

# An Integrated Approach for Using Native Plants for Roadside Revegetation

Amit Armstrong, Ph.D., P.E., Manager, Technology Deployment Program  
Western Federal Lands Highway Division, Federal Highway Administration  
(360) 619-7668 • amit.armstrong@fhwa.dot.gov

Well-planned, sustainable roadside vegetation is widely-recognized as an essential and cost-effective practice to improve the safety, efficiency, and effectiveness of roads and associated environment, by stabilizing slopes, reinforcing infrastructure, and improving the road user's experience by creating natural beauty and diversity along the roadside.



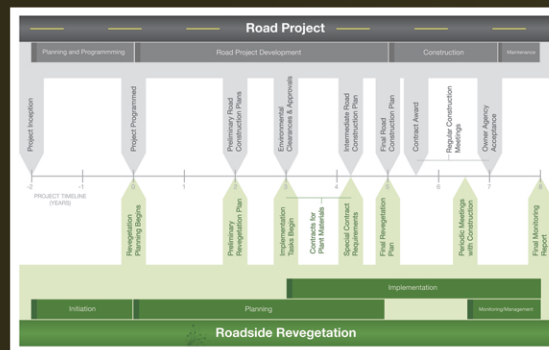
Establishing sustainable roadside vegetation is widely recognized as an essential and cost-effective practice to improve the safety, efficiency, and effectiveness of roads and associated environment. In recent years, the Federal Highway Administration (FHWA) has taken a leadership role in moving beyond regulation-driven mitigation approaches and into proactive environmental stewardship to promote healthy ecosystems. Native plants are a foundation of ecological health and function in natural environments. Revegetating roadsides with native plants is a key practice for managing environmental impacts and improving conditions for healthy ecosystems. In addition, native plants along roadsides offer economic, safety, and aesthetic advantages. Well-planned, sustainable native vegetation supports transportation goals for safety and efficiency by stabilizing slopes, reinforcing infrastructure, and improving the road user's experience by creating natural beauty and diversity along the roadside.

Reasons that many past attempts at native revegetation along roadsides have failed can be attributed either to a piecemeal approach or to lack of an integrated approach. Successful revegetation along roadsides using native plants requires forethought and planning. Revegetation planning must be an integral part of the process of designing and constructing roads. This presentation summarizes An Integrated Approach to Establishing Native Plants for Roadside Revegetation. The approach presented here combines the project development process (planning, design, construction, and maintenance) with revegetation process (planning, initiation, implementation, and maintenance and monitoring) into a single project management process. This collaborative approach between the engineers and revegetation specialist provides a common goal of sustainable roadsides. The driving public, stakeholders, and other communities affected by road projects—including the plants, animals, and other forms of life—will be better served by this approach.

## The Project Cycle of Revegetation

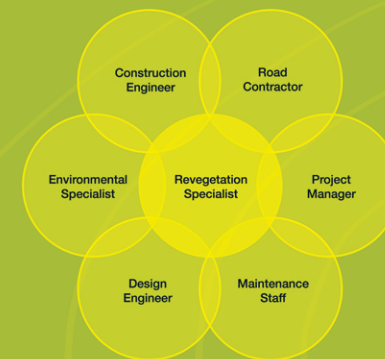


The process begins at the same time as the road project, and continues well after its completion.



## Why Use Native Revegetation?

- ✓ Reduce Runoff
- ✓ Erosion Control
- ✓ Slope Stabilization
- ✓ Weed Control
- ✓ Ease of Maintenance
- ✓ Fire Resistant
- ✓ Traffic Safety
- ✓ Visual Enhancement
- ✓ Native Plant Restoration
- ✓ Carbon Capture
- ✓ Sustainable Highway
- ✓ Wildlife Friendly



A collaborative approach provides a common goal of sustainable roadsides using native plants.

## The Road to Success: An Integrated Approach

Roadside revegetation is moving beyond regulation-driven mitigation approaches and into proactive environmental stewardship to promote healthy ecosystems. An integrated approach developed by the Federal Highway Administration offers several resources, including:



[www.nativevegetation.org](http://www.nativevegetation.org)