

PROJECT SPOTLIGHT: ECOLOGICALLY SENSITIVE ROADS

Road Performance Meets Environmental Protection: 95% Dust Control, 75% Decrease in Maintenance, 0 Environmental Damage

95%	75%	0
Dust Control Achieved	Reduction in Maintenance Activities	Observed Impact to the Roadside Vegetation and Aquatic Life

CHALLENGES

- Control fugitive dust emission from vehicle traffic to improve the safety, air quality and visibility for the 175,000 annual refuge visitors.
- Control fugitive dust emissions from the oil and gas traffic that shares one of the wildlife refuge's roads - servicing over 150 active wells.
- Significantly reduce road maintenance needs and associated costs.
- Ensure no negative impacts to the sensitive vegetation, habitats and aquatic life.

SOLUTION

- EnviroKleen® was topically applied to the prepared road surface with a light maintenance application following approximately 3 months later.
- Mobile-mounted dust monitors and visual surface condition assessments were periodically implemented to evaluate and quantify the performance relative to untreated sections.
- Road maintenance activities and frequency were tracked and compared to untreated sections.
- Ecological assessments were conducted to evaluate the leaching potential of EnviroKleen® as well as any impacts to vegetation and aquatic life.

RESULTS

- **Reduced Maintenance Activities by >75%:** EnviroKleen® treated roads required maintenance 3 to 4 times per year whereas the untreated section required maintenance work at least monthly.
- **Enhanced Surface Quality:** Visual assessments indicate that the application of EnviroKleen® resulted in a reduction of washboarding, raveling, rutting, and potholing when compared to untreated areas.
- **Up to 95% Dust Reduction:** Mobile dust measurements conducted over a 1 year period show that EnviroKleen® reduced dust by as much as 95% compared to the untreated section.
- **No Adverse Environmental Effects:** Testing confirmed no adverse environmental effects were observed for aquatic organisms or for roadside vegetation.



PROJECT SUMMARY

Location: Texas

Industry: Ecologically Sensitive Roads

Customer: U.S. Geological Survey & U.S Fish and Wildlife Service

The U.S. Geological Survey and U.S. Fish and Wildlife Service conducted a year-long dust control field trial on aggregate-surfaced roads at a National Wildlife Refuge. Midwest's EnviroKleen® was selected for its proven low environmentally friendly chemistry and long-term performance. EnviroKleen® was applied to test sections of two roads—one with heavy oil and gas truck traffic supporting over 150 active wells and one with lighter passenger vehicle use.

Performance and environmental safety were monitored for 12 months, including dust production, road surface condition, and effects on aquatic organisms and vegetation. The results indicate that road conditions were improved, over 95% dust control was achieved, and maintenance activities were reduced by over 75%. -compared to untreated road sections.

This one year trial demonstrates that EnviroKleen®'s environmentally friendly chemistry and long-lasting performance is the ideal solution for heavily traffic roads in ecologically sensitive areas.

LOOKING FORWARD

This project demonstrated that EnviroKleen® is effective and environmentally responsible solution for improving unpaved roads and minimizing dust generation in ecologically sensitive areas. This provides a proven and ideal solution that supports both infrastructure and natural resource management goals.