | 179 | 166 | 193 | 194 | 143 | 120 | 125 | 118 | 108 | 121 |
| 1978         | Above Normal | 161 | 172 | 177 | 129 | 109 | 129 | 71  | 48  | 62  | 41  | 45  | 92  |
| 1979         | Below Normal | 120 | 132 | 142 | 123 | 66  | 48  | 53  | 44  | 37  | 28  | 55  | 102 |
| 1980         | Above Normal | 138 | 129 | 118 | 70  | 52  | 65  | 55  | 55  | 61  | 57  | 45  | 74  |
| 1981         | Dry          | 104 | 109 | 153 | 170 | 84  | 89  | 67  | 56  | 46  | 60  | 79  | 121 |
| 1982         | Wet          | 152 | 107 | 57  | 85  | 39  | 45  | 18  | 14  | 50  | 52  | 40  | 31  |
| 1983         | Wet          | 15  | 28  | 60  | 54  | 47  | 30  | 33  | 30  | 22  | 18  | 15  | 16  |
| 1984         | Wet          | 23  | 16  | 39  | 50  | 28  | 45  | 55  | 54  | 49  | 27  | 35  | 88  |
| 1985         | Dry          | 109 | 89  | 57  | 63  | 108 | 129 | 87  | 64  | 41  | 59  | 84  | 114 |
| 1986         | Wet          | 126 | 118 | 134 | 104 | 85  | 43  | 29  | 22  | 59  | 46  | 39  | 77  |
| 1987         | Dry          | 100 | 111 | 149 | 159 | 162 | 127 | 103 | 71  | 47  | 62  | 87  | 103 |
| 1988         | Critical     | 136 | 132 | 156 | 154 | 190 | 189 | 106 | 92  | 66  | 71  | 119 | 117 |
| 1989         | Dry          | 145 | 161 | 167 | 192 | 216 | 88  | 46  | 61  | 32  | 55  | 84  | 114 |
| 1990         | Critical     | 142 | 137 | 162 | 137 | 190 | 131 | 90  | 92  | 90  | 114 | 98  | 115 |
| 1991         | Critical     | 152 | 161 | 177 | 203 | 232 | 134 | 103 | 78  | 83  | 114 | 106 | 108 |
| 1992         | Critical     | 158 | 176 | 173 | 208 | 155 | 103 | 87  | 67  | 59  | 54  | 91  | 141 |
| 1993         | Above Normal | 164 | 157 | 185 | 142 | 110 | 91  | 52  | 63  | 58  | 36  | 40  | 93  |
| 1994         | Critical     | 122 | 128 | 150 | 181 | 174 | 153 | 84  | 79  | 53  | 100 | 129 | 103 |
| 1995         | Wet          | 142 | 154 | 158 | 160 | 89  | 57  | 33  | 14  | 44  | 29  | 27  | 22  |
| 1996         | Wet          | 28  | 61  | 116 | 86  | 67  | 52  | 50  | 45  | 56  | 36  | 40  | 63  |
| 1997         | Wet          | 56  | 67  | 44  | 25  | 41  | 28  | 40  | 50  | 47  | 34  | 39  | 98  |
| 1998         | Wet          | 140 | 144 | 142 | 113 | 60  | 50  | 38  | 33  | 24  | 27  | 26  | 21  |
| 1999         | Wet          | 25  | 28  | 45  | 66  | 30  | 52  | 47  | 50  | 42  | 25  | 36  | 76  |
| 2000         | Above Normal | 75  | 104 | 140 | 143 | 92  | 50  | 44  | 52  | 44  | 38  | 34  | 91  |
| 2001         | Dry          | 110 | 109 | 152 | 137 | 112 | 80  | 88  | 70  | 58  | 54  | 71  | 104 |
| 2002         | Dry          | 133 | 135 | 143 | 80  | 208 | 163 | 77  | 80  | 45  | 57  | 80  | 100 |
| 2003         | Above Normal | 136 | 108 | 105 | 60  | 190 | 84  | 45  | 46  | 21  | 24  | 33  | 98  |
| Average      |              | 110 | 108 | 123 | 118 | 110 | 94  | 65  | 58  | 51  | 47  | 56  | 88  |
| Wet          |              | 92  | 87  | 94  | 80  | 64  | 58  | 40  | 36  | 41  | 35  | 35  | 58  |
| Above Normal |              | 118 | 111 | 123 | 114 | 97  | 75  | 53  | 52  | 43  | 35  | 36  | 90  |
| Below Normal |              | 106 | 109 | 132 | 127 | 102 | 86  | 61  | 53  | 42  | 33  | 47  | 93  |
| Dry          |              | 121 | 123 | 138 | 137 | 145 | 118 | 84  | 71  | 50  | 55  | 77  | 109 |
| Critical     |              | 130 | 129 | 152 | 165 | 183 | 163 | 111 | 94  | 90  | 90  | 103 | 114 |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

Table 120: Simulated Chloride Concentration at Middle River at Victoria Canal (mg/L) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 116 | 115 | 120 | 109 | 109 | 71  | 48  | 48  | 49  | 39  | 37  | 82  |
| 1923         | Below Normal | 108 | 112 | 123 | 84  | 83  | 99  | 54  | 50  | 44  | 32  | 49  | 89  |
| 1924         | Critical     | 100 | 108 | 141 | 162 | 176 | 217 | 138 | 109 | 89  | 94  | 104 | 104 |
| 1925         | Dry          | 139 | 148 | 153 | 186 | 149 | 171 | 78  | 52  | 52  | 40  | 58  | 105 |
| 1926         | Dry          | 139 | 118 | 149 | 159 | 138 | 121 | 68  | 80  | 58  | 54  | 76  | 109 |
| 1927         | Wet          | 143 | 93  | 63  | 97  | 122 | 95  | 49  | 47  | 32  | 23  | 30  | 83  |
| 1928         | Above Normal | 110 | 92  | 80  | 88  | 74  | 61  | 47  | 61  | 37  | 35  | 38  | 100 |
| 1929         | Critical     | 125 | 128 | 159 | 165 | 192 | 165 | 116 | 100 | 98  | 74  | 84  | 105 |
| 1930         | Dry          | 138 | 153 | 157 | 129 | 117 | 109 | 82  | 72  | 57  | 51  | 81  | 117 |
| 1931         | Critical     | 147 | 126 | 150 | 166 | 209 | 190 | 141 | 117 | 118 | 88  | 103 | 109 |
| 1932         | Dry          | 138 | 152 | 122 | 82  | 114 | 131 | 95  | 80  | 70  | 83  | 63  | 124 |
| 1933         | Critical     | 146 | 111 | 144 | 153 | 155 | 143 | 103 | 92  | 90  | 80  | 87  | 102 |
| 1934         | Critical     | 132 | 152 | 151 | 148 | 135 | 189 | 130 | 107 | 92  | 67  | 81  | 106 |
| 1935         | Below Normal | 141 | 144 | 163 | 174 | 132 | 102 | 61  | 56  | 42  | 27  | 49  | 88  |
| 1936         | Below Normal | 131 | 120 | 148 | 131 | 117 | 52  | 43  | 55  | 47  | 29  | 43  | 79  |
| 1937         | Below Normal | 111 | 111 | 140 | 162 | 90  | 68  | 44  | 37  | 68  | 40  | 50  | 81  |
| 1938         | Wet          | 123 | 80  | 63  | 94  | 67  | 48  | 30  | 28  | 26  | 48  | 37  | 41  |
| 1939         | Dry          | 30  | 41  | 115 | 165 | 163 | 127 | 111 | 66  | 46  | 59  | 78  | 102 |
| 1940         | Above Normal | 135 | 121 | 150 | 154 | 106 | 53  | 38  | 50  | 41  | 34  | 29  | 86  |
| 1941         | Wet          | 112 | 123 | 130 | 88  | 85  | 48  | 29  | 27  | 54  | 47  | 39  | 63  |
| 1942         | Wet          | 57  | 91  | 104 | 81  | 45  | 53  | 40  | 35  | 53  | 48  | 38  | 48  |
| 1943         | Wet          | 42  | 55  | 60  | 63  | 39  | 42  | 38  | 50  | 59  | 40  | 37  | 86  |
| 1944         | Dry          | 117 | 110 | 140 | 168 | 152 | 93  | 62  | 55  | 45  | 50  | 81  | 115 |
| 1945         | Below Normal | 146 | 122 | 112 | 112 | 113 | 54  | 59  | 52  | 41  | 34  | 50  | 98  |
| 1946         | Below Normal | 115 | 105 | 86  | 68  | 80  | 75  | 59  | 54  | 45  | 33  | 53  | 102 |
| 1947         | Dry          | 131 | 127 | 142 | 126 | 127 | 117 | 79  | 72  | 46  | 56  | 80  | 110 |
| 1948         | Below Normal | 139 | 125 | 168 | 172 | 183 | 122 | 62  | 59  | 32  | 26  | 51  | 86  |
| 1949         | Dry          | 117 | 123 | 151 | 167 | 197 | 110 | 76  | 90  | 67  | 46  | 79  | 102 |
| 1950         | Below Normal | 131 | 123 | 148 | 133 | 94  | 91  | 50  | 55  | 41  | 30  | 42  | 94  |
| 1951         | Above Normal | 126 | 73  | 72  | 55  | 36  | 57  | 49  | 33  | 29  | 26  | 31  | 94  |
| 1952         | Wet          | 118 | 128 | 130 | 92  | 68  | 68  | 26  | 16  | 39  | 48  | 32  | 30  |
| 1953         | Wet          | 28  | 60  | 108 | 71  | 83  | 79  | 48  | 37  | 27  | 22  | 35  | 66  |
| 1954         | Above Normal | 63  | 85  | 123 | 156 | 69  | 71  | 49  | 66  | 38  | 36  | 28  | 85  |
| 1955         | Dry          | 124 | 134 | 119 | 77  | 91  | 120 | 90  | 78  | 55  | 46  | 88  | 104 |
| 1956         | Wet          | 129 | 140 | 148 | 65  | 64  | 52  | 47  | 46  | 50  | 44  | 40  | 46  |
| 1957         | Above Normal | 33  | 50  | 112 | 162 | 114 | 65  | 68  | 43  | 33  | 27  | 35  | 100 |
| 1958         | Wet          | 94  | 45  | 68  | 71  | 101 | 94  | 14  | 12  | 44  | 47  | 35  | 34  |
| 1959         | Below Normal | 28  | 53  | 126 | 149 | 81  | 147 | 84  | 60  | 43  | 37  | 39  | 81  |
| 1960         | Dry          | 129 | 132 | 154 | 161 | 170 | 92  | 102 | 83  | 45  | 55  | 71  | 126 |
| 1961         | Dry          | 148 | 125 | 171 | 163 | 155 | 116 | 93  | 72  | 45  | 54  | 72  | 99  |
| 1962         | Below Normal | 128 | 128 | 152 | 174 | 134 | 87  | 57  | 45  | 35  | 35  | 44  | 111 |
| 1963         | Wet          | 124 | 41  | 64  | 66  | 84  | 100 | 62  | 45  | 33  | 23  | 27  | 82  |
| 1964         | Dry          | 108 | 101 | 61  | 81  | 106 | 113 | 96  | 88  | 49  | 57  | 88  | 108 |
| 1965         | Wet          | 133 | 135 | 99  | 71  | 51  | 70  | 47  | 47  | 38  | 29  | 35  | 81  |
| 1966         | Below Normal | 109 | 79  | 66  | 76  | 74  | 68  | 58  | 62  | 38  | 34  | 47  | 107 |
| 1967         | Wet          | 141 | 140 | 143 | 103 | 78  | 62  | 35  | 23  | 39  | 39  | 32  | 29  |
| 1968         | Below Normal | 27  | 45  | 102 | 128 | 80  | 86  | 86  | 59  | 40  | 35  | 43  | 94  |
| 1969         | Wet          | 133 | 131 | 114 | 127 | 67  | 69  | 32  | 23  | 26  | 48  | 38  | 44  |
| 1970         | Wet          | 31  | 44  | 74  | 39  | 50  | 49  | 46  | 50  | 39  | 27  | 33  | 89  |
| 1971         | Wet          | 128 | 90  | 75  | 59  | 83  | 62  | 41  | 39  | 24  | 20  | 32  | 70  |
| 1972         | Below Normal | 64  | 99  | 141 | 122 | 131 | 65  | 64  | 60  | 43  | 36  | 48  | 100 |
| 1973         | Above Normal | 148 | 105 | 80  | 100 | 101 | 79  | 53  | 57  | 48  | 26  | 37  | 87  |
| 1974         | Wet          | 121 | 67  | 62  | 72  | 65  | 42  | 41  | 51  | 55  | 31  | 39  | 55  |
| 1975         | Wet          | 37  | 60  | 101 | 97  | 64  | 41  | 44  | 45  | 49  | 32  | 40  | 54  |
| 1976         | Critical     | 35  | 39  | 83  | 139 | 182 | 137 | 96  | 86  | 100 | 114 | 121 | 142 |
| 1977         | Critical     | 161 | 141 | 179 | 169 | 195 | 194 | 144 | 121 | 125 | 118 | 108 | 121 |
| 1978         | Above Normal | 160 | 170 | 175 | 130 | 118 | 136 | 80  | 50  | 56  | 39  | 45  | 92  |
| 1979         | Below Normal | 119 | 131 | 141 | 126 | 66  | 46  | 50  | 43  | 37  | 28  | 54  | 100 |
| 1980         | Above Normal | 137 | 124 | 110 | 77  | 54  | 68  | 56  | 52  | 52  | 57  | 47  | 72  |
| 1981         | Dry          | 103 | 108 | 153 | 169 | 83  | 70  | 63  | 58  | 46  | 59  | 78  | 119 |
| 1982         | Wet          | 152 | 106 | 56  | 85  | 43  | 47  | 18  | 17  | 48  | 51  | 40  | 31  |
| 1983         | Wet          | 15  | 30  | 62  | 55  | 50  | 30  | 33  | 31  | 23  | 18  | 15  | 16  |
| 1984         | Wet          | 23  | 17  | 41  | 53  | 28  | 45  | 53  | 55  | 49  | 27  | 36  | 88  |
| 1985         | Dry          | 103 | 80  | 56  | 62  | 107 | 119 | 83  | 65  | 42  | 59  | 83  | 112 |
| 1986         | Wet          | 125 | 118 | 133 | 104 | 91  | 44  | 30  | 23  | 57  | 45  | 40  | 77  |
| 1987         | Dry          | 100 | 110 | 148 | 160 | 162 | 120 | 107 | 73  | 47  | 61  | 87  | 104 |
| 1988         | Critical     | 137 | 131 | 153 | 152 | 191 | 200 | 112 | 95  | 68  | 72  | 120 | 118 |
| 1989         | Dry          | 145 | 157 | 166 | 190 | 206 | 93  | 54  | 65  | 34  | 56  | 82  | 116 |
| 1990         | Critical     | 143 | 137 | 158 | 132 | 176 | 138 | 100 | 96  | 91  | 112 | 98  | 116 |
| 1991         | Critical     | 152 | 159 | 174 | 204 | 226 | 130 | 101 | 81  | 79  | 112 | 112 | 106 |
| 1992         | Critical     | 155 | 172 | 170 | 208 | 154 | 104 | 91  | 73  | 62  | 54  | 91  | 142 |
| 1993         | Above Normal | 164 | 154 | 183 | 142 | 109 | 90  | 54  | 61  | 56  | 37  | 40  | 94  |
| 1994         | Critical     | 122 | 130 | 156 | 169 | 193 | 166 | 93  | 83  | 56  | 101 | 122 | 111 |
| 1995         | Wet          | 152 | 145 | 151 | 161 | 92  | 55  | 33  | 17  | 43  | 29  | 26  | 22  |
| 1996         | Wet          | 28  | 60  | 113 | 86  | 62  | 51  | 47  | 47  | 57  | 36  | 40  | 63  |
| 1997         | Wet          | 56  | 66  | 51  | 26  | 42  | 28  | 39  | 49  | 55  | 36  | 40  | 98  |
| 1998         | Wet          | 137 | 141 | 137 | 112 | 65  | 48  | 39  | 37  | 28  | 27  | 26  | 22  |
| 1999         | Wet          | 25  | 28  | 45  | 66  | 30  | 51  | 47  | 51  | 42  | 25  | 36  | 76  |
| 2000         | Above Normal | 75  | 99  | 131 | 147 | 89  | 48  | 44  | 51  | 44  | 38  | 34  | 91  |
| 2001         | Dry          | 109 | 104 | 146 | 144 | 114 | 79  | 78  | 72  | 60  | 55  | 72  | 110 |
| 2002         | Dry          | 138 | 135 | 143 | 82  | 209 | 151 | 81  | 82  | 46  | 57  | 80  | 99  |
| 2003         | Above Normal | 135 | 106 | 101 | 60  | 191 | 88  | 46  | 41  | 21  | 24  | 33  | 98  |
| Average      |              | 110 | 106 | 121 | 119 | 111 | 92  | 65  | 58  | 51  | 47  | 56  | 88  |
| Wet          |              | 93  | 86  | 92  | 81  | 66  | 57  | 39  | 36  | 42  | 35  | 35  | 57  |
| Above Normal |              | 117 | 108 | 120 | 115 | 97  | 74  | 53  | 51  | 42  | 35  | 36  | 90  |
| Below Normal |              | 107 | 107 | 130 | 129 | 104 | 83  | 59  | 53  | 42  | 33  | 47  | 94  |
| Dry          |              | 120 | 120 | 136 | 137 | 142 | 114 | 83  | 72  | 51  | 55  | 78  | 110 |
| Critical     |              | 129 | 128 | 151 | 164 | 182 | 164 | 114 | 97  | 91  | 90  | 102 | 115 |

Source: DSM2 Modeling (Node CHVCT000)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: umhos = microsiemens, cm = centimeter, mg = milligram, L = liter, WY = Water Year

**Table 121: Monthly Averages of Simulated Stage at Old River Near Tracy Road Bridge (ft msl) - Sacramento Valley All Years**

| Month | All Year Summary               |                          |                                |
|-------|--------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl) | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                              | 1                        | 0 (1%)                         |
| Nov   | 1                              | 1                        | 0 (3%)                         |
| Dec   | 0                              | 0                        | 0 (5%)                         |
| Jan   | 0                              | 0                        | 0 (24%)                        |
| Feb   | 0                              | 0                        | 0 (-12%)                       |
| Mar   | 0                              | 0                        | 0 (17%)                        |
| Apr   | 0                              | 0                        | 0 (13%)                        |
| May   | 1                              | 1                        | 0 (0%)                         |
| Jun   | 2                              | 2                        | 0 (1%)                         |
| Jul   | 2                              | 2                        | 0 (0%)                         |
| Aug   | 1                              | 1                        | 0 (0%)                         |
| Sep   | 1                              | 1                        | 0 (1%)                         |

Source: DSM2 Modeling (Node 071\_3116)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 122: Monthly Averages of Simulated Stage at Old River Near Tracy Road Bridge (ft msl) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                          |                                |
|-------|------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)           | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                        | 1                        | 0 (1%)                         |
| Nov   | 1                                        | 1                        | 0 (2%)                         |
| Dec   | 0                                        | 0                        | 0 (-278%)                      |
| Jan   | 1                                        | 1                        | 0 (-5%)                        |
| Feb   | 1                                        | 1                        | 0 (-6%)                        |
| Mar   | 1                                        | 1                        | 0 (1%)                         |
| Apr   | 1                                        | 1                        | 0 (3%)                         |
| May   | 2                                        | 2                        | 0 (-2%)                        |
| Jun   | 3                                        | 3                        | 0 (0%)                         |
| Jul   | 2                                        | 2                        | 0 (0%)                         |
| Aug   | 2                                        | 2                        | 0 (0%)                         |
| Sep   | 2                                        | 2                        | 0 (1%)                         |

Source: DSM2 Modeling (Node 071\_3116)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 123: Monthly Averages of Simulated Stage at Old River Near Tracy Road Bridge (ft msl) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                          |                                |
|-------|---------------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)                    | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                                 | 1                        | 0 (1%)                         |
| Nov   | 1                                                 | 1                        | 0 (4%)                         |
| Dec   | 0                                                 | 0                        | 0 (8%)                         |
| Jan   | 0                                                 | 0                        | 0 (41%)                        |
| Feb   | 0                                                 | 0                        | 0 (-4%)                        |
| Mar   | 0                                                 | 0                        | 0 (97%)                        |
| Apr   | 0                                                 | 0                        | 0 (38%)                        |
| May   | 1                                                 | 1                        | 0 (3%)                         |
| Jun   | 2                                                 | 2                        | 0 (5%)                         |
| Jul   | 2                                                 | 2                        | 0 (0%)                         |
| Aug   | 1                                                 | 1                        | 0 (0%)                         |
| Sep   | 1                                                 | 1                        | 0 (1%)                         |

Source: DSM2 Modeling (Node 071\_3116)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 124: Monthly Averages of Simulated Stage at Old River Near Tracy Road Bridge (ft msl) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                          |                                |
|-------|---------------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)                    | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                                 | 1                        | 0 (1%)                         |
| Nov   | 1                                                 | 1                        | 0 (3%)                         |
| Dec   | -1                                                | -1                       | 0 (1%)                         |
| Jan   | -1                                                | -1                       | 0 (1%)                         |
| Feb   | 0                                                 | 0                        | 0 (-79%)                       |
| Mar   | 0                                                 | 0                        | 0 (-19%)                       |
| Apr   | 0                                                 | 0                        | 0 (-112%)                      |
| May   | 1                                                 | 1                        | 0 (-1%)                        |
| Jun   | 1                                                 | 1                        | 0 (1%)                         |
| Jul   | 1                                                 | 1                        | 0 (1%)                         |
| Aug   | 1                                                 | 1                        | 0 (0%)                         |
| Sep   | 1                                                 | 1                        | 0 (1%)                         |

Source: DSM2 Modeling (Node 071\_3116)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 125: Monthly Averages of Simulated Stage at Old River Near Tracy Road Bridge (ft msl) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                          |                                |
|-------|------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)           | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                        | 1                        | 0 (1%)                         |
| Nov   | 1                                        | 1                        | 0 (3%)                         |
| Dec   | -1                                       | -1                       | 0 (0%)                         |
| Jan   | -1                                       | -1                       | 0 (0%)                         |
| Feb   | 0                                        | 0                        | 0 (2%)                         |
| Mar   | 0                                        | 0                        | 0 (-11%)                       |
| Apr   | 0                                        | 0                        | 0 (-19%)                       |
| May   | 1                                        | 1                        | 0 (1%)                         |
| Jun   | 1                                        | 1                        | 0 (2%)                         |
| Jul   | 1                                        | 1                        | 0 (0%)                         |
| Aug   | 1                                        | 1                        | 0 (0%)                         |
| Sep   | 1                                        | 1                        | 0 (0%)                         |

Source: DSM2 Modeling (Node 071\_3116)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 126: Monthly Averages of Simulated Stage at Old River Near Tracy Road Bridge (ft msl) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                          |                                |
|-------|-----------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)                | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                             | 1                        | 0 (1%)                         |
| Nov   | 1                                             | 1                        | 0 (2%)                         |
| Dec   | -1                                            | -1                       | 0 (-1%)                        |
| Jan   | -1                                            | -1                       | 0 (-1%)                        |
| Feb   | 0                                             | 0                        | 0 (-1%)                        |
| Mar   | -1                                            | -1                       | 0 (-5%)                        |
| Apr   | 0                                             | 0                        | 0 (-7%)                        |
| May   | 0                                             | 0                        | 0 (2%)                         |
| Jun   | 1                                             | 1                        | 0 (2%)                         |
| Jul   | 1                                             | 1                        | 0 (0%)                         |
| Aug   | 1                                             | 1                        | 0 (0%)                         |
| Sep   | 1                                             | 1                        | 0 (1%)                         |

Source: DSM2 Modeling (Node 071\_3116)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 127: Monthly Averages of Simulated Stage at Middle River Near Howard Road Bridge (ft msl) - Sacramento Valley All Years**

| Month | All Year Summary               |                          |                                |
|-------|--------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl) | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                              | 1                        | 0 (0%)                         |
| Nov   | 1                              | 1                        | 0 (1%)                         |
| Dec   | 0                              | -1                       | 0 (4%)                         |
| Jan   | 0                              | 0                        | 0 (18%)                        |
| Feb   | 0                              | 0                        | 0 (-16%)                       |
| Mar   | 0                              | 0                        | 0 (41%)                        |
| Apr   | 0                              | 0                        | 0 (9%)                         |
| May   | 1                              | 1                        | 0 (-1%)                        |
| Jun   | 1                              | 1                        | 0 (1%)                         |
| Jul   | 1                              | 1                        | 0 (0%)                         |
| Aug   | 1                              | 1                        | 0 (0%)                         |
| Sep   | 1                              | 1                        | 0 (0%)                         |

Source: DSM2 Modeling (Node 129\_5691)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 128: Monthly Averages of Simulated Stage at Middle River Near Howard Road Bridge (ft msl) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                          |                                |
|-------|------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)           | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                        | 1                        | 0 (0%)                         |
| Nov   | 1                                        | 1                        | 0 (1%)                         |
| Dec   | 0                                        | 0                        | 0 (62%)                        |
| Jan   | 1                                        | 1                        | 0 (-6%)                        |
| Feb   | 1                                        | 1                        | 0 (-6%)                        |
| Mar   | 1                                        | 1                        | 0 (2%)                         |
| Apr   | 1                                        | 1                        | 0 (4%)                         |
| May   | 1                                        | 1                        | 0 (-2%)                        |
| Jun   | 2                                        | 2                        | 0 (-1%)                        |
| Jul   | 2                                        | 2                        | 0 (0%)                         |
| Aug   | 1                                        | 1                        | 0 (0%)                         |
| Sep   | 1                                        | 1                        | 0 (0%)                         |

Source: DSM2 Modeling (Node 129\_5691)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 129: Monthly Averages of Simulated Stage at Middle River Near Howard Road Bridge (ft msl) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                          |                                |
|-------|---------------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)                    | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                                 | 1                        | 0 (0%)                         |
| Nov   | 1                                                 | 1                        | 0 (1%)                         |
| Dec   | -1                                                | -1                       | 0 (9%)                         |
| Jan   | 0                                                 | 0                        | 0 (42%)                        |
| Feb   | 0                                                 | 0                        | 0 (-4%)                        |
| Mar   | 0                                                 | 0                        | 0 (-139%)                      |
| Apr   | 0                                                 | 0                        | 0 (15%)                        |
| May   | 1                                                 | 1                        | 0 (3%)                         |
| Jun   | 1                                                 | 1                        | 0 (5%)                         |
| Jul   | 1                                                 | 1                        | 0 (0%)                         |
| Aug   | 1                                                 | 1                        | 0 (0%)                         |
| Sep   | 1                                                 | 1                        | 0 (0%)                         |

Source: DSM2 Modeling (Node 129\_5691)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 130: Monthly Averages of Simulated Stage at Middle River Near Howard Road Bridge (ft msl) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                          |                                |
|-------|---------------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)                    | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                                 | 1                        | 0 (0%)                         |
| Nov   | 1                                                 | 1                        | 0 (1%)                         |
| Dec   | -1                                                | -1                       | 0 (0%)                         |
| Jan   | -1                                                | -1                       | 0 (1%)                         |
| Feb   | 0                                                 | 0                        | 0 (208%)                       |
| Mar   | 0                                                 | 0                        | 0 (-11%)                       |
| Apr   | 0                                                 | 0                        | 0 (84%)                        |
| May   | 1                                                 | 1                        | 0 (-1%)                        |
| Jun   | 1                                                 | 1                        | 0 (1%)                         |
| Jul   | 1                                                 | 1                        | 0 (0%)                         |
| Aug   | 1                                                 | 1                        | 0 (0%)                         |
| Sep   | 1                                                 | 1                        | 0 (0%)                         |

Source: DSM2 Modeling (Node 129\_5691)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 131: Monthly Averages of Simulated Stage at Middle River Near Howard Road Bridge (ft msl) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                          |                                |
|-------|------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)           | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                        | 1                        | 0 (0%)                         |
| Nov   | 1                                        | 1                        | 0 (1%)                         |
| Dec   | -1                                       | -1                       | 0 (0%)                         |
| Jan   | -1                                       | -1                       | 0 (0%)                         |
| Feb   | -1                                       | -1                       | 0 (2%)                         |
| Mar   | -1                                       | -1                       | 0 (-6%)                        |
| Apr   | 0                                        | 0                        | 0 (-36%)                       |
| May   | 0                                        | 0                        | 0 (1%)                         |
| Jun   | 1                                        | 1                        | 0 (1%)                         |
| Jul   | 1                                        | 1                        | 0 (0%)                         |
| Aug   | 1                                        | 1                        | 0 (0%)                         |
| Sep   | 1                                        | 1                        | 0 (0%)                         |

Source: DSM2 Modeling (Node 129\_5691)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 132: Monthly Averages of Simulated Stage at Middle River Near Howard Road Bridge (ft msl) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                          |                                |
|-------|-----------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)                | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                             | 1                        | 0 (0%)                         |
| Nov   | 1                                             | 1                        | 0 (1%)                         |
| Dec   | -1                                            | -1                       | 0 (0%)                         |
| Jan   | -1                                            | -1                       | 0 (-1%)                        |
| Feb   | -1                                            | -1                       | 0 (0%)                         |
| Mar   | -1                                            | -1                       | 0 (-3%)                        |
| Apr   | 0                                             | 0                        | 0 (-9%)                        |
| May   | 0                                             | 0                        | 0 (1%)                         |
| Jun   | 1                                             | 1                        | 0 (2%)                         |
| Jul   | 1                                             | 1                        | 0 (0%)                         |
| Aug   | 1                                             | 1                        | 0 (1%)                         |
| Sep   | 1                                             | 1                        | 0 (0%)                         |

Source: DSM2 Modeling (Node 129\_5691)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 133: Monthly Averages of Simulated Stage at Grant Line Canal above Grant Line Canal Barrier (ft msl) - Sacramento Valley All Years**

| Month | All Year Summary               |                          |                                |
|-------|--------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl) | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                              | 1                        | 0 (1%)                         |
| Nov   | 1                              | 1                        | 0 (3%)                         |
| Dec   | 0                              | 0                        | 0 (7%)                         |
| Jan   | 0                              | 0                        | 0 (-43%)                       |
| Feb   | 0                              | 0                        | 0 (-8%)                        |
| Mar   | 0                              | 0                        | 0 (14%)                        |
| Apr   | 0                              | 0                        | 0 (-327%)                      |
| May   | 1                              | 1                        | 0 (0%)                         |
| Jun   | 2                              | 2                        | 0 (1%)                         |
| Jul   | 2                              | 2                        | 0 (0%)                         |
| Aug   | 1                              | 1                        | 0 (0%)                         |
| Sep   | 1                              | 1                        | 0 (1%)                         |

Source: DSM2 Modeling (Node 206\_5533)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 134: Monthly Averages of Simulated Stage at Grant Line Canal above Grant Line Canal Barrier (ft msl) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                          |                                |
|-------|------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)           | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                        | 1                        | 0 (1%)                         |
| Nov   | 1                                        | 1                        | 0 (2%)                         |
| Dec   | 0                                        | 0                        | 0 (-24%)                       |
| Jan   | 1                                        | 1                        | 0 (-5%)                        |
| Feb   | 2                                        | 1                        | 0 (-5%)                        |
| Mar   | 2                                        | 2                        | 0 (2%)                         |
| Apr   | 1                                        | 1                        | 0 (6%)                         |
| May   | 2                                        | 2                        | 0 (-2%)                        |
| Jun   | 3                                        | 3                        | 0 (0%)                         |
| Jul   | 3                                        | 3                        | 0 (0%)                         |
| Aug   | 2                                        | 2                        | 0 (0%)                         |
| Sep   | 2                                        | 2                        | 0 (1%)                         |

Source: DSM2 Modeling (Node 206\_5533)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 135: Monthly Averages of Simulated Stage at Grant Line Canal above Grant Line Canal Barrier (ft msl) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                          |                                |
|-------|---------------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)                    | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                                 | 1                        | 0 (1%)                         |
| Nov   | 1                                                 | 1                        | 0 (4%)                         |
| Dec   | 0                                                 | 0                        | 0 (12%)                        |
| Jan   | 0                                                 | 0                        | 0 (-61%)                       |
| Feb   | 1                                                 | 1                        | 0 (-3%)                        |
| Mar   | 0                                                 | 0                        | 0 (27%)                        |
| Apr   | 0                                                 | 0                        | 0 (-27%)                       |
| May   | 1                                                 | 1                        | 0 (5%)                         |
| Jun   | 2                                                 | 2                        | 0 (5%)                         |
| Jul   | 2                                                 | 2                        | 0 (0%)                         |
| Aug   | 1                                                 | 1                        | 0 (0%)                         |
| Sep   | 1                                                 | 1                        | 0 (1%)                         |

Source: DSM2 Modeling (Node 206\_5533)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 136: Monthly Averages of Simulated Stage at Grant Line Canal above Grant Line Canal Barrier (ft msl) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                          |                                |
|-------|---------------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)                    | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                                 | 1                        | 0 (1%)                         |
| Nov   | 1                                                 | 1                        | 0 (3%)                         |
| Dec   | 0                                                 | 0                        | 0 (0%)                         |
| Jan   | 0                                                 | 0                        | 0 (1%)                         |
| Feb   | 0                                                 | 0                        | 0 (-23%)                       |
| Mar   | 0                                                 | 0                        | 0 (-75%)                       |
| Apr   | 0                                                 | 0                        | 0 (-24%)                       |
| May   | 1                                                 | 1                        | 0 (-1%)                        |
| Jun   | 1                                                 | 1                        | 0 (1%)                         |
| Jul   | 1                                                 | 1                        | 0 (0%)                         |
| Aug   | 1                                                 | 1                        | 0 (0%)                         |
| Sep   | 1                                                 | 1                        | 0 (1%)                         |

Source: DSM2 Modeling (Node 206\_5533)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 137: Monthly Averages of Simulated Stage at Grant Line Canal above Grant Line Canal Barrier (ft msl) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                          |                                |
|-------|------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)           | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                        | 1                        | 0 (1%)                         |
| Nov   | 1                                        | 1                        | 0 (3%)                         |
| Dec   | -1                                       | -1                       | 0 (0%)                         |
| Jan   | -1                                       | -1                       | 0 (0%)                         |
| Feb   | 0                                        | 0                        | 0 (1%)                         |
| Mar   | 0                                        | 0                        | 0 (-17%)                       |
| Apr   | 0                                        | 0                        | 0 (-10%)                       |
| May   | 0                                        | 0                        | 0 (4%)                         |
| Jun   | 1                                        | 1                        | 0 (2%)                         |
| Jul   | 1                                        | 1                        | 0 (0%)                         |
| Aug   | 1                                        | 1                        | 0 (0%)                         |
| Sep   | 1                                        | 1                        | 0 (0%)                         |

Source: DSM2 Modeling (Node 206\_5533)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 138: Monthly Averages of Simulated Stage at Grant Line Canal above Grant Line Canal Barrier (ft msl) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                          |                                |
|-------|-----------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)                | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | 1                                             | 1                        | 0 (1%)                         |
| Nov   | 1                                             | 1                        | 0 (2%)                         |
| Dec   | -1                                            | -1                       | 0 (-1%)                        |
| Jan   | -1                                            | -1                       | 0 (-1%)                        |
| Feb   | 0                                             | 0                        | 0 (-2%)                        |
| Mar   | 0                                             | 0                        | 0 (-8%)                        |
| Apr   | -1                                            | 0                        | 0 (-3%)                        |
| May   | 0                                             | 0                        | 0 (9%)                         |
| Jun   | 1                                             | 1                        | 0 (2%)                         |
| Jul   | 1                                             | 1                        | 0 (0%)                         |
| Aug   | 1                                             | 1                        | 0 (0%)                         |
| Sep   | 1                                             | 1                        | 0 (1%)                         |

Source: DSM2 Modeling (Node 206\_5533)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 139: Monthly Averages of Simulated Stage at East of Coney Island (ft msl) - Sacramento Valley All Years**

| Month | All Year Summary               |                          |                                |
|-------|--------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl) | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | -1                             | -1                       | 0 (0%)                         |
| Nov   | -1                             | -1                       | 0 (0%)                         |
| Dec   | -1                             | -1                       | 0 (1%)                         |
| Jan   | -1                             | -1                       | 0 (1%)                         |
| Feb   | 0                              | 0                        | 0 (6%)                         |
| Mar   | -1                             | -1                       | 0 (1%)                         |
| Apr   | -1                             | -1                       | 0 (0%)                         |
| May   | -1                             | -1                       | 0 (0%)                         |
| Jun   | -1                             | -1                       | 0 (0%)                         |
| Jul   | -1                             | -1                       | 0 (0%)                         |
| Aug   | -1                             | -1                       | 0 (0%)                         |
| Sep   | -1                             | -1                       | 0 (0%)                         |

Source: DSM2 Modeling (Node 218\_4301)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 140: Monthly Averages of Simulated Stage at East of Coney Island (ft msl) - Sacramento Valley Wet**

| Month | Sacramento Valley Index Wet Year Summary |                          |                                |
|-------|------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)           | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | -1                                       | -1                       | 0 (0%)                         |
| Nov   | -1                                       | -1                       | 0 (0%)                         |
| Dec   | -1                                       | -1                       | 0 (2%)                         |
| Jan   | 0                                        | 0                        | 0 (16%)                        |
| Feb   | 0                                        | 0                        | 0 (-27%)                       |
| Mar   | 0                                        | 0                        | 0 (-36%)                       |
| Apr   | 0                                        | 0                        | 0 (1%)                         |
| May   | -1                                       | -1                       | 0 (2%)                         |
| Jun   | -1                                       | -1                       | 0 (1%)                         |
| Jul   | -1                                       | -1                       | 0 (0%)                         |
| Aug   | -1                                       | -1                       | 0 (0%)                         |
| Sep   | -1                                       | -1                       | 0 (0%)                         |

Source: DSM2 Modeling (Node 218\_4301)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 141: Monthly Averages of Simulated Stage at East of Coney Island (ft msl) - Sacramento Valley Above Normal**

| Month | Sacramento Valley Index Above Normal Year Summary |                          |                                |
|-------|---------------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)                    | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | -1                                                | -1                       | 0 (0%)                         |
| Nov   | -1                                                | -1                       | 0 (0%)                         |
| Dec   | -1                                                | -1                       | 0 (1%)                         |
| Jan   | -1                                                | -1                       | 0 (2%)                         |
| Feb   | 0                                                 | 0                        | 0 (6%)                         |
| Mar   | -1                                                | -1                       | 0 (-2%)                        |
| Apr   | -1                                                | -1                       | 0 (0%)                         |
| May   | -1                                                | -1                       | 0 (-1%)                        |
| Jun   | -1                                                | -1                       | 0 (-2%)                        |
| Jul   | -1                                                | -1                       | 0 (0%)                         |
| Aug   | -1                                                | -1                       | 0 (0%)                         |
| Sep   | -1                                                | -1                       | 0 (0%)                         |

Source: DSM2 Modeling (Node 218\_4301)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 142: Monthly Averages of Simulated Stage at East of Coney Island (ft msl) - Sacramento Valley Below Normal**

| Month | Sacramento Valley Index Below Normal Year Summary |                          |                                |
|-------|---------------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)                    | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | -1                                                | -1                       | 0 (0%)                         |
| Nov   | -1                                                | -1                       | 0 (0%)                         |
| Dec   | -1                                                | -1                       | 0 (0%)                         |
| Jan   | -1                                                | -1                       | 0 (1%)                         |
| Feb   | -1                                                | -1                       | 0 (4%)                         |
| Mar   | -1                                                | -1                       | 0 (0%)                         |
| Apr   | -1                                                | -1                       | 0 (-1%)                        |
| May   | -1                                                | -1                       | 0 (0%)                         |
| Jun   | -1                                                | -1                       | 0 (0%)                         |
| Jul   | -1                                                | -1                       | 0 (0%)                         |
| Aug   | -1                                                | -1                       | 0 (0%)                         |
| Sep   | -1                                                | -1                       | 0 (0%)                         |

Source: DSM2 Modeling (Node 218\_4301)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 143: Monthly Averages of Simulated Stage at East of Coney Island (ft msl) - Sacramento Valley Dry**

| Month | Sacramento Valley Index Dry Year Summary |                          |                                |
|-------|------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)           | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | -1                                       | -1                       | 0 (0%)                         |
| Nov   | -1                                       | -1                       | 0 (0%)                         |
| Dec   | -1                                       | -1                       | 0 (0%)                         |
| Jan   | -1                                       | -1                       | 0 (0%)                         |
| Feb   | -1                                       | -1                       | 0 (2%)                         |
| Mar   | -1                                       | -1                       | 0 (-1%)                        |
| Apr   | -1                                       | -1                       | 0 (0%)                         |
| May   | -1                                       | -1                       | 0 (0%)                         |
| Jun   | -1                                       | -1                       | 0 (0%)                         |
| Jul   | -1                                       | -1                       | 0 (0%)                         |
| Aug   | -1                                       | -1                       | 0 (0%)                         |
| Sep   | -1                                       | -1                       | 0 (0%)                         |

Source: DSM2 Modeling (Node 218\_4301)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

**Table 144: Monthly Averages of Simulated Stage at East of Coney Island (ft msl) - Sacramento Valley Critical**

| Month | Sacramento Valley Index Critical Year Summary |                          |                                |
|-------|-----------------------------------------------|--------------------------|--------------------------------|
|       | No-Action Alternative (ft msl)                | Proposed Action (ft msl) | Change from No Action (ft msl) |
| Oct   | -1                                            | -1                       | 0 (0%)                         |
| Nov   | -1                                            | -1                       | 0 (0%)                         |
| Dec   | -1                                            | -1                       | 0 (0%)                         |
| Jan   | -1                                            | -1                       | 0 (-1%)                        |
| Feb   | -1                                            | -1                       | 0 (0%)                         |
| Mar   | -1                                            | -1                       | 0 (0%)                         |
| Apr   | -1                                            | -1                       | 0 (0%)                         |
| May   | -1                                            | -1                       | 0 (0%)                         |
| Jun   | -1                                            | -1                       | 0 (0%)                         |
| Jul   | -1                                            | -1                       | 0 (0%)                         |
| Aug   | -1                                            | -1                       | 0 (1%)                         |
| Sep   | -1                                            | -1                       | 0 (0%)                         |

Source: DSM2 Modeling (Node 218\_4301)

Notes:

Simulation Period: WY 1922 -2003

(%) indicates percent change from No-Action Alternative

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level

Table 145: Simulated Stage at Old River Near Tracy Road Bridge (ft msl) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 4   | 2   | 2   | 1   |
| 1923         | Below Normal | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 1   | 2   | 1   | 2   | 2   |
| 1924         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1925         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1926         | Dry          | 1   | 1   | 0   | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1927         | Wet          | 1   | 1   | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1928         | Above Normal | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1929         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1930         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1931         | Critical     | 1   | 1   | 0   | -1  | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1932         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 2   | 1   | 1   |
| 1933         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1934         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1935         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1936         | Below Normal | 1   | 1   | -1  | -1  | 1   | 0   | 0   | 1   | 2   | 1   | 2   | 1   |
| 1937         | Below Normal | 1   | 1   | -1  | -1  | 2   | 1   | 0   | 2   | 2   | 2   | 2   | 1   |
| 1938         | Wet          | 1   | 1   | 0   | 0   | 4   | 5   | 2   | 4   | 5   | 3   | 2   | 2   |
| 1939         | Dry          | 2   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 2   |
| 1940         | Above Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1941         | Wet          | 1   | 1   | 0   | 1   | 2   | 2   | 1   | 2   | 3   | 3   | 2   | 2   |
| 1942         | Wet          | 1   | 1   | 0   | 1   | 1   | 0   | 1   | 1   | 3   | 3   | 2   | 2   |
| 1943         | Wet          | 1   | 1   | -1  | 1   | 1   | 3   | 0   | 1   | 2   | 2   | 2   | 1   |
| 1944         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1945         | Below Normal | 1   | 1   | -1  | -1  | 1   | 0   | 0   | 1   | 2   | 2   | 2   | 1   |
| 1946         | Below Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1947         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1948         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1949         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1950         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1951         | Above Normal | 1   | 1   | 2   | 1   | 1   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1952         | Wet          | 1   | 1   | 0   | 0   | 0   | 1   | 1   | 3   | 4   | 3   | 2   | 2   |
| 1953         | Wet          | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1954         | Above Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1955         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1956         | Wet          | 1   | 1   | 0   | 3   | 1   | 0   | 0   | 1   | 3   | 2   | 2   | 2   |
| 1957         | Above Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1958         | Wet          | 1   | 1   | 0   | 0   | 1   | 1   | 2   | 2   | 4   | 3   | 2   | 2   |
| 1959         | Below Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 2   |
| 1960         | Dry          | 1   | 1   | 0   | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1961         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1962         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1963         | Wet          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1964         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1965         | Wet          | 1   | 1   | 0   | 1   | 0   | 0   | 0   | 1   | 2   | 1   | 2   | 2   |
| 1966         | Below Normal | 1   | 2   | 0   | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1967         | Wet          | 1   | 1   | -1  | 0   | 0   | 0   | 2   | 2   | 4   | 4   | 2   | 2   |
| 1968         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1969         | Wet          | 1   | 1   | -1  | 1   | 4   | 3   | 3   | 5   | 7   | 3   | 2   | 2   |
| 1970         | Wet          | 2   | 1   | 0   | 2   | 1   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1971         | Wet          | 1   | 1   | 0   | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1972         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1973         | Above Normal | 1   | 1   | 0   | 0   | 1   | 0   | 0   | 1   | 2   | 1   | 2   | 1   |
| 1974         | Wet          | 1   | 1   | 0   | 0   | 0   | 1   | 0   | 1   | 2   | 2   | 2   | 2   |
| 1975         | Wet          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 3   | 2   | 2   | 1   |
| 1976         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1977         | Critical     | 1   | 1   | 0   | 0   | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1978         | Above Normal | 1   | 1   | -1  | 0   | 1   | 1   | 1   | 2   | 3   | 2   | 2   | 2   |
| 1979         | Below Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1980         | Above Normal | 1   | 1   | -1  | 1   | 3   | 2   | 0   | 1   | 3   | 3   | 2   | 2   |
| 1981         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1982         | Wet          | 1   | 1   | 0   | 0   | 2   | 2   | 5   | 4   | 4   | 3   | 2   | 3   |
| 1983         | Wet          | 2   | 3   | 3   | 4   | 6   | 8   | 4   | 5   | 7   | 6   | 3   | 3   |
| 1984         | Wet          | 2   | 4   | 4   | 2   | 1   | 0   | 0   | 1   | 2   | 1   | 2   | 2   |
| 1985         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1986         | Wet          | 1   | 1   | -1  | -1  | 2   | 4   | 1   | 2   | 3   | 2   | 2   | 2   |
| 1987         | Dry          | 2   | 1   | 0   | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1988         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1989         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1990         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1991         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1992         | Critical     | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1993         | Above Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 2   | 2   | 1   |
| 1994         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1995         | Wet          | 1   | 1   | -1  | 1   | 0   | 3   | 1   | 5   | 4   | 5   | 2   | 2   |
| 1996         | Wet          | 1   | 1   | -1  | -1  | 2   | 1   | 0   | 1   | 2   | 1   | 2   | 1   |
| 1997         | Wet          | 1   | 1   | 3   | 9   | 3   | 0   | 0   | 1   | 2   | 1   | 1   | 2   |
| 1998         | Wet          | 1   | 1   | 0   | 0   | 4   | 2   | 1   | 3   | 5   | 5   | 3   | 2   |
| 1999         | Wet          | 2   | 1   | -1  | 0   | 1   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 2000         | Above Normal | 1   | 1   | -1  | -1  | 1   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 2001         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 2002         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 2003         | Above Normal | 1   | 1   | 0   | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| Average      |              | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 2   | 1   | 1   |
| Wet          |              | 1   | 1   | 0   | 1   | 1   | 1   | 1   | 2   | 3   | 2   | 2   | 2   |
| Above Normal |              | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 2   | 1   | 1   |
| Below Normal |              | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| Dry          |              | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| Critical     |              | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |

Source: DSM2 Modeling (Node 071\_3116)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level, WY = Water Year

Table 146: Simulated Stage at Old River Near Tracy Road Bridge (ft msl) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 4   | 2   | 2   | 1   |
| 1923         | Below Normal | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 1   | 2   | 1   | 2   | 2   |
| 1924         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1925         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1926         | Dry          | 1   | 1   | 0   | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1927         | Wet          | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1928         | Above Normal | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1929         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1930         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1931         | Critical     | 1   | 1   | 0   | -1  | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1932         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 2   | 1   | 1   |
| 1933         | Critical     | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1934         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1935         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1936         | Below Normal | 1   | 1   | -1  | -1  | 1   | 0   | 0   | 1   | 2   | 1   | 2   | 1   |
| 1937         | Below Normal | 1   | 1   | -1  | -1  | 1   | 1   | 0   | 1   | 2   | 2   | 2   | 1   |
| 1938         | Wet          | 1   | 1   | 0   | 0   | 3   | 5   | 2   | 4   | 5   | 3   | 2   | 2   |
| 1939         | Dry          | 2   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 2   |
| 1940         | Above Normal | 1   | 1   | -1  | 0   | 0   | 1   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1941         | Wet          | 1   | 1   | 0   | 1   | 2   | 2   | 1   | 2   | 3   | 3   | 2   | 2   |
| 1942         | Wet          | 1   | 1   | 0   | 1   | 1   | 0   | 1   | 1   | 3   | 3   | 2   | 2   |
| 1943         | Wet          | 1   | 1   | -1  | 1   | 1   | 2   | 0   | 1   | 2   | 2   | 2   | 1   |
| 1944         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1945         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 2   | 2   | 2   | 1   |
| 1946         | Below Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1947         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1948         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1949         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1950         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1951         | Above Normal | 1   | 1   | 1   | 1   | 1   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1952         | Wet          | 1   | 1   | 0   | 0   | 0   | 1   | 1   | 3   | 4   | 3   | 2   | 2   |
| 1953         | Wet          | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1954         | Above Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1955         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1956         | Wet          | 1   | 1   | 0   | 3   | 1   | 0   | 0   | 1   | 3   | 2   | 2   | 2   |
| 1957         | Above Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1958         | Wet          | 1   | 1   | 0   | 0   | 1   | 1   | 3   | 3   | 4   | 3   | 2   | 2   |
| 1959         | Below Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 2   |
| 1960         | Dry          | 1   | 1   | 0   | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1961         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1962         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1963         | Wet          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1964         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1965         | Wet          | 1   | 1   | 0   | 1   | 0   | 0   | 0   | 1   | 2   | 1   | 2   | 2   |
| 1966         | Below Normal | 1   | 2   | 0   | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1967         | Wet          | 1   | 1   | -1  | 0   | 0   | 0   | 2   | 2   | 4   | 4   | 2   | 2   |
| 1968         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1969         | Wet          | 1   | 1   | -1  | 1   | 4   | 3   | 3   | 5   | 6   | 3   | 2   | 2   |
| 1970         | Wet          | 2   | 1   | 0   | 2   | 1   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1971         | Wet          | 1   | 1   | 0   | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1972         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1973         | Above Normal | 1   | 1   | 0   | 0   | 1   | 0   | 0   | 1   | 2   | 1   | 2   | 1   |
| 1974         | Wet          | 1   | 1   | 0   | 0   | 0   | 1   | 0   | 1   | 2   | 2   | 2   | 2   |
| 1975         | Wet          | 2   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 3   | 2   | 2   | 1   |
| 1976         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1977         | Critical     | 1   | 1   | 0   | 0   | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1978         | Above Normal | 1   | 1   | -1  | 0   | 1   | 1   | 1   | 2   | 3   | 2   | 2   | 2   |
| 1979         | Below Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 2   | 1   | 2   | 1   |
| 1980         | Above Normal | 1   | 1   | -1  | 1   | 3   | 2   | 0   | 1   | 3   | 3   | 2   | 2   |
| 1981         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1982         | Wet          | 1   | 1   | 0   | 0   | 2   | 2   | 5   | 3   | 4   | 3   | 2   | 3   |
| 1983         | Wet          | 2   | 3   | 3   | 4   | 5   | 8   | 4   | 5   | 7   | 6   | 3   | 3   |
| 1984         | Wet          | 2   | 4   | 3   | 2   | 1   | 0   | 0   | 1   | 2   | 1   | 2   | 2   |
| 1985         | Dry          | 2   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1986         | Wet          | 1   | 1   | -1  | -1  | 2   | 4   | 1   | 2   | 3   | 2   | 2   | 2   |
| 1987         | Dry          | 2   | 1   | 0   | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1988         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1989         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1990         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1991         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1992         | Critical     | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1993         | Above Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 3   | 2   | 2   | 1   |
| 1994         | Critical     | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1995         | Wet          | 1   | 1   | -1  | 1   | 0   | 3   | 1   | 4   | 4   | 5   | 2   | 2   |
| 1996         | Wet          | 1   | 1   | -1  | -1  | 2   | 1   | 0   | 1   | 2   | 1   | 2   | 1   |
| 1997         | Wet          | 1   | 1   | 2   | 9   | 3   | 0   | 0   | 1   | 2   | 1   | 1   | 2   |
| 1998         | Wet          | 2   | 1   | 0   | 0   | 4   | 2   | 1   | 3   | 5   | 5   | 3   | 2   |
| 1999         | Wet          | 2   | 1   | -1  | 0   | 1   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 2000         | Above Normal | 1   | 1   | -1  | -1  | 1   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 2001         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 2002         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 2003         | Above Normal | 1   | 1   | 0   | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| Average      |              | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 2   | 1   | 1   |
| Wet          |              | 1   | 1   | 0   | 1   | 1   | 1   | 1   | 2   | 3   | 2   | 2   | 2   |
| Above Normal |              | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 2   | 1   | 1   |
| Below Normal |              | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| Dry          |              | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| Critical     |              | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |

Source: DSM2 Modeling (Node 071\_3116)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level, WY = Water Year

Table 147: Simulated Stage at Middle River Near Howard Road Bridge (ft msl) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1923         | Below Normal | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1924         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1925         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1926         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1927         | Wet          | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1928         | Above Normal | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1929         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1930         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1931         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1932         | Dry          | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1933         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1934         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1935         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1936         | Below Normal | 1   | 1   | -1  | -1  | 1   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1937         | Below Normal | 1   | 1   | -1  | -1  | 2   | 1   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1938         | Wet          | 1   | 1   | 0   | 0   | 4   | 5   | 2   | 3   | 4   | 2   | 1   | 1   |
| 1939         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1940         | Above Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1941         | Wet          | 1   | 1   | 0   | 0   | 2   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| 1942         | Wet          | 1   | 1   | 0   | 1   | 1   | 0   | 1   | 1   | 2   | 1   | 1   | 1   |
| 1943         | Wet          | 1   | 1   | -1  | 1   | 1   | 3   | 1   | 1   | 1   | 1   | 1   | 1   |
| 1944         | Dry          | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1945         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1946         | Below Normal | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1947         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1948         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1949         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1950         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1951         | Above Normal | 1   | 1   | 2   | 1   | 1   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1952         | Wet          | 1   | 1   | 0   | 0   | 0   | 1   | 1   | 2   | 3   | 2   | 1   | 1   |
| 1953         | Wet          | 1   | 1   | 0   | 0   | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1954         | Above Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1955         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1956         | Wet          | 1   | 1   | 0   | 3   | 1   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1957         | Above Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1958         | Wet          | 1   | 1   | -1  | 0   | 1   | 1   | 2   | 2   | 2   | 1   | 1   | 1   |
| 1959         | Below Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1960         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1961         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1962         | Below Normal | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1963         | Wet          | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1964         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 0   | 1   | 1   |
| 1965         | Wet          | 1   | 1   | 0   | 1   | 0   | 0   | 1   | 0   | 1   | 1   | 1   | 1   |
| 1966         | Below Normal | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1967         | Wet          | 1   | 1   | -1  | 0   | 0   | 0   | 2   | 2   | 3   | 3   | 1   | 1   |
| 1968         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1969         | Wet          | 1   | 1   | -1  | 1   | 4   | 3   | 3   | 4   | 5   | 2   | 1   | 1   |
| 1970         | Wet          | 1   | 1   | 0   | 2   | 1   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1971         | Wet          | 1   | 1   | 0   | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1972         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1973         | Above Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1974         | Wet          | 1   | 1   | 0   | 0   | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1975         | Wet          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1976         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1977         | Critical     | 1   | 1   | 0   | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1978         | Above Normal | 1   | 1   | -1  | 0   | 1   | 1   | 1   | 1   | 2   | 1   | 1   | 1   |
| 1979         | Below Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1980         | Above Normal | 1   | 1   | -1  | 1   | 3   | 2   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1981         | Dry          | 1   | 1   | -1  | 0   | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1982         | Wet          | 1   | 1   | 0   | 0   | 2   | 2   | 4   | 3   | 2   | 2   | 1   | 2   |
| 1983         | Wet          | 1   | 2   | 3   | 4   | 6   | 8   | 3   | 4   | 5   | 4   | 2   | 2   |
| 1984         | Wet          | 1   | 2   | 4   | 2   | 1   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1985         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1986         | Wet          | 1   | 1   | -1  | -1  | 3   | 4   | 1   | 1   | 2   | 1   | 1   | 1   |
| 1987         | Dry          | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1988         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 0   | 1   | 1   |
| 1989         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1990         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1991         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1992         | Critical     | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1993         | Above Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1994         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1995         | Wet          | 1   | 1   | -1  | 0   | 0   | 3   | 1   | 3   | 2   | 3   | 1   | 1   |
| 1996         | Wet          | 1   | 1   | -1  | -1  | 1   | 1   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1997         | Wet          | 1   | 1   | 3   | 10  | 3   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1998         | Wet          | 1   | 1   | 0   | 0   | 4   | 2   | 1   | 2   | 4   | 3   | 1   | 1   |
| 1999         | Wet          | 1   | 1   | -1  | 0   | 1   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 2000         | Above Normal | 1   | 1   | -1  | -1  | 1   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 2001         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 2002         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 2003         | Above Normal | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| Average      |              | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| Wet          |              | 1   | 1   | 0   | 1   | 1   | 1   | 1   | 1   | 2   | 2   | 1   | 1   |
| Above Normal |              | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| Below Normal |              | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| Dry          |              | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| Critical     |              | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |

Source: DSM2 Modeling (Node 129\_5691)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level, WY = Water Year

Table 148: Simulated Stage at Middle River Near Howard Road Bridge (ft msl) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1923         | Below Normal | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1924         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1925         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1926         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1927         | Wet          | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1928         | Above Normal | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1929         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1930         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1931         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1932         | Dry          | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1933         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1934         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1935         | Below Normal | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1936         | Below Normal | 1   | 1   | -1  | -1  | 1   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1937         | Below Normal | 1   | 1   | -1  | -1  | 1   | 0   | 1   | 1   | 1   | 1   | 1   | 1   |
| 1938         | Wet          | 1   | 1   | 0   | 0   | 3   | 5   | 2   | 3   | 4   | 2   | 1   | 1   |
| 1939         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1940         | Above Normal | 1   | 1   | -1  | 0   | 0   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| 1941         | Wet          | 1   | 1   | 0   | 0   | 2   | 2   | 1   | 1   | 2   | 1   | 1   | 1   |
| 1942         | Wet          | 1   | 1   | 0   | 1   | 1   | 0   | 1   | 1   | 2   | 1   | 1   | 1   |
| 1943         | Wet          | 1   | 1   | -1  | 1   | 1   | 2   | 1   | 1   | 1   | 1   | 1   | 1   |
| 1944         | Dry          | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1945         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1946         | Below Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1947         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1948         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1949         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1950         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1951         | Above Normal | 1   | 1   | 1   | 1   | 1   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1952         | Wet          | 1   | 1   | 0   | 0   | 0   | 1   | 1   | 2   | 3   | 2   | 1   | 1   |
| 1953         | Wet          | 1   | 1   | 0   | 0   | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1954         | Above Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1955         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1956         | Wet          | 1   | 1   | 0   | 3   | 1   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1957         | Above Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1958         | Wet          | 1   | 1   | -1  | 0   | 1   | 1   | 2   | 2   | 2   | 1   | 1   | 1   |
| 1959         | Below Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1960         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1961         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1962         | Below Normal | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1963         | Wet          | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1964         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 0   | 1   | 1   |
| 1965         | Wet          | 1   | 1   | 0   | 0   | 0   | 0   | 1   | 0   | 1   | 1   | 1   | 1   |
| 1966         | Below Normal | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1967         | Wet          | 1   | 1   | -1  | 0   | 0   | 0   | 2   | 2   | 3   | 3   | 1   | 1   |
| 1968         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1969         | Wet          | 1   | 1   | -1  | 1   | 4   | 3   | 3   | 4   | 4   | 2   | 1   | 1   |
| 1970         | Wet          | 1   | 1   | 0   | 2   | 1   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1971         | Wet          | 1   | 1   | 0   | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1972         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1973         | Above Normal | 1   | 1   | 0   | 0   | 1   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1974         | Wet          | 1   | 1   | 0   | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1975         | Wet          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1976         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1977         | Critical     | 1   | 1   | 0   | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1978         | Above Normal | 1   | 1   | -1  | 0   | 0   | 1   | 1   | 1   | 2   | 1   | 1   | 1   |
| 1979         | Below Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1980         | Above Normal | 1   | 1   | -1  | 1   | 3   | 2   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1981         | Dry          | 1   | 1   | -1  | 0   | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1982         | Wet          | 1   | 1   | 0   | 0   | 2   | 2   | 4   | 2   | 2   | 2   | 1   | 2   |
| 1983         | Wet          | 1   | 2   | 3   | 4   | 5   | 8   | 3   | 4   | 5   | 4   | 2   | 2   |
| 1984         | Wet          | 1   | 2   | 3   | 2   | 1   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1985         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1986         | Wet          | 1   | 1   | -1  | -1  | 2   | 4   | 1   | 1   | 2   | 1   | 1   | 1   |
| 1987         | Dry          | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1988         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 0   | 1   | 1   |
| 1989         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1990         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   | 1   |
| 1991         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1992         | Critical     | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1993         | Above Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1994         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1995         | Wet          | 1   | 1   | -1  | 0   | 0   | 3   | 1   | 3   | 3   | 3   | 1   | 1   |
| 1996         | Wet          | 1   | 1   | -1  | -1  | 2   | 1   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1997         | Wet          | 1   | 1   | 2   | 9   | 3   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1998         | Wet          | 1   | 1   | 0   | 0   | 4   | 2   | 1   | 2   | 3   | 3   | 1   | 1   |
| 1999         | Wet          | 1   | 1   | -1  | 0   | 1   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 2000         | Above Normal | 1   | 1   | -1  | -1  | 1   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 2001         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 2002         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 2003         | Above Normal | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| Average      |              | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| Wet          |              | 1   | 1   | 0   | 1   | 1   | 1   | 1   | 1   | 2   | 2   | 1   | 1   |
| Above Normal |              | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| Below Normal |              | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| Dry          |              | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| Critical     |              | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |

Source: DSM2 Modeling (Node 129\_5691)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level, WY = Water Year

Table 149: Simulated Stage at Grant Line Canal above Grant Line Canal Barrier (ft msl) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 1   | 1   | 0   | -1  | 0   | 0   | 0   | 1   | 4   | 2   | 2   | 1   |
| 1923         | Below Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 1   | 2   | 2   |
| 1924         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1925         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1926         | Dry          | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1927         | Wet          | 1   | 1   | -1  | 0   | 1   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1928         | Above Normal | 1   | 1   | 0   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1929         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 2   |
| 1930         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1931         | Critical     | 1   | 1   | 0   | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1932         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 2   | 2   | 1   | 1   |
| 1933         | Critical     | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1934         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1935         | Below Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1936         | Below Normal | 1   | 1   | 0   | -1  | 1   | 0   | 0   | 1   | 2   | 1   | 2   | 1   |
| 1937         | Below Normal | 1   | 1   | 0   | 0   | 2   | 1   | 0   | 1   | 2   | 2   | 2   | 1   |
| 1938         | Wet          | 1   | 1   | 0   | 0   | 4   | 5   | 2   | 4   | 6   | 3   | 2   | 2   |
| 1939         | Dry          | 2   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 2   |
| 1940         | Above Normal | 1   | 1   | 0   | 0   | 0   | 1   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1941         | Wet          | 1   | 1   | 0   | 1   | 2   | 2   | 1   | 1   | 3   | 3   | 2   | 2   |
| 1942         | Wet          | 1   | 1   | 0   | 1   | 1   | 0   | 0   | 1   | 3   | 3   | 2   | 2   |
| 1943         | Wet          | 1   | 1   | -1  | 1   | 1   | 3   | 0   | 1   | 2   | 2   | 2   | 1   |
| 1944         | Dry          | 1   | 1   | 0   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1945         | Below Normal | 1   | 1   | -1  | -1  | 1   | 1   | 0   | 1   | 2   | 2   | 2   | 1   |
| 1946         | Below Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1947         | Dry          | 1   | 1   | 0   | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 1948         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1949         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 1950         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1951         | Above Normal | 1   | 1   | 2   | 2   | 1   | 0   | 0   | 0   | 2   | 1   | 1   | 1   |
| 1952         | Wet          | 1   | 1   | 0   | 1   | 0   | 1   | 1   | 3   | 4   | 3   | 2   | 2   |
| 1953         | Wet          | 1   | 1   | 0   | 0   | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 1954         | Above Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1955         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1956         | Wet          | 1   | 1   | 1   | 3   | 1   | 0   | 0   | 1   | 3   | 2   | 2   | 2   |
| 1957         | Above Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1958         | Wet          | 1   | 1   | 0   | 0   | 1   | 1   | 2   | 2   | 4   | 3   | 2   | 2   |
| 1959         | Below Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 2   |
| 1960         | Dry          | 1   | 1   | 0   | 0   | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1961         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1962         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 1963         | Wet          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 2   | 1   | 1   | 1   |
| 1964         | Dry          | 1   | 1   | 0   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1965         | Wet          | 1   | 1   | 0   | 1   | 0   | 0   | 0   | 1   | 2   | 1   | 2   | 2   |
| 1966         | Below Normal | 1   | 2   | 0   | 0   | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1967         | Wet          | 1   | 1   | 0   | 0   | 0   | 0   | 1   | 2   | 5   | 5   | 2   | 2   |
| 1968         | Below Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1969         | Wet          | 1   | 1   | -1  | 1   | 5   | 3   | 3   | 5   | 7   | 3   | 2   | 2   |
| 1970         | Wet          | 2   | 1   | 0   | 3   | 1   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 1971         | Wet          | 1   | 1   | 0   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1972         | Below Normal | 1   | 1   | -1  | -1  | 0   | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1973         | Above Normal | 1   | 1   | 0   | 0   | 1   | 0   | -1  | 0   | 2   | 1   | 2   | 1   |
| 1974         | Wet          | 1   | 1   | 0   | 1   | 0   | 1   | 0   | 1   | 2   | 2   | 2   | 2   |
| 1975         | Wet          | 2   | 1   | -1  | -1  | 0   | 1   | 0   | 0   | 3   | 2   | 2   | 1   |
| 1976         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 2   |
| 1977         | Critical     | 1   | 1   | 0   | 0   | 0   | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1978         | Above Normal | 1   | 1   | -1  | 0   | 1   | 1   | 1   | 2   | 3   | 2   | 2   | 2   |
| 1979         | Below Normal | 1   | 1   | -1  | 0   | 0   | 1   | 0   | 1   | 2   | 1   | 2   | 1   |
| 1980         | Above Normal | 1   | 1   | -1  | 2   | 4   | 2   | 0   | 1   | 3   | 3   | 2   | 2   |
| 1981         | Dry          | 1   | 1   | -1  | 0   | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1982         | Wet          | 1   | 1   | 0   | 0   | 2   | 2   | 4   | 4   | 4   | 3   | 2   | 3   |
| 1983         | Wet          | 2   | 3   | 3   | 5   | 6   | 9   | 4   | 5   | 7   | 7   | 3   | 3   |
| 1984         | Wet          | 2   | 4   | 4   | 2   | 1   | 0   | 0   | 1   | 2   | 1   | 2   | 2   |
| 1985         | Dry          | 2   | 1   | 0   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1986         | Wet          | 1   | 1   | -1  | -1  | 3   | 5   | 1   | 1   | 3   | 2   | 2   | 2   |
| 1987         | Dry          | 2   | 1   | 0   | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 1988         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1989         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1990         | Critical     | 1   | 1   | 0   | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1991         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1992         | Critical     | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1993         | Above Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 3   | 2   | 2   | 1   |
| 1994         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 1995         | Wet          | 1   | 1   | -1  | 1   | 0   | 3   | 1   | 4   | 4   | 5   | 2   | 2   |
| 1996         | Wet          | 1   | 1   | -1  | 0   | 2   | 1   | 0   | 1   | 2   | 2   | 2   | 1   |
| 1997         | Wet          | 1   | 1   | 3   | 10  | 4   | 1   | -1  | 1   | 2   | 1   | 2   | 2   |
| 1998         | Wet          | 2   | 1   | 0   | 1   | 5   | 2   | 1   | 3   | 6   | 5   | 3   | 2   |
| 1999         | Wet          | 2   | 1   | -1  | 0   | 1   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 2000         | Above Normal | 1   | 1   | -1  | -1  | 1   | 0   | 0   | 0   | 2   | 1   | 1   | 1   |
| 2001         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 2002         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 2003         | Above Normal | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| Average      |              | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 2   | 1   | 1   |
| Wet          |              | 1   | 1   | 0   | 1   | 2   | 2   | 1   | 2   | 3   | 3   | 2   | 2   |
| Above Normal |              | 1   | 1   | 0   | 0   | 1   | 0   | 0   | 1   | 2   | 2   | 1   | 1   |
| Below Normal |              | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| Dry          |              | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| Critical     |              | 1   | 1   | -1  | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |

Source: DSM2 Modeling (Node 206\_5533)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level, WY = Water Year

Table 150: Simulated Stage at Grant Line Canal above Grant Line Canal Barrier (ft msl) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | 1   | 1   | 0   | -1  | 0   | 0   | 0   | 1   | 4   | 2   | 2   | 1   |
| 1923         | Below Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 1   | 2   | 2   |
| 1924         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1925         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1926         | Dry          | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1927         | Wet          | 1   | 1   | -1  | 0   | 1   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1928         | Above Normal | 1   | 1   | 0   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1929         | Critical     | 1   | 1   | -1  | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 2   |
| 1930         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1931         | Critical     | 1   | 1   | 0   | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1932         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 2   | 2   | 1   | 1   |
| 1933         | Critical     | 1   | 1   | -1  | 0   | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1934         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1935         | Below Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1936         | Below Normal | 1   | 1   | 0   | -1  | 1   | 0   | 0   | 1   | 2   | 1   | 2   | 1   |
| 1937         | Below Normal | 1   | 1   | 0   | 0   | 2   | 1   | 0   | 1   | 2   | 2   | 2   | 1   |
| 1938         | Wet          | 1   | 1   | 0   | 0   | 4   | 5   | 2   | 4   | 6   | 3   | 2   | 2   |
| 1939         | Dry          | 2   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 2   |
| 1940         | Above Normal | 1   | 1   | 0   | 0   | 0   | 1   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1941         | Wet          | 1   | 1   | 0   | 1   | 2   | 2   | 1   | 2   | 3   | 3   | 2   | 2   |
| 1942         | Wet          | 1   | 1   | 0   | 1   | 1   | 0   | 1   | 1   | 3   | 3   | 2   | 2   |
| 1943         | Wet          | 1   | 1   | -1  | 1   | 1   | 3   | 0   | 1   | 2   | 2   | 2   | 1   |
| 1944         | Dry          | 1   | 1   | 0   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1945         | Below Normal | 1   | 1   | -1  | -1  | 1   | 1   | 0   | 1   | 2   | 2   | 2   | 2   |
| 1946         | Below Normal | 1   | 1   | 1   | 0   | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1947         | Dry          | 1   | 1   | 0   | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 1948         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1949         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 2   | 1   | 1   | 1   |
| 1950         | Below Normal | 1   | 1   | -1  | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1951         | Above Normal | 1   | 1   | 1   | 2   | 1   | 0   | 0   | 0   | 2   | 1   | 1   | 1   |
| 1952         | Wet          | 1   | 1   | 0   | 1   | 0   | 1   | 1   | 3   | 4   | 3   | 2   | 2   |
| 1953         | Wet          | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1954         | Above Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1955         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1956         | Wet          | 1   | 1   | 0   | 3   | 1   | 0   | 0   | 1   | 3   | 2   | 2   | 2   |
| 1957         | Above Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| 1958         | Wet          | 1   | 1   | 0   | 0   | 1   | 1   | 3   | 2   | 4   | 3   | 2   | 2   |
| 1959         | Below Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 2   |
| 1960         | Dry          | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1961         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1962         | Below Normal | 1   | 1   | -1  | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 1963         | Wet          | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 1   | 2   | 1   | 1   | 1   |
| 1964         | Dry          | 1   | 1   | 0   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1965         | Wet          | 1   | 1   | 0   | 1   | 0   | 0   | 0   | 1   | 2   | 1   | 2   | 2   |
| 1966         | Below Normal | 1   | 2   | 0   | 0   | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1967         | Wet          | 1   | 1   | 0   | 0   | 0   | 0   | 1   | 2   | 4   | 5   | 2   | 2   |
| 1968         | Below Normal | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1969         | Wet          | 1   | 1   | -1  | 1   | 4   | 3   | 3   | 5   | 6   | 3   | 2   | 2   |
| 1970         | Wet          | 2   | 1   | 0   | 2   | 1   | 1   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1971         | Wet          | 1   | 1   | 0   | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1972         | Below Normal | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1973         | Above Normal | 2   | 1   | 0   | 0   | 1   | 0   | 0   | 1   | 2   | 1   | 2   | 1   |
| 1974         | Wet          | 1   | 1   | 0   | 0   | 0   | 1   | 0   | 1   | 2   | 2   | 2   | 2   |
| 1975         | Wet          | 2   | 1   | -1  | -1  | 0   | 1   | 0   | 0   | 3   | 2   | 2   | 1   |
| 1976         | Critical     | 1   | 1   | -1  | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 2   |
| 1977         | Critical     | 1   | 1   | 0   | 0   | 0   | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1978         | Above Normal | 1   | 1   | -1  | 0   | 1   | 1   | 1   | 2   | 3   | 2   | 2   | 2   |
| 1979         | Below Normal | 1   | 1   | -1  | 0   | 1   | 1   | 0   | 1   | 2   | 1   | 2   | 1   |
| 1980         | Above Normal | 1   | 1   | -1  | 1   | 4   | 2   | 0   | 1   | 4   | 3   | 2   | 2   |
| 1981         | Dry          | 1   | 1   | -1  | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1982         | Wet          | 1   | 1   | 0   | 0   | 2   | 2   | 4   | 3   | 4   | 3   | 2   | 3   |
| 1983         | Wet          | 2   | 3   | 3   | 5   | 6   | 9   | 4   | 5   | 7   | 7   | 3   | 3   |
| 1984         | Wet          | 2   | 4   | 4   | 2   | 1   | 0   | 0   | 1   | 2   | 2   | 2   | 2   |
| 1985         | Dry          | 2   | 1   | 0   | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1986         | Wet          | 1   | 1   | -1  | -1  | 2   | 5   | 1   | 1   | 3   | 2   | 2   | 2   |
| 1987         | Dry          | 2   | 1   | 0   | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 1988         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1989         | Dry          | 1   | 1   | -1  | -1  | -1  | -1  | -1  | 0   | 1   | 1   | 1   | 1   |
| 1990         | Critical     | 1   | 1   | 0   | -1  | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| 1991         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 1992         | Critical     | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| 1993         | Above Normal | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 3   | 2   | 2   | 1   |
| 1994         | Critical     | 1   | 1   | -1  | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 1995         | Wet          | 1   | 1   | -1  | 1   | 0   | 3   | 1   | 4   | 4   | 5   | 2   | 2   |
| 1996         | Wet          | 1   | 1   | -1  | 0   | 2   | 1   | 0   | 1   | 2   | 2   | 2   | 2   |
| 1997         | Wet          | 1   | 1   | 3   | 10  | 4   | 1   | 0   | 1   | 2   | 1   | 2   | 2   |
| 1998         | Wet          | 2   | 1   | 0   | 1   | 4   | 2   | 1   | 3   | 5   | 5   | 3   | 2   |
| 1999         | Wet          | 2   | 1   | -1  | 0   | 1   | 1   | 0   | 1   | 2   | 1   | 1   | 1   |
| 2000         | Above Normal | 1   | 1   | -1  | -1  | 1   | 1   | 0   | 1   | 2   | 1   | 1   | 1   |
| 2001         | Dry          | 1   | 1   | -1  | -1  | -1  | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 2002         | Dry          | 1   | 1   | -1  | -1  | 0   | 0   | -1  | 0   | 1   | 1   | 1   | 1   |
| 2003         | Above Normal | 1   | 1   | 0   | 0   | 0   | -1  | 0   | 0   | 1   | 1   | 1   | 1   |
| Average      |              | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 2   | 1   | 1   |
| Wet          |              | 1   | 1   | 0   | 1   | 1   | 2   | 1   | 2   | 3   | 3   | 2   | 2   |
| Above Normal |              | 1   | 1   | 0   | 0   | 1   | 0   | 0   | 1   | 2   | 2   | 1   | 1   |
| Below Normal |              | 1   | 1   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   |
| Dry          |              | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |
| Critical     |              | 1   | 1   | -1  | -1  | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   |

Source: DSM2 Modeling (Node 206\_5533)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level, WY = Water Year

Table 151: Simulated Stage at East of Coney Island (ft msl) - No-Action Alternative

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | 0   | -1  | -1  | -1  |
| 1923         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1924         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1925         | Dry          | -1  | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1926         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1927         | Wet          | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1928         | Above Normal | -1  | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1929         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1930         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1931         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1932         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1933         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1934         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1935         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  |
| 1936         | Below Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1937         | Below Normal | -1  | -1  | -1  | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1938         | Wet          | -1  | -1  | 0   | 0   | 1   | 2   | 0   | 0   | 0   | -1  | -1  | -1  |
| 1939         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1940         | Above Normal | -1  | -1  | -1  | -1  | 0   | 0   | 0   | -1  | -1  | -1  | -1  | -1  |
| 1941         | Wet          | -1  | -1  | 0   | 0   | 1   | 1   | 0   | 0   | -1  | -1  | -1  | -1  |
| 1942         | Wet          | -1  | -1  | 0   | 0   | 0   | -1  | 0   | -1  | -1  | -1  | -1  | -1  |
| 1943         | Wet          | -1  | -1  | -1  | 0   | 0   | 1   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1944         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1945         | Below Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1946         | Below Normal | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1947         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1948         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1949         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1950         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1951         | Above Normal | -1  | -1  | 0   | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1952         | Wet          | -1  | -1  | -1  | 0   | 0   | 0   | 0   | 0   | 0   | -1  | -1  | -1  |
| 1953         | Wet          | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1954         | Above Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1955         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1956         | Wet          | -1  | -1  | 0   | 1   | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1957         | Above Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1958         | Wet          | -1  | -1  | -1  | -1  | 0   | 0   | 0   | 0   | -1  | -1  | -1  | -1  |
| 1959         | Below Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1960         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1961         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1962         | Below Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1963         | Wet          | -1  | -1  | -1  | -1  | 0   | -1  | 0   | -1  | -1  | -1  | -1  | -1  |
| 1964         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1965         | Wet          | -1  | -1  | -1  | 0   | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  |
| 1966         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1967         | Wet          | -1  | -1  | -1  | -1  | -1  | -1  | 0   | 0   | 0   | -1  | -1  | -1  |
| 1968         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1969         | Wet          | -1  | -1  | -1  | 0   | 1   | 0   | 0   | 0   | 0   | -1  | -1  | -1  |
| 1970         | Wet          | -1  | -1  | -1  | 1   | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1971         | Wet          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1972         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1973         | Above Normal | -1  | -1  | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1974         | Wet          | -1  | -1  | -1  | 0   | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1975         | Wet          | -1  | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1976         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1977         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1978         | Above Normal | -1  | -1  | -1  | 0   | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1979         | Below Normal | -1  | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1980         | Above Normal | -1  | -1  | -1  | 0   | 1   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1981         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1982         | Wet          | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 0   | -1  | -1  | -1  | 0   |
| 1983         | Wet          | -1  | 0   | 1   | 1   | 2   | 4   | 1   | 1   | 1   | 1   | 0   | 0   |
| 1984         | Wet          | -1  | 0   | 1   | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1985         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1986         | Wet          | -1  | -1  | -1  | -1  | 1   | 1   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1987         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1988         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1989         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1990         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1991         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1992         | Critical     | -1  | -1  | -1  | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1993         | Above Normal | -1  | -1  | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1994         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1995         | Wet          | -1  | -1  | -1  | 0   | 0   | 1   | 0   | 0   | 0   | -1  | -1  | -1  |
| 1996         | Wet          | -1  | -1  | -1  | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1997         | Wet          | -1  | -1  | 0   | 4   | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1998         | Wet          | -1  | -1  | -1  | 0   | 2   | 0   | 0   | 0   | 0   | -1  | -1  | -1  |
| 1999         | Wet          | -1  | -1  | -1  | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 2000         | Above Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 2001         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 2002         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 2003         | Above Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| Average      |              | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| Wet          |              | -1  | -1  | -1  | 0   | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| Above Normal |              | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| Below Normal |              | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| Dry          |              | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| Critical     |              | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |

Source: DSM2 Modeling (Node 218\_4301)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level, WY = Water Year

Table 152: Simulated Stage at East of Coney Island (ft msl) - Proposed Action

| WY           | Year Type    | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1922         | Above Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | 0   | -1  | -1  | -1  |
| 1923         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1924         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1925         | Dry          | -1  | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1926         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1927         | Wet          | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1928         | Above Normal | -1  | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1929         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1930         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1931         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1932         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1933         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1934         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1935         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  |
| 1936         | Below Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1937         | Below Normal | -1  | -1  | -1  | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1938         | Wet          | -1  | -1  | 0   | 0   | 1   | 2   | 0   | 0   | 0   | -1  | -1  | -1  |
| 1939         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1940         | Above Normal | -1  | -1  | -1  | -1  | 0   | 0   | 0   | -1  | -1  | -1  | -1  | -1  |
| 1941         | Wet          | -1  | -1  | 0   | 0   | 1   | 1   | 0   | 0   | -1  | -1  | -1  | -1  |
| 1942         | Wet          | -1  | -1  | 0   | 0   | 0   | -1  | 0   | -1  | -1  | -1  | -1  | -1  |
| 1943         | Wet          | -1  | -1  | -1  | 0   | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1944         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1945         | Below Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1946         | Below Normal | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1947         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1948         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1949         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1950         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1951         | Above Normal | -1  | -1  | 0   | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1952         | Wet          | -1  | -1  | -1  | 0   | 0   | 0   | 0   | 0   | 0   | -1  | -1  | -1  |
| 1953         | Wet          | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1954         | Above Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1955         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1956         | Wet          | -1  | -1  | 0   | 1   | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1957         | Above Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1958         | Wet          | -1  | -1  | -1  | -1  | 0   | 0   | 0   | 0   | 0   | -1  | -1  | 0   |
| 1959         | Below Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1960         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1961         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1962         | Below Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1963         | Wet          | -1  | -1  | -1  | -1  | 0   | -1  | 0   | -1  | -1  | -1  | -1  | -1  |
| 1964         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1965         | Wet          | -1  | -1  | -1  | 0   | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  |
| 1966         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1967         | Wet          | -1  | -1  | -1  | -1  | -1  | -1  | 0   | 0   | 0   | 0   | -1  | -1  |
| 1968         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1969         | Wet          | -1  | -1  | -1  | 0   | 1   | 0   | 0   | 0   | 0   | -1  | -1  | -1  |
| 1970         | Wet          | -1  | -1  | -1  | 1   | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1971         | Wet          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1972         | Below Normal | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1973         | Above Normal | -1  | -1  | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1974         | Wet          | -1  | -1  | -1  | 0   | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  |
| 1975         | Wet          | -1  | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1976         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1977         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1978         | Above Normal | -1  | -1  | -1  | 0   | 0   | 0   | 0   | -1  | -1  | -1  | -1  | -1  |
| 1979         | Below Normal | -1  | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1980         | Above Normal | -1  | -1  | -1  | 0   | 1   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1981         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1982         | Wet          | -1  | -1  | -1  | -1  | 0   | 0   | 1   | 0   | -1  | -1  | -1  | 0   |
| 1983         | Wet          | -1  | 0   | 0   | 1   | 2   | 4   | 1   | 1   | 1   | 1   | 0   | 0   |
| 1984         | Wet          | -1  | 0   | 1   | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1985         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1986         | Wet          | -1  | -1  | -1  | -1  | 1   | 1   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1987         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1988         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1989         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1990         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1991         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1992         | Critical     | -1  | -1  | -1  | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1993         | Above Normal | -1  | -1  | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1994         | Critical     | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1995         | Wet          | -1  | -1  | -1  | 0   | 0   | 1   | 0   | 0   | 0   | 0   | -1  | -1  |
| 1996         | Wet          | -1  | -1  | -1  | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 1997         | Wet          | -1  | -1  | 0   | 4   | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 1998         | Wet          | -1  | -1  | -1  | 0   | 2   | 0   | 0   | 0   | 0   | 0   | -1  | -1  |
| 1999         | Wet          | -1  | -1  | -1  | -1  | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| 2000         | Above Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 2001         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 2002         | Dry          | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| 2003         | Above Normal | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| Average      |              | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| Wet          |              | -1  | -1  | -1  | 0   | 0   | 0   | -1  | -1  | -1  | -1  | -1  | -1  |
| Above Normal |              | -1  | -1  | -1  | -1  | 0   | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| Below Normal |              | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| Dry          |              | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |
| Critical     |              | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  | -1  |

Source: DSM2 Modeling (Node 218\_4301)

Notes:

Simulation Period: WY 1922 -2003

Year type as defined by the Sacramento Valley Index Year Type

Key: ft msl = feet above mean sea level, WY = Water Year

