Flag 14: Classify records into tiers by diversion volumes (or other statistics)

**Function name:** div\_exceeds\_fv

Will’s script: Is magnitude of diversion over face value is reasonable for tier (e.g. more than 50%...)

Identify egregious misreported data – larger diverters have most impact

Applies to Statements because no “FACE\_VALUE\_AMOUNT”

Unit errors (gallons vs AF)

Appropriative:

* New Field w/ Amount Over

Pre-1914/Riparian (Manual):

* Compare to past years reported (standard deviation)
* Column to confirm that staff (Y/N) have reviewed manually – flag for DMU follow-up

**Data Source:**

ewrims\_flat\_file.csv <https://intapps.waterboards.ca.gov/downloadFile/faces/flatFilesEwrims.xhtml?fileName=ewrims_flat_file.csv>

**Existing Fields:**

* DIRECT\_DIV\_AMOUNT: Amount of water diverted for the reporting year, in acre-feet.
* FACE\_VALUE\_AMOUNT
* WATER\_RIGHT\_TYPE

**New Fields:**

* DIV\_OVER\_FACE\_VALUE\_AMOUNT (magnitude: DIRECT\_DIV\_AMOUNT – FACE\_VALUE\_AMOUNT)
* DIV\_EXCEEDS\_FACE\_VALUE (Y/N)

If “FACE\_VALUE\_AMOUNT” < “DIRECT\_DIV\_AMOUNT” then *new field* “DIV\_EXCEEDS\_FACE\_VALUE” = Y

If “FACE\_VALUE\_AMOUNT” > “DIRECT\_DIV\_AMOUNT” then *new field* “DIV\_EXCEEDS\_FACE\_VALUE” = N

IF “DIV\_EXCEEDS\_FACE\_VALUE” = Y then…

Calculate percentage “DIRECT\_DIV\_AMOUNT” exceeds “FACE\_VALUE\_AMOUNT”:

(“DIRECT\_DIV\_AMOUNT” – “FACE\_VALUE\_AMOUNT”) / “FACE\_VALUE AMOUNT” \* 100 **(for tiers)**

And…

Magnitude (DIRECT\_DIV\_AMOUNT – FACE\_VALUE\_AMOUNT)

Now, what is the threshold per tier? **(We haven’t assigned tiers yet – to do w/ larger group)**

Tier 1: 0-10 AF

Tier 2: 10.1-200 AF (consistent with major/minor project threshold)

Tier 3: 200.1-1000 AF

Tier 4: >1000.1 AF

Cont.

If “WATER\_RIGHT\_TYPE” = Appropriative or any WR w/ Face Value, Then…

Lets discuss this

If “WATER\_RIGHT\_TYPE” = Statement of Div and Use, Then…

Calculate standard deviation of “DIRECT\_DIV\_AMOUNT” with reported value from other reported years

Is “DIRECT\_DIV\_AMOUNT” > “FACE\_VALUE\_AMOUNT”?

New field “DIV\_OVER\_FACE\_VALUE\_AMOUNT” = NA

New field “DIV\_OVER\_FACE\_VALUE\_AMOUNT” = (DIRECT\_DIV\_AMOUNT – FACE\_VALUE\_AMOUNT)

Yes

New field “DIV\_EXCEEDS\_FACE\_VALUE” = Y

New field “DIV\_EXCEEDS\_FACE\_VALUE” = N

No