

Case Study

“Case Study of an Instream Restoration Project”

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The project was a streambank stabilization project, which was originally designed to protect a coastal trail in McKinleyville (Humboldt county) on Willow wide (?) Widow white(?) Creek. The project had multiple components. There were three fish passage improvement projects and a bank stabilization. We also had some outreach and education. We also did a hydrological assessment of the watershed.

This project was almost a nightmare. We started off with high hopes and expectations when we wrote the original grant in 2000. This was at the time when things were in flux in terms of fish passage guidelines. We were shooting in the dark a little bit when we put our proposal together. Once we got out contracts and started working, we found out that there had been quite a few changes both in terms of how we were going to be able to operate instream, and the costs skyrocketed. We had obligated ourselves to doing a certain number of tasks, and we found that we were way short on money.

What I plan to talk about is what I have learned in going through this process. Who were the permitting authorities? What kind of efforts did it take to get those permits? What kind of time-lines were associated with the project? What were the associated costs in terms of surveys, design, and engineering?

We were doing one culvert replacement and modifying two other culverts by putting baffles inside of a concrete box culvert, and then creating a couple of jump pools to bring the jump height into compliance for juvenile fish passage. We installed bio-technical bank stabilization and fish habitat structures down in lower Redway (?) Creek.

See PowerPoint for the “List of Permits And Application Fees”

Discussion: The bank stabilization project was within the Coastal Zone of the County of Humboldt. The California Coastal Commission had review authority. We had to get a Coastal Development Permit and a Conditional Use Permit. We also had to get a grading permit. When you get a grading permit from Humboldt County, you submit an application, and then they send it to their agency review process and it goes to the State Clearinghouse. Under this, pretty much every agency had an opportunity to look at the project and tell us if they had a problem with it (agencies that you wouldn't even dream existed).

We also had to get an encroachment permit from the Humboldt County Public Works Department because we were working within the county's right-of-way on the streambank stabilization portion of the project.

We had to get the California Department of Fish & Game (CDFG) 1603 Streambed Alteration Agreement. In order to get a 1603, you have to have CEQA compliance. If you have a CDFG funded project, you already have this covered. My funding sources for this project started with a grant from the California Department of Water Resources (DWR). When I found out that I didn't have enough money to do the project, I requested funding from NOAA Fisheries and got some additional funding from them. But this still wasn't enough, and I ended up going to the Coastal Conservancy. In the end, I had three different funding sources, but none of them were CDFG because this was an "urban" stream and CDFG felt like they had a better bang for their buck by funding projects on some of the wilder streams.

Because I didn't benefit from CDFG's funding/permitting package, the project turned out to be a bit of a nightmare because I had to prove up my CEQA compliance. This is where a lot of the costs were incurred in this project. Not only on the Coastal Development Permit for the streambank stabilization, but on even the culvert projects, I still had to show my CEQA compliance.

The Army Corps of Engineers, US Fish & Wildlife Service, NOAA Fisheries, and North Coast Regional Water Quality Control Board had review and appeal authority. The bank stabilization required an Army Corps Nationwide Permit. The fish passage required the Regional General Permit 1, and they all required Water Quality Certification.

See PowerPoint for "Fees List"

Water Quality Certification	\$1000
1603	\$ 900
Encroachment permit	\$ 200
Grading permit	\$1000
Coastal Development Permit	<u>\$3600</u>
	\$6700

See PowerPoint for "Preparation Time"

Discussion: This is just for filling out and sending the forms. Over 100 hours went into the preparation of the coastal development permit. This is because I had to go through the whole CEQA checklist and answer all the questions. It asks a lot of tough questions, and if you don't know the answer you have to do the research to find the answers.

See PowerPoint for "Fees Apportioned to Aspects of the Project"

Discussion: In Humboldt county, the grading permit is by parcel. So, if you have two or three different landowners, you have to get a grading permit for each one. The grading permit fee is set by the value of the projects (similar to the 1603 Streambed Alteration Agreement). The County of Humboldt stated at a meeting in July, that they are not going to enforce the grading permit ordinance if the project is outside the coastal zone. They did not say they were going to create an exemption to the permit for restoration projects.

See PowerPoint slide for "Design and Permitting Costs"

Discussion: The survey and design costs got pretty astronomical. We had three culverts and 1200 feet of stream that we had to survey. Because we were trying to protect the coastal trail corridor, as well as trying to get double benefit out of the money, we proposed to use a lot of big wood that was already down to benefit Coho salmon in the stream, but this made the CDFG warden extremely nervous when she came out to look

at it. So we got a habitat specialist out there, and between the three of us we worked out a compromise. CDFG wanted to see what our plan was for every single piece of woody debris. This turned out to be a pretty significant undertaking because there were several hundred trees that we had to map out and show where each one was going to go. This increased our costs and permit preparation time significantly.

See PowerPoint slide for “Permit Time-line”

Discussion: A couple of these really stand out. The Conditional-Use Permit/Coastal Development Permit took a little over 12 months. We had changing criteria throughout the project. The old CDFG criteria for jump pools allowed an 18 inch jump height, and this is what we originally designed the project for and had the money to build. We submitted this plan in our Regional General Permit, but because it did not fit the criteria for a 12 inch maximum jump height, we actually had to do a stand-alone Biological Opinion for that part of the project. This ended up taking several months. The rest of the permit time-lines were fairly painless. (When there is a potential for “take” there is a 150 day review and consultation period.) I found that you have to be a squeaky wheel.

Part of the time delay and additional costs was caused by moving target criteria. Part of it was my fault for not anticipating, and not budgeting realistically, but we were basing our assumptions on the “old” way of doing things, and we had never done a project where we had to divert water and had to relocate all of the fish, and monitor turbidity. It was pretty hard and a rude awakening to the reality of doing these kinds of projects.

See PowerPoint “Permitting Costs Breakdown”

Discussion: Probably about half of these costs are actually design costs, working with consultants. There was a lot of back and forth between myself and our engineers as far as design needed for the permits.

See PowerPoint “Permitting Costs Increases”

Discussion: This is the one that kept me awake at night.

See PowerPoint “Implementation Costs”

Discussion: The original budget was probably underestimated. When we diverted the water and de-water the site, we had to have two people full-time for running the pumps and dealing with the diversion. We did have a turbidity violation and had to shut down, you are suppose to stop until the water clears if you have a turbidity issue.

So, we went from a \$19,000 budgeted project to a \$57,000 project. I have to take the blame for part of this. Even under the old operating conditions, it would have cost more than \$19,000. It probably would have cost \$25,000 to \$30,000.

See PowerPoint “Combined Costs of the Project”

Discussion: You can see where the costs skyrocketed on certain items. It is embarrassing to admit to people that I underestimated the costs of the project so badly and that we were scrambling at the end of the project to try and complete it.

See PowerPoint “Funding Sources”

These are the agencies that have the lion’s share of the funding.

- CDFG
- State Coastal Conservancy (primarily in the Coastal Zone)

- Department of Water Resources (through its Urban Streams Restoration Program)

The Department of Water Resources (DWR) does not have programmatic permitting, and it does not like to pay for permitting. It wants to see the funds go into implementation. One of the requirements on its grants is that the project must have a government co-sponsor. Theoretically, this government co-sponsor will take care of the permit requirements. The government sponsor entity I worked with did not have a planning department and it did not have the capacity to take on the permitting for me. I found this out after being granted the funding from DWR. We had really good project managers at DWR that worked with us to get us through.

- NOAA Fisheries
Has funding programmatic permitting.

- US Fish & Wildlife Service
Has funding programmatic permitting.

- Water Quality
There is no funding programmatic permitting right now, and I believe it does not pay for permitting either. I might be wrong about this. Your project has to have its permits in place before it can qualify for funding.

Where do we go from here?

I've done a lot of thinking about ways to reduce the permitting burden and costs. There have been discussions at some of the workshops I have attended. The one that jumps out to me are the programmatic permits from the funding source, which CDFG has, and NOAA Fisheries has. Categorical exemptions (from CEQA and NEPA) would also be a preferable option. I can also see why some of the regulatory agencies would be extremely nervous about this. A restoration project is going to have a net benefit in the long run, but there are projects, when we are working instream, that have a potential to create significant impacts. So, maybe it is not appropriate to have an exemption on those things. A riparian fencing project, yes. It's maybe going to have impacts on some migrating animals, but it is not going to have significant impacts, and it is going to have a beneficial use.

Realistically, doing the kind of project I was doing here— culvert replacement and modification and streambank stabilization-- these things could have had a significant impact. A categorical exemption (from CEQA and NEPA) would not have been the practical way to streamline. Another thought we have had is through “practitioner licensing,” just like you have a permit from NOAA Fisheries to relocate fish, you have to follow certain protocols. If we had this for people doing stream restoration projects, similar to a contractor’s license, where you are required to know and follow best management practices, just like when a contractor is building a house. You have a set of plans. An inspector comes out every so often at different stages in the project to make sure you did it right. The same thing could happen for permits. You submit a streamlined

application form, and the licensed practitioner implements best management practices, and an inspector comes out once in a while. These would be ways to decrease to duplicative paperwork.

Another option for permit streamlining would be “joint agency regional permitting authority.” I know they have this in some areas like Washington (state) and maybe down in the Bay area. I haven’t had enough experience to know how this works, but when I looked at the one application form, that went to one central agency and this agency was circulating it to the different authorities and got their comments, this made a lot of sense. As an individual you would not have to be the one chasing it to every different agency. This would reduce the burden on people operating on grant funding and with limited funds.

We do have at RCAA, in the Natural Resources Department, various watershed coordinator positions that are part-time and funded through different funding sources. If somebody wanted to take this permit streamlining on as a pet project, they might be able to make it happen.

Dick Butler (NOAA Fisheries) comment: You made a good point. I think it would benefit the group to say it again. You fell out of a programmatic funding because you didn’t meet the criteria in your project.

DA: We didn’t have CDFG funding. We fell out on the consultation under the Region General Permit 1 because we did not meet the criteria.

Dick Butler recommendation: What I recommend for everybody is to get copies of the biological opinions. Many of them are on NOAA Fisheries website. If not, you can get them with a phone call. Read over the biological opinion and make sure your project meets its criteria.

DA: In the end we worked the “stand-alone biological opinion” out with our local NOAA contact. We had to add an additional weir.

The criticism that I hear on projects like this is we are spending a lot of money on a stream that doesn’t have enough habitat anymore because of the urban impacts. The question is if we have a limited amount of restoration dollars to spend, should we be spending them on these urban streams as opposed to timberland or rural areas with better habitat potential? If we are looking at species recovery then I would rather see the money put into the more rural places where there is better habitat upstream, and more undisturbed conditions. Although, I would also say that it is not always the case that timberland is always preferable habitat to an urban environment.

In the case of McKinleyville, we are still at development stage where the city has a chance to save us. If they put in an effective stormwater discharge mitigation, and wetlands that absorb and slowly release it into the creek, and a good riparian setback, you could actually get some very good habitat. The benefit of urban stream restoration is that you have a large, captive audience. They see the creek everyday. Their kids play in it. Urban stream restoration is an extremely good educational opportunity.

In our project we had a multiple-funded educational component where we were working with the high schools and the elementary schools trying to increase their awareness.

You have to stay with this education consistently for it to be really effective. The funders don't seem to want to fund over the school life of a student, just for a couple of years.

Question: I was wondering whether there were times in each of the permits when the conditions you had to meet were conflicting? Or were they all pretty straightforward?

DA: I can't think of any. There really were no disagreements other than the new guidelines. This is what got me thinking about why can't we have a single application form. After spending 40 hours filling out applications that all basically ask the same thing, for five different agencies I was asking myself, "Why not just one application?" The other way to do it, is to get CDFG funding, or other programmatic funding.

Question: What about rising labor costs over the life of the project and needing to account for this in an upfront budget?

DA: If you have a project with a life span of three or four years you have to think about cost-of-living increase for staff, Workers Comp goes up every year. So, at one time I was paying someone \$12 per hour, and their total cost was maybe \$20 per hour. Over three years' time, that might end up being \$25 or \$26 per hour. If I had just budgeted at \$20 per hour, then I am short 25 to 30% of my project. This played a small factor in my miscalculations because I expected to implement the project a year earlier. An old friend of mine says, "Double it and add 20%. Then you are in the ballpark." This is not far from being

Question: How much is insurance for people working on the project?

DA: Workers Comp insurance was about 30%. This is going up all the time. It all has to do with how many accidents you have had in the past. If you had a claim two years previous, this bumps your rate. This was one of the deciding factors in dropping our training program through the Job In The Wood Initiative. We had a lot of claims go in, and this was affecting the costs of our other projects too much. We know we had a couple fraudulent claims from people who had pre-existing injuries and were looking for an excuse to file another Workers Comp claim. We tried to screen these out, but we couldn't completely. It came back to bit us, big time.

Another piece of information that I encountered in the last couple of week, and I want to put out is, I have always written in my grant applications a "volunteer labor" component. This has always been looked at a good thing—get the community involved and stretch the project dollar. I found out from DWR that it can no longer fund volunteer labor according to the Department of Industrial Labor Relations. People, such as bulldozer operators, need to be paid prevailing wage, even if they are being trained. My DWR project manager told me that I needed to redo my budget to include labor costs at prevailing wages. So far, this has not hit CDFG funding, it hasn't hit Water Quality or the Conservancy. My project manager was say that this could hit across the board for all projects. My contract manager told me that prevailing wage could be applied retroactively, probably to the start of the project. An owner-operator doesn't have to pay himself prevailing wage, but any employee must be paid prevailing wage.

Comment: This happened on the Navarro. They couldn't do some of their projects that included volunteer crews this year because they didn't have the money to pay prevailing wage.

Another issue is, in California, if you do more than \$500 of paid work you have to have a contractor's license. If you look at all the restoration projects, there are a lot of people who are not licensed contractors. In fact, if you are the person receiving and distributing the money you are supposed to be a licensed contractor. You are the "prime" contractor if you are receiving the grant funds. This is a can-of-worms that no one has opened yet.

Jude Wait noted a spreadsheet was available (by emailing her) for projecting actual costs of wages, workers comp, etc.

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