

**1971-2003 data revisions**

In addition to extending the natural flows to 2004 we recomputed flows from 1971-2003. The differences with previously released natural flows date 9/23/05 result from:

**Upper Basin differences:**

All USGS historic gauge values slightly changed as a result of computing monthly flow values directly from available daily values. This new method better correlates with internal USGS method to compute monthly flow estimates. Monthly flow values available from the USGS website were less precise values.

In reach 09072500 non-mainstem Willow Creek reservoir has been extended to Jan. 1978.

In reach 09072500 exports were revised in state maintained databases.

In reach 09124700 Blue Mesa storage and evaporation changed as a result of updating the elevation volume and area tables

In reach 09127800 the historic gauge value is estimated from gauge 09128000 Gunnison River below Gunnison Tunnel plus Gunnison Tunnel Diversions. Previously the historic gauge value was estimated from Crystal outflows. These were deemed less accurate than the new estimate.

In reach 09127800 Morrow Point storage and evaporation changed as a result of updating the elevation volume and area tables. Crystal storage changed as a result of updating the elevation volume tables.

In reach 09180000 major reservoir evaporation was revised for McPhee reservoir after incorporating values stored in HDB.

In reach 09211200 Fontenelle storage changed as a result of updating the elevation volume table.

In reach 09211200 minor reservoir evaporation from 1971-75 was revised as a result of major reservoir updates. From 1971-75 only total reservoir evaporation was provided. Changes in major reservoir influence computation of minor reservoir evaporation.

In reach 09217000 major and minor reservoir evaporation from 1971-75 was revised as a result of major reservoir updates. From 1971-75 only total reservoir evaporation was provided. Changes in major reservoir influence computation of minor reservoir evaporation.

In reach 09234500 Flaming Gorge storage and evaporation changed as a result of updating the elevation volume and area tables.

In reach 09234500 both major and minor reservoir evaporation from 1971-75 was revised as a result of major reservoir updates. From 1971-75 only total reservoir evaporation was provided. Changes in major reservoir influence computation of minor reservoir evaporation.

In reach 09260000 minor reservoir evaporation from 1971-75 was revised as a result of major reservoir updates. From 1971-75 only total reservoir evaporation was provided. Changes in major reservoir influence computation of minor reservoir evaporation.

In reach 09302000 change in storage was updated for both Solider Creek and Strawberry reservoirs to reflect a recent effort to better represent the inundation of Strawberry reservoir by Solider Creek.

In reach 09302000 provisional exports were revised from 2000-2003 Hobble Creek Ditch correcting a previous error.

In reach 09355500 Navajo storage changed as a result of updating the elevation volume table.

In reach 09355500 major reservoir evaporation from 1971-95 was revised for both Vallecito and Navajo to reflect values stored in HDB.

In reach 09355500 minor reservoir evaporation from 1971-75 was revised as a result of major reservoir updates. From 1971-75 only total reservoir evaporation was provided. Changes in major reservoir influence computation of minor reservoir evaporation.

In reach 09379500 major reservoir evaporation from 1971-95 was revised for both Lemon and Jackson Gulch to reflect values stored in HDB.

In reach 09379500 minor reservoir evaporation from 1971-75 was revised as a result of major reservoir updates. From 1971-75 only total reservoir evaporation was provided. Changes in major reservoir influence computation of minor reservoir evaporation.

In reach 09379500 New Mexico power use was revised for 2002-2003 as a result of recorded data replacing provisional estimates.

In reach 09380000 Powell storage changed as a result of updating the elevation volume table. Bank Storage from October 2003 to December 2003 was changed with completion of the water year 2004 record.

In reach 09380000 during the previous natural flow update Powell evaporation was input directly into the model after computing the values from a 3-teir method, which is not presently available in CRSS. This change was not previously reported in this document. Before the previous update Powell evaporation was computed with an internal RiverWare user method based on monthly evaporation coefficients.

*Remaining consumptive uses and losses changes;*

Irrigated agriculture use changed as a result of improved precipitation estimates for 2003 and revised cutoff dates, again only in 2003.

Exports were recollected over 1971-2003 resulting in multiple changes. Export data is generally retrieved from databases maintained by their respective states. Recently, states have been revising these data bases resulting in value changes.

Livestock use changed resulting from revised spatial distribution, under 1 acre-foot changes. Total values remain unchanged.

Stock pond use changed resulting from revised spatial distribution. These are most significant for New Mexico which was using an incorrect distribution. Total values for the state remains unchanged.

Other minor changes across all consumptive use categories resulted from updates to recent provisional data (i.e., October 2003-December 2003) that were previously estimated from historic averages.

M&I provisional estimates New Mexico slightly changed based on recent data updates. Arizona M&I estimates spatial distribution changed but annual values remain the same.

**Lower Basin differences:**

To be completed at a future date.