# Summary on supply relationship with Indicators

## State Water Project

* B135 deliveries to the South Coast exhibit a satisfactory correlation with SWDI delta (non-linear r2= 0.7).
  + B135 Total deliveries exhibit a good correlation with SWDI delta with (non-linear r2= 0.8).
* DWR (water portfolio) dataset exhibits low correlation with SWDI delta (r2=0.435) for the whole record (2002-2020). By dividing into pre and post 2007, no significant improvement in r2 is observed (pre2007: r2=0.4017 and post2007: r2=0.55)
  + Comparing DWR with SWDI SC, similar correlations exist (r2=0.3843) for the whole record (2002-2020). By dividing into pre and post 2007, noticeable improvement in r2 is observed (pre2007: r2=0.696 and post2007: r2=0.553)
* SWP allocations (end of water year allocation) exhibit a good correlation with SWDI delta (linear r2= 0.76).
  + Correlating SWDI with allocations at the month it was published also yields satisfactory results (r2=0.7)
* Validation of datasets:
  + B135 and MWD datasets are very similar with very high correlation (r2 = 0.9421). However, in recent years B135 deliveries have been generally higher (especially 2010 and 2011)

## Groundwater

We only have DWR dataset on Groundwater deliveries. Shows moderate relationship between pumping intensity indicator (r2=0.58)

## Colorado River

# Summary on data available

Focus is on B132 and Colorado river accounting reports:

## State Water Project

Key Findings

* Annual total deliveries:
  + Whole record period:1962 to 2022.
  + From each reach to each contractor
* Monthly detailed deliveries:
  + This is limited to the calendar year report was released
  + This includes:
    - Table A
    - Table A transfers (to/from others)
    - Carryover
    - Carryover transfers (to/from others)
    - Water Bank recoveries
    - Non-SWP transfers (to/from others)

Identified Gaps and Uncertainties

* Storage outside of service area (how much and which water agency is storing)
  + Monthly detailed deliveries tell us the amount delivered to each agency but not how much it has stored.
  + Storage areas such as:
    - San Luis Reservoir
    - Semitropic Storage
* Uncertainty between total table 8-7 monthly deliveries and table B-5B Annual deliveries in 2018 for MWD.
* Discrepancy between MWD dataset SWP deliveries and table B-5B Annual deliveries. Highlighted in section 1.e

## Colorado River

Key Findings

* Annual diversions to each user:
  + Whole record period
* Monthly detailed diversions to each user:
  + Whole record period

Identified Gaps and Uncertainties

* We don’t know how much is stored in Lake Mead (ICS)
  + We can extract it through reports
* There are other agreements that we are not considering such as:
  + interstate water banking
  + reservoir protection
  + Overruns, Paybacks, and Overrun Account Balances
* We don’t know the monthly diversions to SDCWA
  + We have monthly deliveries up to 2011. After that it has been reported annually
    - We can extract it through reports

The numbers are less significant, however, for some years it may become noteworthy (let’s say Nevada has been storing in Ca through interstate water banking).