

How to Use the Application Workbook for a Subset (individual/group) of Wells

The Application Workbook is build to be used for the whole Response Area. If there is a need to use it for individual/group of well(s) either with or without Surface Water Return flow Credits, there are few steps that need to be followed.

1. *Stream Reaches With Surface Water Return Flow Credits*

The five reaches with Surface Water Return Flow Credits are:

- Rio Grande Alluvium Response Area - Reach 1 (Rio Grande from Del Norte to Excelsior Ditch) from the Town of Del Norte and the City of Monte Vista,
- Alamosa/La Jara Response Area - Reach 3 (Rio Grande from Del Norte to Excelsior Ditch) from the City of Monte Vista,
- Alamosa/La Jara Response Area - Reach 5 (Rio Grande from Chicago to State Line) from the City of Alamosa,
- Conejos Response Area - Reach 7 (San Antonio River) from the Town of Antonito.
- San Luis Creek Response Area - Reach 2 (Crestone Creek) from the Town of Crestone and the Baca Water and Sanitation District.

If the individual/group of well(s) ***does not*** have Surface Water Return Flow Credits but is located in the Response Area where Surface Water Return Flow Credits exist, the following steps should be completed:

1. Modify the worksheet "Net CU Worksheet" as follows:
 - a. Columns 2 & 3 change values to individual/group of well(s) Irrigation Pumping.
 - b. Column 4 change the values to the value of individual/group of well(s) Other Pumping.
 - c. Column 5 change to the appropriate consumptive use ratio for each year based on Other Pumping's actual consumptive use ratios.
2. On the "Net CU & Streamflow" worksheet change the historical Net Groundwater Consumptive Use (Jan-Dec) (Column 12) from 1970 to 2010 to the historical Net Groundwater Consumptive Use estimated for the individual/group of well(s) (consumptive use ratios of 83% - sprinkler, 60% - flood, and appropriate ratio – other).
3. On the "Reach [X] Calculations" worksheet, which will need to be unhidden, ZERO out all of the Surface Water Return Flow Credits in cells H161:H653.
 - a. Note "X" refers to the stream reach number where the Surface Water Return Flow Credits are applied.
4. Finally, the net stream depletions caused by individual/group of well(s) are calculated on sheet "Table 2.6" for the Plan Year and sheet "Table 2.7" for the Post Plan.

If the individual/group of well(s) ***does*** have Surface Water Return Flow Credits the following steps should be completed:

1. Modify the worksheet "Net CU Worksheet" as follows:
 - a. Columns 2 & 3 change values to individual/group of well(s) Irrigation Pumping.
 - b. Column 4 change the values to the value of individual/group of well(s) Other Pumping.
 - c. Column 5 change to the appropriate consumptive use ratio for each year based on Other Pumping's actual consumptive use ratios for wells that do not generate returns directly to streams and 100% consumptive use ratio for wells that do generate returns directly to streams.

2. On the “Net CU & Streamflow” worksheet change the historical Net Groundwater Consumptive Use (Jan-Dec) (Column 12) from 1970 to 2010 to the historical Net Groundwater Consumptive Use estimated for the individual/group of well(s) (consumptive use ratios of 83% - sprinkler, 60% - flood, appropriate ratio – other for wells that do not generate returns directly to streams, and 100% - other for wells that do generate returns directly to streams).
3. On the “Reach [X] Calculations” worksheet, which will need to be unhidden, change the Surface Water Return Flow Credits in cells H161:H653 to the estimated individual/group of well(s)’s Surface Water Return Flow Credits.
 - b. Note “X” refers to the stream reach number where the Surface Water Return Flow Credits are applied.
4. Finally, the net stream depletions caused by individual/group of well(s) using Surface Water Return Flow Credits are calculated on sheet “Table 2.6” for the Plan Year and on sheet “Table 2.7” for the Post Plan.

2. Stream Reaches without Surface Water Return Flow Credits

If the individual/group of well(s) is to be evaluated using the Application Workbook to estimate their net stream depletions, the following steps should be completed:

1. Modify the worksheet “Net CU Worksheet” as follows:
 - a. Columns 2 & 3 change values to individual/group of well(s) Irrigation Pumping.
 - b. Column 4 change the values to the value of individual/group of well(s) Other Pumping.
 - c. If the individual/group of well(s) ***does not*** generate return flows directly to the stream, then:
 - i. Column 5 change to the appropriate consumptive use ratio for each year based on Other Pumping’s actual consumptive use ratios.
 - d. If the individual/group of well(s) ***does*** generate return flows directly to the stream, then:
 - i. Column 5 change to the appropriate consumptive use ratio for each year based on Other Pumping’s actual consumptive use ratios for wells that do not generate returns directly to streams and 100% consumptive use ratio for wells that do generate returns directly to streams.
2. On the “Net CU & Streamflow” worksheet change the historical Net Groundwater Consumptive Use (Jan-Dec) (Column 12) from 1970 to 2010 to the historical Net Groundwater Consumptive Use estimated for the individual/group of well(s) (consumptive use ratios of 83% - sprinkler, 60% - flood, appropriate ratio – other for wells that do not generate returns directly to streams, and 100% - other for wells that do generate returns directly to streams).
3. Finally, the net stream depletions caused by individual/group of well(s) are calculated on sheet “Table 2.6” for the Plan Year and sheet “Table 2.7” for the Post Plan.