

Morning Speaker: Rob Young

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Elwha River restoration blog

Dr. Rob Young, Director of Program for the Study of Developed Shorelines and coastal sedimentologist, received a \$1.5 M grant from the National Science Foundation in 2007 to bring youth and science together in studying the effects of the dam removal. The grant couples middle school students from the Lower Elwha Klallam Tribe with educators from the [Olympic Park Institute](#). The project also links science with cultural components of the Lower Elwha Klallam Tribe who had historically used the Elwha River basin for fishing salmon.

The Elwha Dam Removal project meets what an ecological restoration should be. Good restoration should return the ecosystem to its historic trajectory. It should be sustainable over the long term. The restoration should be resilient.

Restoration should include restoring traditional uses of the area by indigenous peoples. Ecological restoration is also cultural restoration, as is the case here.

Beach restoration is pumping up the sand, then smoothing it out. It's not environmental restoration – it's not sustainable and can easily be destroyed.

An example: The Army Corps has decided to restore the Mississippi Gulf Islands and reconfigure the islands to pre-hurricane Camille structure. But restoration means putting environment back to natural trajectory. These islands are IN their natural trajectory. Folks think restoring the islands are going to protect the mainland. Hurricane Camille hit the mainland too.

The monster in the closet is the proposal to restore coastal Louisiana to preserve ecosystems but now we hear about storm protection too. Ideas include rebuilding barrier islands and making small breaks in the levy to allow water to bring sediment to the marsh. The problem Louisiana faces with all this is that Louisiana has the largest rate of sealevel rising in the country. It will cost \$60 billion to do this project.

How many projects like the Elwha could be done for \$60 billion? In light of what's going on in Louisiana – the cost of the Elwha project and potential sustainability stack up very nicely.

\$360 million was spent to spend on rebuild sand islands off the southern coast as a type of breakwater, but they were destroyed after Hurricane Lee.

Main difficulties with the Louisiana project – sealevel rising, increase in storm frequency, source of resources and political difficulties.

The one plan not on the table is letting the Mississippi River restore itself -but that would mean communities would have to change. They're trying to save the map, not land.

Another example is of the Everglades in Florida. It's still a very important and well-intentioned large scale ecological restoration project, to restore the slow flow of the water. It has a great chance for some success. But the national academy of science recommended a review of the entire restoration because of sealevel rise.

What's so exciting to me about the dam removal project is that it has such a high chance for returning the river to it's historical trajectory and the physical environment. It is a sustainable project. For all intents and puposes, who knows how long, there won't be immediate hands-on managment required for the Elwha. If we initiated restoration in Lousiana, they'll be maintaining everything that was built as "restoration" forever. That's engineering, not restoration.

We heard wonderful talks yesterday how taking the dams down will restore the matrix. it will be very exciting to follow in the future.

On top of all this – it has that cultural connection. It is not just reconnecting the river to the watershed. It is reconnecting people to the river.

It is a long term restoration project that has fabulous prospects for success. The other thing that's really impressed me about the project is the large number of you, the scientists who are here. The breadth and interest in this project. The cost of the project is nothing compared to large scale restoration projects in the United States.

If you factor in the opportunity for learning, expeimenting, models, theories, ideas and all those things we are going to learn from this grand experiment that has nothing to do with just getting fish back in the river, it's like a giant funded large scale NSF project that everyone can hang onto and learn from.

I firmly believe it will become one of the most significant large scale ecological restoration projects in United States- a posterchild in fact. This proejct is a bargain for what we're getting out of it and the likelihood of success of what we'll get in the longterm.

Go to Louisiana after the \$60 billion project in the long term and you won't see what you want to see. Come back to this place 100 years from now and I think we're going to see something wonderful.