

Wheeling Stakeholder Meeting #3
"Cost & Capacity"
May 27, 2014 – 1:30 p.m.

The Wheeling Stakeholder Meeting #3 was called to order by Kenneth Seasholes, Manager, Resource, Planning & Analysis, at 1:30 p.m. The meeting was held at Central Arizona Project, 23636 N. 7th Street, Phoenix, Arizona 85024, in Conference Rooms 10 & 11.

Introduction and Overview of Meeting:

Mr. Seasholes invited stakeholders to review the meeting summary from stakeholder meeting #2 and indicate any points of clarity which will be incorporated, if possible. No clarifications or corrections to the meeting summary were offered by the stakeholders.

Mr. Seasholes advised that today's meeting will cover three main areas: (i) an overview of system improvement projects, including ongoing technical work for CAP system capacity expansion, and cost estimates; (ii) wheeling costs, including a discussion of the various cost components and the timing of collection of costs; and (iii) a discussion of the next meeting, including identification of issues that stakeholders believe have not been adequately addressed or new issues to be addressed. Mr. Seasholes indicated that the goal is to achieve closure on this phase of the Wheeling Stakeholder process at the next meeting.

System Capacity Improvement Projects:

Overview of improvement opportunities and update on technical studies: Patrick Dent, Supervisor, Water Systems, stated he will review the three major opportunities for CAP system improvements, provide an update on the technical studies and share some cost information regarding system improvements. Mr. Dent advised that the engineering study of potential CAP delivery capacity improvements is not yet complete, but he has interviewed some of the participants, reviewed cost information from the phase I study, and made some assumptions to derive some cost data to inform today's discussions.

Pumping Plant Improvements: Mr. Dent explained the first potential system capacity improvement project: pumping plant improvements to add flow and certified additional annual system capacity. The original phase I study analyzed the flow rate needed to get to 3600 cfs in the Western portion of the aqueduct. Havasu and Bouse pumping plants already meet that capacity, depending on how they are operated. However, the capacity for Little Harquahala and Hassayampa pumping plants will need to be increased. For Little Harquahala, CAP could replace the pump impellers. Hassayampa is different; the entire unit would have to be replaced to upgrade the plant to a full 3600 cfs capacity. If some of the units in the pumping plants were upgraded, additional flow could be added to the system during annual maintenance outages. In lieu of modifying the pumping plants, CAP is considering the construction of a smaller bypass pump station that would have the target capacity to increase the flow rate to 3600 cfs. Preliminary costs for the pumping plant improvements are between \$24 and \$36 million dollars depending on the upgrades and modifications, and could provide between 25,000 to 30,000 acre-

feet per year of additional capacity. The final engineering study will determine the most cost effective pumping plant upgrades.

Spillways: Mr. Dent explained that the CAP aqueduct is designed not to spill water. The system was designed to control the volume of water between each segment and check gate so the system can respond to changes in flow and potential surge waves due to power outages. If spillways were added to the canal, the storage space in the canal that is reserved for surge waves could be to move additional flow. During an infrequent emergency shut down or outage, rather than containing the water, CAP would spill it from the aqueduct. If located correctly, spillways could add 150 cfs of actual flow capacity to the CAP canal, which would add about 60,000 to 80,000 acre-feet annually of certified additional annual system capacity. Five or six spillways would be required in the Western aqueduct at a cost of a few million dollars each. Additionally, there are places where canal lining would be required, and certain bridge crossings on Interstate 10 would need to be raised to provide adequate clearance. Mr. Dent estimated the bridge work would be between \$14 to 15 million. The engineering study will provide a clearer picture on the number of spillways, the extent of the lining and other additional modifications required, and a refined cost analysis.

Balance of Projects in Hayden-Rhodes Aqueduct for 3,600 cfs: Mr. Dent reviewed the remaining potential system improvement projects, which were identified in the phase I study related to the canal lining improvement project. The canal lining project would create a large volume of additional system capacity by raising the canal lining from the Bouse Hills Pumping Plant to the Salt Gila Pumping Plant, some siphon and tunnel work and additional crossings. CAP has far less certainty on the costs associated with this project and the engineering study won't address this in as much detail as the other two system improvement projects. Due to the extensive earth work required to raise the canal lining, it is difficult to estimate costs. An older canal lining project CAP completed in the City of Scottsdale was about \$1 per foot, so to derive an estimate we applied this cost per unit over 150 miles, backed out projects that have already been completed, and applied a 20 percent contingency. The certified additional annual system delivery capacity associated with this project is between 320,000 and 360,000 acre-feet, from increasing the flow capacity of the canal from 3,150 cfs up to 3,600 cfs. The estimated cost of this project is \$334 million, or \$950-\$1,000 per acre-foot of additional capacity

Mr. Dent summarized by noting the pumping plant improvements can probably be completed on an incremental basis, meaning all the pump plant improvements don't have to be fully completed to provide additional annual system delivery capacity. However, all of the spillways would likely have to be completed before any additional annual system delivery capacity can be realized. The same would be true for the canal lining project. A question was posed: are the cost numbers cumulative? Mr. Seasholes responded that the line items on the table are the costs and the capacity for those projects; but there are relationships among the projects so spillways add 60,000 to 80,000 acre-feet above and beyond what you get from the pumping plant improvements, for example.

Relationship of Projects to Staff Proposal: Mr. Seasholes then discussed the relationship of the system improvement projects to the staff wheeling proposal. Mr. Seasholes explained, the current staff proposal says CAP can begin to wheel non-project water as soon as it receives

Reclamation certification of a system improvement project and the additional capacity associated with that project. However, the wheeling contracts provide that non-project deliveries are subject to displacement by project water or claims by the U.S. under Article 8.17 until the system improvement project has been completed. Once the project is completed, the wheeling contracts become 8.18 firm contracts. Mr. Seasholes emphasized that the increment of additional capacity associated with spillway projects will not become firm until all of the spillways have been constructed. This impacts a decision about the timing of the collection of the money to complete the system improvement project. If, for example, CAP collected actual costs along the way, there is a risk that the project never gets completed if the additional capacity is not fully subscribed by folks desiring to wheel non-project water. The result is that some entities with wheeling contract would have paid system improvement fees, but would not realize firm wheeling capacity. For this reason, Mr. Seasholes explained that from the staff perspective, there is a benefit to having the project completed earlier and pulling some of the costs of construction forward. This means that early subscribers would pay more than the actual per acre-foot cost of the improvement project to ensure the additional capacity is actually constructed and wheeling capacity under the wheeling contract becomes firm capacity.

Wheeling Costs:

Mr. Seasholes reviewed the section of the Master Repayment Contract that refers to costs. The Master Repayment Contract states that the standard form of wheeling agreement shall include the rate structure for wheeling non-project water and all charges shall be paid to CAP by the contracting entity for the wheeling of non-project water. The next section of the Master Repayment Contract addresses which of the wheeling charges may be retained by CAP. Specifically, Operation, Maintenance and Repair (OM&R) charges and a mutually agreed upon administrative charge may be retained by CAP. Importantly, anything in excess of the OM&R charges and administrative charges automatically flows to the Basin Development Fund.

Mr. Seasholes explained that the current staff proposal includes proposed revisions to the Operating Agreement between CAWCD and Reclamation to provide that CAWCD would collect a System Improvement Fee, monies derived from the System Improvement Fee would not flow into the Basin Development Fund, and CAP could only use those fees to expand the system delivery capacity. A question was posed: has the Bureau bought off on keeping their hands off the system development fee? Mr. Seasholes explained that this will be proposed as an amendment to the Operating Agreement so if the Bureau agrees to the amendment, then they are in agreement as it relates to the fee. The Bureau understands what CAP is trying to achieve when it comes to the System Improvement Fee.

Mr. Seasholes noted the conceptual language in the staff proposal requiring payment of the System Improvement Fee "In Advance" does not necessarily mean all of it must be paid up front but Staff doesn't have a more detailed timing proposal yet. Mr. Seasholes clarified that this is not about using CAWCD's bonding authority or providing CAWCD subsidies; it is very different than Project Water and the allocation process that folks are familiar with for CAP supplies. We intend to collect money to build projects to make these wheeling contracts firm. The staff proposal is that most of the money would be collected before the end point of execution of the contract.

Several questions were raised at this juncture. Will CAP require money to be paid before the execution of the wheeling agreement, and if so, is there a mechanism for return of that

money if the water supply project falls through? Mr. Seasholes stated that the current staff proposal is very broad on this topic and staff welcomes further input from stakeholders regarding what models they think would work in this situation. A second question was whether CAWCD would require some level of subscription by wheeling entities before it committed to moving ahead with a system improvement project, to reach a tipping point. Mr. Seasholes responded that there is an element of risk that there may be a long period of time before a capacity improvement phase is fully subscribed. And, if the model were a pay as you go, then there could be a long period of time during which wheeling contracts would be subject to displacement. For this reason staff believes one mechanism to hedge against this risk is to pull costs forward, to collect more from early subscribers to that construction can be completed earlier. One stakeholder noted that practices used in the development arena could provide potential solutions to funding the completion of a system improvement phase, such as sewer line extension agreements. There were also questions about refunds of the System Improvement Fee. Specifically, staff was asked how CAWCD would handle a situation where an entity obtained a wheeling agreement for a non-project supply under a 20-year lease. Would that entity be able to get a refund of the improvement fees it paid when its lease expired? Mr. Seasholes noted that the current proposal does not include a mechanism for a refund. However, he acknowledged there would be circumstances where it would be reasonable to provide a mechanism to pay back system improvement fees once the underlying water supply expires and someone else could benefit from the capacity previously associated with that short-term supply. Others commented there would be benefit in providing certainty that system capacity improvements would be adequately funded and completed. One commented that the current CAP policy governing transfers of CAP M&I subcontracts, could provide a useful analogy in developing concepts about refunds of system improvement fees.

The figures provided by Mr. Dent allow us to have some uniformity over time of what the system improvement fee might be. In general, the long-term stability in the fee is preferable (i.e., no early or late entry advantage). We want to have a program in place that will have some stability and be able to collect money in order to slightly accelerate the construction of a project. On a per acre foot basis there are some steep inclines but that gives us the opportunity to have some uniformity over time of an expectation of what a system improvement fee might be. Essentially, it is aiming high on the system improvement fee by collecting money to accelerate the construction project and take some of the pressure of the time in which there is actual wheeling. A "catch-up" mechanism may be worth considering, possibly similar to one that is part of the activation fee of the CAGR.

Mr. Seasholes took the 2016 provisional rates to determine hypothetical costs for wheeled supplies compared to M&I subcontract water. For the wheeled water you pay actual energy costs at a market rate then calculate that on the basis on how many pumping plants you went through and what the kilowatt per acre-foot is and then publish an energy rate for wheeled water. If your project did not happen to go through a pumping plant you would not have any energy costs. If, on the other hand, you had a Colorado River supply that went all the way down to the terminus you would pay the full delivery cost (shown as \$175 in the hypothetical example). This gives you a range of energy costs, the actual energy cost would depend on rates at the time. The cost depends on to the volume and movement of the supply. Even though you have paid a system improvement fee, you are also using the system as a whole, so there is a proposed capital equivalent fee as well.

Questions were posed: how long will the capital equivalent be charged? Mr. Seasholes explained that we do not have a proposal on that yet. CAP is not proposing to change the way the Basin Development Fund works, so the revenue would cascade through the way it is currently negotiated. What is the benefit of the system as a whole? The spillways have a more identifiable potential benefit, but they are not particularly large or quantifiable. Mr. Dent explained that things like general maintenance will not be covered in the \$1500 straw man fee. Mr. Seasholes emphasized that you are paying a system improvement fee that is overseen by Reclamation in order to use the system. It will allow us to perform on the contracts. Mr. Cooke explained that there would be a system improvement fee regardless of when you contracted for wheeling.

Further discussion and questions from the audience related to the charges and fees: would the water be accounted for when the spillways are used? Mr. Dent explained that it might be considered a system loss but it will be designed in such a way so as to minimize the losses but it is expected that they will be relatively small. In response to a question about short-term contracts, Mr. Seasholes explained it is not our intent to prohibit shorter term contracts. There was some concern expressed that if someone came in early on and paid for more capacity than is needed it could create a perception of a claim. Mr. Seasholes reiterated that the general framework of "Serve as you Come" is that it is tied to a supply. What happens if there are not enough subscribers to complete the project? Mr. Seasholes explained that there are a few options, but no specific proposal in place to mitigate that risk yet.

Mr. Seasholes noted the other costs that the wheeling party will pay, as applicable, such as turn-in design, construction and equipment costs, water quality impact analysis, water quality monitoring equipment and testing, metering and telemetry and legal and administrative review costs, some of which will only apply to imported groundwater sources.

Discussion of Next Meeting ("Remainders & Closure")

Mr. Seasholes' goal by the end of the next meeting is to have a refined staff proposal to present to the Board for their approval to move forward into the formal negotiation phase. There will be discussions about existing issues that were not fully addressed and any new issues will be discussed. There will be some clarifying points on the issues of long-term storage credits, near-term annualized demands, and some refinements about what our staff proposal is trying to achieve. There will be discussion of stakeholder expectations and remaining topics with an objective of getting to the next step with a stronger, more viable concept. Staff will make some general language changes/additions in redlines. The whitepaper will also be updated. Meeting #4 will be held on Tuesday, June 17, 2014 at 9:00 a.m. at Central Arizona Project Headquarters in Conference Rooms 10/11.

The meeting was adjourned at 3:35 p.m.