

**1. Public Education and Outreach Program on Storm Water Impacts**

BMP	Description	Status					
		Implemented	Not Applicable	Modified	Effective	Unknown	Not Effective
Department's Website	Maintain a site with links to annual reports and other storm water documents.	X			X		
Sustainability Outreach	Develop program to increase the awareness of the need for storm water asset management	X		X	X		
Storm Water Publications	Distribute the department's storm water informational publications.	X			X		
Adopt-A-Highway Program	Develop and implement a cooperative program to clean roadsides.	X			X		
Storm Water Committee	The Storm Water Committee continues to identify how to make the public aware of storm water issues. The group is represented by Central Bureau, District, Illinois Environmental Protection Agency (IEPA), and Federal Highways Administration (FHWA) personnel.	X			X		
Presentations at Various Engineering and Association Meetings	Provide technical presentations at the request of various conferences.	X			X		
Public Meetings	Provide opportunity for discussions to take place at public meetings held for Illinois Department of Transportation (IDOT) projects.	X				X	

**2. Public Involvement/Participation**

BMP	Description	Status					
		Implemented	Not Applicable	Modified	Effective	Unknown	Not Effective
Adopt-A-Highway Program	Continue to implement a cooperative program to clean roadsides.	X			X		
Discuss Storm Water Impacts in Project Documents	Discuss storm water impacts and measures in numerous project documents.	X			X		
Distribute Educational Materials	Distribute the department's Storm Water informational materials.	X			X		
Participate as a Stakeholder in Storm Water Groups	Represent IDOT on public involvement groups where roadway impacts to storm water are likely.	X			X		

**A. BMPs**

**I. General Summary**

The public is encouraged to provide comments about environmental impacts from projects, including storm water, at all formal and informal public involvement meetings, including through IDOT's Context Sensitive Solutions initiative. The public can also send in questions about the department's activities via the department's website "Contact Us" link. IDOT personnel participate in the Illinois Green Coordinating Council, Illinois Urban Manual, Illinois Road and Transportation Builders Landscape/Erosion Subcommittee, I-LAST Webinar for the Delta Institute, Chicago Streetscape Advisory Committee, Chicago Gateway Green, Post Development Stormwater Runoff Standards Work Group, International Erosion Control Association Midwest Conference, and other corridor specific groups, and make presentations at public forums regarding storm water related issues.

**II. Status of Goals**

The Adopt-A-Highway Program continues to be effective. IDOT personnel participated as stakeholders in the Green Infrastructure for Clean Water Act workgroup, Illinois Green Coordinating Council, Chicago Streetscape Advisory Committee, and Chicago Gateway Green. IDOT personnel continue to work with personnel from Soil and Water Conservation Districts regarding ways that the two groups could collaborate to improve erosion and sediment control on roadway projects, including revisions to the Illinois Urban Manual.

III. Appropriateness

All the BMPs selected are appropriate for a highway department.

IV. Effectiveness

The Adopt-a-Highway Program have resulted in substantial amounts of trash, tires, and debris being removed from areas that could have produced storm water pollution.

The department uses its educational materials to inform the public on how to improve water quality.

IDOT uses its participation in various storm water groups to improve its compliance with regional and statewide storm water concerns.

V. Proposed Modifications

None at this time.

B. Results of Information Collected and Analyzed

See Adopt-A-Highway discussion under the Public Education and Outreach Program.

All contracts required by the permit include project specific information and procedures to minimize storm water impacts. All projects include a special provision to restrict contractors' operations which might impact storm water discharge.

The Department has placed its educational publications on its website as well as links to other storm water related materials.

Updated BMPs available to projects due to involvement with various storm water groups.

C. Next Reporting Cycle Activities and Implementation Schedule Modifications

Encourage IDOT personnel to participate in storm water groups in Illinois. Encourage knowledgeable individuals to make presentations at public forums regarding the department's public involvement programs.

IDOT Phase II MS4Annual Report (March 2012 to March 2013)

BMP	Proposed Measurable Goal	Modified?		Schedule	
		Yes	No	Completed this year	Ongoing Implementation
Adopt-A-Highway Program	The number of groups participating and the amount of litter and debris removed.		X	Yes	Yes
Storm Water Discussions in Project Documents	The number of project documents which include storm water discussions.		X	Yes	Yes
Education Materials at Public Meetings	Availability of materials.		X	Yes	Yes
Participate as Stakeholder in Storm water Groups	Number of group involvements.		X	Yes	Yes

A. BMPs

I. General Summary

Outreach to the public is vital to the department's storm water efforts. IDOT continues to maintain a storm water runoff website. The department uses our web page and the storm water brochure as primary resources to help highlight the importance of controlling illicit discharges from the public and to explain IDOT programs. The brochure is available on the department's web page. The department's Adopt-A-Highway Program continues to be a popular cooperative program with communities and organizations. IDOT also has an Erosion and Sediment Control Field Guide for Construction for download and is available to the public. The Department has been a partner with industry in developing an innovative planning, design, and construction guide and rating system called the Illinois Livable and Sustainable Transportation (I-LAST).

The Department in conjunction with the Illinois Green Government Coordinating Council implemented a rain barrel decorating and distribution program involving selected schools.

The Storm Water Committee utilizes the diverse expertise of IDOT, IEPA and FHWA staff with respect to the Clean Water Act. The committee reviews material to ensure the proper message is sent. Furthermore, the committee provides technical presentations at the request of various conferences.

II. Status of Goals

The overall goal of reducing pollutants of concern is aided by these BMPs. The department continues to stress the importance of storm water and pollution control to our stakeholders, customers and business associates.

III. Appropriateness

The BMPs selected are all appropriate for a highway department.

IV. Effectiveness

The storm water website provides a valuable, accessible resource for IDOT personnel and the general public to learn about storm water issues in the highway construction industry.

Increased awareness of proper storm water management practices with the availability of the Construction Inspection Guide on the Department's website.

Achieved public awareness of storm water importance through rain barrel campaign.

Various brochures are valuable resources and are available on the Department's website.

The Adopt-a-Highway Program continues to be a success and has a direct impact on eliminating waste, trash and garbage from reaching waterways.

Public meetings provide the department with an opportunity to discuss the importance of Storm Water Management in highway projects. Measurable tracking is impracticable, however, there has been a marked increase in discussions at public meetings.

Formal and informal discussions at various conferences, meetings and events allow the department to share lessons learned, educate external partners (i.e., local highway agencies, consulting engineers and contractors), and provide the status of IDOT's Storm Water Management Program.

V. Proposed Modifications

The Department will continue to develop and encourage the use of I-LAST rating system.

B. Results of Information Collected and Analyzed

From March 1, 2012 to February 28, 2013, the Storm Water Management Program website had 1,063 visits.

During this reporting period, approximately 3,572 bags of litter statewide from 12,207 shoulder miles of roadway were collected through the Adopt-A-Highway Program.

The Storm Water Committee continues to identify and devise solutions related to storm water issues through standards and specification improvement and development of training.

No external requests were made for presentations concerning storm water.

Coordinated public outreach with 50 communities via rain barrel decorating distribution contest.

C. Next Reporting Cycle Activities and Implementation Schedule Modifications

The Department plans to continue to assess the effectiveness of existing BMPs within this Public Outreach Program.

BMP	Proposed Measurable Goal	Modified?		Schedule	
		Yes	No	Completed this year	Ongoing Implementation
Department's Website	Number of visits.	<b>X</b>		Yes	Yes
Sustainability Outreach	Number of involved communities		<b>X</b>	Yes	Yes
Storm Water Publications	Number of visits.		<b>X</b>	Yes	Yes

IDOT Phase II MS4 Annual Report (March 2012 to March 2013)

Adopt-A-Highway Program	Number of groups participating, amount of litter removed from the highways, and number of web hits.		X	Yes	Yes
Storm Water Committee	Number of contacts made.		X	Yes	Yes
Presentations at Various Engineering and Association Meetings	Number of presentations.		X	Yes	Yes

### 3. Illicit Discharge and Detection Program

BMP	Description	Status					
		Implemented	Not Applicable	Modified	Effective	Unknown	Not Effective
Storm Sewer Maintenance Program	The department's maintenance forces are responsible for storm sewer maintenance by detecting storm sewer failures and needed repairs along the highway system.	X			X		
Environmental Compliance Audits	Conduct Environmental Compliance Audits for all IDOT facilities.	X			X		
Deficiency Deduction	The department continues to include its National Pollutant Discharge Elimination System / Erosion and Sediment Control Deficiency Deduction Provision in its contracts.	X			X		
Storm Water Outfall Map	Map the Department's storm sewer system and outfalls.			X		X	
Hazardous Material Spills Procedures & Training	Provide procedures and training for hazardous waste spills.	X			X		
Litter Removal Programs	Implement programs for litter removal along right-of-ways.	X			X		

A. BMP's

I. General Summary

IDOT will continue efforts to map its storm sewer system outfalls.

The Department continues its environmental compliance audits.

IDOT incorporated the Deficiency Deduction into its standard specifications.

IDOT continues to ensure that hazardous material spills along the highway system have been responded to, cleaned up, and responsible parties identified.

IDOT has in place several programs dealing with litter removal. IDOT also has the Adopt-A-Highway Program with numerous local groups and organizations responsible for litter and debris removal along a sponsored section of roadway. IDOT also works with the Gateway Green Group in the Chicago area for litter pickup along the expressways. IDOT resumed work with Cook county Sheriff's Department for litter pick up.

II. Status of Goals

The goals for the Erosion Control Deficiency Deduction, SWPPPs, hazardous materials spill procedures, environmental compliance audits, and IDOT/DOC litter, Adopt-A-Highway and debris removal programs generally are continuing to be met and IDOT is continuing to make improvements. The Department continues its storm sewer outfall mapping efforts and coordinate an illicit discharge program by maintenance forces.

III. Appropriateness

All BMPs selected are appropriate for a highway department.

IV. Effectiveness

The effectiveness of the stated BMPs is evidenced by the lack of complaints received by the department from the general public pertaining to litter, sewer failures and discharges from IDOT owned facilities, and the ability of the department to minimize impacts on the environment due to illicit discharges and spills by our contractors or the general public.

V. Proposed Modifications

The department has completed environmental compliance audits in Districts 1, 2, 3 and 4, Development of VACTOR waste management procedures.

B. Results of Information Collected and Analyzed

During this reporting period, IDOT spent \$9.54 million on storm sewer activities such as sewer, culvert and inlet cleaning and repair. IDOT forces spent \$3.2 million removing trash and litter from the highways that could have found their way into the storm system.

Trained 988 Hazmat Responders.

Completed 53 compliance audits for four districts.

C. Next Reporting Cycle Activities and Implementation Schedule Modifications

Future Environmental compliance audits are unknown at this time. As of this year, all districts had an Environmental Compliance completed. Develop protocols for VACTOR waste management. Develop protocols for pesticide spill management.

BMP	Proposed Measurable Goal	Modified?		Schedule	
		Yes	No	Completed this year	Ongoing Implementation
Storm Sewer Maintenance Program	Amount of dollars spent on detecting and repairing storm sewer system.		<b>x</b>	Yes	Yes
Environmental Compliance Audits	The number of audits performed.		<b>x</b>	Yes	Yes
Erosion Control Deficiency Deduction	Included in all contracts.		<b>x</b>	Yes	Yes
Storm Water Outfall Map	Progress toward mapping the department's storm sewer system and outfalls.		<b>x</b>	Yes	Yes
Hazardous Material Spills Procedures & Training	Number of training sessions.		<b>x</b>	Yes	Yes
Litter Removal Programs	The amount of dollars spent annually.		<b>x</b>	Yes	Yes

**4. Construction Site Storm Water Runoff Control**

BMP	Description	Status					
		Implemented	Not Applicable	Modified	Effective	Unknown	Not Effective
Erosion Control Standards, Specifications and Special Provisions	Provide Standards, Specifications and Special Provisions to best comply with NPDES.	X			X		
Storm Water Pollution Prevention Plan (SWPPP)	Provide complete, workable SWPPP to inform contractor how to best comply with NPDES.	X			X		
Erosion Control Preconstruction Meeting	Conduct preconstruction meeting to emphasize the importance of NPDES compliance.	X			X		
Erosion Control Inspections and Reports	Provide BMP guidelines, checklists and standard inspection reports to aid with inspection of the department's projects to best comply with NPDES.	X			X		
Storm Water Committee	Utilize IDOT's diverse expertise with respect to Clean Water Act issues.	X			X		
Erosion Control Training	Develop and provide training to IDOT personnel, consultants and contractors on NPDES compliance.	X		X	X		
Water Quality Design Guidance	Provide guidance on improving water quality via design criteria.	X			X		

A. BMPs

I. General Summary

The Deficiency Deduction provision was incorporated into the Standard Specifications allowing for enforcement of violations of the NPDES permit on all contracts. Updating the Department's best management practices to reflect advanced proven technologies. New products are continually being evaluated for effectiveness and applicability to IDOT's projects.

Every contract including a SWPPP is required to have an erosion and sediment control meeting on site, prior to earth disturbing activities. A consultant continues to evaluate the effectiveness of SWPPPs in District 1.

IDOT continues to utilize the University of Illinois' "Storm Water Pollution and Erosion and Sediment Control Products Demonstration and Training Center." The University of Illinois has developed three training modules:

- Fundamental of Storm Water Pollution and Erosion and Sediment Control
- Erosion and Sediment Control for Designer
- Erosion and Sediment Control for Construction

Three Illinois Center for Transportation studies continued: Temporary Ditch Checks and Inlet Protection, Native Vegetation Establishment, and Evaluation of Temporary Stabilization Practices.

The Storm Water Committee continues to review and refine current and proposed BMPs.

II. Status of Goals

The goals for IDOT's Storm Water Erosion Control Program have been met, but will continue to be evaluated.

III. Appropriateness

All the best management practices selected are appropriate for implementation by the Department.

IV. Effectiveness

The adjustments appear to be effective but the Department will continue to evaluate new technologies.

V. Proposed Modifications

None at this time.

**B. Results of Information Collected and Analyzed**

IDOT has spent \$9.6 million on temporary erosion control practices and \$13.7 million on permanent practices during this reporting period. Erosion and sediment control was a topic for district annual implementation meetings, which is attended by all construction personnel.

Erosion Control Standards, Specifications and Special Provisions were included in all applicable contracts.

Storm Water Pollution Prevention Plans were included in all applicable contracts.

Erosion Control Preconstruction Meetings were conducted for all contracts covered by an NPDES permit.

Maintenance guidelines have been developed for all BMPs installed on our projects. A guide for installation and maintenance of BMPs was developed. More than 1,500 copies have been distributed nationwide.

Storm Water Committee continues to adapt guidelines to changing conditions.

Approximately 39 IDOT personnel and consultants received Erosion Control Training developed by IDOT.

**C. Next Reporting Cycle Activities and Implementation Schedule Modifications**

IDOT will continue to review its policies, standards and specifications for effectiveness with compliance. IDOT is developing Departmental policy to require IDOT's training to design or construct erosion and sediment controls. The Department will continue to teach Fundamental of Storm Water Pollution and Erosion and Sediment Control as well as begin training for Erosion and Sediment Control for Designer and Erosion and Sediment Control for Construction. The Department is developing research on the effectiveness of Post-Construction Best Management Practices through Illinois Center for Transportation.

IDOT Phase II MS4 Annual Report (March 2012 to March 2013)

BMP	Proposed Measurable Goal	Modified?		Schedule	
		Yes	No	Completed this year	Ongoing Implementation
Erosion Control Standards, Specifications and Special Provisions	Include in all applicable contracts.		x	Yes	Yes
Storm Water Pollution Prevention Plan	Include in all applicable contracts.		x	Yes	Yes
Erosion Control Preconstruction Meeting	Conduct for all contracts covered by NPDES permit.		x	Yes	Yes
Erosion Control Inspections and Reports	Have maintenance guidelines for all BMPs installed on our projects.		x	Yes	Yes
Storm Water Committee	Effectiveness to adapt guidelines to changing conditions.		x	Yes	Yes
Erosion Control Training	Numbers of presentations and trained individuals.		x	Yes	Yes
Water Quality Design Guidance	Lack of significant modifications to the project SWPPP.		x	Yes	Yes

**5. Post-Construction Storm Water Management in New Development and Redevelopment**

BMP	Description	Status					
		Implemented	Not Applicable	Modified	Effective	Unknown	Not Effective
Maximize Permeable Surfaces	Design projects to reduce the amount of impervious surfaces within Right-of-Way.	X			X		
Minimize the Use of Closed Conveyance Systems	Where safely practicable design open ditch conveyance in lieu of piped conveyance.	X			X		
Maintain Conveyance System Integrity	Implement routine maintenance and monitor overall system for integrity.	X			X		

A. BMPs

I. General Summary

IDOT encourages the use of vegetated raised medians in urban areas where safe and practicle. IDOT designs roadside conveyance systems for open flow in all areas except where prohibited by local conditions.

IDOT has and uses a Maintenance Management and Information System (MMIS) database that can track the post-construction conditions of our right-of-way, and occurrences of maintenance of our permanent storm water facilities to minimize negative impacts to waters of the United States.

The department utilizes a number of roadside vegetation practices to help facilitate infiltration. In areas adjacent to roadways, where concentrations of salt may occur, a salt tolerant sod or grass seed is planted. IDOT also has a cooperative agreement with the Illinois Department of Natural Resources (IDNR) to grow native tree and shrub seedlings, prairie root stock, and native grass/forb seed that is then installed by IDOT staff and community volunteers. In addition, IDOT continues to implement its tree replacement policy.

II. Status of Goals

Permeable surfaces were considered on all projects.

Used closed conveyance systems only where mandated by other regulations. Used the most permeable conveyance surface on all projects.

Prevented catastrophic failures by performing preventative maintenance (street sweeping, sewer and ditch cleaning/repairs, ditch restoration, etc. ) in a timely manner.

IDOT continues to study and utilize salt tolerant turfs and other vegetative practices to improve water quality.

III. Appropriateness

All the BMPs selected are appropriate for a highway department.

IV. Effectiveness

Permeable surfaces improve the infiltration rate.

Using open conveyance systems improves infiltration rates.

Preventing catastrophic failures by performing preventative maintenance such as routine street sweeping, sewer and ditch cleaning/repairs, ditch restoration, etc. in a timely manner results in less pollutants of concern in our waterways.

Using appropriate, vegetative cover results in less erosion and improved water quality. The vegetation management studies have been effective in determining the most efficient practices to reduce runoff, erosion, and pollutants of concern in rural areas and are providing addition practices for more densely populated locations.

V. Proposed Modifications

Utilize the University of Illinois site to evaluate additional BMPs for our system.

B. Results of Information Collected and Analyzed

Our evaluation of vegetative cover has resulted in IDOT and community volunteers planting 9,850 native tree and shrub seedlings, 9,890 native prairie plants, 769 pounds of native forb seed and 2,659 pounds of native grass seed all grown and supplied by IDNR. In addition, IDOT had over \$2.2 million of salt tolerant turf (seed and sod) and \$2.1 million of trees and shrubs installed under contracts. IDOT's post-construction monitoring and maintenance of permanent storm water controls resulted in the maintenance of those items listed in the Illicit Discharge and Detection Program portion of this report.

C. Next Reporting Cycle Activities and Implementation Schedule Modifications

Due to upcoming revisions to the ILR10 and ILR40 NPDES permits, which will include measures to increase stormwater infiltration and retention, the Department will be updating standards and specifications to comply with these new requirements.

IDOT Phase II MS4 Annual Report (March 2012 to March 2013)

BMP	Proposed Measurable Goal	Modified?		Schedule	
		Yes	No	Completed this year	Ongoing Implementation
Maximize Permeable Surfaces	The use of permeable surfaces is considered on all projects.		X	Yes	Yes
Maximize Permeable Surfaces	Increase post-construction project permeability.		X	Yes	Yes
Minimize the Use of Closed Conveyance Systems	The use of the most permeable conveyance surface is utilized on all projects.		X	Yes	Yes
Maintain Conveyance System Integrity	Prevention of catastrophic failure.		X	Yes	Yes

**6. Pollution Prevention - Good Housekeeping for Municipal Operations**

BMP	Description	Status					
		Implemented	Not Applicable	Modified	Effective	Unknown	Not Effective
Environmental Compliance Assessments and Training	Conduct assessments targeted toward ensuring compliance with the Good Housekeeping measures required in the ILR40 permit.	X			X		
Road Salt Application and Storage	Appropriately store and apply road salt.	X			X		
Department Training for Pesticides	Provide training for storage and application of pesticides.	X			X		
Proper Hazardous Material Disposal	Properly dispose of hazardous material generated at IDOT facilities and found on ROW.	X			X		
Utilize Inlet Filters	Maintain inlet filters at IDOT facilities as appropriate.	X			X		
Removal of Debris and Sediment from the Storm Water Conveyance System	Monitor removal of sediment and debris from the highway storm system in a timely manner.	X			X		
Environmental Management System	Monitor environmental management system (EMS) based on the compliance assessments that have been conducted to date.	X			X		
Rest Areas Practices	Develop and implement Good Housekeeping practices at rest areas.	X			X		
Street Sweeping	Reduce pollutants of concern through routine street sweepings.	X			X		

BMP	Description	Status					
		Implemented	Not Applicable	Modified	Effective	Unknown	Not Effective
Vehicle Inspection	Reduce pollutants of concern through routine inspections of motor pool fleet.	X			X		
First Responder Training	Identification of methods to reduce impacts of hazardous material spills on the environment.	X			X		

A. BMPs

I. General Summary

IDOT continues to move forward in conducting the environmental compliance assessments for all facilities, as the assessments are the key to success of the Good Housekeeping measures. These assessments identify potential areas of concern such as disposal of waste, storm sewer impacts, storage, and handling of materials and vehicle maintenance. All IDOT facilities that store salt for winter storms utilize domes over storage areas and have used sensible salting practices for years. The Department requires training and certification for all employees engaged in the handling and application of pesticides, which is conducted by the Department of Agriculture. IDOT has a contract with a certified hazardous materials contractor to pick up hazardous materials at department facilities. The materials are picked up on an as needed basis. IDOT has employed the use of inlet filters at a number of maintenance facilities to trap fines and oils that might be discharged through the storm drain system. The Environmental Management System was implemented in Districts 1, 2, 3, and 4. IDOT has marked locations in our rest areas for dog walking and placed bins for recycled material. The Department has a contract to have our roadways swept on a routine basis. IDOT routinely inspects all of the motor pool vehicles for fluid leaks and spills. The Department trains district personnel as first responders. Maintenance staff performs routine cleaning and maintenance of our conveyance systems to ensure they are working properly. IDOT staff was also trained in how to identify potential pollution problems at department facilities.

II. Status of Goals

IDOT continues its environmental compliance assessments of facilities. Covered salt storage and hazardous materials pickup occurs at all maintenance facilities.

III. Appropriateness

The current control measures and the environmental compliance assessments appear appropriate to assist the department in reducing potential storm water pollution.

IV. Effectiveness

The environmental compliance assessments have identified areas where implemented practices have been effective. IDOT's hazardous material, salt application and storage, and various training programs appear effective. BMPs instituted at the rest areas are utilized by the motoring public. The EMS appears effective and is being expanded for use throughout the state.

V. Proposed Modifications

None at this time.

B. Results of Information Collected and Analyzed

IDOT has completed more than 233 compliance assessments to date, at our yards and laboratory facilities. The department trained 127 personnel in pesticide handling and 988 personnel in Hazmat First Responder. The Department's entire vehicle fleet is inspected annually.

C. Next Reporting Cycle Activities and Implementation Schedule Modifications

None at this time.

BMP	Proposed Measurable Goal	Modified?		Schedule	
		Yes	No	Completed this year	Ongoing Implementation
Environmental Compliance Assessments and training	Perform additional compliance assessments.		x	Yes	Yes
Road Salt Application and Storage	Cover salt storage areas.		x	Yes	Yes
Department Training for Pesticides	All employees who use and handle pesticides are trained.		x	Yes	Yes
Proper Hazardous Material Disposal	Conduct training seminars in each highway district.		x	Yes	Yes

IDOT Phase II MS4 Annual Report (March 2012 to March 2013)

BMP	Proposed Measurable Goal	Modified?		Schedule	
		Yes	No	Completed this year	Ongoing Implementation
Utilize Inlet Filters	Number of inlet filters employed annually at IDOT facilities.		x	Yes	Yes
Removal of Debris and Sediment from the Storm Water Conveyance System	Lack of complaints concerning debris or material in system.		x	Yes	Yes
Environmental Management System	Implemented Environmental Management System (EMS).		x	Yes	Yes
Rest Area Practices	Lack of complaints regarding groundskeeping.		x	Yes	Yes
Street Sweepings	Lack of complaints regarding surface debris.		x	Yes	Yes
Vehicle Inspection	Percentage of vehicles inspected.		x	Yes	Yes
First Responder Training	Number of individuals trained.		x	Yes	Yes