TREES ARE DYING—SO WHAT?
Sherry Sass 8/5/05

As anyone who has looked east from I-19 in the Rio Rico area may suspect, large numbers of trees in the Santa Cruz River floodplain are dead. Mostly cottonwoods and willows have succumbed to something, many just since last fall, and a disturbing variety of other native trees, including some stands of large mesquites, have died as well.

Exploration of possible reasons for this massive die-off will have to wait for another column, when more information is available; several agencies, landowners, and Friends of the River are investigating. But here I'd like to pose the question, "So what?" Why should we care if riparian (river-associated) trees die? Don't they use a lot of water? Don't they get in the way of flood flows? What do we need them for anyway?

Actually, riparian plants, trees especially, provide several critical services to us at cut-rate prices. Engineered flood control is very very expensive: Pima County spent over $16 million last year alone, compared with less than $700,000 for Santa Cruz County. Because the floodplain in this county is mostly unmodified, riparian forests have been able to develop that stabilize stream banks, slow and spread flood flows, and store excess water in the rich, spongy soils the trees help build over time. When trees 'get in the way' of flood flows, more acreage may get wet, but far less gets eaten away by ground-gnawing, gravel-powered torrents. Our cost for keeping floods from wreaking havoc on communities from Buena Vista to Tucson? Water for the trees, and they do drink a lot; but even that cost has its benefits.

These days, our once-natural river is kept flowing by the addition of effluent, partly-cleaned water discharged from the binational sewage treatment plant in Rio Rico. This effluent is a decidedly mixed blessing: it's loaded with organic material including ammonia. Although it provides live stream flow, it has the potential to contaminate the aquifer. And the notorious Nogales Wash, which runs right through Ambos Nogales, dumps its occasionally grossly polluted waters right into the Santa Cruz just upstream of the effluent discharge (these flood flows do NOT get treated at the Rio Rico plant). But riparian trees drink this poor-quality water with relish, pulling ammonia and other drinking water contaminants out of the flow. Cost for this much-needed purification? Just the water we don't want to drink anyway.

Other dirt-cheap services the trees provide include building the soils that hold the water in our watershed's most productive aquifer; creating habitat for the vast majority of our wildlife; supporting several rare and endangered species; cooling local temperatures; and supplying accessible recreational opportunities like world-class bird-watching, shady picnicking spots, and equestrian and hiking trails usually found only in very exclusive locales.

Besides measurable services, the trees also give us intangibles like beauty, lushness, and a unique sense of place. Doesn't the sight of that deep green ribbon feed your soul, even glimpsed from the highway?

Given the maintenance of shallow groundwater levels and protection of the unmodified floodplain, the trees will return—riparian ecosystems are very robust and dynamic, evolving as they have with cycles of drought and flood. You probably give substantial water and room for your own yard's landscape. Aren't our riparian trees, gifts of nature to our community's landscape and watershed, worth some water and space? Such a small price to pay for all they do for us.