Interview | CAP System Use Agreement Oral History
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P: Jim Kent (CAP videographer)
Q: DeEtte Person (CAP interviewer)
Ken: Ken Seasholes (Central Arizona Project)
Leslie: Leslie Meyers (Salt River Project, formerly with the Bureau of Reclamation)
Patrick: (Central Arizona Project)

Q: Thank you for being here. Can you please each briefly introduce yourselves?

Ken: My name is Ken Seasholes. I'm the manager of resource planning and analysis here at Central Arizona Project and I was the lead staff person on the pieces that came together for the System Use Agreement. And I continue to work on those projects today.

Leslie: Good morning. I'm Leslie Meyers. And today I'm the associate general manager for water resources for the Salt River Project. I've been there about seven months. Prior to that, I spent 34 years with the Bureau of Reclamation – the last eight or nine as the area manager for the Phoenix area office. So, I spent most of my career working with these gentlemen and Central Arizona Project. My role actually, probably maybe prior to becoming area manager, I worked closely with a contract specialist in our office and with Ken and Suzanne Tickner (who was with CAP). And we hammered our way through the details of the System Use Agreement.

Q: Well, we'll hear more about that. Patrick?

Patrick: Good morning. I'm Patrick Dent, the assistant general manager of water policy for Central Arizona Project. But for most of the work on the System Use Agreement, I worked in our operations group and did what I'll call more technical work on the water quantity and water quality side of the elements of the agreement. I looked at how functionally we would move water through the system. So, I've had a number of different jobs at CAP over the years and it seems like every one of them at least had some assignment in the development of the System Use Agreement.

Q: I'll address this to Ken. In a nutshell, can you tell us what the System Use Agreement is?

Ken: The System Use Agreement is an agreement between the Central Arizona Water Conservation District – the formal name for CAP – and the U.S. Bureau of Reclamation. And it addresses three main areas: wheeling, exchanges and firming. It brings those together in a way that also addresses how we use our system to deliver our base Central Arizona Project water.

Q: You used three words, which I think we'll probably use frequently. So, let's go ahead and give some simple definitions. Wheeling, firming, exchanges, define.

Ken: Wheeling is taking a supply other than our base Colorado River supply, and moving it through the Central Arizona project – delivering it. That could be a groundwater supply. It could be a Colorado River supply that's not our base supply – for so-called non-project water.

Firming is the use of one supply to make another supply more reliable. Typically, we think of that in terms of recovered water that's been stored in our aquifers, but it could be other supplies.

And then exchanges is when two parties have the legal right to a supply, but physically they let each other use those supplies for more efficient use of the supply.

Q: Let's set the stage. Why is this System Use Agreement so important, especially when we consider Arizona's water future and future CAP operations? Let's start with Ken, but then I'd love to hear from all of you.

Ken: The one commonality between those three things – wheeling, firming and exchanges – is really flexibility, the use of our system in a way that's not just the standard of diverting water off the Colorado River, delivering it to a customer at a turnout. And flexibility is a key component of how we need to manage the supplies we have. But probably the part that gets most attention is wheeling because that's bringing new supplies into the CAP service area.

And as we face reduced availability of our Colorado River supply, those kinds of supplies are going to be ever more important, both to be able to fill in for supplies that are reduced – firming – but for new uses as well. And there's lots of interest and potential to do that. We have a system capable of delivering additional supplies and a lot of interest in doing this.

Patrick: I think there may be two other things that it's helpful to know, and that is that Ken mentioned some of the legal frameworks involved with the System Use Agreement and the purpose of those – knowing the types of things we might do to help with long-term planning. So, if we're looking out a decade or decades, the idea that we would be able to use the infrastructure in these kinds of ways and the tools that would be in place, even if we don't have the specific thing or the agreements identified that we would use, that serves a very helpful long-term planning function to know, “hey, we can use the CAP. We can use this tool and it'll require these kinds of activities to make that happen.”

It also created some certainty for existing users in the sense that they would know if other people wanted to bring water into the aqueduct, how would that affect their contract and what would happen to their existing services – whether there be cost impacts to me, whether there be operational impacts to me. We talked through how to address those.

The other thing I think it was helpful with is there is an infrastructure component to it. And we will talk probably a little bit more about capacity here in a moment. But it did give us a framework to think about how the infrastructure might change through time. And that also aided in a planning sort of benefit. So, when we think about how we're going to operate and

maintain the existing system, things we might do in the future can be considered in the context of, "well, it won't always just be Colorado River water that we see entering the CAP system."

Q: Right. And that's really, in a sense, the crux. I mean, somebody might think, well, you've got a canal, just put water in. It doesn't really matter what water. I mean, it's been Colorado River, but it's so much more complicated than that.

Leslie: One of the things I would like to add is, especially because we're talking about history, is that this concept of wheeling or using this beautiful piece of infrastructure to move more than just CAP water was envisioned from the beginning of the project. The project was designed with extra capacity so that we could meet peak demands in the summertime primarily because in the beginning water went primarily to agriculture.

And so, when the Bureau of Reclamation and Central Arizona Water Conservation District first developed their very first agreements, they envisioned contract provisions stating that we knew there would be wheeling and we would work on those details later. We just didn't know it was going to take us 20 years …

Ken: – 30

Leslie: Right … to do this. But some of that was really just the time and space that we were on and what we were using the canal for, and where we were in time even when we signed the System Use Agreement. And I would just say that we knew that this was coming, that things were changing. But I couldn't have even envisioned then that we would be where we are today.

But I do think that the agreement that we developed set us up very well for where we are today.

Ken: Agreed. And just to amplify a point about history. There's lots of legal provisions that we've had to work through, but the 1988 Master Repayment Contract explicitly contemplated wheeling. And there were multiple attempts through time. In fact, our first request for wheeling occurred before our first delivery, before the project was even capable of delivering water in 1982.

And there were points where we tried to address that particular provision. And so, in some ways, everything that happened after was built on that. But bringing it together with these other provisions actually made it stronger. So, if we'd managed to get that one piece back 20 years ago, we still would have had all these other issues.

So, it took a long time and was painful at times, but because it brought together multiple pieces, kind of resolved more than one issue -- both legal and physical.

Leslie: Yes.

Q: To that point, with these words – wheeling, firming, exchanging – my understanding was we thought we'd address all of these separately, but you advocated to bring them all together. Can you expand on that bit?

Leslie: I did. And maybe some of that was because of my newness to the process. I know Ken had been working with folks from Reclamation prior to that, and at the time we had a lot of discussion about firming and recovery and how we were going to move water around during shortages –that the federal government has obligations to do that, the water bank and CAP have obligations to do that.

And I think in my mind, it just made a lot of sense for us to pull everything into one place and do what Patrick said, which was to be very transparent to all of the water users about what folks who wanted to wheel needed to do and what their expectation should be, and then what existing users' expectations should be.

And when I was thinking about this, one of my very explicit memories is sitting in the Verde Conference Room at the Bureau of Reclamation, drawing on the whiteboard the list of priorities and what would eventually become Article 11 in the agreement. It took us a while, but I feel like we came out with a very straight-forward approach and that there was a lot of support for the agreement because we came about it that way.

Q: This question just came to me as you were talking. Is that why we use the term System Use Agreement? It's an agreement on the various ways you can use the system?

Leslie: It is. That was new, too! We came up with that during the process.

Ken: Just to just add a little more texture. We had been working separately on these issues each of which had lots of contention, lots of complications and lots of institutional kinds of things. So, we'd work on something called qualifying activities for firming and the City of Tucson – actually going back decades as well in the Tucson region – had thought about inter-AMA firming. But that became contentious. And we'd tried literally for decades to work on a standard form wheeling agreement.

We had these concepts together. Leslie gets all the credit in this case of being the one to say we need to bring them together. And that the key aspect of doing that was the scheduling priorities. And that's where I think also internal to CAP, we spent a lot of time thinking about how the system impacts would be both with new supplies, but using existing supplies more.

At the time it felt like the boulder – the three boulders we were trying to push up – got heavier, one big one. But ultimately, it was a better solution.

Q: Was there anything that you had wanted to add?

Patrick: No, I wasn't there to draw on the whiteboard.

Q: But you were all kind of coming up with the various uses for the system. Meanwhile, you're dealing with the infrastructure and the engineering of the system itself. So, when it was first considered, like you said, you were in a different role. You were managing water operations. So, from an operational perspective, while they're drawing on their whiteboard, what are you thinking about?

Patrick: Well, I think there were a few different things we considered through time. The scheduling provisions that Ken just mentioned were a key component because we had informally, I'll say, developed an annual plan every year. We didn't call it that prior to developing the System Use Agreement. But for our existing users, that's when their contract rights were expressed and when they made their water orders. And we made a commitment to deliver water at a specific time and at a specific volume.

That seemed to be a good time to interface with other water users. And so that was a concept that was incorporated in these scheduling priorities. We would develop an annual operating plan, we would develop water delivery schedules for water users, and then we defined how those water delivery schedules for folks who wanted to do firming, exchanges or wheeling would interplay with those existing water delivery schedules.

And so, in that that specific role, I don't know if I'm circling back to your question, but that specific role had a lot of engagement in trying to think through that and how that would actually work.

I'll mention capacity again. We always knew that capacity constraints would change through time. At the time when we were doing a lot of this work conceptually, we still had high levels of ag deliveries in the CAP system. Certainly, in more recent years we've seen shortages. Deliveries will change again in the future.

And so, some of the constraints we thought about in the development I knew would be important or not be important under a different set of circumstances. One of the challenges was trying to be thoughtful about something that would have to work in a number of different scenarios – not getting too hung up about, well, "this year, that's a terrible idea for one reason or another." Because it was meant to be a long-term effect and you just had to try and create a set of guideposts that would help to develop an operating plan so that you could actually execute it.

Q: At the time, the shortage was kind of this thing like someday we might be in shortage. And here we are in shortage. So, it's amazing to me to learn that early thoughts were even increasing the capacity of the canal. Is that right?

Patrick: Even before we worked on the System Use Agreement we did have those provisions in them as the repayment contract, which I want to clarify was only a sentence or a very short paragraph.

But to Ken's point, the concepts of wheeling had been around for a long time and maybe even in some folks' minds, there would be times of surplus on the Colorado River and we'd have a very abundant full aqueduct. I don't know if that's going to happen in the balance of my career. But there might be other water supplies that people would want to move through the system that they had access to that would always be there.

So, the thought was, we may reach capacity limits, whether they be temporary in time in the year of our plan or maybe more wholly across the aqueduct itself. From an infrastructure planning perspective, Larry Dozier at the time said – and this is going back 20 or more years – "we don't know exactly what those capacity needs might be, but let's at least acknowledge that they will exist. And if we're going to do something in an O&M capacity, might we do something in our capital program that would at least put us on the right path for future capacity expansion."

So, he tasked me with what he called the "holes study." We're not going to make tunnels bigger or siphons bigger or things like that. But if we looked at the aqueduct, what kinds of improvements might we make through time? Kind of with the existing infrastructure that would allow more water to make it through. And a simple example was even at that time, and this would be in the late 1990s/early 2000s, we had to replace some impellers at the Mark Wilmer Pumping Plant and the new ones they put in took advantage of some available power capacity in the existing motor and they increased the flow of the entire plant.

We analyzed the tunnel to see if it could handle the additional flows and it could. And so, are there things like that that could be accomplished? And so, we did a study in the 2004/2005 timeframe to just identify where our limitations are and what are the boundaries of the existing system.

I can think of one specific project we did. We had a section of the canal that had subsided a little bit through central Phenix, and we were going to raise the lining to restore the capacity that had been lost due to this kind of localized subsidence. But we said, well, we're doing a project, we're going to have a contractor so let's design that for something more than subsidence. So at least one time we were thoughtful about, "hey, we're going to spend some money to do something. We should be focused on renovating our aqueduct in a way that makes sense in the future."

Q: We contemplated potential engineering changes, even thinking about increasing the capacity. But now where we stand here in 2023 and we'll get to this, but we still actually haven't used the System Use Agreement yet. But are there still engineering changes that would need to be made before waters will be exchanged?

Patrick: No, actually, I think that access to the aqueduct is in Article 11. There's a framework and the existing agreement for us to move water through the CAP system. And there are two sorts of provisions for both the district to enter into wheeling agreements and for Reclamation to enter into wheeling agreements.

Reclamation, and, frankly Leslie, have been open in the near-term of using the existing capacity and/or their existing authority. So right now, we have a clear path. And I think there's even one maybe in 2023 that will be the Queen Creek Agreement, transferring our Colorado River entitlement delivered this year under the System Use Agreement with a wheeling contract through the Bureau of Reclamation.

Q: We'll definitely talk about that. Did you want to add anything?

Ken: Well, we'll get to it. But there's a tight connection between really the seminal work that Patrick did – evaluating the ways that you could modify the infrastructure – and the solution that we came up with to get past a legal impasse about interpretation of our authorities. And that kind of reconceptualized capacity and how it related. But that there were a couple of places where the intersection of these relatively arcane kind of legal contractual articles and how they're interpreted that on-the-ground infrastructure and how you actually operate the system came together. And that was where those pieces where the idea of capacity and using the system more flexibly came together.

Q: Before we move on, one thing I want to touch on is, we've talked about water for ag. Of course, we know that we supply water for cities and industries, private water companies, but also tribes. And so, Leslie, the Bureau has trust responsibilities for the tribes. So, could you talk a little bit about the unique issues and perspectives that that brings into the System Use Agreement?

Leslie: Absolutely. And it did bring in some kind of unique perspectives and issues. So originally, nine tribes got CAP allocations and those contracts are directly with the Secretary of Interior. They're secretarial contracts between the Bureau of Reclamation on behalf of the Secretary and the individual tribes. And after that, the State of Arizona in earnest worked on negotiating Indian water rights settlements, which was a way to settle claims on behalf of the tribes for water to live and prosper on their reservations.

CAP offered a very unique opportunity to the United States and the other parties in the state to settle those claims, because we had this water supply. And after 2004 and the Arizona Water Settlement Act, we actually had a bigger water supply to be able to do that. So, what happened was many of the tribes ended up with not just their original CAP contract, which was high priority Indian priority water, but also additional CAP water that was a lower priority. Then because some of that water was a lower priority, the United States and the State of Arizona were tasked with firming, which is what Ken talked about earlier. And that meant firming that lower priority water to a higher priority in times of shortage.

It generally means that if there are tribes and lower priority water is shorted, the State and the United States are responsible for delivering water in lieu of that – not all of the water, but some of the water. So, again, another very complicated concept because we in Arizona like to

complicate water. And we very intricately wove every aspect of it, which makes it hard to do almost anything or anything new, let's say that.

But the United States was very interested in the firming aspect and how we would be able to move water and firm water with this System Use Agreement. We also wanted to make sure that it was clear to the tribes. We consulted with all of the CAP tribes throughout the development of this System Use Agreement on what we were doing and why and what it meant to them and what it meant to their water priorities, which again was why we went back to the scheduling priorities, because it made that clear.

And then when we talk about these two different ways to wheel water. The master repayment contract said, "we recognize that there's going to be existing space and that's part of the existing federal system." And so, the United States can wheel water. And we lovingly called that 817 because that's the provision in the master repayment contract, Article 817. And then Article 818 talks about the CAWCD Authority. I'm paraphrasing that, but again, it's just a couple of sentences. It was just really important to talk about what the United States would use its space for, how we would enter into agreements for it, how it would be prioritized and even within that space, how it might be prioritized first to tribes and federal purposes, and then to others.

Some of these other projects that we're talking about now, like Queen Creek, would move through that federal space because there's a lot of empty space right now. Right? And because there haven't been 818 projects yet. So, it all comes back to that terminology of flexibility and reliability and what we could best do with the system and use it to its fullest. But I think that the United States came out in a very good place with the tribes in the end, and they were very happy with the outcome as far as being able to see how their water would be prioritized, how their water would be firmed and potentially how they could move forward with wheeling non-project water in the future and how their contracts would be implemented.

Ken: Great point regarding the connection with the federal responsibilities. These two articles in our master repayment contract have been kind of the root of the dispute. And maybe that's even too strong in a way -- but just a difference of opinion of an interpretation, really. The practical impact was the 817 rights of the United States meant that our ability to wheel reliably under the 818 predictably to meet the state's assured water supply rules or build a treatment plant. There was potential certainly that there could be a displacement. And so, the connection and certainly there was a concern and I would say still probably is that if the US authorities were used for communities that down the road, maybe even decades down the road, that the tribes might be disadvantaged and that it would be practically that that capacity would have been taken.

So, the connection, again, back to improving the system and making accommodation for these new supplies came together by saying, well, we can at least point to ways that the project can accommodate all of the new supplies without infringing on the existing rights of the system. That that was where some of the federal issues and particularly with the trust responsibility.

Leslie: Yes. Some of the concerns of the tribes. Yes.

Q: Like you said, there's a lot of complexity. I know you're an engineer. You're an engineer. You're by trade?

Ken: A geographer. A political scientist.

Q: But I'm assuming there were a lot of lawyers involved with all of this, as well. We're going to start moving into the System Use Agreement being signed. What were some of the impediments? Why hasn't it been used yet? And then how will we use it? Anything else to take us up to the agreement actually being signed? More stakeholder engagement, anything like that that we should consider in terms of what it really took to get the thing signed.

Ken: I would say it is important to recognize how many processes there were up until that point. On the wheeling side I would point to a couple things. There had been an effort actually originating with a non-project supply from Scottsdale back in the in the mid-1990s and that ultimately didn't pan out in terms of wheeling.

There was a work-around referred to as Project Wheel, which was I think actually an acronym to try to talk about how to essentially divvy up the capacity, the excess capacity of the CAP. And that's the way that the issue had been framed for a long period of time. That led to a little bit of an incremental understanding among folks, but didn't get all the way done.

There was another lengthy, very heavy stakeholder process called Add Water, which goes back to this era really where we were anticipating the possibility of very large new supplies, along with potentially a full canal and how to work those things through. Ultimately, that conflicted with some of the Secretary's authorities and there were other issues with that. But coming out of that, we had a wheeling public process with our stakeholders that started to really get more honed in on some of these particular processes.

Like what are the constraints? Capacity isn't just a static number. It's got all of these other complexities and that got to an idea that we would not just be divvying up the capacity, but we could incrementally contract for.

Leslie: Yes.

Ken: That was a key component that was moving forward along with these other processes. So, there was a lot of hard work from many, many people – definitely lots of lawyers. And so, it is important to understand that the pieces that ultimately came together as the System Use Agreement were ones that had been cobbled together from previous efforts.

Q: If you had to put a pin in it in terms of when discussions about the System Use Agreement started, what would you say?

Ken:1982.

Q: Okay. Like you said, even before the first water deliveries were made, because the first water deliveries were 1985. So, 1982. Now, we've gone through all this. Are we ready to sign?

Patrick: Ken, we can put 2010 or 2011, though. When did we start in earnest? After Add Water was done, thinking about the framework of where we're actually at.

Ken: Yeah, so that is much later. I'd have to think about that.

Patrick: We had that stakeholder meeting. Sorry to interrupt. We started talking about capacity and scheduling. So true costs in 2014.

Ken: The 2014 process, relative to the wheeling in particular. That's really where you start to see the elements that ultimately became embedded in the system. Things like water quality.

Q: So, you're saying as early as 1982 it started to even become obvious in people's mind that, okay, we may need to be thinking about some other things if we're going to use this in a more flexible way. Ultimately, that's where the concept started, right?

Ken: Our Board took a position at that point about saying that wheeling would be a great idea, but maybe premature. And so yes, the things that were much more that you can see a direct path to where we ended up. I would say the 2014 process was a big jump forward in terms of the wheeling piece, I think.

Q: What jumped it forward? Was there an event? Was there something that kind of kickstarted the whole thing again?

Ken: I do actually think that kind of the aftermath of the process from Add Water, which was, I would say probably universally viewed as not successful. But folks wanted to at least rescue the standard for a wheeling contract. That was a specific task that was worked on and you know Reclamation and CAP worked independently and then coordinated on some concepts. That public process sort of reframed how you could move water through the system.

It wasn't just an allocation process. It wasn't a CAP allocation process. It was going to be something that had to be more tightly coordinated with the Bureau of Reclamation.

Leslie: I think, too, that there was some more specific discussion about bigger exchange concepts, the Phenix Tucson thing, that just some really big issues that came up that we could resolve with this System Use Agreement, which was nice. The United States was in the process at the time because there was still excess water and they were storing a lot of excess water and working on firming plans, as was the Arizona Water Bank.

And we were looking a lot at recovery and how we would do that. There were a lot of questions. I think there were a lot of really great ideas and concepts about flexibility in what we

could do, but we really didn't have that functional foundational agreement in place that would allow that to happen.

So, I felt like there were a lot of questions. We weren't quite at the brink of where we are today of really knowing that we were going to firm in the very near future or that we were going to wheel in the very near future. But there's just all these things in the queue that Reclamation and CAP were talking about.

And I remember at the time thinking, we can wrap all of this. We're back to that. We can wrap all these things up with the System Use Agreement. And it really was the 2014 timeframe. And I will say in the whole scheme of things because I think we signed in February of 2017.

That was kind of like light-year speed, right? I mean in two years, we really wrapped up the whole thing and CAP led a huge public process on that. And Reclamation did a lot of work in consultation with the tribes. And so, it was a pretty intense effort. And it turned out well.

Q: February of 2017, it's finally signed. Was there a ceremony?

Leslie: Maybe there should have been.

Ken: At our Board meeting it was ceremonial.

Q: So, it was signed here in this Board Room. It didn't look like this then, did it?

Patrick: It did. And it was right here.

Leslie: It was right here. Lisa (Atkins) signed it.

Ken: There was a little bit of ceremony around that.

Leslie: Yeah. I was here.

Ken: The Reclamation signing was a little less formal.

Leslie: Yes. You know, up until that date, there was a lot going on for Reclamation and CAP and water in central Arizona. And I felt like the stars aligned. I think probably CAP said today's the day we're going to sign. And so, we signed it. And I believe I took it and went and met our regional director, Terry Fulp, who happened to be in town. I heard he was at the Phoenix Open and so he and his wife came out and met me and they signed it on the back of their convertible Mustang rental car in the parking lot. And somewhere there's a picture of it. And I brought it back and it was done. I felt a great deal of relief when I handed it back over to you, to somebody in the front office that day. It might have been Ted.

Ken: So that date is also significant because there was a change in administration as well. To give due credit, our general manager, Ted Cooke, at the time had understood the importance of it and had a role in it. There were very high level discussions about pushing it forward and getting to a point of a signature. We'd worked out the words, we'd cleared the language and all of that.

And there was a direct push about the opportunity to sign before a new administration. Not necessarily that a new administration would oppose it.

Leslie: But sometimes it does just take that political push at the staff level, we were very anxious to get it signed. All of us. Yes.

Q: So, at the time, you're still working in operations but starting to move into the policy realm. As we now get into where we are today, tell me from a policy perspective, why is this work so important? What will it mean to CAP's future?

Patrick: Oh, there are just so many reasons. I'll take the context from right now. So here we are in 2023. We're looking at potentially significant reductions of an available CAP supply on the Colorado River. Lots of conversations going on about how to implement those and how we might use other water supplies to ensure there's water available for people in central Arizona in the midst of a historic drought on the Colorado River.

So, item number one is, thank goodness that this is done. If we were doing this right now, on top of all of the other things that we are trying to do, you know, it would be very difficult and certainly we couldn't have time to do the level of stakeholder engagement that we did in this process.

And frankly, the level of detail and debate and good work that came out of it into a thoughtful product because we would be in more of a reactionary mode. So, from a policy perspective, the one thing I'm just grateful for is that the work's done. It's a tool that we have available to us right now to use going forward.

I would have thought maybe in 2014 or 2015 that wheeling was the most paramount component of moving other additional supplies to water users and Add Water had been focused on that. And I'll say at least in my mind, that would have been maybe the first and largest priority of completing the agreement. But the reality may look something different where we will need to do firming. I'm sure many folks, maybe even some of us, will come up with new and exotic types of exchanges that will need to occur to address the drought on the Colorado River.

So, from a policy perspective, it's great that it's been completed that it's in place, and it provides a framework for us to develop solutions that we need to have right now.

Q: It's a great perspective. It's interesting sitting here in 2023, right to think of that? Back to simple definitions -- we've mentioned Add Water a couple of times. We've mentioned excess water a couple of times. Can you give us just simple definitions of what those are?

Ken: Excess water, which is a slightly unfortunate term, is the Colorado River water that was available to CAP above and beyond what's needed to satisfy the long-term contracts. Leslie mentioned the federal contracts for the tribes and the subcontracts with cities and industry and others. When the supply is large, there's actually more water available because we have a contract that allows us to take all the water that's available.

And so, for many, many years we had a very large amount of that supply. We've used it to do underground storage for water banking and things like that. That is no longer the case, but that's what that that term is.

Add Water was also an acronym for the process, but it was that CAP would be the Acquirer, Developer and Deliverer of new supplies for the Central Arizona service territory, the three counties territory. It was predicated on this idea that there would be a kind of a wholesale role for CAP to move these new supplies and to meet the new demands or potentially for other kinds of demands. So, it had a lot of this kind of concept in its mind about that we were going to be having supplies in the CAP aqueduct other than the supply that's available under our current contract.

Q: It's now 2023. This agreement was signed in 2017 and hasn't been used yet, but there have been some implementation issues, particularly the establishment of water quality standards. Can you tell us what that's all about?

Ken: Water quality may be self-evidently important, but there is a provision actually under Article 818 of the Master Repayment Contract about water quality and so we all recognized all along and certainly going back to those earlier processes that we would need to establish guidelines, rules about the kinds of water that would be introduced into the CAP.

Q: Again, not just moving Colorado River water, you would potentially have other types of water. So, co-mingling?

Ken: Right. Exactly. And so, there are groundwater basins that can be pumped in and delivered pursuant to state statute. There's water that's been stored underground that will become potentially directly introduced into the CAP. The quality of the Colorado River water is, to many people, surprisingly high. It easily meets, in most cases, the drinking water standards established at a federal level. Obviously, there's treatment for the delivery at the treatment plants. And so, there's a lot of concern about, or just emphasis on, establishing standards.

The System Use Agreement in one sentence says that CAP and Reclamation would jointly develop uniform water quality standards. We had touched on some of those issues in the earlier

processes, but we knew this was an implementation step. Complicated. Lots of strong opinions about water quality – from our customers, from the public.

The two main kind of perspectives that we spent a good couple of years working through was, "should you establish these standards at the quality of the water that you're introducing or should it be at what's ultimately delivered?" And it comes down to sort of how you think about the blending of the new supplies. And even if there is a high quality supply, it's going to be different. It's going to have different chemical physical characteristics in our supply. But well, again, lots of stakeholders were involved, lots of strongly held views on both sides was that the emphasis is on the introduction, that the quality of the water going in has to be very high quality, essentially meeting drinking water standards, even though it's an open aqueduct before it's introduced, to be protective of ultimately the quality that's delivered to end users, whether they're agricultural, tribal, municipal or otherwise.

And so, water quality is a complicated area with lots of strong opinions. We have worked through what we're referring to is a guidance document that has been approved on the CAP side. It's still pending on the Reclamation side. But it is a very detailed set of processes to determine and to have enforcement essentially about quality of water to make sure it stays acceptable.

Leslie: And it's really about consistency. And I think Ken said this, but CAP Colorado River water quality to-date has been pretty consistent. And so, water users are used to getting water of a certain quality. Their treatment plants have been designed for that. The ag users are used to specific water quality. It's good water quality.

So, the equalizer for the water quality was that we understand that there's going to be times of shortage like we are today and that water is important. And sometimes maybe having water is more important than what the water quality is because water is life. But on a general day to day basis, we needed to look for consistency.

There is a provision in the proposed guidance that says we can relook at it when we get to what I would say are these more emergency situations and rethink about that. And I think we may before we ever even implement it, we may be looking at this provision.

Ken: And so, one of the ongoing points or maybe disagreement or perspective is about what happens with the blending. And the way we landed is that the quality can change even without making modifications on standards. And that what we've committed to is that we'll model what the impacts of these new supplies are on the blend of the water, but actually at a set volume. No more or less than a million acre feet. That recognizes that when we're in a situation where we may have less, even less than that of our base Colorado River supply, that we will see a larger change as the supplies are blended. But at that point, an acre-foot of water has much higher value.

Q: So much complexity. That guidance document has been approved by the CAWCD Board. It's waiting on the approval of the federal government. Is that where we're at? Are there any other roadblocks, impediments, anything else that would need to happen? We're going to talk about Queen Creek in a second because we've mentioned that a few times. But anything else that needs to happen to allow us to use this agreement?

Ken: Related to this idea that we can add capability and say capacity, but it's a more subtle kind concept to the system. In order to use our CAP authorities under Article 818, we have to have a project identified and approved, not constructed, but approved before we can issue those contracts.

Patrick has mentioned that in the interim, we've agreed that we can essentially borrow the authorities of the US under that. So that's still to be worked through. That's a relatively near-term thing. And it's not an immediate impediment to moving the supplies. We will in addition to a Colorado River transfer – the Queen Creek one that's been mentioned – because its Colorado River water doesn't have the water quality aspects to it. So, it could move without final approval on those.

We will see the exchanges, I think, in 2024. Leslie mentioned it in passing, but there was an agreement between the City of Phenix and the City of Tucson, very innovative and one that we've supported but was contentious at the time to figure out how it gets implemented, which allows some of the capabilities for pumping in Tucson to benefit the Phenix area.

I expect to see some of those happen actually for 2024 as well. So, there is definitely some additional work, the water quality we need to get past a hurdle on that and have that actually implementable for these groundwater supplies. But we have a clear path at this point for wheeling and at least of the Colorado River supplies and for exchanges.

Q: Today is February 14, 2023. We've mentioned a few different things. But sitting here today, what would you say the System Use Agreement is going to be used for the first time for … this.

Ken: I think it's going to be used for the first time in the near term to help essentially augment the supply that we have. Patrick has mentioned we're facing the prospect of very deep reductions to the Colorado River supply, our base supply. There are processes to work through for that. But there are supplies that will need to be made available. Maybe in particular some of the exchange opportunities are where we'll see some of the near-term action. Just because there are some uses that are more immediately impacted by shortage – direct-delivery treatment plants are the most heavily immediately impacted. There may be users willing to do some exchanges to have some supply go forward.

And in acknowledgment of Leslie's current role at Salt River Project, we have existing exchanges with CAP and we have the ability to currently deliver into the SRP system. Being able to do that physically from the SRP system to the CAP system is another piece that we're

working on. A piece of design for infrastructure, but the System Use Agreement will help facilitate that.

So yes, there will be activity, maybe not as obviously connected to the System Use Agreement. But as Patrick points out, having that framework in place is crucial.

Q: Looking back, once this is used for the first time, what would you say about the System Use Agreement and its importance.

Ken: Others have amplified this. But I just may pivot on the point that Patrick said that having it in place, it doesn't have an expiration date. We have the ability to modify if we need. But establishing the rules of the road particularly on exchanges, but all of these other provisions, they're going to be used in ways we haven't thought about yet.

But that's what we want. We want to see creativity. Everybody's playing by the same rules. They know what the impacts are. So, 10 years from now, certainly 20 years from now, we will be using the system in a way that we don't currently think about.

Leslie: I agree. I think this is very foundational and I feel like we spent a lot of time when we were working on it, trying to think of things we hadn't thought of and how to address that. I think it would be a huge win if 10 years from now we found that this actually provided an opportunity to do even more than we ever envisioned.

And I think it you mentioned that we're both engineers and I've said this before, and it always makes people laugh, but we have this beautiful piece of infrastructure and we have more beautiful infrastructure at Salt River Project. And all we know is that there's a lot of risk and uncertainty to our water supplies. And what we need is flexibility and reliability, and we need to be able to interconnect those systems.

There was a time in the early 2000s because we had the CAP-SRP interconnect that CAP could support SRP when they were in short years. And now it's time to reverse that and to protect central Arizona and the beauty of this is it allows for those things. It absolutely allows for those things. And it's ready and it's ready to go. And I think we should all be very proud of that.

Patrick: Ten years from now – I would say I probably think this today – the System Use Agreement is, Leslie used the word foundational. It's on the list with the 1968 Colorado River Basin Project Act that authorized the construction of the Central Arizona Project, the Master Repayment Contract that kind of set our contractual framework for delivering Colorado River water, and our agreements with Reclamation about how the project would be turned over.

The System Use Agreement is another kind of culminating piece of legal and policy work that allows us to function and do our job and becomes one of the framework pieces of work that we will use forever. Like it will just be something that endures to help us accomplish our mission of the Central Arizona Project.

Leslie: At the time, it seemed like there were a lot of hurdles to get over to make it work. But when I look back on it, it just seems like it just acknowledges and respects both entities and it does what we needed it to do. It's almost hard to remember where we started and where we finished, but I think we came out with a really great product.

Q: Is there anything, in the name of an oral history, that you think didn't come out, didn't get discussed, or you were hoping to get in there -- a little story, a little fact or anything?

Ken: Well, I will say one thing, and partly because we don't have the lawyers here.

Leslie: Is that intentional?

Ken: I'm proud of it. I think it's going to serve us well. And it came about in many instances. We talked about a couple of them because of the failure of other things or things that reached a dead end. I have some vivid memories of a meeting at Paradise Bakery with the Solicitor's Office representative and our lawyers in which we were talking about firming – how to use a supply for that.

And the United States took a very hard position saying, well, just because you've invested hundreds of millions of dollars and stored all this water underground, doesn't mean you can use the system to move that supply. And those are hard points. We had some late hard points related to provisions of the 1968 Colorado River Basin Project Act and capacity that we had to overcome.

This is a cliche at this point, but like failure was not an option. We have made these investments, I think, of all of the ways we have to be able to use the system more flexibly. And I think the relationship between CAP and Reclamation and the personal and the professional relationships and actually putting some of the history behind us was crucial because we had significant friction over lots of issues in the past, including over some of these provisions and saying, you know what, we can't let that be the thing that impedes a good outcome.

Patrick: I may have one thing. I'm not sure Ken wants me to share this. Let me give context first. So, we did, myself included, a little bit more with Leslie and Ken and Suzanne, who's not here with us today. And Rhett did a lot of work on this. And Lisa Lance from the Solicitor's Office.

This is work – because there wasn't necessarily an immediate need – that could have been deferred. And I'll go back to the point that I made earlier, which was I'm so glad that it wasn't. And sometimes these things are easier, sometimes harder, to negotiate in the abstract when there maybe isn't an apparent need.

But you also have the ability to take time to be thoughtful. So, the point I wanted to maybe make more directly about Ken – and Leslie may feel about this of members of her staff and she

can chime in – Ken was a continual pusher and moved this work forward, continuing to have those hard conversations so that we got it across the goal line.

And I remember I got an invitation. We had a dinner and Suzanne, very generously hosted after the signing, maybe not too long after. A few of the folks who had been working on it – myself and Ken and Rhett Billingsley, who was the attorney who worked on it, had joined us – Ted and Suzanne and our spouses, met for dinner. And Suzanne took some nice moments to recognize everyone's individual effort, which was indicative of her character. She was just kind that way. I don't remember anything she said about me, but I do remember one of the things she said about Ken. And she extended the SUA of the System Use Agreement to: Seashole's Ultimate Achievement.

Ken's humbly not going to acknowledge that. But I don't mind saying it here. He really did have a lot of enduring stamina and even now when we need to get something moved forward with our Board or there's other staff or people working on these other pieces, whether it be the water quality or the operational capability.

We continue to rely on Ken to help us with both the background of what happened and then, you know, some inspiration about why this is important and why we should think about it the way we thought about it, to have it completed. So going clear back to the point I made at the beginning, you know, a lot of the value of this is it sets a framework about how we're going to do things in the future.

It absolutely provides clarity, which I think is one of the reasons you had suggested that we take a comprehensive view about our needs.

And I do believe it achieved that, but it achieved that because people took time to not look at the right now and to be thoughtful about where our future needed to go and then were disciplined to get that across the goal line so that we have this available to us right now.

Leslie: And I just want to take a minute to recognize Ken was fantastic. I mentioned Jim before and Lisa Lance and when we talk about some of the places where we weren't necessarily in agreement a lot of that wasn't because local Reclamation didn't agree with local CAP. Because I think we were all aligned on what we needed to do. It was because Reclamation is national and there are other places in the United States that things are precedent-setting.

And so, I will say that everyone was very creative. I feel like it didn't always work initially. Everybody was constantly coming back with a different way to approach things. How about if we try this and how about if we try that? And it was a very iterative process and it was this definitely stamina is a good word.