

CFWI Regulatory Team
Conjunctive Use Topic Summary

DRAFT – 2/27/15

The term "conjunctive use" means the integrated operation and use of multiple water supply sources to meet reasonable-beneficial water demands.

A. List of Projects from the Solutions Planning Team that Contemplate Conjunctive Use

1. Yankee Lake Regional Water Supply Facility
2. SJR-TCR Water Supply Project

(Note City of Cocoa's existing water supply system is an example of an existing conjunctive use system that utilizes water from the Floridan aquifer, surface water from the Taylor Creek Reservoir and ASR water to manage and prevent environmental impacts and to provide improved system reliability, operational flexibility and emergency backup capability.)

B. Examples of Potential Conjunctive Use Project Scenarios:

1. Allocation from multiple groundwater sources, potentially different quality
2. Allocation from surface and ground water sources
 - a. Base groundwater allocation with seasonal surface water augmentation
 - b. Seasonal surface water and groundwater allocation
 - b. Year-round surface and ground water allocation
3. Seawater use in combination with surface and groundwater sources
4. Reclaimed water supplemented with surface / stormwater / ground water

C. Existing Agency Rules:

See attached Table.

D. Considerations Regarding Allocation of Water from Multiple Sources:

1. Need regulatory, infrastructure and operational flexibility to timely meet demands, potentially for multiple users
2. Need for system reliability that combines multiple sources with different reliabilities
3. User's flexibility to choose source (e.g. resource constraint and costs) and permit conditions that foster the flexibility
4. Maximize reasonable-beneficial use of available sources
5. Time varying or longer duration temporal evaluation of constraints on supply source availability that consider altering uses from various sources
6. Applicability of water shortage restrictions
7. Groundwater allocation cannot simply be reduced by the full amount of a new surface water allocation since surface water availability is seasonal. Groundwater allocation must include additional groundwater needed during times when surface water is not available and the corresponding quantities of groundwater needed for these periods.

Existing WMD Rules Related to Conjunctive Uses

Existing WMD Conjunctive Use - Related Rules Re: Identified Topics	SFWMD	SWFWMD	SJRWMD
Option to Request Allocation of Secondary or Standby Source	<p>AH 2.2 - If a source is not reliable throughout the year, the applicant may request withdrawal quantities from secondary and standby sources of supply, which may be used when the primary supply is limited. The permit will identify the secondary and backup sources and the conditions and time periods for which they are likely to be required.</p> <p>AH 2.2.3 - If a water source of lower quality is available and is feasible for all or a portion of an applicant's use, this lower quality water must be used. Such lower quality water may be in the form of reclaimed water, recycled irrigation return flow, collected stormwater, saline water, or other sources.</p>	<p>A.H. 2.1.1 – applicants for WUPs with 100,000 gpd or greater must evaluate AWS.</p> <p>A.H. 2.1.1.1 – applicants must demonstrate whether AWS are available and appropriate.</p> <p>A.H. 2.1.1.2 – applicants must evaluate feasibility of using reclaimed water.</p> <p>A.H. 2.1.1.4 – for WUPs in the SWUCA or DPC WUCA, non-AWS source may be put on standby status.</p> <p>A.H. 2.2.2 – AWS shall be used in lieu of non-AWS to the greatest extent practical.</p>	<p>AH 2.1.1 – classification of use/source type for secondary uses – no specific rule addresses stand-by source requests</p> <p>A.H. 2.3(e) – Lowest acceptable quality water source must be utilized that is suitable for the purpose. When an applicant proposes to use surface water or groundwater and reclaimed water is readily available, reclaimed water must be used in place of higher quality water sources unless the applicant demonstrates that its use is economically, environmentally, or technologically infeasible.</p>
Allocation categorized and allocated separately (i.e. Primary, Secondary, Back-up / Standby)	<p>AH 2.2.1 - If the use of water is from multiple supply sources, each source should be identified as a primary, secondary or back-up source. The applicant shall provide a breakdown of how the water will be distributed among the multiple sources as part of the application review process. Each of the identified primary sources will receive a separate allocation.</p>	<p>A.H. 2.1.1 – evaluation must determine whether AWS is available to off-set all or part of non-AWS quantities.</p> <p>A.H. 2.1.1.3 – for golf course communities, when AWS is implemented, primary water sources will be permitted for standby purposes.</p> <p>A.H. 2.2.2 – AWS shall be used in lieu of non-AWS to the greatest extent practical.</p>	<p>Allocation category for secondary or back-up sources not specifically addressed in the rule</p>
Secondary source allocation volume	<p>AH 2.2.1 - The secondary sources will be used based upon the need for alternative sources during high stress periods or in the event of temporary interruption of the use of the primary facilities.</p>	<p>A.H. 2.1.1 – evaluation must determine whether AWS is available to off-set all or part of non-AWS quantities.</p> <p>A.H. 2.1.1.4 -- Non-AWS standby quantities are limited to permitted</p>	<p>Allocation volume for secondary sources not specifically addressed in the rule</p>

		quantities that would be permitted without AWS. Standby quantities are an amount equal to the quantity offset by the AWS.	
Back-up / Emergency Source Allocation	AH 2.2.2 - Short term changes in operations associated with emergencies or wellfield maintenance will not require modifications of the wellfield operating plan.	A.H. 2.2.4 – if AWS becomes insufficient or unsuitable, withdrawal of standby quantities is allowed to meet authorized use.	Allocation for emergency back-up not specifically addressed in the rule
Need for secondary allocation documented	AH 2.2.1 - The secondary sources will be used based upon the need for alternative sources during high stress periods or in the event of temporary interruption of the use of the primary facilities.	A.H. 2.1.1.4 – in the SWUCA and DPC WUCA, permittees must demonstrate AWS is vulnerable to becoming unavailable, insufficient or unsuitable for reasons outside permittee’s control.	Need for allocation for secondary sources not specifically addressed in the rule
Anticipated time of secondary source use (e.g. high stress period)	AH 2.2.1 - The secondary sources will be used based upon the need for alternative sources during high stress periods or in the event of temporary interruption of the use of the primary facilities. AH 2.2.2 - Short term changes in operations associated with emergencies or wellfield maintenance will not require modifications of the wellfield operating plan.	A.H. 2.1.1 – evaluation of AWS must include whether off-set is available seasonally or on a time-limited basis. A.H. 2.2.4 – if AWS becomes temporarily insufficient or unsuitable, non-AWS may be used. Permittee must notify SWFWMD within 15 days of event and monthly for each 30 days thereafter, for up to one year from the date of the first loss.	Anticipated use period for secondary sources not specifically addressed in the rule
Linkage to wellfield operations plan(s)	AH 2.2.2 - Users that derive water supply from multiple withdrawal facilities shall submit a wellfield operating plan for review. The plan may include more than one configuration of withdrawals provided each configuration meets the conditions of permit issuance, the total withdrawals of each configuration do not exceed the allocation and each withdrawal configuration represents a normal operation protocol of the use (e.g. short term emergency operation plans are not required). Approved operational plans shall be incorporated as limiting conditions in the permit.	Nothing specific other than application review	Nothing specific to this issue addressed in the Rule.

Limiting conditions identifying time periods and conditions associated with use of secondary, standby, or back up source

AH 5.2.1.A.2 - The Permittee shall implement the wellfield operating plan submitted in support of the permit application, as described in the District staff report.

A.H. 2.1.1 – evaluation of AWS must include whether off-set is available seasonally or on a time-limited basis.
A.H. 2.2.4 – if loss of the AWS exceeds one year, a permit modification must be submitted to modify the non-AWS quantities. If the permit is within the SWUCA or DPC WUCA, a modification must be submitted to modify the quantities even if the quantities to be withdrawn exceed the quantity thresholds in Rule 40D-2.331(2).

AH 5.2, limiting conditions as appropriate for secondary or back-up allocations