

Yosemite N.P.S. Equipment Inspection Program

History

Non-native invasive plant species within Yosemite National Park can frequently be traced to soils that have been disturbed due to construction related activities. Infestations of non-native invasive species (NNIS) originate in these sites when wildlife, automobiles and construction equipment carrying dried soils introduce exotic seeds.

The Yosemite National Park inspection program was initiated in 2004 after identifying earth moving equipment as a major point source of introduction of exotic plant species into the park. Samples of dried soils were removed from equipment that was used in the park, potted and watered until seed germination occurred. Several exotic species, some of which were noxious and invasive, germinated in that soil. At that time, Yosemite could not use any herbicides, hence its ability to control infestations was very limited.

Yosemite's program requires all earth moving equipment to be free of mud and plant debris. Each piece of equipment is inspected at a designated entry point. This includes all N.P.S., Federal Highways Administration, and concessionaire projects that require earth moving equipment.

Program

Trained monitors inspect earth moving equipment such as excavators, backhoes, skid steer loaders, skip loaders, drill rigs, and dozers because this equipment is often involved in extensive soil disturbing activities during construction projects. Other equipment such as dump trucks, paving vehicles, and contractor pickup trucks can move weed seeds, but pose a much lower risk, and Yosemite cannot inspect all of this equipment at each entry.

Over the past 6 years, the annual average number of earth moving machines entering the park has been between 50 and 100. This includes N.P.S, concessionaire contracted projects and internally staffed projects.

The inspection program has also been incorporated into all Federal Highways Administration projects occurring in the park. The FHWA project managers worked closely with Resource Management and Sciences inspection monitors to establish and implement a vehicle inspection protocol. Training of FHWA monitors to perform their own inspections frequently occurs out of the park at contractor equipment yards. These inspections include multiple pieces of earth moving equipment that are being brought into the park. By doing the inspection off site it allows the contractor to easily re-clean equipment that fails inspection.

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Funding for the inspection program comes from specific projects and is not N.P.S. base funded nor through the park's invasive plant management program.

Specifications

Contract specifications must include language requiring clean equipment and equipment inspection prior to entry to the park. Projects proposed to park management that go through environmental compliance evaluation will include the equipment inspection protocol within the project guidelines. When large projects are awarded to contractors, inspection specifications are often incorporated into a broader natural and cultural resources protection section of the contract, for example:

Protection from Exotic Plant Species: Measures shall be taken to prevent the introduction of exotic species in the project area and staging areas. All earth moving equipment must enter the Park free of dirt, dust, mud, seeds, or other potential contaminant. Equipment exhibiting any dirt or other material attached to frame, tires, wheels, or other parts shall be thoroughly cleaned by the Contractor before entering the Park. All equipment will be directed to the El Portal Maintenance Facility for inspection prior to commencing work. Areas inspected shall include, but not be limited to, tracks, track guard/housings, belly pans/under covers, buckets, rippers, and other attachments. Equipment that does not pass inspection will be turned around to the nearest cleaning facility outside the park. If vehicles are unable to drive to El Portal due to size or load restrictions, vehicles will be inspected at a mutually agreed site by the Contracting Officer prior to entering the Park. The Contractor shall notify the Construction manager at least two work days (not including weekends) prior to bringing any equipment into the Park. Equipment found to have entered the Park with potential contaminants will be removed from the Park at the direction of the Contracting Officer at Contractor's sole expense.

The specifications require inspections to occur at the El Portal Maintenance Facility or park entrance stations, at a site where large equipment can be safely inspected and turned around if necessary. This will be determined by the COR and the inspection monitor. N.P.S. wash stations will **not** be available to clean equipment that has failed inspection. Equipment that fails inspection may not travel within the park, thus reducing the risk of spreading contaminated soils and/or organic debris that may carry exotic plant material or seed. Re-inspection is required after re-cleaning.

Inspection

The inspection specifications require contractors or equipment rental companies to give a 2 day notice before entering the park. Direct communication between the inspection monitor and contractor improves the scheduling process and expedites getting the equipment into the park without delays.

The inspection monitors work with entrance personnel to ensure that they are familiar with the invasive plant management program and the inspection process. The entrance station personnel do not verify equipment coming into the park but may help facilitate contact between equipment haulers and the monitors.

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The goal of the inspection is a visible verification that the equipment is free of any mud, dried soils or vegetative plant material anywhere on the machine. Each type of equipment has unique locations to be inspected for debris and requires a thorough examination. If a minimal amount is found, the inspector may choose to have the hauler remove it on site, bag and deposit it in the trash. If the inspector determines that the equipment has failed inspection, the hauler will be directed to contact the contractor to inform them of the situation. The monitor may be instructed to contact the project manager to inform them of this as well.

Contractors with good track records are occasionally permitted to proceed with hauling a piece of equipment directly to the job site for inspection. The inspector may allow for this when the contractor has developed a positive track record, especially on extended projects. This however rarely includes rental companies, even if they may frequently be bringing equipment into the park. The risk of inadvertently hauling equipment directly from other job sites and not allowing for a proper cleaning to the parks standards is always present with rental companies.

All equipment that passes inspection is stickered with self adhesive labels that are easily identifiable from a distance by N.P.S. personnel. A documentation form is also used to tabulate year end statistics.

Success

Yosemite has found no evidence of serious new invasive weed introductions via construction equipment anywhere within Yosemite National Park since this program was implemented. Invasive plant program staff did find a new infestation of tocolote (maltese starthistle) on a construction site at a private land inholding in the park in Wawona (heavy equipment servicing private land within Yosemite is not presently inspected). During the past 6 years, there has been excellent support from all parties for this program. There are on average only 4 failed inspections per year