

Fishes in the Streams—Or Not—the Failure of Strip Mining Reclamation

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Many species of fishes are missing from streams destroyed by strip mining years ago and then “reclaimed” as new streams. These fish are not tasty Snook, exciting Tarpon or well-publicized sharks. They’re mostly less than 6 inches long and live in small streams and rivers flowing into Tampa Bay and Charlotte Harbor. Even if we put their pictures on milk cartons, most people wouldn’t recognize them or know why they’re important.

When the Florida Department of Environmental Protection began a study of reclaimed streams they wrote, “...if these created streams had adequate habitat and water quality, they would support healthy biological communities.” The diversity and population levels of these small fish have important implications for people who fish and who eat fish. These small stream residents tell us about the health of the environment. Species diversity is reduced when habitats have poor water quality and floodplain vegetation, are clay laden or have silty creek bottoms, and suffer the loss of typical seasonal water flows. These are the signs of reclamation failure.

Streams are simply not restored after strip mining—even 15-20 years later we can see the consequences.

The impacts in upstream areas of our environment are eventually felt downstream. That’s one reason why streams that have been destroyed by strip mining must be “reclaimed.” It’s why we must closely monitor the quality of that restoration. Florida has lost much already. Missing fish are an indication of what has happened already—and a way to predict what can happen in the future.

Fish repopulate new streams as long as there is a way to get to it – and the stream tastes or smells are not offensive. Reclaimed streams, with rare exception, do not meet these minimal requirements.

While the consequences of poor reclamation practices are not immediately apparent for most of us, the biological effects are, in a cumulative fashion, eventually are felt by all of us.. The failure of stream reclamation has already decreased water flow to the estuarine habitats of Charlotte Harbor. Water is the lifeblood of a healthy estuary. Still, it’s is not too late to prevent more cumulative harm in the Peace River watershed or to Charlotte Harbor.

As part of the team to evaluate the proposed strip mining and reclamation of the proposed Ona strip mine in Hardee County, it is one of my tasks to look at reclaimed streams and compare them to the natural streams at the proposed site. We looked at reclaimed streams that DEP declared either “successful” or “not successful.” We also visited other reclaimed streams and the natural streams at Ona. We compared the presence and absence of fish species in reclaimed systems and natural systems.

Some of the “restored” streams were created back in the early to mid 1980’s. They should have larger and more diverse fish populations, but, the restored streams had few or none of the expected

fish species. All had substantially fewer fish species than in natural streams.

Here's the bottom line—as long as we allow streams to be “reclaimed” as they have in the past, we can expect strip mining to decrease fish species by about 50-100 percent. Several miles of streams will be stripped away at Ona. This will result in significant losses of fish diversity. Horse Creek provides about 15 percent of average water flow to the Peace River. Mining is projected to destroy 50 percent of Horse Creek's natural watershed. It's not hard to understand how we will all be affected in the future.

The permitting process requires that the Southwest Florida Water Management District's standards to protect fishes be met. But, reclamation, as presently implemented, doesn't even meet those standards.

By DEP's own measure, “...if these created streams had adequate habitat and water quality, they would support healthy biological communities.” But, they don't and the public has no reasonable assurance that their native fish, stream communities, and diversity will be protected. If reclamation is allowed to continue as it has, we will have fewer fish species. If we allow continued environmental impacts without reclamation, the only the that will flow are economic consequences.