

Estimates and Assumptions Used in the Overappropriated/Fully Appropriated Report

Cozad-Odessa

- 1984-1991 represent baseline reach gains for the irrigation season
- 1969-1973 represent baseline reach gains for the non-irrigation season
- 10% of Kearney Canal seepage returns within this reach
- 75% of Cozad Canal seepage returns within this reach
- 100% of Dawson County Canal seepage returns within this reach
- 75% of Gothenberg Canal seepage returns within this reach
- 20% of Thirty-Mile Canal seepage returns within this reach
- 75% of Orchard-Alfalfa Canal seepage returns within this reach
- 30% of Tri-County Supply Canal seepage returns within this reach
- 50% of Tri-County Canal irrigation seepage returns within this reach
- 25% of Cozad Canal seepage returns within this reach
- That all irrigation canal seepage is 40% of total diversion
- That stream reach gain reductions would have minimal additional impact on instream flows which are greater than those determined for the Odessa target. In reality reach gain reductions could affect other instream flows but those effects were not evaluated in this study.

North Platte-Cozad

- 1965-1999 represent baseline reach gains for the irrigation season
- 1965-1997 represent baseline reach gains for the non-irrigation season
- 100% of Six-Mile Canal seepage returns within this reach
- 25% of Gothenberg Canal seepage returns within this reach

- 80% of Thirty-Mile Canal seepage returns within this reach
- 25% of Cozad Canal seepage returns within this reach
- 25% of Orchard-Alfalfa Canal seepage returns within this reach
- 70% of Tri-County Supply Canal seepage returns within this reach
- 5% of Sutherland System seepage returns within this reach
- The calculated reach gain reduction was reduced by 70% to account for well development which occurred prior to the priority of the instream flow requirements
- That all demands are satisfied under wet conditions as defined in the report
- That storage need as calculated by the NDNR PWAP represents the unmet demand for the irrigation canals within this reach
- That all irrigation canal seepage is 40% of total diversion

Keystone-North Platte

- 1951-1982 represent baseline reach gains for the irrigation season
- 1949-1992 represent baseline reach gains for the non-irrigation season
- 100% of all seepage from irrigation canals diverting within this reach returns within the reach
- 20% of Sutherland System losses return within this reach
- That all demands are satisfied under wet conditions as defined in the report
- That storage need as calculated by the NDNR PWAP represents the unmet demand for the irrigation canals within this reach
- That if demand for CNPPID hydropower is satisfied then downstream instream flow appropriations will also be satisfied
- That normal unmet demand for hydropower is represented by full operations (1995-1999) minus water diverted in normal years (as defined in the report)

- That dry unmet demand for hydropower is represented by full operations (1995-1999) minus water diverted in dry years (as defined in the report)
- That if demand for CNPPID hydropower and irrigation are satisfied the demands of the Sutherland System are satisfied and therefore the Sutherland System unmet demands do not need to be calculated separately
- That evaporation from CNPPID and NPPD's reservoirs and seepage from their supply canals have historically been met and are not unmet demands
- That all irrigation canal seepage is 40% of total diversion

Julesberg-North Platte

- 1951-1972 represent baseline reach gains for the irrigation season
- 1949-1967 represent baseline reach gains for the non-irrigation season
- 100% of all seepage from Western Canal returns within this reach returns
- 75% of Sutherland System seepage returns within this reach
- That all demands are satisfied under wet conditions as defined in the report
- That if demand for CNPPID hydropower is satisfied then downstream instream flow appropriations will also be satisfied
- That normal unmet demand for hydropower is represented by full operations (1995-1999) minus water diverted in normal years (as defined in the report)
- That dry unmet demand for hydropower is represented by full operations (1995-1999) minus water diverted in dry years (as defined in the report)
- That if demand for CNPPID hydropower and irrigation are satisfied the demands of the Sutherland System are satisfied and therefore the Sutherland System unmet demands do not need to be calculated separately
- That evaporation from CNPPID and NPPD's reservoirs and seepage from their supply canals have historically been met and are not unmet demands
- That all irrigation canal seepage is 40% of total diversion

Stateline-Lewellen

- 1975-1982 represent baseline reach gains for the irrigation season
- 1975-1982 represent baseline reach gains for the non-irrigation season
- 100% of all seepage from irrigation canals diverting from the North Platte River in this reach returns within this reach returns
- 40% of diversions that cross the Wyoming-Nebraska state line contribute to the reach gain
- That the only demands that are not satisfied under wet conditions are those for irrigation within this reach
- That if demand for CNPPID hydropower is satisfied then downstream instream flow appropriations will also be satisfied
- That normal unmet demand for hydropower is represented by full operations (1995-1999) minus water diverted in normal years (as defined in the report)
- That dry unmet demand for hydropower is represented by full operations (1995-1999) minus water diverted in dry years (as defined in the report)
- That if demand for CNPPID hydropower and irrigation are satisfied the demands of the Sutherland System are satisfied and therefore the Sutherland System unmet demands do not need to be calculated separately
- That evaporation from CNPPID and NPPD's reservoirs and seepage from their supply canals have historically been met and are not unmet demands
- That all irrigation canal seepage is 40% of total diversion

Lodgepole Creek

- That the reach gain occurs uniformly throughout the year and therefore 42% of the reach gain reduction occurs in the irrigation season and 58% occurs in the non-irrigation season
- That the historic annual gain is equal to the unmet demands
- That no downstream users are impacted by reduced reach gains in Lodgepole Creek