

**Interviewee:** Curt Sauer (CS)

**Interviewer:** Tom Martin (TM)

**Subject:** Curt recounts his work on the Tenyo Maru and Deepwater Horizon oil spills, and reflects on his experiences since retiring from Joshua Tree National Park

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TM: Today is Thursday, November 12, 2020. This is Part 12 of a Grand Canyon Oral History Interview with Curt Sauer. My name is Tom Martin. Good morning Curt, how are you today?

CS: Morning Tom, I'm fine.

TM: Good. Curt, may we have your permission to record this oral history over the telephone?

CS: Yes sir.

TM: Thank you very much. We closed out Part 11...you were sitting on your porch, you'd retired as superintendent from Joshua Tree and returned to the ranks of ordinary citizenship which sounded kind of nice at 10:00 in the morning with a cup of coffee. And then, the phone rang.

CS: Right. Yeah, that would have been early November, I think.

TM: November of 2010?

CS: 2010. Yeah. It was the deputy director of the Southeast Regional Office calling me to ask if I would be interested in going down to New Orleans and working for the Department of Interior on the Deepwater Horizon oil spill, BP oil spill in the Gulf of Mexico. And that had been going on, gosh, I think it started in April of 2010.

TM: Right, and this was a blowout of a well that just pumped a huge amount of oil into the Gulf. Is that right?

CS: Right. Yeah it was a blowout at the head, meaning where the pipes come out. And it was some, I don't know, 1,400/2,000 feet below the surface of the Gulf. The head blew out and BP and Coast Guard had been... I think it was at somewhere around 3 months before they finally got it sealed off. I'd have to look all that stuff up.

TM: You know, I'm curious that they would have called you. Did you have previous oil spill experience?

CS: No, I had previous... Well, I had one oil spill response. It was the Tenyo Maru off the coast of Olympic National Park.

TM: That was like a big tanker that ran aground or something?

CS: You know, I don't recall. I think it was a collision. It was 15/20 miles offshore, something like that. My recollection is that the collision didn't run aground so we had time to plan for the oil coming ashore. This was another example of Unified Command. The Coast Guard, of course, is in charge of oil spills. Counties in the state of Washington that were potentially affected, even down into Oregon and Canada, were all involved in planning. Of course, Olympic National Park's coastline was at risk. I forget how many thousands of gallons of oil were dumping into the ocean, but it was, I don't know, 250,000 gallons or something like that. On the scale of oil spills in the world, it was a small oil spill. I think the reason I was called was I had been a superintendent and I had quite a bit of emergency response experience. Maybe the main reason I was called was the Park Service... Well, the Department of Interior was in a bit of a pinch because you had the National Park Service which had deployed personnel to all of the national parks along the Gulf Coast, down into Florida and into the Caribbean, because nobody knew where the oil was going to go. But you also had United States Fish and Wildlife Service, which is part of DOI, that had wildlife refuges all along the coast and out in the Gulf. So, being part of the response... At one time there were, I don't know, 15,000 boats. I think the Invasion of Normandy had 1,500 boats and ships counting all the landing craft, and the Deepwater Horizon had 15,000 boats.

TM: I'm thinking that the spill of the Tenyo Maru at 250,000 gallons was nothing compared to the Deepwater Horizon blowout. But I'm also assuming that to protect Olympic you would have tried to put out some sort of booms or some sort of containment lines and absorbent mats to try to suck up the oil before it got to the coast.

CS: Right. And there was also a couple of different Indian tribes that have land that are on the coast as well...Makah, Cleets, and another tribe. Well, just going to the Tenyo Maru for a bit, I met with the Coast Guard. At the time I was chief ranger of Olympic National Park and so I was the representative of the Park on Unified Command so we worked with the Coast Guard and the county, Clallam County sheriff's department. And the Coast Guard worked with Canadian officials and Oregon officials in planning a response. At the same time that we were planning the response to the oil spill, cause we projected that we'd have 3 days before the oil got onshore, the Coast Guard was also busy with the rescue of, I think it was 94 personnel from that oil tanker. So, they were going out of Neah Bay – one of the Coast Guard stations – and dealing with the rescue and securing the ship while we were planning... Another aspect of the Coast Guard was planning the response to the oil spill and how they were going to clean it up. There was an attempt to contain the oil. There were activities to boom the coastline, which was pretty much not possible because there's nothing to anchor to offshore so you have to wait for it to come ashore. So, it was interesting to me... I don't recall the actual year, maybe it was '84? Left there in 2002, so maybe it was '94/'96. The Park Service had been working with the Incident Command System and Unified Command for years and the Coast Guard station I was working with...the Coast Guard was just getting into – had been for 3 or 4 years...

TM: Curt, what's the difference between Incident Command and Unified Command?

CS: So, every response, most every response these days, is an Incident Command System. So you have an incident and you establish your Incident Commander and your 4 divisions—there's 5 divisions if you include investigations of operations, planning, logistics, and finance—and you just utilize that when you are the only agency. But, when you have multiple agencies involved, rather than having each agency have its own response, you coordinate it so it's a unified Incident Commander. So, the Coast Guard was the Incident Commander but I was the Park Service Incident Commander, and the county sheriff and his

chief deputy were the county Incident Commander. These Incident Commanders from different agencies work together to decide how all of your resources can be deployed to the high-risk areas. It's not just the Park Service taking care of the park, and the Native Americans taking care of their lands, and the Coast Guard taking care of the ocean, and the county taking care of their lands along the coast. It's all coordinated and so it's a Unified Incident Command. You have all these agencies that have an Incident Commander, but there is a lead Incident Commander and in oil spills it's the Coast Guard. So, you might end up deploying some of your personnel onto other agencies' lands because those are the areas that are at higher risk.

TM: If I get this right from talking to Butch Farabee, this concept of Incident Command came out of the Park Service.

CS: Well, I live in California, and if I said that to the fire response of California State Fire, CalFire, they would just sort of look at me and go, "Uh, what?"

TM: Maybe I'm remembering wrong, in Farabee's defense.

CS: Well, I know that the Incident Command System initiated in California. Now, the Park Service was one of the first, I think one of the first, to adopt it nationally. And, again, when we're working on the Tenyo Maru, Coast Guard personnel were still trying to figure out how this works because now they have these other agencies and they have to consider them rather than it just being the Coast Guard response. Coast Guard is used to responding to rescues and to vessels in distress, and they do a good job at that, but now they had to work with multiple agencies on the same incident. I think the Park Service went very far with it, but I also thank the United States Forest Service because of fire. All the fire responses, wildland fire responses, are now Unified Command. It might start off as this county has control of the fire, but now it's spread into the National Forest and now the Forest Service comes in. And now it's spread to another county. So you have multiple agencies that are all trying to attack the fire and protect structures. So it's all Unified Command now.

TM: And that would make sense. Basically you would have an Incident Command if you had a lost hiker in Olympic, and you didn't need the county involved, and you didn't need the Coast Guard and the tribes and the Fish and Wildlife Service. But as soon as that starts getting bigger, whether it's a fire that's crossing boundaries or it's an incident, you know, like a major storm or an earthquake or an oil spill, that involves a lot of agencies, it sounds like what the Unified Incident Command does it identifies one person who is the leader of all the other units and their Incident Commanders.

CS: Correct.

TM: Okay. And if the Coast Guard hadn't been familiar with the system, it would have caught them a little on the back foot.

CS: Yeah, a little bit. But, you know, they're pretty good at planning for oil responses so we rely heavily on their expertise and the National Oceanic and Atmospheric Administration's projection of ocean currents and predicted weather, et cetera. So, that probably went on for, I don't know, 10 days? And then the actual cleanup... The company that owns the ship, or the company that's responsible for the oil spill, is responsible for the costs, which played a big story in the Deepwater Horizon because BP was responsible. But this Tenyo Maru oil spill...all of our expenses were covered by the responsible party. They were somewhat involved in the planning, but it was a pretty small company and they were just

like, “Okay, save our ship and save our people and okay, we’ll participate as far as funding.” Of course, they have to agree to the funds that are being spent. It’s not like you can hire a helicopter and fly around all day if you don’t really need it. So that was the Tenyo Maru.

TM: And did that have... I mean, I just think of oil-soaked birds and otters and just what can be sheer destruction of coastal ecological habitat.

CS: Mmm hmm. There was quite the recovery effort. As birds come to shore that were oiled, there was quite the response. I think State Fish and Game coordinated with the Makah Tribe and the wildlife rescue center was set up out on the Makah reservation. I don’t have the numbers, but there were a lot of birds. When we get to the Deepwater Horizon remind me to tell you a story about the brown pelicans and the damage to them. Opened my eyes on the dynamics of the Gulf. It’s quite the ecosystem, which I had no idea about. So yeah, you have all that standard response stuff. And what most people see on the news is they see the helicopters flying and dumping water in the air, tankers dumping retardant, and in this case the Tenyo Maru was filmed floundering in the water, but the logistics and the coordination that goes on behind the scenes in these incidents is something that I’ve always wished that news media would cover in more depth. You have thousands of people that are responding to these incidents and they just work behind the scenes. Same with any incident. Same with fire. There are 375 firefighters deployed on this fire, and nobody ever talks about the field kitchens, and the tents that are erected, and the lodging that’s put up, the food service that rolls in in trailers at the basecamps and at the spike camps.

TM: Right. Okay, so it sounded like for the Deepwater Horizon that the Department of Interior, you mentioned, was in a bind. They had deployed a ton of people out to the coast, and then they called you and this was months after the fact, after the blowout.

CS: What the Department of Interior was doing was they decided that since the Park Service and the Fish and Wildlife Service were heavily involved, that every two weeks they would send the superintendent or an administrator from the regional office down to New Orleans, and he or she would get briefed on the situation and then be there for two or three weeks. And then they would rotate in a Fish and Wildlife Service Incident Commander who would be there for two or three weeks, because they felt the pressure to get back to their parks. Well, in the meantime, the states of Louisiana—initially Texas—Louisiana, Alabama, Mississippi, and Florida all had their Incident Commanders and each one of those states had two people that had been on the spill, all giving each other time off, but there was a consistency amongst those Incident Commanders. They knew what was going on for the two weeks before and then they’d come back in, get briefed, and pick up from where they were. Well, the Department of Interior was sending new people every two to three weeks. Sometimes it was Park Service and sometimes it was Fish and Wildlife Service. Even though those two agencies are part of the Department of Interior, they have different mandates and their management approaches are quite different. Then you have the superintendents of the Parks that have a resource management group, and they’re interested in protecting their park. You have an Incident Commander from the Park Service or the Fish and Wildlife Service, and maybe from Alaska or the west, and they come in and they don’t understand the ecosystem and the needs of the Fish and Wildlife and Park Service units that are down on the Gulf Coast and they don’t understand the ecosystem. The Coast Guard, I think, was the primary agency that was telling the Department of Interior, you know, “We need some more consistency.”

So, they ended up calling me—how they found me I'm not sure but I'm glad they did—and I was asked if I wanted to go down to the Deepwater Horizon spill for two months. I said yes because I had already accepted the Tenyo Maru. The Valdez Oil Spill...many of my associates went on the Valdez and I don't recall exactly why, but I didn't go. Probably because I was in Stehekin if I remember correctly. It was an event in my career that I had never been able to participate in before, so I saw it as an opportunity to get involved in an oil spill. So I said yes, and I guess that was in late November and went down there in January of 2011 for two months. Well, at the end of the two months... I went as the agency liaison officer and then rotated into the agency Incident Command position. At the end of two months, I was asked if I wanted to stay for another two months, and I said yes. At the end of that two months, I was asked if I wanted to stay for another year, because initially there just wasn't a concept of how large this response was. I mentioned 15,000 boats. I think there were around 44,000 people that were involved in this at its height. When I got there, there were probably 25,000 people. These are Coast Guard folks, and, you know, think of the magnitude of this. You have a perimeter that stretches from the Texas-Louisiana border, all the way down the west coast of Florida into the Caribbean, and then offshore. I forget how far offshore the well was, maybe, I don't know, 20 miles? And every state was responsible for setting up its priorities. Many of the beaches that were affected were the recreational areas for the states. Thousands of businesses... Because they closed the beaches, thousands of businesses no longer had tourism. The economic impact to the states and their economies, and the local businesses, and the hotel chains, was significant.

Then you have the wildlife impacts. Then you have various Fish and Wildlife Service refuges across the coast, some of them stretching miles up inlets and rivers that come down. It was significant. That coastline was entirely surveyed for oil impacts. And at the same time that that was going on, there was a massive effort to control the oil and recover the oil before it came ashore. And then on top of that, you add the dynamics of the ecosystem of the Gulf, which is phenomenal. There's all kinds of stories of...talking with boat captains that, you know, I'm out with a boat captain who was transporting personnel at the time, but before that he had been operating an oil skimmer. It's easy to think, "Well, even though you operate an oil skimmer here off the coast off Mississippi..." Well, he had experience with oil spills off the coast of Southeast Asia. That's what he did for a living, was respond to oil spills with various equipment that was available in different parts of the world. He was skimming oil that was one and two foot thick that was still on the surface of the Gulf, the surface of the ocean, ocean water's in the Gulf.

There was a hurricane projected to come in, or at least a tropical storm, so with 'an abundance of caution,' as the current phrase is, all of the personnel were pulled back onshore and the boats were secured. They went out two days after the storm, well the day after the storm passed, it was about a two-day storm, two or three days before they could get back out, they went back to the same location where there had been thousands of yards of oil that they wanted to skim, and that oil was gone. He had never seen that event before. Now, as oil is exposed to sunlight and is weathered, it tends to sink. But he said, "That oil was not that weathered." So, it was something in that storm that churned up the oil enough, and that oil sank or was transported so far away they could never find it. A lot of the oil settled on the bottom of the Gulf and a lot of the oil made it to shore. So, our job in the Incident Command System offices in New Orleans, was to coordinate the response through the Coast Guard, with approval of BP and the four states and the Department of Interior. And there were NOAA personnel – National Oceanic and Atmospheric Administration – there were USGS personnel assigned, pretty much every agency that you could think of that has to do with the environment was represented in that Incident Command System.

Eventually the wellhead was capped. 'Course there were all kinds of lawsuits filed. The oil came ashore, and various entities like the recreation areas of the state where everybody goes down and recreates on the beaches, they actually have beach-grooming machines which are designed to pick up all the litter that people leave so that your beachfront property out in front of your hotel that you're staying at looks nice and clean. Well, those were modified to pick up oil. It's similar to when you see a highway that's being reconstructed and the pavement is being chewed up and up a conveyor belt and goes into a truck? Well, the sand was being dug up and transported into dump trucks which was then taken to a processing plant nearby. The sand was filtered with screens so that the oil particulates that did not... Oil clumps and it has sand in it but those clumps were taken out, and the sand that hadn't been clumped by the oil was returned to the beaches that had been dug up. There was all kinds of interesting things on this spill. The oil clumps that were caught in this filtration system, they were transported to another facility and some 60% of that oil was recycled and used in asphalt. A lot of the oil sank. A lot of the oil was recovered in a manner that allowed it to be repurposed. It's just, what the public saw was these beaches are oiled, and hotels and restaurants are shut down, and there's all this wildlife that has been killed and damaged and needs to be rescued. But the behind-the-scenes stuff, I just found extremely interesting. USGS and NOAA were mapping the coastlines out about 300 feet so they could project where the oil would go when it would land, so that we could mobilize the forces to be in that position.

TM: Was there any attempt to harvest the oil that was on the bottom of the ocean away from the beach?

CS: No, no it's unrecoverable. It's too deep. You can go a few yards out into the water, but once that oil sinks, there's no way to extract it from the bottom. And the Gulf is, you know, thousands of feet deep. I don't recall the exact number, but the Deepwater Horizon oil well drilled, I think it was 2,000 feet from the top of the water down to the base of the floor. Well, you just send your pipe down and then you start drilling through the ocean floor, and I think it was another 3,000 feet or 2,000 feet down below the basement of the ocean. That's another amazing thing. The ship that was utilized to seal off the wellhead was totally run by computers and GPS. When they were doing their work, that ship out in this massive Gulf was able to stay on point/on target and didn't move I think it was like more than a foot, maybe it was more than a yard. And then when they were done with that, they had to bring that ship in and have it cleaned and sanitized. And there were only like three ports available to accommodate the size of that ship. And that ship had been brought in from, I don't know, somewhere in the Pacific? Somewhere in the South Pacific? Somewhere in the South Atlantic? So, it took... I think it was the Biloxi... Biloxi, Mississippi had a shipyard that could handle it. That ship was in drydock for months being cleaned of oil and BP had to foot that bill. Not just the bill to clean it, but the lost revenues from it not being able to go out and do its oil exploration work. So, BP ended up... It was over \$2 billion of expenses, just expenses, and I think it was another \$2 billion of fines and who knows how many hundreds of millions in lost revenue to the companies and businesses along the coast.

So, all that's going on, and you have the BP Incident Commander, they also rotated, but it was the same three or four. I don't remember his name, but one of the BP ICs had been on the spill for, I don't know, well 6 months till I got there, so after about a year's time he left the BP oil spill and went to a country that... I don't know if it was Afghanistan, Uzbekistan, some country in the interface between Europe and Russia, and his job... BP had purchased an oil field that was in production in World War II and his job was to go in and retrofit this oil field and bring it up to today's modern standards so that BP could extract the oil from the oil fields that they had just purchased from another company or another country. Everybody in the Incident Command team was like, "You're crazy. You're going into the middle of a civil war with terrorists, and you're going to be retrofitting an oil field that could be attacked at any time.

And you are going over there for six months at a time..." Well, he left the oil spill and went over to retrofit this other oil field and BP reimbursed him, or paid him, a significant sum of money for that assignment because of the controversies and the threat to human life.

At the same time this was going on, they're still doing refitting of oil fields nationally, et cetera, internationally. I had one BP individual tell me that there is no way that BP will be allowed to go bankrupt because some 65% of all the retirees in the United Kingdom, their retirement funds have BP as major holdings. So, if BP goes bankrupt, their whole retirement system goes bankrupt and the British government can't allow BP to go bankrupt. So, you have on a very significant national and international scale, the political influence. What everybody saw was what's going on with the ecosystems and the economy, and there's all this behind-the-scenes story. And, I will say, in my opinion, to BP's credit, their Incident Commanders and their optics of operations and logistics, were outstanding. To me, they spared no cost to respond to this incident. And their safety program was incredible. You have 44,000 people deployed every day—when I was there, 20,000 people down to 10,000 people deployed every day—and their accident rate was exceedingly low. They constantly took care of the employees that...not the BP employees only, but all of the employees to make sure that they were transported safely, they had the right equipment when they were out.

When I came back from that I did a short slideshow for a local organization and the theme of it was "How much does gasoline cost?" And the answer is, nowadays it's \$3 a gallon. Well, there's a lot more costs that go into what you pay at the pump, but some of the economic costs are the environmental costs. Here's an interesting fact for you: when the oil spill occurred, I think the number of brown pelicans that were recovered, that were dead, was like 800. And the number of brown pelicans that were recovered and were later released was 450. And, of course, the news media made a big deal about all these birds being dead. Which, I understand, and totally agree with. But there were several different hurricanes that came in and one of the areas that we worked was the Mississippi Barrier Islands. One of those islands is about 5 miles long, maybe a mile and a half wide, and the hurricane's coming in so everybody was pulled off and can't work for 3 days. When we went back to that island, the cleanup crews were prohibited from working because there were so many dead brown pelicans that had come ashore. The total count on those brown pelicans on that five-mile-long island that were dead because of the hurricane was 450, and those were just the ones that were washed ashore. So, the hurricanes and the ecosystem...in my opinion, the brown pelicans have been living there for centuries, and their reproductive cycle and their ability to feed and maintain that population, every time that there's a hurricane...not every time but frequently when there are hurricanes, there's mortality in the brown pelican population. When you think about all the hurricanes that have come through the Gulf this year and what the impact is to brown pelicans and the other wildlife...but that's been going on for centuries. Just not at this magnitude.

TM: Right. And I suppose someone might argue that the oil spill puts an additional stress on the ecosystem, the fish populations and the other things that the pelicans eat, so that when there is a hurricane that comes in there's certainly a normal to-be-expected mortality, but that rate might actually go up if the pelicans are hungry because their food base has been altered. I mean, I don't know, I'm a physical therapist that lives in Arizona I don't know anything about this, I'm just putting the dots together asking questions.

CS: You can make that argument and it no doubt has merit. But, to me it was stunning that from one natural-occurring hurricane... And I guess we can even argue whether or not that's natural, because all the hurricanes come off the Sahara Desert, and the Sahara Desert didn't use to be as large as it is. And

why is that? I don't know. But, yeah, the whole ecosystem is changing, but just one event of hurricane scale has that kind of effect on a population. I think the number of hurricanes that we're experiencing in the last number of years is on the upward trend, and there's only been one oil spill. Which is not to discount the effects of the oil spill, it's just... I bring this up because the ecosystem, the dynamics of the Gulf are just incredible. There was another tropical storm that came ashore in Louisiana, and there was a thousand-mile-long beach that was about 50 yards wide. And after that tropical storm, 800 feet of that beach had been washed away, there was about 20 yards of it left. And six months later, it was back. And it had no oil on it.

TM: So, nature has its own machine to scoop up the sand and clean it up and put it back.

CS: Yeah, on a much grander scale than the beach cleaners of Pensacola. So, that ended up being two-and-a-half years that I stayed down there. I would come home every month or so for 5 days of R&R and then fly back down to New Orleans and spend my time out in the wildlife refuges and at the parks, and working with the Coast Guard and BP and the states. It was a very interesting two-and-a-half years.

TM: I bet. When it was all said and done, it had been probably three years since the blowout started. What was your takeaway?

CS: Well, my takeaway is that BP and the Coast Guard and the states, although there were many arguments in the IC, I can tell you that, but ultimately they worked together to do as good a job as they could do. And I believe that 11 people lost their lives on the Deepwater Horizon oil rig when it exploded, and BP increased its safety efforts even more following that tragic event. I imagine there's still oil being recovered. I mean, there was an oil spill off the coast of Texas 30/40/50 years ago, there's still oil washing up. The hotels that are along the beach...when you go out walking on the beach, you can come back to your hotel and they furnish you with the cloths that are used to get the oil off your feet. So, I'm sure that there will be oil on the shore on the Gulf coast for decades. And the impacts to the wildlife and the fisheries in the Gulf, I would imagine, are significant. So, my takeaways: as we continue to explore for oil, which we will always do, and it will become more and more difficult to extract, it's going to have some consequences and the oil companies need to go beyond the nth degree to ensure that that doesn't happen. And the American public will continue to pay the price at the gas pump.

TM: Yeah...no, your mentioning of your slideshow you were talking about the hidden cost of oil, it seems like the hidden cost of nuclear energy, hidden cost of coal, the hidden cost of...

CS: When I used to live in the deserts of California and the hidden cost of solar on especially the bird life.

TM: And wind, et cetera, with the blades and the bird mortality. I mean everything comes at a price.

CS: Mmm hmm. Yeah, solar farms look a lot like lakes to a bird. But it's a pretty hard landing. So, yeah, solar, wind, who knows, but we'll figure that out, too. And again, I would say that the Coast Guard did an excellent job of coordinating all of that. Just as it did on the Tenyo Maru.

TM: Yeah. Interesting. And then, you headed back to California and the phone hasn't rung since?

CS: Well, actually it did.

TM: Oh? Oh no, wait a minute, what?!



CS: But that's a short story. So, yeah, I headed back to California and I decided I'd take a two month road trip and go see some national parks. Went up into Canada, went over to Banff and Jasper, saw some real Rocky Mountains. The mountains up there, and glaciers – although they are shrinking there, too – are just phenomenal. Canada is phenomenal wild country. So, I had a great two month trip, came back to Joshua Tree and the phone rang. One of the board members from the Joshua Basin Water District called me and said, "We'd like you to apply for a general manager position that's opened. We've been looking to fill it for six months and we can't find anybody that's willing to come here and be paid the wages that we're willing to pay. Would you apply?" So, I applied, was hired, and worked in the water industry for five years.

TM: So, this is a water district that is pumping groundwater out of the basin?

CS: Yes, and it was another phenomenal five years of learning about water in California. Yeah, so the aquifer is about 750 feet below the ground surface in the Morongo Basin. Well, in the Joshua Tree area of the Morongo Basin.

TM: And which side of Joshua Tree is this, north, south, east, west?

CS: Well, the village of Joshua Tree, incorporated village of Joshua Tree, sits on both the north and south side of Highway 62 as it goes through the Morongo Basin. And there are about, just under 10,000 people that live in the Joshua Tree area that are serviced by the Joshua Basin Water District. We have five wells, 16 reservoirs, and we pump water from 800 feet below the ground up to 2,400 feet above the ground in a distribution system of about 200 miles of pipe with, I don't know, 18 pump stations. And, while I was there... They had built a recharge pond which was 30 acres in size, and Joshua Basin Water District is now in the process, has been since 2014/2015, of importing water from the State Water Project. That water comes from north of Sacramento, through the State Water Project Canal that's pumped up over Tehachapi Pass, which is probably raising it, I don't know, 3000 feet, and then it flows by gravity down into the Hesperia area, and it's distributed through pipeline to Yucca Valley, which is just to the west of Joshua Tree, and to Joshua Tree. And then some of the water that Yucca Valley's water district is getting is now in the process of being pumped back up the hill to Pioneertown, which is a small community, maybe a 1000 people, 3000, no, 1000 people. That just occurred in the last year because those people have been drinking water, or utilizing water, that is not safe because of I think it's arsenic. So, they now have potable drinking water. Which, if you talk to the old-timers of Pioneertown, is not a good thing because Pioneertown will now increase in size. But there's certain restrictions on how much more water can be authorized to be used. But people can still drill wells and use it for their non-potable needs.

TM: It's interesting because when I think about California water, I think about Los Angeles Water and Power and their never-ending thirst for water. I'm surprised that the Joshua Basin Water District would be able to actually get some water for some other uses elsewhere coming out of Sacramento because I think, you know, Los Angeles would want that as well.

CS: The phrase here in Southern California is "whisky's for drinking and water is for fighting over." And it's a big fight. But anyway, that was five years and I retired in 2019, yeah, I think it was 2019, and the phone hasn't rung yet. I think one of the reasons is I disconnected my house phone and didn't give anybody my cell phone number.

TM: Alright. That's the way to do it. One of the rangers at Grand Canyon said, "I just disconnect the phone! Nobody can get in touch with me."

CS: Yeah. Yep. Just go for a hike.

TM: Well, Curt this has just been a really wonderful interview series. I thank you so very, very much for your service to the citizens of the country, preserving these incredible natural resources. Whether, clearly, it's the Pacific Northwest or the Gulf waters...it's sort of all across the country here. Thank you.

CS: And I want to thank you for this opportunity. It's made me think back through the years. It's been an incredible journey.

TM: It has.

CS: You've interviewed a lot of the people that have worked for the Park Service, and people that have been associated with Grand Canyon, and I think you know the caliber of the people that we're talking about. It's a pretty phenomenal group and it's been a pleasure.

TM: Yeah, I just... Again, it's an honor to be able to interview you, you know, and so many others and I think our country is really, really fortunate to have the people that we have trying to move forward the Organic Act of the Park Service.

CS: Yeah. And they continue to pop up. And they continue to do their job.

TM: Yeah, yeah. It's a wonderful deal. Well, with that...unless you've got anything else to add here Curt?

CS: No, I think I've said enough.

TM: Somebody else will be the judge of that. This will conclude then Part 12 Grand Canyon Oral History interview with Curt Sauer, today is Thursday, November 12, 2020. And Curt, thank you so very much!

CS: You betcha. Thank you, Tom.