

		Operational				Hydrology			Regulatory			Cost			Other	
Method	Name	How will non-CAP water be discharged into CAP System?	In what ways will CAP water be redirected?	Who owns and/or operates the well?	Maximum annual volume of firming?	How is water quality affected?	Will method impact the local aquifer (hydrologic impacts)?	How will additional pumping from wells happen?	What regulatory changes will be required to implement?	What kind of administrative infrastructure (e.g. permits and agreements) is required up front?	What is the legal character of the firming water?	What are the capital costs relative to high, medium, low?	What are the O&M costs relative to high, medium, low?	How do you avoid a stranded asset?	How is this method transferable to others?	Quick Issues
No Transfer	No transfer of credits	No water will be discharged into the CAP system	No CAP water will be redirected	No wells are involved		Quality of CAP water is not affected	No	NA	NA	No impact	NA	Low	Low	No new assets to strand		
Self Firming	Self-Firming (AWBA Credits) with and without direct distribution	No water will be discharged into the CAP system	No CAP water will be redirected	CAP customer who is self firming		Quality of CAP water is not affected	Potentially if new pumping is occurring	Pumping could increase if customers chose to pump recovered water from their own wells in place of a CAP direct delivery	Statute change to 45-2457 (B)(7) to allow for direct distribution of credits	Recovery Well Permit modification may be needed	Legal character of the AWBA credit being recovered	Varies - dependent on infrastructure rehabilitation	Varies - dependent on infrastructure O&M	No CAP recovery assets will be used	Applicable to any well owners or lessees	
	Tucson Water - USF Credit Distributions for Non-Wheeling Partners	Recovered water is used by the recovery entity in lieu of CAP direct deliveries	Recovery entity foregoes direct CAP deliveries	Local Entity		Quality of CAP water is not affected	Likely	Existing wells will be used	None	NOI, Recovery Well Permits	Legal character of the AWBA credit being recovered	Already expended	Already Expended	Multiple use infrastructure	Applicable to any entities with CAP allocation	Recovery of costs already expended; allocation of partial costs of existing capital vs new capital; priority issue on CAP water
	Tucson Water - AWBA Credit transfer pumped by Tucson Water	Recovered water is used by the recovery entity in lieu of CAP direct deliveries	Recovery entity foregoes direct CAP deliveries	Local Entity		Quality of CAP water is not affected	Likely	Existing wells will be used	None	NOI, Recovery Well Permits	Legal character of the AWBA credit being recovered	Already expended	Already Expended	Multiple use infrastructure	Applicable to any entities with CAP allocation	Recovery of costs already expended; already in existing wheeling agreements; allocation of partial costs of existing capital vs new capital.
Credit Exchange	Credit Exchange Recovery- ADWR/AWBA/CAP	No water will be discharged into the CAP system	CAP water is delivered to a different TO	CAP customer who is recovering on behalf of CAP		Quality of CAP water is not affected	No additional pumping would occur	No additional pumping would occur	None	Recovery Exchange Agreement, Recovery Well Permit(s) held by CAP, Notice of Exchange, Reclamation approval	Legal character of the water that was given in the exchange	Varies - dependent on infrastructure rehabilitation	Varies - dependent on infrastructure O&M	No CAP recovery assets will be used	Applicable to entities that rely on direct delivery of CAP water	Having recovery wells inside a service permitted to CAP

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		How will non-CAP water be discharged into CAP System?	In what ways will CAP water be redirected?	Who owns and/or operates the well?	Maximum annual volume of firming?	How is water quality affected?	Will method impact the local aquifer (hydrologic impacts)?	How will additional pumping from wells happen?	What regulatory changes will be required to implement?	What kind of administrative infrastructure (e.g. permits and agreements) is required up front?	What is the legal character of the firming water?	What are the capital costs relative to high, medium, low?	What are the O&M costs relative to high, medium, low?	How do you avoid a stranded asset?	How is this method transferable to others?	
Indirect Recovery	Indirect Recovery-ADWR/AWBA/CAP	No water will be discharged into the CAP system	No CAP water will be redirected	CAP recovery partner who is recovering on behalf of CAP		Quality of CAP water is not affected	Potentially if new pumping is occurring	Recovered water delivered via non-CAP infrastructure	None	Recovery Partnership Agreement, Recovery Well Permit(s), Reclamation approval	Legal character of the AWBA credit being recovered	Varies - dependent on infrastructure rehabilitation	Varies - dependent on infrastructure O&M	No CAP recovery assets will be used	Applicable to entities that have access to advantageous non-CAP infrastructure	Can you get a general reclamation approval to ease administration
	SRP-CAP Operational Exchange	No physical discharge but rather through an exchange	Maintains normal CAP operations; delivery point will remain unchanged	SRP	Limited by amount of CAP water scheduled for the CSIF and SRP Shareholder commitments	No change	Only recovering water from within area of impact	SRP wells can be pumped to recover LTSC	Not required. Simplify exchange and recovery well permit process	Recovery well permits and exchange agreements		TBD	TBD	Assets are existing and used as part of normal operations	Potential limitations on SRP well capacity to recover	
	Arizona Water Company (AWC) - Proposal No.1 - Indirect Recovery Method	Non-CAP water will not be discharged into the CAP system	CAP water that was not delivered will be available to other CAP subcontractors	CAWCD co-owns recovery well(s) with Subcontractor; recovery wells operated and maintained by subcontractor		No change to CAP water quality	Only to the extent recovering credits impacts aquifer	From CAWCD constructed recovery wells.	None	Recovery well permits, impact analysis, coordinating with subcontractor for groundwater water treatment plant		Medium - cost to develop wells by CAWCD	Relative to Low - no O&M cost to CAWCD or other subcontractors	Recovery wells are multi-purpose		
	AWC - Proposal No.3 Indirect Recovery Method	Non-CAP water will not be discharged into the CAP system	M&I priority water is not delivered to the subcontractor but delivered to GSF	CAWCD co-owns recovery well(s) with Subcontractor; recovery wells operated and maintained by subcontractor		CAP water quality is not affected	Only to the extent recovering credits impacts aquifer	From CAWCD constructed recovery wells.	Recovering credits outside of shortage or firming	Recovery well permits, impact analysis, coordinating with subcontractor for groundwater water treatment plant		Medium - cost to develop wells by CAWCD	Relative to Low - no O&M cost to CAWCD or other subcontractors	Recovery wells are multi-purpose		
	AWC - Proposal No.2 - Combination of indirect recovery method with Direct Recovery Component	From strategically placed recovery wells	CAP water that was not delivered will be available to other CAP subcontractors	CAWCD co-owns recovery well(s) with Subcontractor; recovery wells operated and maintained by subcontractor		Consistent with Task Force water quality standards	Only to the extent recovering credits impacts aquifer	From CAWCD constructed recovery wells.	None	Recovery will permits, impact analysis, coordinating with subcontractor for groundwater water treatment plant		Medium - cost to develop wells by CAWCD	Relative to Low - no O&M cost to CAWCD or other subcontractors	Recovery wells are multi-purpose		

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		How will non-CAP water be discharged into CAP System?	In what ways will CAP water be redirected?	Who owns and/or operates the well?	Maximum annual volume of firming?	How is water quality affected?	Will method impact the local aquifer (hydrologic impacts)?	How will additional pumping from wells happen?	What regulatory changes will be required to implement?	What kind of administrative infrastructure (e.g. permits and agreements) is required up front?	What is the legal character of the firming water?	What are the capital costs relative to high, medium, low?	What are the O&M costs relative to high, medium, low?	How do you avoid a stranded asset?	How is this method transferable to others?	
Direct Recovery	Direct Recovery-ADWR/AWBA/CAP	Recovered water is discharged into the CAP system at a specific location	No CAP water will be redirected	CAWCD through ownership or lease agreement		Recovered water may have to be treated	Likely	New or leased wells be used	None	NOI, Recovery Well Permits	Legal character of the AWBA credit being recovered	Varies - dependent on infrastructure rehabilitation	Varies - dependent on infrastructure O&M	Multiple use infrastructure	Applicable to entities that rely on direct delivery of CAP water	CAP related costs in this case
	Tucson Water - Lower Santa Cruz Recovery using CAP Canal	Recovered water is discharged into the CAP system at a specific location	No CAP water will be redirected	Local Entity		Recovered water may have to be treated	Likely	New or leased wells will be used	None	NOI, Recovery Well Permits	Legal character of the AWBA credit being recovered	Varies - dependent on infrastructure rehabilitation	Varies - dependent on infrastructure O&M	Multiple use infrastructure	Applicable to any entities downstream from point of recovery and addition to canal	Similar to direct delivery specific to southern AZ
	SRP-CAP Interconnection Facility (SCIF)-SRP	Via newly constructed interconnect facility between SRP and the CAP	Maintains normal CAP operations; delivery point will remain unchanged	SRP		Will be consistent with the CAP WQSTF recommendation	Only recovering water from within area of impact	Recovery of LTSC will happen through utilizing existing SRP wells	Not required. Simplify exchange and recovery well permit process	Recovery well permits and exchange agreements		TBD	TBD	Assets are existing and used as part of normal operations		
Alternative Methods	Credit Replacement	No water will be discharged into the CAP system	No CAP water will be redirected	No wells are involved		Quality of CAP water is not affected	No	NA	NA	No impact	Can be used by any subcontractor	Low	Low	No new assets to strand		
	Tucson Water - Leverage LTSC (Long-term Storage Credit) Accrual	No water will be discharged into the CAP system	CAP water scheduled for delivery to Tucson would instead be delivered elsewhere	CAP customer who is self firming - in this case Tucson Water		Quality of CAP water is not affected	Local aquifer will be impacted by the fact that less recharge is occurring while deliveries to Tucson Water customers remain the same	Tucson Water's pumping regime would not change	None	Agreement to incentivize foregoing CAP deliveries during shortage	Credits are already Tucson Water credits - method preserves AWBA credits	High - capital costs already invested by the City of Tucson - Tucson can be incentivized to not take full allocation	Medium - O&M costs already being incurred by City of Tucson	No CAP recovery assets will be used	Applicable to any entity willing to forego CAP deliveries during shortage	Impact on priorities; similar to AMWUA
	AMWUA - Resale of Subcontract Order During Shortage	No water will be discharged into the CAP system	CAP water is delivered to a different TO	No wells are involved		Quality of CAP water is not affected	No	No additional pumping would occur	None	Agreements to resell order. CAWCD and USBR approval	Project water	Low	Low	No new assets to strand	Can be used by any subcontractor storing water during shortage	Impact on priorities; similar to AMWUA