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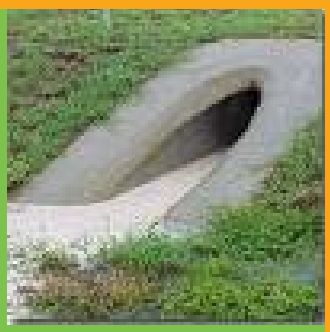

Supporting Environmental Innovation In the States:

A Report On Results From Projects Supported By the EPA State Innovation Grant Program

Executive Summary

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Executive Summary

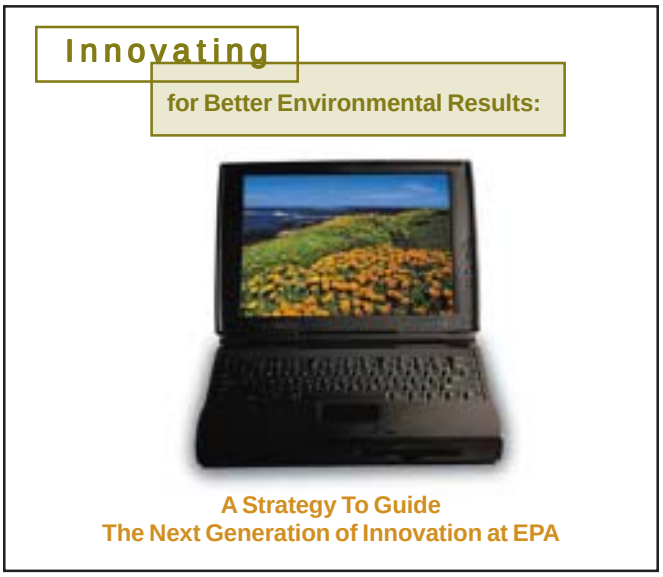
The State Innovation Grant Program is a cornerstone in EPA's efforts to promote innovative approaches to better environmental performance. Recognizing that those on the front lines of environmental protection are most likely to generate effective new approaches, the Agency's *Innovation Strategy*[1] calls for EPA to strengthen its innovation partnership with states. The State Innovation Grant program, administered by EPA's National Center for Environmental Innovation, has been a primary means for realizing that goal.

The State Innovation Grant program strategically focuses innovation efforts on priority environmental problems and particularly promising approaches with the long term goal of -diversifying the set of proven environmental protection tools and approaches available to EPA and its partners. These grants also advance the vision of environmental protection articulated in the *Innovation Strategy* which is characterized by:

- A focus on environmental performance and results;
- An emphasis on greater environmental stewardship, not just pollution control;
- Integration of environmental management more fully across facilities, problems, and media;
- Use of market-based incentives to achieve environmental goals; and
- Partnerships and stakeholder collaboration.

Through the State Innovation Grant program, EPA works collaboratively with states to: identify areas ripe for innovation; improve cost efficiencies for state agency operations; realize cost or time savings for regulated entities; and measure and evaluate project results in order to assess the potential to transfer the innovative approaches to other states.

Since 2002, the State Innovation Grant Program has awarded nearly $6.7 million for 35 innovation projects in 24 different states focused on testing innovative approaches for achieving better results in environmental permitting programs. Seven of those projects have been completed. This first progress report is designed to briefly describe the Program and to share the accomplishments of the completed projects in the hope that it will facilitate understanding and potential adoption of effective new environmental protection approaches and stimulate additional ideas that merit testing.



[1] The Innovation-Strategy, "*Innovating for Better Environmental Results: A Strategy to Guide the Next Generation of Innovation at EPA*, EPA 100-R-02-002, " was developed by the EPA Innovation Action Council and published in 2002. The strategy is available online at http://www.epa.gov/innovation/strategy.htm

Summary of Programs Funded by State Innovation Grants

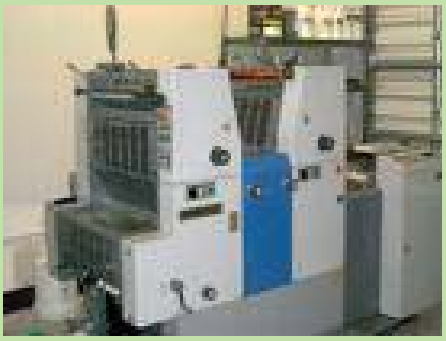
Of the 35 state innovation projects funded by the State Innovation Grant Program to date, projects were funded typically at about $200,000 and have had a 2-4 year duration. Sixteen of these projects provided for the development and testing of ERP (Environmental Results Program),[2] eight sought to support EMS (Environmental Management Systems) initiatives (one of these projects is a combination of EMS and ERP), eight were designed to create or enhance performance-based environmental leadership programs (one of these projects is a combination of ERP and an environmental leadership program), two focused on watershed-based permitting, and one was intended to streamline permit processes through use of innovative information technology. Table 1 (back page) summarizes awards made by the State Innovation Grant Program to date.

Lessons Learned and Future Directions for the State Innovation Grants Program

The first five rounds of grant competitions (2002-2007) provide several lessons for EPA's efforts to support innovation in state environmental programs. One key lesson is that resources provided by EPA through these grants have been essential in fostering innovation at the state level. States have consistently told EPA that the program has allowed states to pilot test and implement innovations that would not otherwise have been possible. Demand for funding as measured by the number of project proposals received has consistently outstripped the supply of available funding each year by about four-to-one. The grants have filled a critical need for resources that provide the flexibility to test alternatives to conventional regulatory approaches.

Project Highlights: Three State Innovation Grant Projects Test EMS in Permitting

Three states, Colorado, South Carolina, and Texas have completed State Innovation Grant projects that test the use of Environmental Management Systems (EMS) in innovative permitting. The Colorado Department of Public Health and Environment (DPHE) received a State Innovation Grant to test whether using EMS in conjuction with traditional media-specific permits would produce better environmental performance at regulated facilities. To implement the program, DPHE developed and issued two facility-wide, multi-media EMS permits. DPHE also incoporated EMS conformance and compliance audits to assess changes in environmental performance in the implementation of the EMS permit. On average, participating facilities achieved a 15 percent reduction in emissions of air pollutants, a 27 percent reduction in hazardous wastes generated, a three percent decrease in electrical energy use, and a 10 percent reduction in natural gas consumed. DPHE is in the process of institutionalizing the program on a permanent basis. South Carolina used its State Innovation Grant to explore ways permit requirements could be integrated and streamlined based on an EMS. Texas also used State Innovation Grant funding to integrate EMS training and awareness into the permitting process and develop specific permitting incentives for the state's environmental leadership program, Clean Texas. The states found that EMS are not a substitute for permits, but they may allow for streamlining of certain permit requirements.



2 This number does not include two projects that combined ERP with other types of innovations.

Another significant lesson from the State Innovation Grant Program is the importance of measuring and reporting on environmental outcomes to drive innovation. For example, states have shown an interest in ERP because the approach demonstrably improves environmental performance by businesses in sectors that are often overlooked in traditional compliance assistance and enforcement approaches. The State Innovation Grant Program requires that each grantee identify and measure specific performance outcomes and document what factors influence a project's effectiveness. In this way, grants are designed to help measure the benefits and transfer learning among states.

A third important lesson is the value of strategically focusing on specific priority problems and approaches. This focus had allowed a critical mass of projects to develop around the most promising ideas resulting in fairly rapid diffusion for a relatively small investment. The most prominent example of this is the much-expanded application of Environmental Results Programs across new states and sectors. EPA's assistance to states for testing and applying ERP (a total investment of $3.7 million) has resulted in the development of ERPs in 15 States and 7 new business sectors in just five years. In each of the ERP Projects completed to date, there has been a measurable improvement in compliance by the business sectors involved. In 2006, states implementing ERP projects self-organized into a new State ERP Consortium that meets regularly.

The State Innovation Grants also provide a critical resource that allows recipient states to participate in events where they can share their experience and learning with other states and EPA, such as the initial grants orientation workshop, the biennial State-EPA Innovation Symposium, the annual Environmental Summit, and the ERP Consortium meetings.

Thus far, States have responded enthusiastically to the State Innovation Grant Program. Projects completed to date are achieving measurable environmental results and good communication has been fostered among states and between states and EPA to share experiences and transfer ideas. EPA believes the State Innovation Grant Program has contributed greatly to strengthening EPA's innovation partnership with States and looks forward to further collaboration in the exploration of promising new approaches to environmental protection in the future.

Project Highlight: Environmental Results Programs Provide Measurable Improvement In Compliance

With the help of a State Innovation Grant, Delaware implemented a pilot Environmental Results Program (ERP) to improve the compliance of its auto body and auto repair sector with environmental laws. Auto body repair shops produce hazardous waste and use auto body paint and other materials that can cause serious harm to workers and the environment if not handled properly as mandated under environmental laws. Through its ERP, Delaware enrolled 68 percent of the state's auto body shops into a program to learn about how to achieve better environmental performance. Participating auto body shops increased their compliance with hazardous waste and water pollution requirements by 42 and 40 percent respectively, and increased their compliance with air pollution requirements by 24 percent. In a similar project Maine implemented an ERP for the auto body- auto repair sector using a State Innovation Grant and estimated and overall 10 percent improvement in compliance by the sector. An additional 12 states are now using State Innovation Grants to test the ERP approach in eight sectors, including dry cleaners, printers, animal feedlots, auto body shops, auto salvage yards, oil and gas production facilities, gas stations, and vehicle repair facilities. Other states are testing ERP as an approach to address stormwater runoff.

The State Innovation Grant Program Supports Innovation and Partnership

Projects funded under the State Innovation Grant program test innovative approaches to address priority environmental issues under one or more of the goals identified in EPA's *Strategic Plan*, including: clean air and global climate change; clean and safe water; land preservation and restoration; healthy communities and ecosystems; and compliance and environmental stewardship. Projects are selected with the intention that they will advance the state of knowledge and/or transfer information, not just "fix" an individual environmental problem using a well-established method. The State Innovation Grant Program funds projects with the greatest promise to:

- Go beyond a single facility experiment to promote "system" change;
- Provide better environmental results through a program, process, or sector-wide innovation; and
- Promote integrated, cross-media environmental management with high potential for transferability to other states and tribes.

EPA made the decision early in the program, and in consultation with states to focus on permitting by state environmental regulatory agencies as an area particularly ripe for innovation, since permitting is where policy and practical implementation meet. To date, the program has focused on supporting projects that:

- Expand testing of the Environmental Results Program (ERP) model (an alternative to traditional permitting for small-business sectors) for additional states and business sectors;
- Explore the relationship between Environmental Management Systems (EMS) and permitting; or
- Build state support for EPA's National Environmental Performance Track program, or similar state performance-based environmental leadership programs as mechanisms for expanding beyond-compliance stewardship by industry.

In addition, the program has funded a small number of exploratory projects, designed to demonstrate a limited number of other innovation tools.

Project Highlight: Arizona Streamlines Its Storm Water Permitting Program by Automating the Application and Initial Screening Process with a Web-Based Portal and Geographic Information Systems

Arizona was facing a serious challenge to its National Pollution Discharge Elimination System (NPDES) Phase-2 Storm Water Permit Program. Due to a change in federal storm water regulations, the number of permits it processed each year would double. To meet this challenge, the state developed an internet-based automated permit processing system, called the "Smart Notice of Intent to Discharge" (Smart NOI), that would significantly streamline the permit review and issuance process. The Smart NOI system created an automated, screening-level analysis using the State's Geographic Information System (GIS) to determine if proposed development projects would require detailed reviews for storm water permits because they would affect sensitive drinking water sources, impaired or unique waters, or endangered species. As a result of the Smart NOI system, Arizona reduced the total processing time for a permit-requirement determination from 5-7 days to 2-3 days. Actual permit application processing time was also reduced significantly because staff had more time available for the comprehensive reviews. Arizona estimates that the online system increased review capacity from 25 permits per day to several hundred. While the project was very successful for Arizona, one of the lessons we learned was that information systems innovations may be difficult to transfer to other states because of differences in software systems and data architecture.

Summary of Programs Funded by State Innovation Grants

Table 1. Summary of State Innovation Grant Awards 2002-2007			
Competition Cycle (Fiscal Year)	**State**	**Topic**	**Amount of Award**
2002	MA	Watershed-based Permitting	$100 K
2002	DE	Autobody ERP	$117 K
2002	AZ	Streamlined Stormwater Permitting	$79 K
2002	IL	Injection Well ERP	$97 K
2002	TX	Strategically Directed Regulatory Structure - EMS Focus	$75 K
2002	CO	Whole-facility EMS Permitting	$150 K
2004	VT	Underground Storage Tank ERP	$202 K
2004	ME	Autobody/ Auto Repair ERP	$152 K
2004	RI	Auto Salvage ERP	$200 K
2004	MN	Concentrated Animal Feeding Operations (Agriculture) ERP	$126 K
2004	MI	Dry Cleaner ERP	$199 K
2004	WI	Printing Sector Combined ERP/ EMS Permitting	$200 K
2004	IN	Community EMS	$125 K
2004	SC	EMS role in Permitting	$100 K
2004	WY	Watershed-based Permitting/ Coalbed Methane Permitting	$198 K
2005	MA	Common Performance Measures for ERP Programs	$255 K
2005	VA	Underground Storage Tank ERP	$250 K
2005	IN	Autobody Sector ERP	$228 K
2005	NV	Drycleaner ERP	$200 K
2005	WA	Industrial Footprint Approach	$182 K
2005	NH	Environmental Performance Track	$234 K
2005	KY	Environmental Performance Track	$189 K
2006	RI	Underground Storage Tank ERP	$250 K
2006	LA	ERP for the Oil and Gas Sector	$250 K
2006	GA	EMS for the Textile Sector	$80 K
2006	VA	Environmental Performance Track	$225 K
2006	IN	Environmental Performance Track	$225 K
2006	AZ	Environmental Performance Track	$225 K
2007	ME	Parking Lot Stormwater ERP	$300 K
2007	RI	Construction Stormwater ERP	$200 K
2007	NY	ERP for Small Business Sectors	$255 K
2007	KY	Compliance Assistance On-Ramp for State Performance Track	$189 K
2007	TN	Stormwater Performance Track	$200 K
2007	WI	Dairy Sector EMS	$275 K
2007	WA	Sustainable Washington ERP/Performance Track	$225 K