A COLLABORATIVE PROJECT OF

restore A PEOPLE'S HISTORY OF THE CACHE CREEK NATURE PRESERVE restory





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STOP 2:

The Wetlands







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Where are we now and what's it like here?

Now we're sitting down almost at eye level with the wetlands on a bench and it's a lovely place to sit and you can hear the wind. The breeze has come up a little and because it's fall, the leaves are rustling and above us there's a cottonwood tree and it's dropping its leaves. This is a very peaceful corner to sit in. I don't think I've ever sat down here. It's nice.

What memories does being here at this spot bring back for you?

Well for me personally, I don't have a lot of memories being at this spot. As I said, I think this is the first time I've ever sat here because when I first saw this area in the mid-1990s, this was still – what I'm looking at now, that's a beautiful wetlands was still a former gravel mining pit that had been converted for agriculture. So it was a big rectangle with some sort of crop in it. I don't even remember what they were growing.

What would this landscape have looked like originally before major human habitation? What kind of habitat would be here?

Well you know, you often wonder sitting in a place like this; have we restored this to what it would have looked like, well let's go way back and say pre-European settlers and my guess is that it really wouldn't have looked like this so much. It would have been more riparian. I think that the riparian forest along Cache Creek would have extended back into this area. So we would have just had more cottonwoods and valley oaks and lots of willows, but it would have been a much denser treed area rather than what we're seeing now which is low-lying, lots of tulles and rushes and different grasses and things.

Would there have been a lot more water in this area do you think? Could you sit here for a second and describe what you imagine would have been here before pre-European settlement?

I can try. I certainly am not an expert in this area, but as I said, I think that there would be a lot more large trees. We're seeing nice sized willows that come in naturally and some were planted now that are maybe ten and fifteen feet tall, but we would see a lot bigger ones and lots of cottonwoods and some of the bigger valley oaks that we can see in the distance as you sit on this bench. There were probably more of those.

And as to the question, we're looking at a lot of water right now and because this spot is low-lying where the current wetlands are. What I don't know is what the land looked like before; if there was any mining and whether the mining was done here because it was sort of naturally a low spot in which case when there were big rains and flooding, there would be a lot of standing water here. If were a little more terraced and a little higher up probably it wouldn't be. It would just be a thick riparian forest.



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Who do you think were the first people to use this area and what impact did they have on its ecology?

The first people living in this area, well the first people that I know about were the Patwins and I don't know anything about – you know there were probably peoples in the area before that, but the Patwins used the area and were here. They were nomadic when the rains came and if this were low-lying enough they would move up a little to a little higher ground at certain seasons, but certainly this area would have – and especially the creek would have been a great place for them to hunt and fish. I have no doubt that there was lots of activity around here, it's just that the native peoples had a very gentle footprint compared to what we modern humans tend to leave these days.

After the local Native people, this place was inhabited by Spain and then Mexico and California settlers and mostly all for agriculture. Can you talk about how this land has been used for agriculture and the impact it has on the ecology of this area?

After Native peoples moved on from along the creek whether by choice or by force, a series of different groups came through; the early Spaniards and Mexicans and then Californian settlers. The creek was popular at different times as a place to – for trapping beavers and selling skins. In fact, one of the early names of Cache Creek it was thought might have been because people cached their skins in their traps to come back later.

Then as time went on and people actually starting spending more time, not just passing through, they brought their livestock, they began more farming activities and finally irrigation started on a much bigger level and at the turn of the century we actually began doing some irrigation and altering the creek quite a bit.

What impact has agriculture had on the ecology of this area?

Agriculture's had a tremendous impact on the ecology of this area. In the early days not quite so much because everything was small, but as agriculture got bigger and they needed a more reliable source of water to keep their crops going, pretty soon the riparian areas began to disappear and you see and read about the riparian areas pulling back closer and closer to the creek because the farmers wanted to utilize all the available ground for their crops and the crops did well. The soil along the creek is wonderful. It's rich alluvial soil and crops are very successful and unfortunately that meant that the habitat and the open space gradually disappeared.

So can you describe what you see in front of you, maybe going from east to west and give me some detail?

As I sit here sort of at ground level with the wetlands starting at the eastern side and really ringing the wetlands are tulle and probably some cattail there that always grow up at the edges if the water is not too deep. Then I see in the water itself there's a series of low-lying islands that were put in to offer protection for the birds that might want to nest there or other animals.



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And one of the tricks in a wetlands like this is that it is a managed area. I mean it looks wonderful, but it wouldn't continue to look as it does today without some work. I mean people have to go in and pull out some of the plants or at times I'm sure that they come in and take out some of the cattails and tules because if the water is not deep enough, they'll completely fill in all the open water.

But as you move along, right at the water, sitting here you can see the tules and then you move back and if you look closely there are a series of different native grasses and mixes of the native grasses and rushes that have been planted and you can see them close here where we're sitting or you can look across to the other side of the water and see a number of trees that have grown up and some of them are volunteers meaning they just came in with birds or the wind and they've done really well.

The different willows probably took care of themselves, but there's also been some planting along here and the bigger trees like the cottonwoods and then farther up you can see some valley oaks that are huge, that have been there for hundreds of years, but there may be some smaller valley oaks that were planted more recently.

I'm sort of looking for mid-sized vegetation. As we sit here and you look from the bench over to your left you can see some bush-sized things that are native bushes; mule fat and coyote bush. It's a nice mix that's beginning to grow up here and may have been here naturally hundreds of years ago and now they've been reintroduced.

What role do these rushes and tules and grasses play in this ecology and environment? Why are they important?

Well the whole question of what role different plants play in a given environment is open to interpretation. When we talk about a wetlands we often talk about how it serves as a filter for pollutants and particulate matter than you either want to settle and stay right where it is or you want to filter out. This particular area I'm not sure how the water moves in and out and now I think it has one outlet into Cache Creek and it's important that the water circulate

What birds and animals use this area and how do they use it?

Well, look. Right over there is a pair of pied billed grebes. They have a wonderful sound. If we're lucky we'll hear them in a second. They like it here and they dive for small fish and different invertebrates and I see them here most of the year and often you see Canada geese and I think they even nest here and you can see them with their young at different times.

The nice thing about sitting here is you can see that the birds have plenty of places to hide. If they want to be out where we can see them – those grebes don't seem to mind, but other shyer birds; I saw wood duck boxes up clear on the other side of the wetlands and wood ducks are very shy so when their young leave the box and they come down to the water, they'll want to hide all the time and this is provided a nice habitat for that.



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Why are wetlands a particularly good habitat for birds?

Well wetlands in general provide an important function and I guess I should say right here, this is very much a managed, created wetlands and it serves as a wonderful teaching tool. The water doesn't flow quite as naturally as it might in a real wetlands. A wetlands like this is a great place to control erosion as with a lot of rain and the higher land over there as the soil might start washing down and the wetland plants help hold them. In doing that they also may be helping control some of the pollution that might end up in the creek otherwise so they provide a wonderful function in nature and they have their own set of plants and animals that live in wetlands naturally and normally. So it's a really nice teaching tool to be able to explain to kids about the plants they're seeing and how they work.

But in reality, if you look around you from this bench you'll see on the backside of us it's still very high. We're sort of down in a bowl here and so the water is not going to come and go from the creek completely on its own. I know there's an outlet here, but it's not going to flow completely naturally. If there's a really big flood and the water manages to get over into this constructed wetlands, it's going to stay here for a while.

Can you summarize into a sentence why wetlands are important to the habitat?

Wetlands really serve the purpose of being nature's filter. Soil that runs off in a big rain gets trapped in the wetlands instead of running into the creek and being carried downstream and essentially lost and along with it sometimes pollutants end up being filtered out and staying here and again, not going downstream where they might cause problems.

It also provides a unique habitat for a whole set of plants and animals that have adapted to this water regime.

And there's a whole set of soils, hydric soils, that are just wetland soils. So it's its own ecosystem and it's – probably the simplest thing to say is that it's nature's filter for a lot of water that moves through the wetlands before it moves on out into a larger water body.

So what did this area that you're looking at right now look like when you first started working here?

When I first came to Cache Creek Conservancy here in the mid-1990s before the nature preserve was set aside, what I found here was a big rectangular formal gravel mining pit that had been "reclaimed," was the word that they used, to agriculture and they had adjusted, moved some dirt around and brought in a little topsoil. Typically the miners preserve their top soil when they dig out a pit and then they can bring it back so it it's good enough soil to grow crops and that's what they were doing. I don't remember exactly what crops they had. I don't think they were tremendously successful.



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What are we looking at and why do we care?

Well, as we sit here, it's so comfortable and wonderful here at the end of the day listening to the breeze blowing and the cottonwood leaves are making a rustling sound and I see a ruby crowned kinglet in the tree, in the willow next to us and I just saw a yellow-rumped warbler fly into the cottonwood. It's such a peaceful area and it's a wonderful teaching tool because this is – even though this is definitely a constructed wetlands it had many of the plants and animals you would expect from a completely natural wetlands and so it's a wonderful place to teach children about the function of wetlands and what they might expect to see and why.

I mean when I look here at the assemblage of plants that have grown up since the mid-'90s when I first came here, it's fun to see all the different willows and the cottonwoods and the red buds and the coyote brush and the mule fat and looking at some of the big old gnarled valley oaks that are on the other side of the wetlands, it's really wonderful to see.

And looking into the water itself and seeing the animals, the birds and – mainly birds that are here right now. They probably have beaver that come in here occasionally and maybe even otters, but I've been seeing the pied billed grebes and often Canada geese that really take advantage of the tulles and any wetlands to hide in and raise their young in.

And it's a perfect laboratory for the kids; a natural lab for them to get out and see what it's all about.

I especially like the little boardwalk over here to my right where you can walk out and you're sort of standing over the water and then you can really get a good look at what birds might be there that day and just excite kids about what it means to be in a wetland.

As we sit here I feel like I – you know, just from my view on this bench I couldn't be out in a much more isolated spot. It just feels wonderful and wild, but then I also am reminded that I'm really not very far from civilization because we have airplanes flying over and I even think I heard the sound of a chainsaw starting up there in the distance and we have the farm trucks going by. So there are lots of noises that reminds us that we're right in the middle of civilization, but if you can just focus on what's in front of you here and enjoy it, you feel like you couldn't be in a much wilder place and that's what makes it really special because you're only actually only minutes from Woodland yet here we're sitting out here enjoying a pair of pied billed grebes diving and calling. It's magical. I want my binoculars.

What do you see?

It's some sort of a little shorebird that I can't - I'm really curious as to what it is because it's by itself so when you see things like western sandpipers or least sandpipers, they're usually in a little group, but it was too small to be a snipe. You see them by themselves. So anyway, it's cool.



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What does restoration mean to you?

The term restoration is used and applied to habitats so much because we've destroyed so much of our regular habit. I mean we use figures like 90% of wetlands have been destroyed in California and then we talk about restoring them and we're not really – what are we restoring them to is the question. Are we trying to restore them to pre-European settlement? Are we trying to restore them to the turn of the century? Each of those would mean different things.

So I like to think of restoration as not looking back, but sort of looking to the future and it doesn't have to be because the reality is we don't know exactly what things were like hundreds of years ago, but we have an idea now of what it takes to keep a habitat in balance and what plants need to be planted at times or what plants need to be removed that are non-native invasive plants and as they balance comes, then the animals will come and hopefully they'll live harmoniously, but the reality is that any area like this that is a restored wetlands needs to be managed. It doesn't stay completely on its own. There's maintenance that goes along with it and so we're not restoring to something that may have been seen hundreds of years ago. We're dealing with today.

And how has this place been restored?

Well, this very place where we're sitting looking at the wetlands was a rectangular gravel pit before. Most recently before and that was restored by bringing in bulldozers and moving all the dirt around and getting rid of the hard edges and the steep edges and feathering out the sides more and putting in these loafing islands for the animals and just trying to make it look more natural and in fact be more inviting to animals because there certainly weren't – the wildlife that we see now was not here when it was a rectangular, steep sided gravel pit.

And why is restoration important in this case? Why is restoring this area from a gravel pit to what it is now, what is that important?

Well I think historically when gravel mining was finished (and I'm sure that you'll hear about this from experts on it) the gravel miners were required just to reclaim it to a very minimal level. They weren't required to do much and as time went on, they realized that it wasn't the right way to leave things and the public realized that they didn't like looking at these big deep pits and then they started reclaiming more to agriculture which is — we're an agricultural county, but the agriculture wasn't always tremendously successful in the pits.

And then I think that they saw that sometimes it's just good to try to restore things and to a wilder state and to increase the diversity of the wildlife for no other reason than that we could be sitting on this bench today and enjoying it so much.



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So who uses this place these days and how do we impact its ecology?

Now that this area is all part of the Cache Creek Nature Preserve, it's – the use is very well controlled. When I first started work for Cache Creek Conservancy, we had lots of people coming into this area riding their all-terrain vehicles and hunting and shooting and it was such a tradition along the creek. And one of the first things I did was to put up signs that politely asked people not to do that and my signs all got shot up and they had holes in them, but as the years have gone on, people have realized that the value – and they see that this is a wonderful place and I think now people wouldn't consider coming in here and rolling over everything with their ATVs because they – it speaks to them. You come here and you see that this is a special place and a place that you come and walk quietly or sit and enjoy.