

Gravel Mishaps

add your story!! contact Martin Hutten, Martin_Hutten@nps.gov, images to Hutten@olympen.com

Marty Acree **restoration work leader, Yosemite National Park, CA**

“The El Portal Road Reconstruction project followed immediately after a large rain on snow flood event in 1997. Emergency repairs of several miles of roadway required the import of fill dirt extending up to seventy five feet from the road edge. No source inspections were conducted and the following season, many new invasive plant infestations sprung up: yellow star-thistle, tocolote, black mustard, cheat grass, burr-, rose- and sweet yellow clover, exotic vetch, perennial pea, London rocket, tumble mustard as well as many annual non native grasses. Hundreds of thousands of dollars were spent to clean up the worst of the problems, but many of the annual grasses, clover and vetch remain.”



Kristine Johnson **Supervisory Forester, Great Smoky Mountains National Park, TN**

“I began thinking about gravel as a seed source about 10 years ago after seeing white sweet clover growing out of stockpiled gravel in Nova Scotia. Coltsfoot (*Tussilago farfara*) was the first plant to catch my attention as introduced with gravel in the Great Smoky Mountains National Park. It came up along our transmountain highway where small gravel and sand (chat) are used in winter. Coltsfoot was found nowhere else in the Park at that time. Then I found the same plant growing out of gravel on a recently graveled Park driveway, again a new location with none known anywhere nearby. I began pushing for a quarry inspection program here at the Smokies several years ago. Information on our current program is posted on the TNEPPC website www.tneppc.org”.



Photo: Coltsfoot growing out of stockpiled gravel. Contributed by Jenny Beeler, Resource Specialist at Cumberland Gap NMP



Tricia Wurtz **Ecologist USFS R10, Ketchikan, AK**

“Fill material was brought to a site where a new elementary school (Fawn Mountain) was being constructed on a hillside in Ketchikan, Alaska. Now Japanese knotweed is sprouting out from the area just beyond the school's playground and parking lot. We're now funding a project at Fawn Mountain School in which the kids study the infestation and use it as a tool to learn about invasive plants. In the photo, taken nearly two years ago, the knotweed is bright green and the native alders are darker green: since, it has grown a lot..”

Tricia Wurtz & Jen Kain Seward, AK

In 2006, the Seward Highway was repaired, and new gravel and topsoil was brought in. The state DOT/PF said that they used an approved, non-invasive seedmix along the shoulder. Even taking these measures, two years later we had two-year-old white sweetclover (*Melilotus alba*) for six miles of road on either side. White sweetclover is known to move from roadsides to river floodplains in Alaska; three major rivers in the state are heavily infested. We guessed that the gravel had been contaminated with sweetclover seed, and began mitigation in the summer of 2008. This is still ongoing, but the infestation is under control. As it was spotted early, and hardly any seeds from the two year old plants escaped, the outbreak was contained.



Adrienne Peterson

Sublette County Weed & Pest control, WY

In 1991, we shut down a gravel pit that had spotted knapweed (*Centaurea maculata*). We have never let any plants go to seed and we still had around 25 knapweed seedlings from that area in 2009! Another area in Sublette County we had black henbane (*Hyoscyamus niger*) in a gravel pit and they spread the gravel up and down oil field roads and you could see right where the gravel was spread (see picture).

We have a very active gravel inspection program in Sublette County, and we're probably the first to start inspecting pits. The county has language in the zoning rules so that all new gravel permitted areas will be inspected and we have the right to inspect anytime.

http://www.wy.blm.gov/jio-papo/jio/presentations/2009weeds_CertifiedGravelPit.pdf



John Exo

Natural Resources Educator UW-Extension, WI

About 6 years ago, the county reconstructed about 5 miles of highway. After the shouldering was completed, I noticed spotted knapweed growing only in the shoulders (new to my area). Luckily adjacent soils are not preferred by knapweed, so, after pulling or spraying EVERY plant along several miles of shoulder, I believe it was contained. I have both seen and heard of exactly the same situation elsewhere in the state of Wisconsin.

Chris Christofferson

District Botanist, Plumas NF, CA

Butte County used fill material contaminated with Canada thistle, despite the fact that the quarry was known to be contaminated. Prior to the use of rock from the contaminated quarry, Canada thistle was known from 1-2 sites in Butte County, now it is much more prevalent.

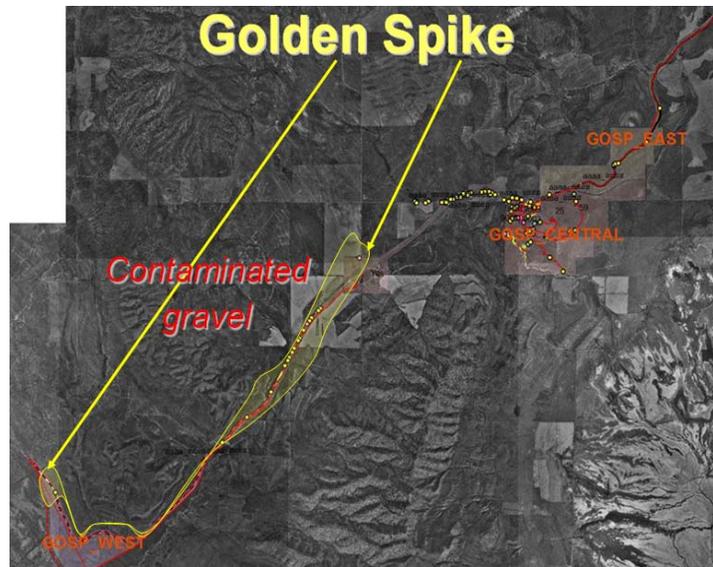
**Marla A. Knight,
Botanist, Klamath National Forest CA**

In 2006 we discovered an infestation of dyer's woad (*Isatis tinctorius*) in the Salmon River watershed along 5 miles of Forest Road leading to a wilderness trailhead, within one mile of the wilderness boundary. We assume that it came in with contaminated gravel (see photo of woad contaminated storage piles). We have treated the infestation manually for three years as the forest does not have NEPA compliance for the use of herbicides, see lower photo after two years of hand-digging. After a fire in the area in 2008 dyer's woad expanded into the burn in two spots. We will probably have to keep coming back because dyer's woad has a long seed viability.



**Martin Hutten
Botanist, Yosemite National Park, CA**

“A couple of years ago, I was part of the Northern Rocky Mountain, Exotic Plant Management Team, a weed SWAT team that services many different NPS units. One of the units is Golden Spike National Historic Site in northern Utah. The park is pretty small, and provides good access. Over the years, the EPMT team had mapped all priority weed infestations in the park, but suddenly new infestations of Dyer's woad and others sprung up along miles of its western railroad grade. As it turned out, the park had brought in gravel from Brigham City to shore up the grade, and no source inspection had been conducted” .



Rose Paul

Director Science & Stewardship, TNC, VT

I witnessed earth moving and new fill brought in to expand an elementary school adjacent to our LaPlatte Rivermarsh Natural Area in Shelburne, VT. A year later, a leftover small mound of fill had sprouted common reed (*Phragmites australis*). We received permission from the school to use herbicides on the school's property to eradicate the common reed before it moved downstream into our marshes.