Revegetation

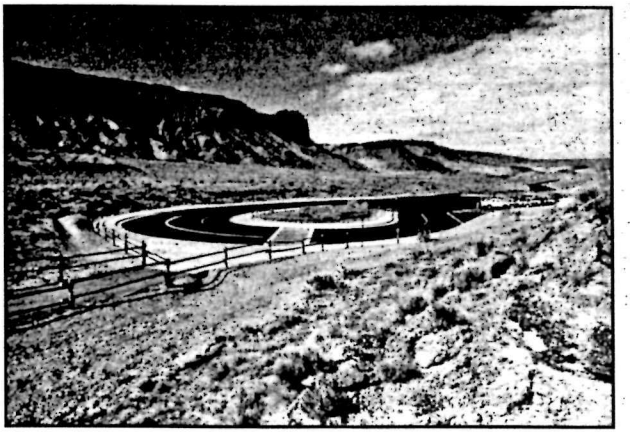
Since the establishment of the Federal Lands Highways Program in the early 1980s, the NPS and FHWA have fostered the reestablishment of sustainable native plant communities on disturbed road slopes throughout the National Park System, especially in the western United States, where native plants are often better adapted to harsh and unpredictably fluctuating climates than introduced species. The initial cost of establishing indigenous communities is justified by more natural appearance and improved durability, which bring lower maintenance costs and greater longevity.

The Natural Resources Conservation Service, formerly the Soil Conservation Service, makes an invaluable contribution to this effort. The Natural Resources Conservation Service has a network of plant material centers through which they provide technical assistance to the NPS under an MOU. They develop production technology for native plants, conduct revegetation studies, and produce native seeds and plants for park roads projects. Since the signing of the MOU in 1989, over 30 parks have participated. More than 600 new indigenous ecotypes of native species have been collected and are now being tested or reproduced for use on park roads and other disturbed sites.

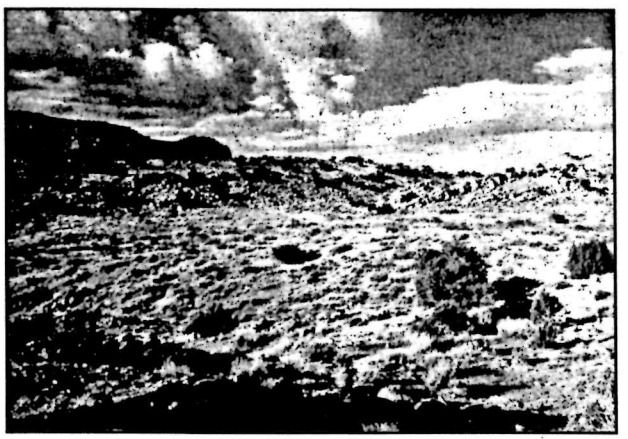
Nurseries at Joshua Tree, Glacier, Mt. Rainier, Olympic, Organ Pipe Cactus, and Golden Gate have successfully produced plants for park road projects. The Joshua Tree staff developed the innovative "tall pot" system that produced over 90 percent plant survival in the Mohave Desert. The Joshua Tree program was featured in the periodical *American Nurseryman*.

Parks often recruit local school classes and volunteers to collect seeds, take cuttings, repot seedlings, plant, weed, and water for these road projects. Although using volunteers can reduce costs, experience has shown that skilled supervision is needed for every five to ten volunteers or the results are unacceptable.

An important benefit of using volunteers is that it introduces the public to sustainability concepts and ecological restoration.

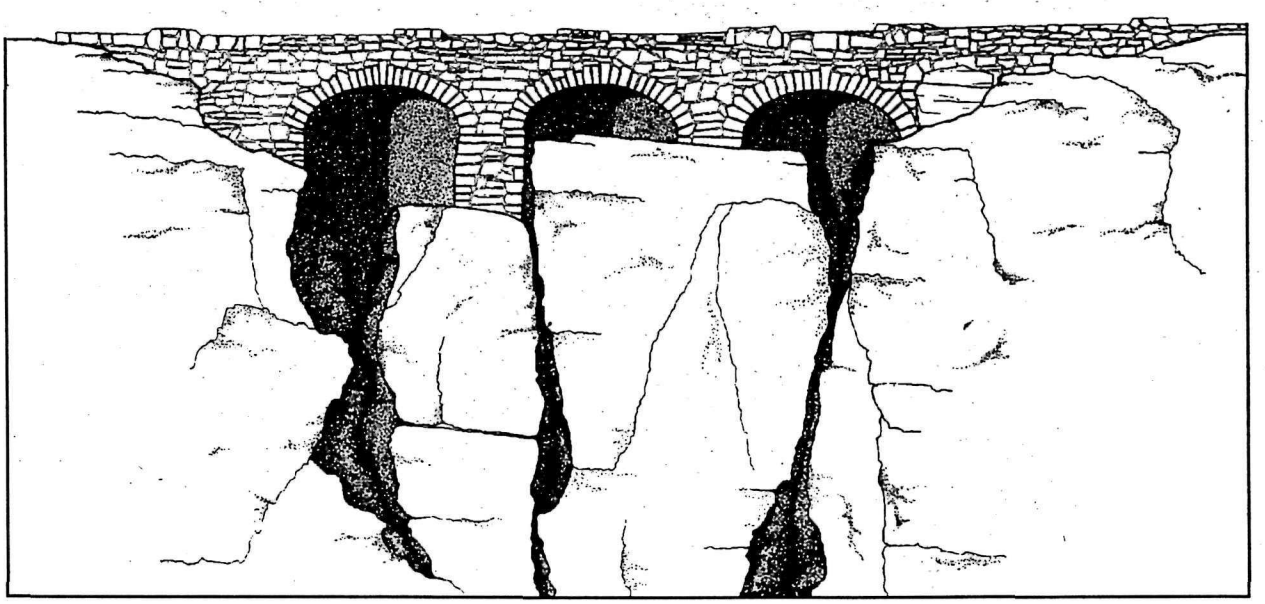


The photo above shows a parking area in Arches National Park, southern Utah, prior to obliteration. Below is a view of the same area, about six months after revegetation.



In recent years, the private sector has played an increasing role in the park roads revegetation program. Private growers are now producing native plants for large park road projects in Yosemite, Sequoia, and Arches National Parks. Consulting firms specializing in ecological restoration are under contract to produce road slope revegetation plans for Yosemite.

In summary, the partnerships that make up the park road revegetation program have produced a wealth of information. Revegetation training sessions have been produced biannually since 1989. Notable publications include the 1993 *Native Propagation Techniques for National Parks* (scheduled for revision in 1999), the 1996 *Seed Rate Statistics for Native and Intro-*



duced Species, the 1998 *Road Revegetation Cost Estimating Guidelines*, and ten years of annual reports from all of the Natural Resources Conservation Service plant material centers involved with NPS projects. The NPS also contracted with John Galt Systems to produce *Seedit*, a computer program that performs seed mix calculations. Large parks such as Yellowstone and Glacier, which have large and ongoing road construction programs, have contributed valuable information on successes and failures that can be obtained only from long-term observation and monitoring.