

Editing the Downloaded Cumulative Diversion Analysis (CDA) Gage Senior Diverters Table

The Water Availability Tool (WAT) extracts and assembles State Water Resources Control Board (SWRCB) digitally available data describing existing water rights in California. **Additional information is needed that is not contained within the digital datasets** to successfully unimpair the gage with senior diversions. Users must review the water rights data relevant to their project, to confirm it to be correct and complete about aspects of the water rights relevant to this analysis, and must augment information contained in the spreadsheet with information collected from the review of legal documents associated with individual water rights. This document provides a guide to assist the user with this process.

Introduction

The downloaded table, `gage_senior_diverters_unedited.csv`, contains a list of senior water rights that are within the watershed upstream of the gage. These water rights are specifically relevant to the gage being evaluated for a proposed project. The contents of the table are generated from data sources that are imported nightly from the California Open Data Portal: <https://data.ca.gov/dataset/water-rights>. For a detailed description of how the table was generated, see the [Data Origin](#) section below.

For the tool to estimate calculations including senior demand, and upstream demand, `gage_senior_diverters_unedited.csv` must be reviewed for accuracy and edited where needed, including adding missing data and removing unneeded data. Once the .csv table has been reviewed and edited, upload it to the tool by clicking 'Select File' within the Gage Senior Diverters Section, choosing the edited .csv table on your computer, and then selecting 'Upload File'. The file will then be validated to ensure all requirements are met.

Most columns in the table were populated with information copied directly or calculated/derived from data acquired from the California Open Data Portal. Two additional columns were created by the tool, `analysis_label`, and `order_upstream_to_downstream`. The table below describes each column in the table and gives a brief description of the editing requirements. This document provides guidelines on how to edit the `gage_senior_diverters_unedited.csv`.

Determining senior diverter yearly demand overview

The water availability tool will use the columns within the uploaded table to determine the yearly water demand volume from all senior diverters. The tool determines yearly demand inside and outside the policy season differently.

Assumptions

The above guidelines leave some room for interpretation. As such, the tool makes the following assumptions when calculating senior diverter seasonal demand related to the above guidelines:

- The tool determines if a senior diverter is authorized for storage if the following entries are filled out:
 - storage_season_start_month
 - storage_season_start_day
 - storage_season_end_day
 - storage_season_end_month
 - max_storage_af
- The tool determines if a senior diverter is authorized for direct diversion if the following entries are filled in:
 - direct_div_season_start_month
 - direct_div_season_start_day
 - direct_div_season_end_day
 - direct_div_season_end_month
- The tool differentiates further between seasons and volumes associated with direct diversion and diversion to storage in the following ways:
 - Direct diversion season columns are separate from storage season columns
 - Face value (acre-feet) is assumed to include maximum storage volume (acre-feet), thus direct diversion volume is assumed to be the difference between the face value (acre-feet) and maximum storage volume (acre-feet).
- If the senior diverter authorized season of direct diversion or storage season does not overlap with the proposed season, the senior diverter's seasonal demand is set to 0.
- The tool uses the use_codes column to determine if the senior diverters are authorized for the following cases:
 - Only Irrigation
 - Irrigation and other beneficial uses
 - Only Frost Protection
 - Frost Protection and other beneficial uses
 - Only Irrigation, Frost Protection
 - Irrigation, Frost Protection, and other beneficial uses

More detailed documentation on the calculation of yearly demand is provided in the output package, which is available for download after completion of a cumulative diversion analysis.

Removing irrelevant senior diverters

The tool excludes rows from the 'gage_senior_diverters_unedited.csv' file where the 'water_right_status' is no longer active. Refer to the table below for guidance on the recommended statuses retained and those omitted. The "Inactive" water right status will be included in the tool, but users are directed to perform further investigation to see whether this water right causes impacts to flows at the proposed project and document. See the [Order Description](#) and [Scenarios for Editing WSR Senior Diverters](#) sections for guidance.

water_right_status	Include?
Active	Yes
Adjudicated	Yes
Cancelled	No
Certified	Yes
Claimed	Yes
Claimed - Local Oversight	Yes
Closed	No
Completed	No
Inactive	No
Licensed	Yes
No status available	Yes
Pending	Yes
Permitted	Yes
Registered	Yes
Rejected	No
Revoked	No
Withdrawn	No

What do I need to edit in the table?

The values of all senior diverters will need to be reviewed. Many of those can be found by clicking on Water Rights Records Search at the following site:

<https://ciwqs.waterboards.ca.gov/ciwqs/ewrims/EWMenuPublic.jsp> and entering in search

criteria. To check the position of the senior diverters, it is suggested to import

gage_senior_diverters_unedited.csv into GIS software and convert it to a point using the latitude and longitude columns.

Table Column Description and Editing Requirements

Column Name	Column Type	Description	Editing Requirements
analysis_label	Text E.g. Upstream of Gage	This is a tool-generated column described in Order Description . This column is used by the tool to identify the relative location of senior diverters upstream of the proposed Gage. Since this table only refers to the gage senior diverters, there is only one value: <ul style="list-style-type: none"> Upstream of Gage <ul style="list-style-type: none"> Label assigned for senior diverters upstream of the Proposed Gage 	Must be populated with one the following: <ul style="list-style-type: none"> Upstream of Gage
order_upstream_ to_downstream	Integer E.g. 1	This is a tool-generated column described in Order Description . This column is auto-populated with an ordered, unique integer representing the order of the senior diverter from furthest upstream to furthest downstream.	This column is not populated with any information from the Water Rights Records Search and the user should populate cells after inspecting location information. Order is not entirely important and is for the most part just for reference., but users should ensure that all of the diverters are in the gage upstream watershed.
application_ number	Text E.g. A000016	Automatically populated by the tool using data from https://data.ca.gov/dataset/water-rights .	Must be populated
appl_pod	Text E.g. A000016_01	Automatically populated by the tool using data from https://data.ca.gov/dataset/water-rights .	No editing requirements. The column is for reference and not used in calculations.
wr_water_right_ id	Integer E.g. 100	Automatically populated by the tool using data from https://data.ca.gov/dataset/water-rights .	No editing requirements. The column is for reference and not used in calculations.
water_right_type	Text E.g. Appropriative E.g. Statement of Div and Use	Automatically populated by the tool using data from https://data.ca.gov/dataset/water-rights .	No editing requirements. The column is for reference and not used in calculations.
water_right_ status	Text E.g. Licensed	Automatically populated by the tool using data from https://data.ca.gov/dataset/water-rights .	No editing requirements. The column is for reference and not used in calculations.

Column Name	Column Type	Description	Editing Requirements
	E.g. Inactive		Omit records using this field; refer to the Removing irrelevant senior diverters section for guidance.
application_primary_owner	Text E.g. EAGLE CREEK PACIFIC, LLC	Automatically populated by the tool using data from https://data.ca.gov/dataset/water-rights .	No editing requirements. The column is for reference and not used in calculations.
pod_type	Text E.g. Point of Direct Diversion E.g. Point of Onstream Storage	Automatically populated by the tool using data from https://data.ca.gov/dataset/water-rights .	Verify entry accuracy by cross-referencing with the water rights records. The column is used in CDA senior demand calculations.
pod_count	Text E.g. 1	Automatically populated by the tool using data from https://data.ca.gov/dataset/water-rights .	No editing requirements. The column is for reference and not used in calculations.
source_name	Text E.g. UNNAMED STREAM	Automatically populated by the tool using data from https://data.ca.gov/dataset/water-rights .	No editing requirements. The column is for reference and not used in calculations.
latitude	Numeric E.g. 38.8295	Automatically populated by the tool using data from https://data.ca.gov/dataset/water-rights .	The latitude must be filled out and be within the gage's upstream watershed.
longitude	Numeric E.g. -123.2383	Automatically populated by the tool using data from https://data.ca.gov/dataset/water-rights .	The longitude must be filled out and within the gage's upstream watershed. Longitude must be negative.
drainage_area_sqmi	Number E.g. 0.24533	Automatically populated by the tool. It reflects the area of the upstream watershed associated with the stream to which the senior diverter location was snapped. For detailed information on the snapping logic applied to senior diverters and their association with streams, refer to the Data Origin Documentation .	No editing requirements. The drainage area will be used in calculations. If a user must add a new record, leave this field blank, the tool will populate it once the senior diverter csv is uploaded.
annual_precip_in	Number E.g. 46.125008	Automatically populated by the tool. It reflects the mean annual precipitation (1991-2020) of the upstream watershed associated with the stream to which the senior diverter location was snapped. The data source of the precipitation data set is PRISM (https://prism.oregonstate.edu/).	No editing requirements. The drainage area is used to calculate the precipitation. If a user must add a new record, leave this field blank, the tool will populate it once the senior diverter csv is uploaded.
use_codes	Text E.g.	Automatically populated by the tool using the data from	Verify entry accuracy by cross-referencing with the water rights records.

Column Name	Column Type	Description	Editing Requirements
	'Domestic' It is permissible to include multiple use codes within a single cell. For example, 'Domestic, Stockwatering'	https://data.ca.gov/dataset/california-water-rights-uses-and-seasons and https://data.ca.gov/dataset/water-rights related together using 'application_number'.	Format guidelines: Provide a comma-separated list of beneficial uses. When indicating more than one beneficial use, separate them with a comma. Allowed example: Domestic, Heat
priority_date	Date of the form yyyy-mm-dd E.g. 1965-01-01	Automatically populated by the tool using data from https://data.ca.gov/dataset/water-rights . Data is pulled from the field priority_date, if it's empty then receipt_date, then finally application_acceptance_date is used for a given diverter.	This column is required. Verify entry accuracy by cross-referencing with the water rights records.
direct_div_season_start_month	Integer (1-12) E.g. 6	Direct Diversion Season Start Month Automatically populated by the tool using data by extracting month from 'direct_div_season_start' from https://data.ca.gov/dataset/water-rights .	Verify entry accuracy by cross-referencing with the water rights records. This field must be populated if the senior diverter's records indicate authorization for direct diversion. It can be left blank if the senior diverter is not authorized for direct diversion, such as when only authorized for storage. A season is required for calculations. Therefore, it is required to fill out either all four storage_season columns, all 4 direct_div_season columns, or all eight storage_season and direct_div_season columns.
direct_div_season_start_day	Integer (1-31) E.g. 30	Direct Diversion Season Start Day Automatically populated by the tool using data by extracting day from 'direct_div_season_start' from https://data.ca.gov/dataset/water-rights .	Verify entry accuracy by cross-referencing with the water rights records. This field must be populated if the senior diverter's records indicate authorization for direct diversion. It can be left blank if the senior diverter is not authorized for direct diversion, such as when only authorized for storage. A season is required for calculations. Therefore, it is required to fill out either all four storage_season columns, all 4 direct_div_season columns, or all eight storage_season and direct_div_season columns.
direct_div_	Integer (1-12)	Direct Diversion Season End Month	Verify entry accuracy by cross-referencing

Column Name	Column Type	Description	Editing Requirements
season_end_month	E.g. 1	Automatically populated by the tool using data by extracting month from 'direct_div_season_end' from https://data.ca.gov/dataset/water-rights .	<p>with the water rights records.</p> <p>This field must be populated if the senior diverter's records indicate authorization for direct diversion. It can be left blank if the senior diverter is not authorized for direct diversion, such as when only authorized for storage.</p> <p>A season is required for calculations. Therefore, it is required to fill out either all four storage_season columns, all 4 direct_div_season columns, or all eight storage_season and direct_div_season columns.</p>
direct_div_season_end_day	Integer (1-31) E.g. 20	<p>Direct Diversion Season End Day</p> <p>Automatically populated by the tool using data by extracting day from 'direct_div_season_end' from https://data.ca.gov/dataset/water-rights.</p>	<p>Verify entry accuracy by cross-referencing with the water rights records.</p> <p>This field must be populated if the senior diverter's records indicate authorization for direct diversion. It can be left blank if the senior diverter is not authorized for direct diversion, such as when only authorized for storage.</p> <p>A season is required for calculations. Therefore, it is required to fill out either all four storage_season columns, all 4 direct_div_season columns, or all eight storage_season and direct_div_season columns.</p>
storage_season_start_month	Integer (1-12) E.g. 1	<p>Storage Season Start Month</p> <p>Automatically populated by the tool using data by extracting month from 'storage_season_start' from https://data.ca.gov/dataset/water-rights.</p>	<p>Verify entry accuracy by cross-referencing with the water rights records.</p> <p>This field must be populated if the senior diverter's records indicate authorization for diversion to storage. It can be left blank if the senior diverter is not authorized for storage diversion. Additionally, if the senior diverter authorizes storage, max_storage_af must be a non-zero number.</p> <p>A season is required for calculations. Therefore, it is required to fill out either all four storage_season columns, all 4 direct_div_season columns, or all eight storage_season and direct_div_season columns.</p>
storage_season	Integer (1-31)	Storage Season Start Day	Verify entry accuracy by cross-referencing

Column Name	Column Type	Description	Editing Requirements
_start_day	E.g. 1	Automatically populated by the tool using data by extracting day from 'storage_season_start' from https://data.ca.gov/dataset/water-rights .	<p>with the water right records.</p> <p>This field must be populated if the senior diverter's records indicate authorization for diversion to storage. It can be left blank or set to 0 if the senior diverter is not authorized for storage diversion. Additionally, if the senior diverter authorizes storage, max_storage_af must be a non-zero number.</p> <p>A season is required for calculations. Therefore, it is required to fill out either all four storage_season columns, all 4 direct_div_season columns, or all eight storage_season and direct_div_season columns.</p>
storage_season_end_month	Integer (1-12) E.g. 1	<p>Storage Season End Month</p> <p>Automatically populated by the tool using data by extracting month from 'storage_season_end' from https://data.ca.gov/dataset/water-rights.</p>	<p>Verify entry accuracy by cross-referencing with the water rights records.</p> <p>This field must be populated if the senior diverter's records indicate authorization for diversion to storage. It can be left blank or set to 0 if the senior diverter is not authorized for storage diversion. Additionally, if the senior diverter authorizes storage, max_storage_af must be a non-zero number.</p> <p>A season is required for calculations. Therefore, it is required to fill out either all four storage_season columns, all 4 direct_div_season columns, or all eight storage_season and direct_div_season columns.</p>
storage_season_end_day	Integer (1-31) E.g. 1	<p>Storage Season End Day</p> <p>Automatically populated by the tool using data by extracting day from 'storage_season_end' from https://data.ca.gov/dataset/water-rights.</p>	<p>Verify entry accuracy by cross-referencing with the water rights records.</p> <p>This field must be populated if the senior diverter's records indicate authorization for diversion to storage. It can be left blank or set to 0 if the senior diverter is not authorized for storage diversion. Additionally, if the senior diverter authorizes storage, max_storage_af must be a non-zero number.</p> <p>A season is required for calculations. Therefore, it is required to fill out either all four storage_season columns, all 4 direct_div_season columns, or all eight</p>

Column Name	Column Type	Description	Editing Requirements
			storage_season and direct_div_season columns.
max_storage_af	Numeric E.g. 100.1	<p>Storage Amount (Acre-feet)</p> <p>Automatically populated by the tool using max_storage from https://data.ca.gov/dataset/water-rights.</p>	<p>Verify entry accuracy by cross-referencing with the water rights records. For appropriative water rights, this should represent the maximum annual amount of water required to be placed into storage in any given year in Acre-feet.</p> <p>When a water right does not authorize storage (e.g., all riparian statements and some appropriative rights), set the cell to 0. If this entry is set to a non-zero number, the tool requires the following four fields to be filled out: storage_season_start_day, storage_season_start_month, storage_season_end_day, storage_season_end_month.</p> <p>The tool anticipates that the 'face_amount_af' volume should encompass the 'max_storage_af' volume within it. Therefore, 'max_storage_af' should not exceed 'face_amount_af'.</p>
face_amount_af	Numeric E.g. 100.1	<p>Automatically populated by the tool using multiple fields from https://data.ca.gov/dataset/water-rights.</p> <p>The tool automatically calculates this number by first determining 'face_value_af,' which involves converting 'face_value_amount' to acre-feet using 'face_value_units.' Subsequently, the tool populates this entry with 'max_dd_ann' when it is not zero and is less than 'face_value_af'; otherwise, 'face_value_af' is used.</p> <p>This calculation follows the policy guidelines which state that the following information is required for each POD associated with each senior diverter: (B.1.2.4) "Maximum annual use limitation when it is less than the face value of the permit of license"</p>	<p>Verify entry accuracy by cross-referencing with the water rights records.</p> <p>Generally, the entry will be set to zero for riparian statements. When an entry is zero and the water right is a riparian statement (i.e., where water_right_type = 'Statement of Div and Use'), the guidance is to inspect available water right reports in eWRIMS to identify the maximum annual report amount diverted in Acre-feet across all reporting years, as well as the maximum annual reported diversion rate in cubic feet per second (you'll need this next). Enter the maximum annual reported diversion amount in Acre-feet as the face value.</p> <p>For appropriative water rights, in some cases, there may be a maximum annual use limitation that is less than the face value of the permit or license. The tool will automatically enter this value if available.</p> <p>The tool anticipates that the 'face_amount_af' volume should encompass the 'max_storage_af' volume within it. Therefore, 'max_storage_af' should not exceed 'face_amount_af'.</p>

Column Name	Column Type	Description	Editing Requirements
max_rate_of_diversion_cfs	Numeric E.g. 0.0164872666	<p>Maximum Rate of Diversion (cubic feet per second)</p> <p>Automatically populated by the tool using multiple fields from https://data.ca.gov/dataset/water-rights.</p> <p>The tool automatically calculates this number by first determining 'direct_diversion_rate_cfs' and 'max_rate_of_diversion_cfs' which involves converting 'direct_diversion_rate' to cubic feet per second using 'direct_div_rate_unit' and converting 'max_rate_of_diversion' to cubic feet per second using 'max_rate_of_div_unit'. Subsequently, the tool populates this entry with 'max_rate_of_diversion_cfs' when it is not zero; otherwise, 'direct_diversion_rate_cfs' is used.</p>	<p>Verify entry accuracy by cross-referencing with the water rights records.</p> <p>When filling out, please follow the policy guidelines: "Direct diversion rate, unless a maximum rate of diversion is imposed as a term on the permit or license, in which case the maximum rate of diversion should be used." (B.1.2.2).</p> <p>Generally this entry is blank for riparian statements (i.e., where water_right_type = 'Statement of Div and Use'). When this entry is blank and water_right_type = 'Statement of Div and Use', the guidance is to inspect available water rights reports in eWRIMS and identify the maximum reported diversion rate across all annual reports (in cubic feet per second) and enter this value.</p> <p>As some water rights do not have a direct diversion rate or maximum rate of diversion, this entry can be left blank or set to zero.</p>
minimum_bypass_flow_cfs	Numeric E.g. 0.01	<p>Minimum Bypass Flow (cubic feet per second) if imposed or specified in the water right permit or license for a senior diverter.</p> <p>This field is not populated for any senior water rights, as data on bypass flows is not distributed by eWRIMS.</p> <p>Column is required for CDA calculations.</p>	<p>It is recommended to populate the field using the State Water Board Division of Water Rights files and records. This does not apply to bypass requirements applied on the CDFW Lake and Streambed Alteration Agreement (LSAA/1600) that are not also included in the water right permit or license (i.e. if an LSAA includes a bypass requirement that is not also included in a water right permit or license, do not include in the LSAA bypass here).</p>
seasonal_demand_af	Numeric E.g. 230.4	<p>Senior Diverter Seasonal Demand (Acre-feet) within the proposed project's season of diversion.</p>	<p>The population of this field is optional. It is intended to provide a way for expert users to provide a senior diverter's seasonal demand (Acre-feet) rather than use the tool-generated seasonal demand. If this entry is populated, the tool will not calculate a senior diverter's seasonal demand and instead, utilize the value provided in this field. If this field is populated, it is required to populate 'overwrite_seasonal_demand_af_justification'.</p>

Column Name	Column Type	Description	Editing Requirements
			The populated value must follow guidelines on determining the demand volume stated in B.2.1.4 of the Policy.
overwrite_seasonal_demand_af_justification	Text E.g. 'Adjusted seasonal demand to reflect correspondence with state water board engineer.'	Overwrite Seasonal Demand (Acre-feet) justification. This field is provided for the user to justify, detailing the method used to populate the field and the rationale behind choosing to override the tool's seasonal demand calculation. If you override this value, please ensure that the stated seasonal demand is for the dates that correspond to the proposed season of diversion being evaluated.	If the 'seasonal_demand_af' field is populated, it is mandatory to fill in this accompanying field.
comments		This column is designated for users' record-keeping purposes.	Not required. We recommend using this column if you have made modifications to any fields in the row.

FAQ

1. What if the gage_senior_diverters_unedited.csv is missing a senior diverter?

Add the missing senior diverter row to the spreadsheet. The senior diverters have been ordered based on the principles outlined in this document. While it may be helpful for reference to place the senior diverter in the correct order_upstream_to_downstream position, this is not necessary. All of the senior diverters are treated as impairments to the gage regardless of their order.

Below is an example downloaded gage_senior_diverters_unedited.csv showing a subset of columns. The table is missing a senior diverter, A123456, which is upstream of the gage.

Sample gage_senior_diverters_unedited.csv:

analysis_label	order_upstream_to_downstream	application_number	water_right_type	water_right_status	.. remaining columns..	Comments
Upstream of Gage	1					
Upstream of Gage	2	A011111	Appropriative	Licensed		
Upstream of Gage	3	S011111	Statement of Div and Use	Claimed		
Upstream of Gage	4	H111111	Registration Cannabis	Rejected		

Upstream of Gage	5	S011112	Statement of Div and Use	Claimed		
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See below on how to edit the sample gage_senior_diverters_unedited.csv to add a missing senior diverter. Highlighted cells have been added or modified.

Edited sample gage_senior_diverters_unedited.csv:

analysis_label	order_upstream_to_downstream	application_number	water_right_type	water_right_status	.. remaining columns..	Comments
Upstream of Gage	1					
Upstream of Gage	2	A011111	Appropriative	Licensed		
Upstream of Gage	3	A123456	Statement of Div and Use	Claimed	.. fill out all remaining columns appropriated	Added missing permit.
Upstream of Gage	4	S011111	Statement of Div and Use	Claimed		
Upstream of Gage	5	H111111	Registration Cannabis	Rejected		
Upstream of Gage	6	S011112	Statement of Div and Use	Claimed		

Note that the following is also a valid addition (order_upstream_to_downstream is irrelevant):

analysis_label	order_upstream_to_downstream	application_number	water_right_type	water_right_status	.. remaining columns..	Comments
Upstream of Gage	1					
Upstream of Gage	2	A011111	Appropriative	Licensed		
Upstream of Gage	3	S011111	Statement of Div and Use	Claimed		
Upstream of Gage	4	H111111	Registration Cannabis	Rejected		
Upstream of	5	S011112	Statement	Claimed		

Gage			of Div and Use			
Upstream of Gage	6	A123456	Statement of Div and Use	Claimed	.. fill out all remaining columns appropriated	Added missing permit.

2. What if I need to remove a row?

This is a common use case as the user should be removing records with certain water_right_status entries. See the [Removing irrelevant senior diverters](#) section for guidance.

Delete the row from the table and adjust the 'order_upstream_to_downstream'.

Original table:

analysis_label	order_upstream_to_downstream	application_number	water_right_type	water_right_status	.. remaining columns..	Comments
Upstream of Gage	1	B777777				
Upstream of Gage	2	A011111	Appropriative	Licensed		
Upstream of Gage	3	S011111	Statement of Div and Use	Claimed		
Upstream of Gage	4	H111111	Registration Cannabis	Rejected		
Upstream of Gage	5	S011113	Appropriative	Licensed		
Upstream of Gage	6	S011112	Statement of Div and Use	Claimed		
Upstream of Gage	7	A011112	Appropriative	Licensed		
Upstream of Gage	8	A011113	Appropriative	Licensed		

3. Additional Guidance for Pending Applications

Pending applications are senior to the proposed project, as the submission of these pending applications is before the proposed projects submission. However, there are cases where pending applications may be duplicative of demands for associated statements. The state water

board recommends that in this case, the applicant also should file a riparian statement for use on the pending application. Therefore, the pending application's demand may be duplicative of the riparian statement's usage. Users are advised to do the following in this case:

- Inspect the Riparian statement from EWRIMS and fill out necessary information for its diversion
 - Adjust the following quantity fields to reflect the EWRIMS information
 - face_amount_af
 - storage_amount_af
 - max_rate_of_diversion_cfs
 - minimum_bypass_flow_cfs
- Set the field seasonal_demand_af to an appropriate value for the Pending statement
 - If all of the demand is overlapping the Riparian statement in this case, the seasonal_demand_af value can be set to 0
 - Enter the overwrite_seasonal_demand_af_justification field with the justification for the seasonal demand value:
 - In lieu of more in-depth comments, users may state "Pending Application duplicates Riparian statement <application_number> demand. Seasonal demand has been altered to reflect the overlapping demand"

Data Origin Documentation

The gage_senior_diverters_unedited.csv table was created as follows:

1. Every evening, the tool imports data from two primary sources:
<https://data.ca.gov/dataset/water-rights> and
<https://data.ca.gov/dataset/california-water-rights-uses-and-seasons>. The linkage between the datasets is established through the 'application_number' column. The resulting combined table is referred to as 'senior diverters,' serving as the primary source for the majority of fields in the table.
2. All "senior diverters" within the watershed upstream of the most downstream segment of the downstream flow path of the selected Gage are selected using a spatial intersect GIS function.
3. All clipped "senior diverters" are then associated with a stream segment from step 3 by the following rules; if the senior diverter is within 1 mile of a stream segment and the senior diverter "source_name" is similar to the stream segment "gnis_name", then it is associated with the matching stream segment, otherwise, the "senior diverter" is snapped to the nearest stream segment.
4. All clipped "senior diverters" from step 2 that are only within the upstream watershed of the Gage are identified and appended to a temporary table and given the 'analysis_label' = 'Upstream of Gage' and a new incrementing integer starting at 1 overwrites the 'order_upstream_to_downstream' column.
5. As a post-processing step, water rights with water_right_status as one of "Cancelled", "Closed", "Completed", "Rejected", "Revoked" or "Withdrawn" are filtered out of the table, and the "order_upstream_to_downstream" is re-indexed

6. Comments are added addressing edge cases with Riparian, Frost Protection, Irrigation, and Inactive water rights. See “comments” column below.
7. The table is outputted as `gage_senior_diverters_unedited.csv`