

TRANSCRIPT

INTERVIEWEE: Myron Hess

INTERVIEWER: David Todd

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Google Voice [00:00:00] This call is now being recorded.

David Todd [00:00:04] Hello, Myron.

Myron Hess [00:00:06] Hey, David.

David Todd [00:00:08] Nice of you to call.

Myron Hess [00:00:11] Yeah, glad to do it. Good to talk to you.

David Todd [00:00:15] Well, it's, it's, it's an honor and a privilege because, you know, you're the expert here. And I really appreciate any advice you might be able to give me and understanding of, you know, water issues in the state, especially as they pertain to cranes, whooping cranes. And so I was hoping we could talk a little bit about that today.

Myron Hess [00:00:43] Sure.

David Todd [00:00:43] Well, this is intended to be a recorded call, so if you don't mind, I'd like to run through a little bit of an explanation of, of how I'd like to do this and see if we can get your approval. So, the thought is that we would plan on recording this interview for research and educational work on behalf of the Conservation History Association of Texas for a book and a website for Texas A&M University Press, and for an archive of environmental history at the Briscoe Center at the University of Texas at Austin. You would have all the same rights to use the recording as well. So I wanted to find out if that might be OK with you.

Myron Hess [00:01:39] Yes, that is acceptable.

David Todd [00:01:41] Great. Well, thank you. Well, let's get started then. I might give a little bit of a preamble here. It is June 8th, 2020, and we are conducting an interview with Myron Hess, who has worked as an environmental attorney for private firms and for the Texas Parks and Wildlife Department and for the National Wildlife Federation, including its Living Waters Project. And he brings many, many years of familiarity with efforts to find and preserve environmental flows within the Texas water legal system. So thank you for sharing some of your insights today.

Myron Hess [00:02:25] I'm happy to share what insights I can offer.

David Todd [00:02:32] OK. Well, let's, let's begin by seeing if you could tell us something about your background and your interest in wildlife and conservation generally.

Myron Hess [00:02:46] So, I think it, my interest in wildlife and conservation date pretty far back. I spent my early years on a little farm outside of the town of Muenster, Texas, in Cooke County. And, you know, just whenever, the vast majority of my time when I wasn't in school was spent outside, and I always just was fascinated with nature and with the wildlife that was around me.

Myron Hess [00:03:21] That interest sort of continued through high school. I ended up going to Texas A&M University and majoring in wildlife and fisheries sciences. After thinking about lots of different majors, that I decided, that's one that that combined my interest in in learning science, but also in a way that really excited me about learning about wildlife.

Myron Hess [00:03:49] So I did that, then I actually got that degree along with a teaching certificate and ended up working for several years out at the Y O Ranch near Kerrville, which is a private ranch and exotic game ranch and they had an outdoor education program at that time. So I worked there. Which, again, exposed me to wildlife and being outdoors a lot.

Myron Hess [00:04:18] Then from there, ended up at a small private school back up in north Texas, where I was teaching middle school science and head of middle school for a couple of years and sort of decided, whoa, wait a minute, I do enjoy teaching, but I've kind of lost my path of working on conservation issues. So I ended up going to law school as a way to get back into working on environmental issues and that that was sort of my early days developing an interest in wildlife, and for my educational background.

David Todd [00:05:02] OK. And maybe we can focus in a little bit more. How did you first get involved in water issues and in trying to protect environmental flows in the state, including those that benefit the whooping crane?

Myron Hess [00:05:21] So, while I was in law school, I did a clerkship with Stuart Henry one semester, who was one of the fathers, I guess, of environmental law in Texas in many ways. And he was working on water issues. I had really enjoyed the one water law course I have in high school, law school. So that piqued my interest. And then later, when I was working at the Texas Parks and Wildlife Department, that was sort of in the time that they were developing the studies on freshwater inflows. So I had some involvement there in the department with various issues, did some hearings that related to water rights permits and which I was advocating on behalf of Department for environmental flow protection. And so I think that's probably where I mean I really got just fascinated by the issue and sort of recognized in my mind, at least, that that was one of the most critical issues for the future of fish and wildlife resources in Texas was trying to, to develop a meaningful approach for protecting environmental flows.

Myron Hess [00:06:49] The initial, for the, I guess, initial study and write-up of freshwater inflow methodology was for the flows into San Antonio Bay from the Guadalupe and San Antonio Rivers. So that's probably where I sort of made that connection between freshwater inflows and whooping cranes. Actually, when I was in undergrad at A&M, we did a field trip for one of my classes down to the Aransas Refuge. That was the first time I had seen whopping crane.

David Todd [00:07:29] Well, so you were explaining that that water instream/estuarine flows are important to wildlife. Can you give us an example of why they're important to particular, say, for whooping cranes?

Myron Hess [00:07:47] Sure. So here it starts from the most basic, which is that fish don't do well without water when it comes to instream flows. And I joke about that periodically. But, you know, there were times in these contested case hearings where I feel like there were people who were who would almost be willing to argue against that. So it's more evident in an instream flow setting, because if you don't have flow, you know, you're going to dry up at least a portion of the riverbed. And it's obvious that the aquatic organisms are going to die. It's more complex in a bay setting, where along the coast where you have the freshwater flowing from the river, mixing with the water from the Gulf of Mexico in an estuary or bay system.

Myron Hess [00:08:46] And I always think of it as three primary functions that are played by those freshwater inflows. And one of those is just creating favorable salinity conditions that different organisms need, particularly at different life stages. They may not be able to do well in full Gulf of Mexico sea water level salinity, and they won't do well, at least for an extended period of time with absolutely fresh water. But then the estuaries are a mixture where you have different, varying levels of salinity that are somewhere between sort of thirty five parts per thousand in the bay, and zero in freshwater. So they create that salinity gradient that's critical for aquatic organisms. It's also important for a lot of the plants, marsh habitats.

Myron Hess [00:09:49] The freshwater inflows also deliver essential sediments that continue to nourish the marshes as the sediments wash into the bay. Over time they will compact just sort of naturally. And if you don't continue to replenish the settlement, then the sediments, you will get more and more open water habitat, but lose the marsh habitat. So fresh freshwater enclosed are essential to delivering the sediments.

Myron Hess [00:10:20] And then the third leg there is that the freshwater inflows provide essential nutrients that help nourish that system to support the whole lifecycle, for all the organisms in the bay. So the whooping crane overwinters along the coast, primarily around the San Antonio Bay area. It's certainly making its way east back into the Matagorda system. And so, we'll see more of them there in the future, but it feeds on aquatic organisms in the marsh. Also, feeds on things like wolfberry, which is another sort of marsh habitat species. So the health of that marsh, of the marsh, is essential to the health of the whooping crane.

David Todd [00:11:22] So, you think one of the key links for a crane then, is the salinity gradient and then the sediments and the nutrients to support the wolfberry, and then I guess also the blue crab, is that right?

Myron Hess [00:11:38] Yeah. And I think I mean, I think the whooping crane needs a variety of aquatic organisms. They certainly, blue crab is a very important part of it. Wolfberry is a very important part of it. They can use, they can eat other organisms that they find there as well, to an extent. And it's all about sort of this balance of how much energy does it take to catch the food versus how much energy you get from the food you catch.

Myron Hess [00:12:11] But the availability of food and conditions there is very much a function of the health of the marsh, and the health of the marsh is very much a function of the freshwater, that they're getting adequate freshwater club. In addition, you know, there is an impact on the whooping cranes if they don't have fresh water to drink. So that's, that's problematic during times of drought as well. But, I think that in many ways, perhaps more of a function of direct rainfall.

David Todd [00:12:51] Well, and, and I gathered that these wildlife, including the crane, and the water systems that support them, are all kind of seen and regulated through this very complicated legal system. And I was hoping that, and you're probably going to be annoyed because this is so superficial, but if you could sort hit some of the highlights of, of the laws and regulations that have affected inflows to San Antonio Bay that would benefit the crane. And I think one of the things I was interested in this is what you might be able to tell us about the 1985 amendment for Section 11.147 of the water permits, you know, close to the coast. Can you tell us anything about that?

Myron Hess [00:13:50] Sure. So, you know, it's always useful to think about the context of water rights in Texas, like the Western states uses this prior appropriation system, where people get permits to take water out of the stream. And it's oversimplifying because Texas has a long history of Spanish water law, common law, English common law and then statutory law. But by and large, permits are for diversion of water and the water in our streams and rivers is owned by the state. So, you know, people of Texas own the water and rivers.

Myron Hess [00:14:32] But we've created a system where people can get the perpetual authorizations to impound water and to divert and consume water from the rivers for various kinds of uses. And we've been doing that and sort of issuing those kind of perpetual permits since the late 1800s. And particularly at that time, and until amazingly recently, there was very little thought given to the fact that it's important to keep water in the rivers and flowing to the bays for the health of the rivers and for the health of the days and all the organisms that rely on them, and all the people who, whose livelihood relies on those organisms as well for recreational fishing, commercial fishing, all those things that are also economically important.

Myron Hess [00:15:22] So that's sort of the base of that system. We issued, over the years, rights to divert somewhere in the neighborhood of maybe 27 million acre feet of water per year out of Texas rivers and streams. And in dry years, there isn't that much water in Texas rivers and streams. And the exact balance varies from one system to another. But with all those, just those existing water rights that were issued, and until 1985, with just a couple of rare exceptions, those permits didn't have any kind of limits on them to maintain flow in the river or maintain freshwater inflows into the bay.

Myron Hess [00:16:17] And so what changed in 1985 with the passage of the provision you were talking about 11.147 of the Texas water code that directs the permitting agency (it's gone through various iterations, it's currently the Texas Commission on Environmental Quality), directs them to assess the impacts of granting new permits to divert and impound water on both instream flows, and specifically on freshwater inflows to bays and estuaries.

Myron Hess [00:16:57] And that the passage of that bill was, was very hard fought. In fact, it, it got passed because of opposition by the Sierra Club in particular and some others to various bonds that the state of Texas was trying to pass to fund water projects and sort of the price of passing those bonds was to agree to start addressing these environmental impacts. So that's where that legislation came from in section 11.147.

David Todd [00:17:38] So these bonds that Sierra Club and others opposed were for construction of reservoirs, canals or some kind of water infrastructure?

David Todd [00:17:50] Yeah, that's my understanding. I was, I guess, I was in law school at the time, but sort of oblivious to all of that that was going on. But, yes, I think my recollection of reading about it was that these were bonds that were and would be passed to support

water supply projects of various kinds. In that era, there were still lots of discussion about grandiose water projects bringing water from the Mississippi River to Texas and lots of things like that. So anyway, there was this effort to pass bonds that would then could be used by various water suppliers to build these, these large projects. And basically, I think that initially the bonds failed because of that opposition. My recollection is that seeing a political cartoon, Ben Sargent was, had drawn, that a little bit of that effort, helping to fight the bonds and get that legislation passed.

David Todd [00:19:05] Interesting to know how these things start.

Myron Hess [00:19:09] It is very interesting. Yeah.

David Todd [00:19:12] Now, I guess if we roll forward a few years, I understand that or the next big highlights for surface water law, in the state at least, is in 1997 was Senate Bill 1, later, I guess, elaborated by Senate Bill 2, to create this kind of bottom-up, I think the way they titled it, styled it, water planning process. Could you talk a little bit about how that started and what sort of impact it might have had on stream flows and on the cranes' fortunes.

Myron Hess [00:19:49] Yes. Texas had been doing water plans, but they were historically had been spearheaded by the Texas Water Development Board, developed the statewide plans and there was this impression that, well, we, we have these plans, but nobody's implementing them. And so the view, I think, was that, well, if we had this regional approach where we establish planning regions and had folks involved in those regions, primarily, that's folks involved in water supply development in those regions, develop regional plans and then they're more likely to develop plans that they're inclined to implement and so maybe we'll, that will, create more impetus to actually have these projects that are in the water plan getting developed. So that process we've created has been ongoing.

Myron Hess [00:20:59] Generally speaking, those plans are done, reviewed, reviewed and revised about every five years. When they do projections 50 years in the future of water demand, one of the most telling things to me is that when they did the list of demands to plan for the environment is not one of those demands. In my mind that's probably the most critical shortcoming in the statewide water planning process, because I feel like if you step back and think about it rationally, you'll recognize that healthy bays and healthy rivers are this incredible economic driver. They're a central part of the natural heritage of all Texans, and not to incorporate them in water planning to me is just an amazingly critical oversight. And I think it introduces lots of uncertainty into the equation of whether you can actually implement a water plan because you can end up running into endangered species issues or various kinds of water quality issues or other things that introduce unnecessary uncertainty. It is one of the things that I'm most disappointed about in the statewide water planning process is that we haven't truly made it comprehensive in addressing that water need. In many other ways, you know, it's an amazing process and it's been very successful in lots of different ways, but I feel like it's got a blind spot there that's really unfortunate.

David Todd [00:23:03] So, it's just not comprehensive and holistic to be realistic, I guess, since these environmental flows are important and are not one of the considerations. Is that what you're saying?

Myron Hess [00:23:17] Yeah, they're not. So the way that the environment is factored in is they say, well, when we build this new project for this water supply purpose, so municipal or industrial, we know it's going to have some restriction on it to protect the environment. So

we'll assume that you won't get all the water, you won't be able to divert all the water that's flowing past, you'll have to let some go for the environment. So they do in that sense, they have sort of a, a realistic assessment of how much water you can take out. But they've never looked at the fact that we've issued all these water rights historically without any kind of environmental consideration. And if we were to fully exercise those, we would already be in a world of hurt from maintaining the health of the rivers in the bay. There are things we can do about that if we go about it proactively. And I think that needs to be part of the water planning process, but unfortunately, it isn't. And so at some point, you know, when we really get a return of the long serious droughts like we had in the 1940s and 1950s, we're going to see an illustration of just how bad things are. And that's even at the current-level demands, much less the level of human demands fifty years into the future, that we're issuing permits for now and still not doing a good job of planning for environmental protection.

David Todd [00:25:07] So this this may be a detour but I thought maybe it'd be important to talk about groundwater some since the San Marcos system has got such a big contribution from springs and I was hoping that you could talk a little bit about how, you know, the role that the Edwards Aquifer and some of the controls, caps, on pumping there affected the flows that, in turn, have consequences for the cranes.

Myron Hess [00:25:48] Sure. I think one of the, another sort of major shortcoming in Texas water law is, or most of the state, is this complete legal disconnect between groundwater and surface water, that we view those as two independent universes for terms of legal regulation, when in reality they are, are very connected. Flow from rivers, oftentimes recharges aquifers and flow from aquifers often provides the base flow in rivers and streams, particularly in drought conditions.

Myron Hess [00:26:29] And the Edwards, the southern Edwards, is unique in this state in the way that it is, it is regulated as a result again of in this case, endangered species litigation related to threatened and endangered species that occur at Comal and San Marcos Springs, two largest springs in the southwestern United States, that are fed from the southern Edward Aquifer and provide flow into the San Marcos River, which flows into the Guadalupe river, and the Comal River, a very short river that flows into the Guadalupe River. So in dry periods, those spring flows make up a large amount of the flow in the Guadalupe River and including the flow that would make it to the bay.

Myron Hess [00:27:26] Because of the endangered species litigation, the state of Texas actually established a pretty, well, unique in Texas, permitting system for groundwater pumping in which they actually set a cap on the amount of groundwater. I would argue they set the cap too high, but they did set a cap. They authorized and Edward Aquifer Authority, the regulatory entity, to limit pumping below that cap during drought periods in order to maintain spring flow. The implementation of that was pretty rocky - lots of litigation to try to get it into place and then lots of disagreement about, well, what needed to be done to actually maintain spring flow during serious drought conditions. And for a long time, the Edwards Aquifer Authority really wasn't able to get there to figure out how they were going to accomplish that.

Myron Hess [00:28:40] And then legislation that was passed as part of a SB 2 in 2007 directed a development of a Recovery Implementation Program under the federal Endangered Species Act, created a stakeholder process that had resulted in the development of this plan for all the measures that would be taken to maintain spring flows. So it includes limitations on pumping. It includes dry year options under which irrigators who hold permits are paid not to

irrigate. It includes use for Aquifer Storage and Recovery System by the City of San Antonio, where during wetter years, when there's enough flow to, for healthy river flows and pumping for the aquifer, water gets pumped from the Edwards in and actually stored in an adjacent aquifer so it can be recovered during drought periods, in exchange for reduced pumping from the Edward Aquifer. A combination of lots of measures like that and in sort of agreed upon targets, for the spring flows, we're going to try to maintain even with a recurrence of drought-of-record conditions. And those flows into the river then help maintain the river flows that ultimately will reach San Antonio Bay, even though the flows are going to be very low in serious drought conditions, and they are the flows below the spring, the spring, the springs, and San Antonio Bay can be diverted particularly by the older surface water rights that were issued without any restrictions to protect environmental flows.

Myron Hess [00:30:42] So undoubtedly maintaining those spring flows at Comal and San Marcos Springs has increased, improved the situation for freshwater inflows to the bay. But the amount of the flows reaching the bay is also dependent on how much water gets diverted downstream. There's some very senior water rights just above the saltwater dam on the Guadalupe River do not have any restrictions on their diversion. So diversions there can dramatically affect spring flow, sorry, could dramatically affect freshwater inflows during drought periods.

Myron Hess [00:31:28] So sorry, it was a long, rambling answer about it.

David Todd [00:31:30] No, no, this.

Myron Hess [00:31:32] About that connection.

David Todd [00:31:33] This helps, so this. This all started with, I guess, is it the Sierra Club vs. Babbit endangered species litigation that occurred?

Myron Hess [00:31:42] Yeah, that that is what drove, that litigation, and some of the court rulings, is what drove the state of Texas to establish the Edward's Aquifer Authority and put in place an actual, sort of pretty strong, regulatory program to manage the pumping from the, from that southern portion of the Edwards.

David Todd [00:32:10] Well, can you talk at all about some of the efforts to get from, you know, this court ruling to actually having a functioning Edwards Aquifer Authority? I imagine there were lots of permit hearings and efforts to try to get this implemented.

Myron Hess [00:32:31] Yes, so, I mean, there were lots of legal challenges. And, and I shouldn't paint too rosy the picture because frankly, there's still some existing challenges to some aspects of effectively implementing that legislation, primarily in the form of potential litigation for permit holders who would, who are, landowners over the Edwards who are unable to get permits contending that there, a taking of their private property. So there's been some troubling precedent there in that in the Day case that will, we'll see how it all plays out over time. So there are various challenges remaining today.

Myron Hess [00:33:24] But in terms of getting the Edwards Aquifer Authority implemented, you know, there was there were facial challenges to just the constitutionality of the regulation. There was a challenge based on Voting Rights Act because the directors of the Edwards Aquifer Authority are elected, and in order to sort of balance things out, and just because so much of the population in the Edwards Aquifer region is found in the cities of San Antonio,

and in the suburbs, the rural areas where there a lot of the irrigation goes on would have been very under-represented, at least geographically, if it had been done on a strict population, one-person, one-vote basis, that there, were there were legal challenges to whether the way the Districts were set up, would pass constitutional muster. That was a long, hard fight, fight to try to get in place, a functioning regulatory entity.

Myron Hess [00:34:31] And then once that entity came into place, then they had to go through the permitting process of trying to decide, well, if we have a cap of this amount of water that can be authorized for pumping, how do we decide who gets that? And a lot of that was actually spelled out in the legislation that irrigators got two acre feet per acre for every acre irrigated during a historical period. And then there were some base uses for municipal pumpers and that sort of thing. But that also was a very long, contentious process over many years with lots of fights and issues about, you know, the irrigators have limits on how much fees and per-acre foot of water but their fee is, and that limit is not in place for industrial or municipal pumpers. So they may pay a lot more of the expense of running the agency.

Myron Hess [00:35:38] So lots of controversy in that process and not, and you know, part of that was just due to there had already been decades of fights over pumping in Edwards, and who is going to get what amount of water out of that aquifer. So you have long a long, contentious history.

David Todd [00:36:05] Well, it it sounds like, after a hundred or more years of some of these groundwater rights, and surface water rights, people had, there's a lot of precedent, and they, I guess, felt like there was a commodity value that was being taken without compensation.

Myron Hess [00:37:08] Absolutely. Absolutely. You know, I have land overlying that aquifer. I have, with that ownership, I have a right. And so, you know, that's still, we still will see, I suspect, litigation over some of those folks arguing that they should be entitled, if not to water, then to compensation.

David Todd [00:37:30] So I guess it's sort of ironic that the system might be rewarding people that overpumped and penalized the people who under-pumped.

Myron Hess [00:37:40] Yeah, I mean, you know, the argument is, well, wait a minute. We we've confirmed the resource over all these years and now we're being penalized for that. So, yeah.

David Todd [00:37:51] That's, that's not a an outcome that's surprising. Well, so, thanks for taking this, this detour through a little bit of groundwater issues. I wonder if we can return and talk just a bit about some of the surface water issues on the, in the San Marcos and Guadalupe and the two things I was hoping that you might be able to talk about this, a SMRF suit, I guess, about 20 years ago, and then more recently, the endangered species case, the TAP filed maybe 10 years ago. And what sort of impact you've seen on flows in the whole legal regime from those two efforts?

Myron Hess [00:38:44] So the SMRF you're talking about, the, the, the application filed by the San Marcos River Foundation?

David Todd [00:38:51] Right. Exactly.

Myron Hess [00:38:54] So, yeah, so the the application by the San Marcos River Foundation and a number of other organizations who sort of fell in line behind SMRF were sort of recognizing, well, we have this system of water rights and environmental flows that had been recognized, although not explicitly in statute, had been recognized in TCEQ rules as a beneficial use. And as long as there is unappropriated water, people can apply for a permit to put water to beneficial use. So SMRF, taking this study that the Texas Parks and Wildlife Department and it was actually a joint study with Parks and Wildlife Department and Water Development Board, with some involvement from the predecessor of the Texas Commission on Environmental Quality, taking that study as indicating the amount of freshwater inflow, they applied for an application. And I don't, I don't remember the exact number, but I think it was something like 1.2 million acre feet per year of water that San Marcos River Foundation said, you know, that's what the state study for the bay needs, so we're applying for a permit for that amount of water.

Myron Hess [00:40:16] Which would, you know, being most of the time that would have, that would have been the, the rest of the unappropriated flow in that river, certainly not in flood years. There's more than that. But in most years, that would have been the full amount of unappropriated water and would have actually vastly exceeded the amount of unappropriated water in most years.

Myron Hess [00:40:43] So that was filed. As I mentioned, a number of organizations filed similar ones. Some other environmental, conservation organizations in a couple of places, instances, it was like a river. I think at least one river authority filed an application for the environment flow as a way to, if it would, if somebody is going to tie it up, it should be us, not some conservation organization and they would decide later, maybe they would change the use to something else.

Myron Hess [00:41:17] And so those were proceeding in front of the agency. That became very controversial. The Legislature got involved first. I'm remembering it right, first creating a moratorium on issuing those kind of rights. That was looked at and then the, for a number of us, we felt like it was, the handwriting was on the wall, that the state was not going to ultimately issue those permits. And then the question became, what, what do we do to try to get some momentum out of these applications and sort of the recognition that, well, there's this issue out there that we're not addressing and we need to address it. And so that became the genesis for a lot of the negotiations that became Senate Bill 3 in 2007, at least the environmental flows component of Senate Bill 3 in 2007. That bill was another one of those comprehensive water bill - twelve different articles that included the Edwards Aquifer Recovery Implementation Program we talked about earlier, including the environmental flows provisions and a number of other things. A number of which were far less litigated than those two.

David Todd [00:42:48] Well, so I guess there was sort of a political calculus that it was worth throwing support for SB 3 in exchange for recognizing that in challenging the Legislature on retroactively deleting beneficial uses for environmental flows you know was going to be difficult.

Myron Hess [00:43:16] Well, so I think that the Legislature didn't have to necessarily say, "this is not a beneficial use." They could just say, you know, "Issuing permits for that is not authorized." So that's, that was one approach the Legislature would go down. I mean, there was. The Legislature ultimately did go there. That was not part of what was negotiated in Senate Bill 3. But the other thing was sort of a recognition that, yes, it is a beneficial use. But

TCEQ, or the permitting agency has a lot of discretion on whether, in fact, they do grant a permit or if they grant a permit for how much water they authorize for a particular use. So even if, yes, the agency would have had to process or process the applications and the question was whether the permits got issued or how much water was actually authorized under those permits were a huge unknown. So a lot of this is a long way from being confident that that, in fact, permits were going to get issued in meaningful amounts for environmental flow protection. Bit. yeah, difficult political calculus, trying to figure out the right path forward.

David Todd [00:44:51] I see. Well, and do you think that the SB 3 process has been productive of trying to identify and allocate environmental flows?

Myron Hess [00:45:06] So far it's been pretty disappointing. It's been very disappointing, I would say. The, for the most part, the SB 3 process had sort of a science component, a stakeholder component, and then a TCEQ rulemaking component. For the most part, the science component, I think, went pretty well. That was a pretty straight-up in most basins, a fairly straight-up process where, in recognizing that there was limited knowledge, the scientists did try to use reasonable judgment and what they thought would maintain a healthy bay or a healthy river system. It certainly focused and increased the attention on the fact that it's not just about maintaining some minimum flow, but it's about protecting an overall flow regime. So it, that SB 3 process resulted in a lot of progress in the sense of improving the understanding about the need that you've got to protect the flow regimes so it's not, yeah, you have to have some minimum amount of flow all the time. But a lot of the time, you need higher flows to protect these different species. And then you need these periodic pulse flows, after rainfall events, that can be captured by dams. You need to make sure that those continue to come down the river in order to maintain a healthy system and get all the way to the bay. So certainly there's important progress in that respect.

Myron Hess [00:47:01] The stakeholder recommendations are much more a mixed bag. But when it came to TCEQ's implementation of actually adopting flow standards, that that's been extremely disappointing almost across the board. It's not, it's not over in the sense that, that is a process that recognizes imperfect knowledge and the need for adaptive management and the potential to revise the standards that were adopted by TCEQ, generally speaking, on a 10-year cycle and those first flow standards were adopted in 2012. So in 2022 would be the 10-year cycle to revisit those flow standards. And I think it's incredibly important that that happen because the standards on the books today are just not anywhere near as protective as they need to be.

Myron Hess [00:48:18] We do have like I said, we have a lot I think we had a lot better science than was included in the studies that the state did earlier, that we're sort of were basis for, for example, the SMRF application, because those, those studies looked at, well, what's kind of the ideal amount of flow to reach the bay in at least a year of average or above-average rainfall in the pattern that you'd want to reach.

Myron Hess [00:48:56] But with that said, you didn't look at, well, what happened during those drier years, how much flow do you need to get to the bay to keep it, you know, healthy enough that it can recover when you have those higher inflows. And that was a missing piece in those earlier studies. So I do think there was a lot of progress made in the SB 3 process to try to look at that and think through what an overall flow regime for the bays ought to be. But unfortunately, we're a long ways from actually implementing that in any kind of flow protections, both in terms of issuing new permits for additional diversions or impoundments.

Myron Hess [00:49:48] But another piece of Senate Bill 3 that's often forgotten is that it sort of recognized the fact that we've got all these existing water rights that have been issued, that are on the books and they don't have environmental protections. So, if we don't do something to address that issue, we're still going to have problem during drought periods. And so there is recognition in Senate Bill 3, although not nearly to the level it needs to be, that we're going to need to implement what are called affirmative strategies to try to get, if you will, some of that water back in some way that's already been permitted to people, to make it available during drought periods so that we don't dry up the springs and deprive the estuaries of the freshwater inflows they need to sort of survive through that drought period so that they are in a position to recover, on the other end of it, when it starts raining again.

[00:50:59] And you know that, by and large, there are two sets of flow standards that made an initial attempt, at least recognizing those strategy targets and saying here's the amount of flow we think we need to see in the bay, even during drought years. But figuring out how do we get that, and what are those strategies with that, figuring out some financing mechanism to purchase back some of that water rights that have been issued previously. Is it making sure that there's some way to dedicate returns flows, so you divert water in a municipality and you treat that water and then it gets returned to the stream? Under Texas water law, all of that water, in theory at least, can be consumed by the diverter and not returned. And, if that happens, you know, we, the streams, really in drought periods have a lot of water rivers dry and a lot of bays not getting inflow? Fortunately, not all that water is consumed. So we have those wastewater return flows today. So can we do something that, there is a commitment that some of that wastewater, those return flows, are going to continue to be put in the stream and then that they're going to be allowed to pass all the way down the system to the bay. Those are examples of things that could be affirmative strategies that we are sorely need more attention under the Senate Bill 3 process. So we have a long ways to go in achieving sort of the vision that was recognized there.

David Todd [00:52:49] And I guess the strategies that you've been talking about are really within the state law system. Can you talk a little bit about where efforts have been made to bring in federal law like the endangered species litigation for securing flows for whooping cranes and see if that was another way to get some leverage for securing some of these flows?

Myron Hess [00:53:18] Right. Yeah, I think that, you know, there was sort of a recognition of, well, in the case of the Edwards Aquifer and the spring flows, the Endangered Species Act had a major impact there in sort of forcing the state's hand, saying, well, we have, state law may provide for that, but we have this Endangered Species Act, a federal law and it says you need to protect these species and you are doing something that harms the species and that potentially is actionable under federal law. And so that was sort of the effort that came forward with the TAP lawsuit, The Aransas Project lawsuit. In that case, sort of recognizing, well, it would be extremely difficult to sue each individual water right holder and say, well, your diversion is the one that that's harming the whooping crane. So in that case, the suit was brought against TCEQ and, well, your management of the water rights is what's resulting in this pumping that's reducing inflows and that's causing harm to the whooping crane because it's adversely affecting San Antonio Bay. It's a pretty, it's a pretty daunting proof issue. Even there to sort of establish this reduction of inflow caused this particular harm to the whooping crane. But at the, at the district court level, they were successful in making that case. But ultimately, I think the ruling, the way I understand it, if I'm remembering it right, on appeal was that, well, while that might be true on a factual basis, that the role of TCEQ in managing, in issuing water rights in the way that the system works, that it would just, it just wasn't

predictable enough for TCEQ to know that their issuance of these water rights, when all these individuals, yeah, they have the right to divert all this water, but are they really going to divert it, that it just wasn't adequately foreseeable for TCEQ, that they should be held accountable for having issued those permits under the federal Endangered Species Act.

Myron Hess [00:56:15] And so, there was no, you know, there was no ability then to force TCEQ to try to take some action to limit the pumping under the under the water rights to protect the whooping crane. That was the theory.

David Todd [00:56:38] Gotcha. So, gosh, going back to '85, here we are, 35 years, that's a whole generation later. Are there some lessons that you've learned from this sort of war of attrition - all the hearings and legislative efforts and agency rules? What's your take-home message from this effort to protect flows and protect the crane?

Myron Hess [00:57:13] So, it is in many ways a war of attrition. I think of it as the long fight. And it's going to, it's hard fought, you know. Water is obviously essential for, for almost all life, and it's going to be hard fought over as people worry about, well, golly, what's this going to mean for human water supply? We continue to be, in my opinion, extraordinarily wasteful in our use of water, in not recognizing the true value of it. We have this, we could use water so much more efficiently than we do now. We still are in a position where if we truly came at this in a comprehensive way and looked at all the demands for water, including the demands for freshwater inflows and rivers, it is possible to strike that balance. But we're not there. We're not there by any stretch of the imagination. And it can continue to be a long fight. And that we've got to continue to get better about thinking how we message about the importance of the issue. Organisms like the whooping crane, which are, you know, popular and they're attractive. They're a lot more attractive and easier to get people excited about whooping cranes than it is about blue crabs or, although there are people who'd like to eat blue crabs. So we have to, we use the messaging around those kinds of species. We use mechanisms like the Endangered Species Act.

Myron Hess [00:59:28] I think we have to be creative about coming at it from water quality issues as well, because, you know, we tend to, we put more and more pollutants into the streams, and as the amount of flow gets reduced, then the concentration of pollutants gets higher and higher, and the ability of the streams to assimilate that pollution increases. And that's that's a difficult issue because now we're back to talking about, well, wait a minute, that's wastewater return flows. They have pollution in them. So how do we how do we balance that?

Myron Hess [01:00:10] I don't have any easy answers. But I think that, and the progress is much, much slower than it needs to be, and it's more, much slower than I would like to see it. But there is you know, there is progress. Sometimes hard to see that. And I think as long as people will continue the fight, we can continue to make more progress. And it's probably going to come with some hard bumps in the road that maybe some of those systems take a real hit and that forces people to acknowledge, you know, the picture that's out there. There's people who really rely on the bays for their livelihoods or for whom it's, you know, just one of their favorite recreational activities, fishing on a bay. You know, we've got to get those people to understand that the future of that bay is not secure in the way we're managing water now.

Myron Hess [01:01:31] So I'm starting to ramble here, but.

David Todd [01:01:34] Well do you take it that.

Myron Hess [01:01:34] I'll say that. Go ahead.

David Todd [01:01:38] No, I was just going to ask if you think that there was any progress here, you know, in respect to people learning about how sensitive, vulnerable these systems are, because of the drought of 2011. Did that move the needle a little bit? Or what do you think? What is the hit that you think would be convincing to the public about the system?

Myron Hess [01:02:01] Yeah. I do, I do think it, the 2011 drought period, did move the needle. You know, what I worry about is people's, people, how long do people remember these things? And in trying to do a better job, you know, I remember when that drought was happening, trying to find ways to get more studies done during the drought period to really to sort of document what was happening in the bay systems. We had that drought in the 40s and 50s, you know, there was almost no data collected. Really hard to find even anecdotal information about what was going on in the bay system. I feel like on some level that sort of happened again in 2011. Fortunately, it wasn't the extended, the severity was extreme, but it wasn't for the extended period that we had in the 40s and 50s. But we're going to have a future drought, so one of the, you know, who knows when that's going to happen, but it's going to be critically important to be in a position to really collect information, to get a better understanding of what are the limits in those systems. That's kind of a missing piece of information. You haven't done a good job of quantifying what goes on in droughts. So, it's probably going to take another one of those. We'll hope that it's not statewide. We'll hope that whatever system gets that hit, can, can recover.

Myron Hess [01:03:50] I was going to say...

David Todd [01:03:52] Complete.

Myron Hess [01:03:53] In terms of the, in terms of the long fight, I was doing a calculation a while back. Just in, in the time that I worked for National Wildlife Federation for the Living Waters project, I think I calculated that NWF, either through negotiation or contested case hearings, had improved the flow protections in permits authorizing somewhere above two million acre feet of water diversions a year. And that's, you know, it's sort of like, wow, you know, that's, that's a lot. That's a lot! It's not, you know, it's getting close to 10 percent of the water rights that were issued. But what we weren't able to, to get much progress on is addressing all those existing water rights, those pre-1985 water rights. And so we still have to figure out what that chapter looks like, start making progress on that side. But I take some solace in the fact of saying, OK, this sort of relatively small project was able to have a pretty big impact in that time period, which gives me hope that that can be true going forward, even though we're, it's going to be a much, a tougher battle trying to address those existing water rights.

David Todd [01:05:27] Well, so you mentioned the Texas Living Waters project. I think we would be remiss if we didn't talk a little bit about that because as modest as you are, I mean, it's, a lot of people give it a lot of credit for conserving a lot of water and bringing attention to the whole issue. Can you talk a little bit about that and then maybe we can wrap things up?

Myron Hess [01:05:53] Sure. The, so when I joined, or started working for the National Wildlife Federation, Susan Reiff was the head of what was then, trying to think exactly what the setup was. It's always been a regional office, in Austin. And the Fed just opened the regional office in Austin. So when that kind of a position became available to work there and

we were trying to figure out what, what should be sort of the signature issue at NWF. As I said at the regional office, not just in Texas, but based in Texas. So what would the Texas focus mean? We pretty quickly decided, well, it's, it's water quantity, it's, it's flow protection. And then trying to think through how that could be pursued. It's a pretty big undertaking. So the idea was to create the Texas Living Water Project as a partnership and IVF. Initially, it was National Wildlife Federation, Environmental Defense Fund, the Lone Star chapter of the Sierra Club, and the Texas Center for Policy Studies.

Myron Hess [01:07:15] The players have changed over the years. EDF for a long time was small for a number of years, then sort of stopped doing water work in Texas. The Texas Center for Policy Studies kind of stopped doing that work, and a lot of, most of the people who worked there went to work for the Environmental Defense Fund. So the partners have changed over the years. But today, it's still National Federation, lone Star chapter of the Sierra Club, and then their regional partners, the Galveston Bay Foundation and the Hill Country Alliance are all part of that project, which still has the goal of water management generally. It's not just environmental flow protection. It's equally efficiency in water use. The amount of focus is probably more a focus on surface water than groundwater, but certainly groundwater has been a part of it for a while. So that project sort of continues to fight in trying to improve water management, improve the efficiency of use, and to really push the state to do a better job of looking at water comprehensively, particularly in looking at the environmental flow issue, including spring flow protection.

David Todd [01:08:48] Well, you have done a terrific job. And so one last question: what is Myron Hess looking forward to doing in the water arena or otherwise?

Myron Hess [01:09:06] Well, I'm staying pretty involved in the Edwards Aquifer Habitat Conservation Plan, which is the sort of the plan that came out of the Edwards Aquifer Recovery Implementation Program. It's a habitat conservation plan that records issuance of an incidental take permit that says, if you manage the aquifer in this way, even during drought conditions, when we know flows are going to get lower, and as a result of that, some of the protected endangered species individuals will die. And we're going to say that's authorized as long as you're doing these other things to keep the species alive and help it sort of recover from this bad drought period.

[01:09:54] So I continue to be involved in that. It's just, that's very meaningful to me. I continue to try to figure out how do we, how do we make real progress on implementation of Senate Bill 3 and water planning in a comprehensive way that for Senate Bill 3 meaningfully starts the road, starts us down the road of implementing affirmative strategy, and for water planning that that gets us to the point of saying we are going to proactively say, OK, how much water do we need to maintain a healthy environment and a healthy natural heritage for future Texans? And then how do we, how do we do that? So, you know, I don't set very high goals. So it should be easily achievable.

David Todd [01:10:58] I think you're the man for the job.

Myron Hess [01:11:04] Yeah. I haven't figured out how to do that, but then those things are hard for me to walk away from. They're just, to me, they're, they're so critical to the future of Texas.

David Todd [01:11:18] Well, for those of us bystanders in the peanut gallery, we are very glad that you take this stuff to heart and continue on. And thank you so much for taking time today to talk about this stuff, and so carefully lay out how this all works. Much appreciated.

Myron Hess [01:11:41] All right. Glad to do it.

David Todd [01:11:43] All right. Well, take care of yourself. Hope to see you soon.

Myron Hess [01:11:46] All right. Thanks, David.

David Todd [01:11:47] Bye now.