#### A COLLABORATIVE PROJECT OF

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





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STOP 3:

The Creek







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## Can you say where we are and describe the flora and fauna?

I'm standing at the edge of Cache Creek now and I'm seeing lots of scrubby willow and down right along the creek I see tules and some other – I see some cocklebur that isn't native and some cattails.

I'm happy to say that I don't see some of the non-native invasive species that I did see when I first came here in the mid-90s. A lot of that seems to have been removed which is wonderful. It will allow more of the native plants to come back in.

Directly in front of me is sort of a bar, probably mainly a gravel bar and then there'll be another part of the creek behind it. The creek is pretty braided here. There are different little channels that have water in them with some gravel in between them and then they attract enough soil and trees grow up. I see numbers of cottonwoods in particular along here that are a pretty good size.

#### Can you describe what we hear around us?

As I listen I'm hearing a breeze blowing through the cottonwoods and through the willows that make a nice soft sound and I'm hearing different birds flying in the background. The main bird that you're hearing right now is a black phoebe that just landed behind us. I would expect at this time of day, we're getting sort of towards the end of the day, that different birds will be coming out to feed one more time before it's time for bed

#### How about all that traffic on that road?

I'm also hearing, besides the nice sounds of the breeze in the trees, we're hearing from road 94-B a lot of traffic because it's the time of day when people are going home too which just reminds us that we're not far from civilization.

## Perfect. Can you describe this habitat and the role it plays in an ecosystem?

The area where I'm standing now is called riparian habitat. That refers to the habitat that's creek-side. I sometimes call it creek-side habitat and it's the – typically along a creek you'll find that the vegetation builds up nicely from the very edge where you see low-lying grasses and forbs and then moving into shrubs as you get back a little farther and finally up into full-sized trees as you back away from the creek and all making a very riparian habitat that as foliage at all different levels.

## What do you like most about this part of the creek?

For me, this part of the creek is wonderful because it feels so private. I'm in a little opening here and I feel like I'm sort of hidden in the bushes yet I have a good view of the animals and I could sit down here and happily spend an afternoon and not be bored for one second.



The Creek, continued (p.2 of 6)

## Could you describe the creek; the color and the texture and what might be in it?

At this time of year, the late fall, before the rains have really started, the creek is pretty low and it's looking sort of brown and not moving too fast, although now I see a leaf floating by and it's moving along. At this lower part of the creek there are different fish in the creek; some native and some non-native. I can't see them right now but I know that they're there and I know that some of the birds that we might expect to see along the creek eat fish so they're making a living here somehow.

It's fun because when you sit next to the creek like this and just watch, you never know when a hawk might swoop across or a flock of shorebirds might pass by on their way to go and settle in the wetlands that are back behind me. Anything could happen. We might see some mammals at this time of day. We have certainly coyotes and foxes that live in this area and we have beavers and otters that will start to – the beavers especially will start to get a little more active now. So anybody could come walking and flying by if you sit here quietly for a while.

## Could you name one or two fish or one two birds that I could edit into that response?

Really down at this end when we did the fish survey several years ago it was mainly red shiners. It was a bait fish. This is horribly degraded for the fish at this part, so I'm really not sure.

## Okay, that's fine. How is the creek (if at all) impacted by the growth of agriculture in Yolo County from an ecological point of view?

The creek has been severely impacted by the extreme agriculture that we've had here in the country where farmers have felt the need to take advantage of the wonderful soil that the creek has provided on its banks. And so farming has taken place right up to the edge of the creek and as the crops were planted closer and closer to the creek, the riparian. The bigger trees were cut down and everything was moved closer to the edge and then of course the creek would flood as it always does eventually. You know, it's not every year, but every few years and the farmers traditionally were upset because some of that good soil would then wash away because the water would come up and pull it back down into the creek.

Cache Creek is a very flashy creek which means that the banks erode in some places and it builds up in others. I mean, the creek changes continually. It's a very dynamic system.

So I think that now in recent years agriculture and the farmers, especially here in Yolo County, are well educated and they're interested in habitat preservation as well as their crops and they know that they work well together. So you see more areas along the creek where some of the riparian vegetation has been allowed to come back, just as you see more hedge rows planted around some of the crops farther off the creek to allow some wildlife and things like beneficial insects that really make a difference in a positive way for the farmers. So things are looking up for a riparian habitat. I'm encouraged that it will be getting better.



The Creek, continued (p.3 of 6)

## The creek was mined since the late 1800s. Why did it become such a big deal here in the '70s and '80s?

Well the creek was mined heavily for a number of years and what happened was, especially in this area where we're standing now, the lower 15 miles of the creek where Cache Creek came out of the hills and spread out into the alluvial plain, was where the gravels that were carried along by the water and tumbled along, it's where they would fall out and be a available for mining.

And back in the days when the mining in the early to mid-parts of the 20<sup>th</sup> century that there were really not that many restrictions on the mining and they just kept doing it. A lot of Cache Creek gravel was highly prized and used for places like building in San Francisco and building the freeways to the Bay Area.

And the downside is obvious in many ways. The creek has been really degraded and that means that we don't have nearly as many native fishes as we used to or the diversity of fish and they're not breeding here because they need gravel that stays in the creek for breeding and they need cooler temperatures. The temperature is higher than it was because the creek is just not natural anymore and so that tends to promote non-native species that have adapted to this sort of low gravel. Warm water has favored the non-natives and if you go farther up Cache creek you'll see a healthier assemblage of native fish.

## So as an ecologist, how do you feel about seeing all that damage in your home county?

Well I feel really sad when I see all the damage that's been done. When I started with Cache Creek Conservancy I became hopeful because in working with the aggregate producers, they see the damage that's been done and everyone of the miners that I worked with here seems to be committed to trying to improve things and that's why Cache Creek Conservancy was formed. It was to give some money to be put into trying to restore the creek and to creating a healthier ecosystem and I think it will happen, but it takes a lot of work and a lot of money and a lot of time.

## Do you remember how this part of the creek looked when it was mined?

For me, I haven't been here that long and the creek hasn't changed all that much. I'd say for me a big change in the last ten years or so has been removing the non-native exotics that came in as a result of the mining because the mining opened up big stretches of land. And then the first ones to come back in were tamarisk and arundo; two evil plants. I think of them that way because they're so hard to remove and once you remove them then you have to continue to monitor them and keep coming back, but I think the Cache Creek Conservancy has played a big role in working to remove these non-natives, although there always seems to be a new bad plant that comes along. But once the non-natives are removed either allowing naturally for the natives to come in or helping along by doing some planting.



The Creek, continued (p.4 of 6)

## Can you tell me what tamarisk and arundo are and why they're so bad?

Both tamarisk and arundo are two non-native plants that are fine in their native habitats in different parts of the world. Some in the Mediterranean area and even in Asia, both of these plants have stayed in balance. They have predators. They have insects that eat them. They have plants that outcompete them.

But they've come and both of them were brought in as ornamentals and well many people are familiar with tamarisk in the Southwestern United States. It's just taken over lots of streams there and become sort of a monoculture and it makes it very hard for the natives to take hold.

The Conservancy has made a real dent here on the lower part of the creek by removing it and keeping these two plants in check, but it's going to be an ongoing operation because there's still a lot of tamarisk especially in the upper parts of the creek farther up and they produce millions of seeds that wash down the creek so it's an ongoing project.

## What's the function of this part of the creek in the local ecology today?

Well this part of the creek as we're getting down towards the end of the creek, not there yet, not at the settling basin where everything comes to an end really, the lower part of the creek farther on down becomes very channelized and not too interesting before it ends up at the settling basin.

This part of the creek has a lot of potential. In this particular area there's water even now that the water has been turned off the irrigation district. So this is water that's here on its own because this particular part of the creek is a gaining reach meaning that because of the geological formation of this area, the Plane Field Ridge, water actually seeps up instead of seeping down and it's very rare that you would see this be completely dry.

So it just makes for a richer habitat and the potential for more plants and animals if it's just treated with a little kindness, which I think the Cache Creek Conservancy is doing.

## Are there still times when the creeks' role economically and ecologically are at loggerheads?

The creek is always going to be pulled in different directions and mining is continuing. Gravel mining is now out of the creek itself, but it's in deep pits on the sides of the creek and it's going to influence the hydrology of the creek. It's not insignificant. It's a major improvement for the creek itself to have the mining outside of it, but it's going to take hundreds of years for the creek to come back to a state that it was.

the farmers are pulling back a little bit. A creek needs to have room to meander. That's what it does and for the farmers and miners to be upset when the creek doesn't behave the way they want it to is – it should be a losing battle. The creek needs to have space to do its thing. If there's one thing you could say to people, it's just move back and give the creek a little space. Do not build your house or plant your crops right up at the edge because you're going to have trouble and you're going to be unhappy and the creek's just doing its natural job of moving sediment on down.



The Creek, continued (p.5 of 6)

## And what is a settling basin?

The Cache Creek settling basin was built to help trap sediment that comes out of the creek and to keep it from going into the bypass.

But it's an ongoing problem because the settling basin is filling up and there's a question of what to do with that sediment and it's very tricky because if you just keep digging the sediment out and moving it, is that practical? On the other hand, Cache Creek has concerns about mercury being carried in the sediment and then being pushed out into the bypass and ultimately down into the delta area. So the whole question of the purpose of the settling basin and how it works is a topic for more discussion.

It's interesting to me that this is a live creek that somehow ends in a settling basin.

Right.

## Before the settling basin, where did Cache Creek end?

Well that's a question. Some people like to say there's no hydrological connection with Cache Creek ultimately to the Sacramento River, but you know, if you look over a big time horizon, the creek must have made it to the river. I mean it clearly did, but things change. You can look at the creek. It's moved north, it's moved south before it hits the bypass. And especially over geologic time, things change significantly over the eons, but it's a problem and it's kind of sad to see Cache Creek sort of end up in a basin where everything is trapped.

So it will interesting to see in future generations what happens.

My last question for you here is I wonder if there is some moment that you can take me back to, some time when you were down at the creek, either when you worked here or not, but I'm just looking for a story of when you were down here and what you were doing and why it was so great.

When I first got involved with Cache Creek, a fun story I remember about it is we decided to introduce people to the creek by taking a canoe trip and getting people into canoes and going down the creek.

And I'm trying to remember now who was on the board of supervisors. It may have been Lois Wolk. I think it was before Lynnel Pollock. But anyway, one of the members of the board of supervisors got dumped into the creek and she loved it. I think that it made them advocate for Cache Creek just to have been so intimately involved with the creek. But it was a wonderful afternoon and if we could get people out on the creek and see it as a living, breathing organism and just get closer to it, we'd have even more protections for it than we have today.



The Creek, continued (p.6 of 6)

## Could you describe the light?

Being down at the creek at this time of the day, which for me, this afternoon is about 4:30 on a wintery afternoon, the light is just marvelous. The sun is almost going down and just in the amount of time I've been standing here, the whole feel has changed because the shadows have gotten longer and where the sun's hitting the tulles it's really sparkly and it just looks lovely and it's a whole different feel than it was 20 minutes ago. That's the nice thing about coming and sitting down at the side of the creek and staying for a while.