



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • www.adeq.state.az.us



Stephen A. Owens  
Director

November 18, 2003

John Tinger  
U.S. E.P.A. Region IX  
75 Hawthorne Street  
San Francisco, CA 94105

Dear Mr. Tinger,

The enclosed *Final Report for the 2002 State Innovation Pilot Grant Program* is being sent to you at the request of Mr. Wayne Hood, ADEQ Data Management & Analysis Group, as part of the FY 04 First Quarter report. The FY04 First Quarter report is pending the Water Quality Division Director's signature and will be sent to you under separate cover. The grant of \$79,000 is 100% expended, and the state match of \$18,439 is 100% expended. This report fulfills the grant workplan requirements for the State Innovative Pilot Grant Program. Per grant condition #14, a copy of this grant is being sent to Mr. Gerald Filbin at U.S. E.P.A. National Center for Environmental Innovation.

Cordially,

Marita Nickerson  
Environmental Planner

c: Mr. Gerald Filbin, EPA Hdqts.  
ADEQ grant file

Northern Regional Office  
1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004  
(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

**Final Report for 2002 State Innovation Pilot Grant Program**  
**National Center for Environmental Innovation**  
**US EPA**  
**EPA Contacts: Gerald Filbin, EPA, and John Tinger, EPA Region 9**

**Report Submittal Date: October, 2003**

**Project Title: "Smart NOIs:" Development of an Automated Decision Matrix for Managing AZPDES Stormwater NOIs.**  
**Phoenix, AZ**

**Responsible Agency: Arizona Department of Environmental Quality**  
**Project Manager: Wayne Hood**  
**Grant Award Amount: \$79,000**  
**Project Period: September 1, 2002 to September 31, 2003**

The project was completed on schedule and successfully developed and deployed an innovative, Internet application (Smart NOI) to allow an efficient and user friendly method for applicants to file for coverage, waiver, or terminate coverage under ADEQ's General Permit, AZG2003-001, for stormwater discharges from construction. Applicants who use the system are given immediate feedback on the status of their permit, an authorization to proceed or notice of a delay in processing the permit due to water quality or endangered species issues. Also, the system automatically transfers all data captured online to a secure FTP site for retrieval by ADEQ, including a process to automatically validate and load the data into an Oracle-based database utilized by the Permitting program.

The Smart NOI application is hosted on Arizona's Web Portal (Arizona @ Your Service) for maximum security and accessibility to customers. An excellent summary of the project and results are found in the attached brochure entitled "Smart Notice Of Intent (NOI) – Helping Arizona's Department of Environmental Quality Enforce Environmental Regulations."

The following technical documentation for the system is attached.

- "Arizona Portal ADEQ Smart NOI Web Application Requirements Specifications" (Revision No: 1.2, July 3, 2003)
- "Interface Control Document – AZ Portal to ADEQ NOI System" (Revision No: 1.1, July 3, 2003)

Results of an online customer survey is attached, showing overall a high level of satisfaction for those using Smart NOI. User statistics collected online since the system was operational in May, 2003, show that 176 NOIs, 11 NOTs, and 26 Waivers were completed and submitted. This represents more than 10% of the construction stormwater permits processed during that period. Our five-year goal is 50% online submittals.

The accuracy and completeness of the Smart NOI system was verified by comparison with an internal GIS tool that duplicates the Smart NOI determinations. The internal GIS tool was developed to facilitate the processing of permits that have not been submitted online. Several measures of effectiveness have been evaluated for the Smart NOI system through comparison with standard practices of processing permits. The results are summarized in the following table.

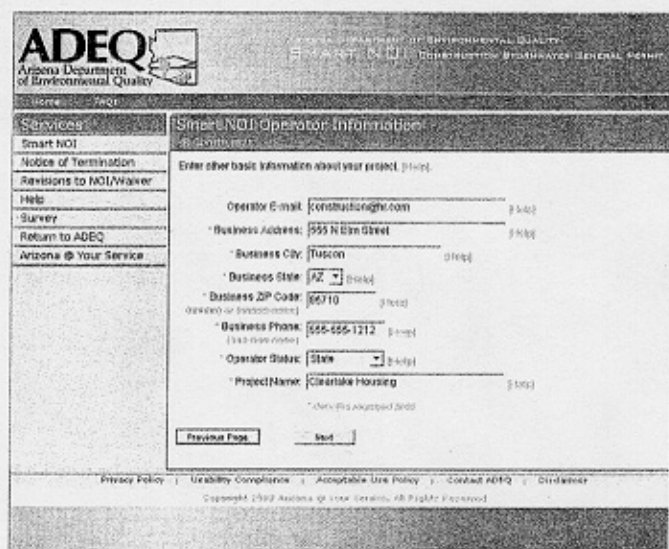
<b>CRITERIA</b>	<b>SMART NOI (E-GOV)</b>	<b>STANDARD PRACTICES</b>
Customer Notified of NOI Permit Status	Immediate	5 to 7 Days
Ease-of-Use & Convenience	High (Web, Online Help)	Medium (Physical Forms)
Data Quality/Validity	High	Medium
Significant Data Entry Requirements	No	Yes
Electronic Data Loads	Yes	No
Total Processing Times for Basic NOIs	2 to 3 Days (signed NOIs thru mail)	5 to 7 Days (signed NOI thru mail)
Number of Basic NOIs Authorized	Hundreds per Day (potential)	25+ per Day (actual average)

This project was a successful multi-agency collaboration between GITA, U.S. EPA and ADEQ. The ADEQ has recently made e-government a high priority strategic objective.



# SMART NOTICE OF INTENT (NOI)

*Helping Arizona's Department of Environmental Quality Enforce Environmental Regulations*



The screenshot shows the ADEQ Smart NOI web application. The header includes the ADEQ logo and the text "ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY" and "SMART NOI CONSTRUCTION STORMWATER GENERAL PERMIT". A navigation menu on the left lists "Services" with options: Smart NOI, Notice of Termination, Revisions to NOI/Waiver, Help, Survey, Return to ADEQ, and Arizona @ Your Service. The main content area is titled "Smart NOI Operator Information" and contains a form with the following fields:

- Operator E-mail:  (150)
- Business Address:  (150)
- Business City:  (100)
- Business State:  (100)
- Business ZIP Code:  (100)
- Business Phone:  (100)
- Operator Status:  (100)
- Project Name:  (100)

At the bottom of the form are "Previous Page" and "Next" buttons. The footer contains links for "Privacy Policy", "Usability Complaints", "Acceptable Use Policy", "Contact ADEQ", and "Disclaimer", along with the copyright notice: "Copyright 2002 Arizona @ Your Service. All Rights Reserved."

## Facing Challenges

In 2002 the Arizona Department of Environmental Quality (ADEQ) was facing a two-part challenge. First, the potential number of Arizona construction projects required to file a stormwater Notice of Intent (NOI) was about to increase significantly. In order to reduce the pollutants that result from construction site stormwater runoff, the federal Environmental Protection Agency (EPA) revised a stormwater regulation mandating small construction sites (>1 acre) to obtain prior authorization to discharge stormwater. This change would increase the number of stormwater NOIs in Arizona from about 2,000 to 10,000 per year. On December 5, 2002, ADEQ received authorization to administer the NPDES program in Arizona. As a result, the responsibility for responding to NOIs was shifted to ADEQ from the EPA who, historically, handled such tasks. ADEQ had to find a way to effectively handle this increased workload — and to do so without additional federal funding for ADEQ operations.

## ADEQ Seeks Assistance

To meet this challenge, ADEQ turned to the State of Arizona's Arizona @ Your Service (AAYS) Web Portal to assist in the development and delivery of an automated e-government solution. Together, ADEQ and AAYS developed the Smart NOI Construction Stormwater General Permit (Smart NOI) application, an innovative solution that automates the processing of NOIs — a project that





*"Smart NOI will make the process easier and more efficient for [construction] site operators, especially those in rural Arizona."*

— Steve Owens,  
Director of Arizona  
Department of  
Environmental Quality

earned ADEQ an EPA grant to develop their idea. This first-of-its-kind web application is the product of the complimentary partnership between ADEQ and AAYS. ADEQ provided the Smart NOI concept and subject matter expertise while AAYS provided the bulk of the technological expertise. The AAYS Portal's existing services, application development, and infrastructure made the Smart NOI project financially feasible.

The AAYS Portal has been demonstrated as a proven, cost effective, flexible, and secure set of technologies for supporting e-government initiatives for Arizona government agencies. The AAYS Portal provides government agencies with a powerful platform for delivering e-government services to agency customers 24 hours a day, 7 days a week. With AAYS, agencies benefit from faster project startup, expert project governance, access to technical consulting and application development skills, a robust shared and managed infrastructure, and a growing set of shared services to support their applications. The Smart NOI system design fully leverages AAYS Portal resources and infrastructure in order to improve speed of execution and minimize project cost.

In addition to leveraging powerful AAYS technologies, Smart NOI uses ADEQ's advanced Geographic Information System (GIS) to automate the vast majority of Arizona's NOIs. Smart NOI facilitates the processing of Arizona's increased volume of NOIs by allowing NOIs to be filed online and responding to them immediately, by providing ADEQ more complete and timely information to support compliance/enforcement efforts, and by automatically processing Notices of Termination (NOTs). Because of the success of this application in Arizona, the Smart NOI system is expected to become a model for other states.

### **Stormwater NOIs**

Smart NOI makes it easy for operators of both large and small construction sites to file stormwater NOIs online and, most often, to receive construction

approval immediately. The Smart NOI web pages present applicants with a series of questions that enable Smart NOI to rapidly identify those applicants who can receive immediate construction approval and those whose requests require further review. For some very small construction activities involving less than one acre of land, Smart NOI automatically notes the need for the permit as not required. In other situations, such as construction activities involving one to five acres of land with low soil runoff potential, Smart NOI allows applicants the option of waiving permit coverage. In instances such as these, Smart NOI allows construction contractors to attain the required Certificate of Authorization online so they can start construction right away.

Smart NOI uses advanced GIS technology — prototyped by ADEQ — to help determine whether permits can be waived or granted or whether further review is required. This technology makes it easy for applicants to identify the precise latitude and longitude of the project site using the pan and zoom functionality of the geographically detailed Smart NOI Latitude/Longitude map. Furthermore, geographic information acquired using GIS spatial analysis technology helps ADEQ identify projects located near habitat of endangered species, unique waters (pristine rivers and lakes), or impaired waters (where water quality standards are not being met). When an NOI is filed for a construction project that potentially poses a threat to one of these, Smart NOI automatically delays the granting of a permit for 32 business days so that ADEQ can review details of potential water quality impacts with the applicant. If a more detailed review is necessary, Smart NOI will advise applicants of a delay in coverage and/or the need to submit a Storm Water Pollution Plan to ADEQ.

In addition to processing NOIs online, Smart NOI provides for the documentation and storage of NOI data. Once an applicant completes the application process, any necessary forms related to obtaining

the construction general permit can be printed and saved directly from the web site. And to support enforcement, Smart NOI creates and archives electronic versions of all forms for later review.

### Notices of Termination

Construction contractors can also save time by using the same application to file the Notice of Termination (NOT) form online. The NOT form denotes the completion of the construction activity covered by the original NOI. If the NOI was submitted using the Smart NOI application, the NOT form is automatically pre-filled with information from the original NOI; otherwise, the applicant enters the information through a series of easy-to-use screens. Upon completing the NOT filing process, the applicant can print all necessary NOT-related documentation.

### Reduced Workload, Better Information for ADEQ

Not only does Smart NOI provide construction sites with faster, easier, and more convenient NOI request submission, Smart NOI also reduces work for ADEQ and provides ADEQ with more complete and timely information to support compliance and enforcement efforts. Prior to Smart NOI, ADEQ

manually input all NOI data into its computer system. Smart NOI data, on the other hand, is automatically recorded and logged with no need for ADEQ data entry. Furthermore, all Smart NOI transaction data is stored for later ADEQ review. The Smart NOI transaction logs contain information regarding NOI and NOT transactions, the PDF versions of all documents created during those transactions, and information collected by the application about the applicant's Smart NOI experience. Each night, Smart NOI transfers all Smart NOI record information from the AAYS Portal to the State computer system.

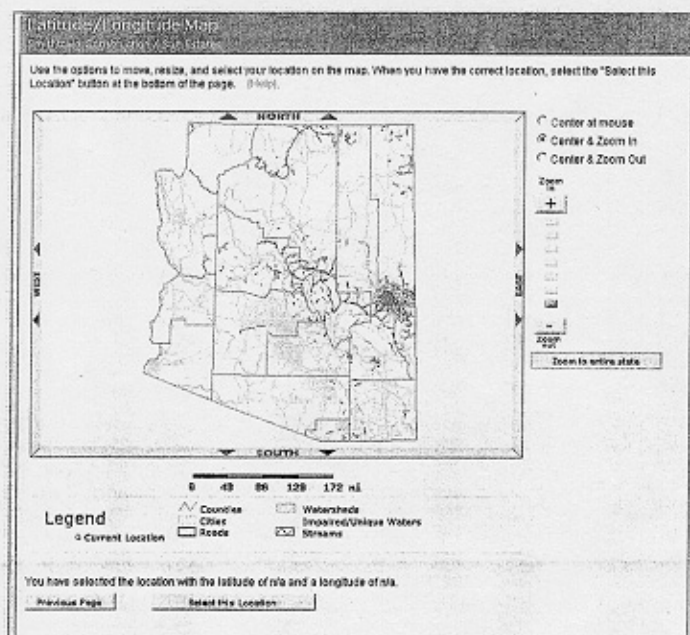
For quick and easy viewing of Smart NOI data, Smart NOI provides application administrators with online reports about usage and applicant experiences. The online Smart NOI application reports cover such topics as the number of forms created online, the number of each type of NOI applicant scenario (not regulated, waiver, normal case, water issue, etc.), and the number of forms by county. All reports are provided via the web in a printer-friendly format, so they can be accessed anywhere using a common web browser and printed using a local printer.

### AAYS Portal Technology

Smart NOI is hosted on the AAYS Portal's robust, monitored, highly secure, and highly available infrastructure that allows citizens to access Smart NOI virtually 24 hours a day, 7 days a week. The AAYS Portal infrastructure is based on a proven e-business framework which provided the model for designing and implementing the Smart NOI solution. And the AAYS Portal's open application and networking standards ensure Smart NOI's compatibility and flexibility now and in the future. This existing

*"Smart NOI represents government at its best. By working together and using existing AAYS resources, ADEQ and [AAYS] eased regulatory burdens and improved the State's ability to safeguard its natural resources at minimal costs."*


*— Chris Cumaliskey,  
GITA Director and  
State CIO*



DEQ's Latitude/Longitude Map allows users to pan and zoom to provide the latitude and longitude of the project site.







infrastructure helped make it possible for ADEQ to undertake the Smart NOI system without having to appropriate the upfront capital necessary for building a new infrastructure.

The AAYS Portal Application Development Delivery Team worked closely with ADEQ's experts to develop Smart NOI from the ground up using time-tested design, development, testing, and delivery techniques. With extensive experience creating successful government web applications, the Application Development Delivery Team made optimal use of the AAYS Portal's technical architectures, including WebSphere Application Server, Java, and highly available servers, to create a robust and easy-to-use Smart NOI application. Smart NOI uses the AAYS Portal's standard architecture of Java Server Pages (JSPs) and Java Servlets executing in a powerful WebSphere Application Server environment. And to ensure future compatibility with other applications, ADEQ and the Application Development Delivery Team selected open source software to develop the powerful GIS engine.

*"Our goal is to reduce red tape and make this new federal permit requirement as user friendly as possible while protecting Arizona's environment."*

*— Steve Owens,  
Director of Arizona  
Department of  
Environmental Quality*

### **Smart NOI: Good for Arizona**

Smart NOI benefits both Arizona citizens and ADEQ. For all of Arizona's citizens, Smart NOI improves the state by providing better protection of its environment. And for those citizens who must file an NOI, Smart NOI offers convenient access to ADEQ from any web browser. Because Smart NOI makes it easier for construction sites to apply for and receive construction approval quickly, construction sites can more easily comply with environmental laws and begin construction sooner. For ADEQ, Smart NOI makes the processing of NOIs much more efficient. Because Smart NOI automatically processes simple NOIs and identifies potentially problematic NOIs, ADEQ can allocate its resources to best use, allowing staff to better protect Arizona's environment.

## **CONTACT**

For more information about the Stormwater Program, please call or email:

Karyn Moldenhauer  
Arizona Department of Environmental Quality  
Phone: (602) 771-4449  
Email: [kdm@ev.state.az.us](mailto:kdm@ev.state.az.us)

For more information about the Arizona @ Your Service Portal, please call or email:

Gene Martel  
Digital Government Services Manager  
Government Information Technology Agency  
Phone: (602) 364-4775  
Email: [gmartel@gita.state.az.us](mailto:gmartel@gita.state.az.us)

Matt Taylor  
IBM Business Development Manager  
Phone: (602) 248-7126  
Email: [taylor1m@us.ibm.com](mailto:taylor1m@us.ibm.com)

Or visit our website:

<http://gita.state.az.us/aays>

File a Stormwater NOI:

<http://az.gov/adeq/noi>





## PROJECT DOCUMENTATION

### Interface Control Document – AZ Portal to ADEQ NOI System

For Project: Arizona @ Your Service Portal

Release No: 1.1

July 3, 2003

Authors: Doug Breaux

Owner: Debbie Cardenas

Client: ADEQ

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## Interface Control Document History

### Document Location

Ensure that this document is current. Printed documents and locally copied files may become obsolete due to changes to the master document.

The source of the document is maintained by IBM Houston and is available upon request.

### Revision History

Date of this revision: July 3, 2003	Date of Next revision: Not scheduled.
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Revision Number	Revision Date	Summary of Changes	Changes marked
1.0	02/12/2003	Initial issue	N
1.2	04/02/2003	Comments from design sessions	N
1.3	04/25/2003	Add business name in the NOI/Waiver record for SWPPP Contact and Signer	Y
1.4	05/06/2003	Add received date in the NOI/Waiver record.	Y
1.5	05/23/2003	Add subdivision approval flag and web approval date to the NOI/Waiver record.	Y
1.6	7/2/2003	As-built documentation. No change in functionality.	N

### Approvals

The document requires the following approvals.

Name	Title
Jim Shelton	IBM System Architect
Dave Kempson	ADEQ
Debbie Cardenas	IBM Project Manager

### Distribution

This document has been distributed to

Name	Title
Chris Conneran	ADEQ
Wayne Hood	ADEQ

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## **1. INTRODUCTION**

This is the Arizona Portal to ADEQ Interface Control Document (ICD). This document defines files passed between IBM and the ADEQ.

### **1.1. IDENTIFICATION**

This document is identified as the Arizona Portal to ADOT ADEQ ICD. The production of this document is the joint responsibility of the IBM and ADEQ design teams. Document approval is the responsibility of the IBM and ADEQ project managers. The baseline version of this document will be maintained by the IBM Houston Global Government Industry team.

### **1.2. SCOPE**

This document defines the system communication flow between the Arizona Portal ADEQ NOI application and the DEQ System.

### **1.3. PURPOSE AND OBJECTIVE**

The purpose of this document is to present the detailed software interface specification between ADEQ and the IBM developed NOI application for data interchange. The communication between ADEQ and the Portal will be over a private IP Network.

The objective of this document is to meet the following general goals.

- Describe the purpose of the interface.
- Identify participants of the interface.
- Define the type of information being distributed between the participants.
- Define the details of the information being documented.
- Identify any dates or issues.

### **1.4. DOCUMENT ORGANIZATION**

To reflect revisions, change bars are used.

This document is organized into the following sections and appendices:

- Section 1 defines purpose and objective.
- Section 2 lists the parent, applicable, and reference documents.
- Section 3 defines the details of the interface information.
- Section 4 lists milestones and completion dates.
- Section 5 defines outstanding issues and to be decided items.
- Appendix A provides a glossary of terms and acronyms.

## **2. RELATED DOCUMENTATION**

This section identifies the documents that are related to the contents of this document as indicated in the following paragraphs.

### **2.1. PARENT DOCUMENTS**

The parent documents establish the criteria and technical basis for the existence of this document. The parent documents are:

- none

### **2.2. APPLICABLE DOCUMENTS**

Applicable documents are those documents whose content is considered to form a part of this document. The specified parts of the applicable documents carry the same weight as if they were stated within the body of this document. The applicable documents are:

- none

### **2.3. REFERENCE DOCUMENTS**

Reference documents are those documents that, although not a part of this document, serve to amplify or clarify its contents, or dictate work policy or procedures. The specific reference documents are:

- Smart NOI Requirements Document
- Smart NOI Database Table Design Diagram

### **3. INTERFACE DETAILS**

This section details all the interfaces between the State ADEQ system and the IBM Arizona @ Your Service Portal NOI application. The interfaces support the transfer of NOI forms from the Portal to the ADEQ system for data import. The form data will be provided in two formats:

1. Aggregated text files containing all the form data collected during a 1-day period.
2. Individual PDF files of individual forms as delivered to the end users.

The IBM application will place each of these files on an FTP server for retrieval by ADEQ personnel or automated systems.

Finally, the ADEQ will be responsible for providing map "cover" files to IBM for placement on its map servers whenever geographic information needs to be updated.

#### **3.1 CONTACTS**

- Application/general/ADEQ data: Chris Conneran (602-771-4447) and Doug Breaux (281-335-4019) and Clif Grim (281-335-4053)
- FTP setup: Doug Breaux (281-335-4019)

#### **3.2 FTP SETUP**

All files will be retrieved by the ADEQ from the IBM FTP server.

##### **IBM FTP Server setup info:**

- IP address: 32.86.231.5 for production and 32.86.231.6 for test.
- User ID: adeq (will call with password).
- For firewall setup, please use subnet mask 255.255.255.192.

The FTP user will not have access to delete files from the FTP server, however it will have access to rename or move them. This mechanism can be used to indicate files that have already been retrieved. For example, files can be moved from the FTP home directory to a "processed" subdirectory.

Because a standard FTP server product is being used to make these files available, no custom application logging of which files have been retrieved is possible. However, the FTP server does offer limited logging that will enable Operations personnel to determine whether or not simple file transfer errors occurred in the event of perceived problems.

#### **3.3 TEXT SUMMARY FILES**

##### **3.3.1 Portal Processing Overview**

The Portal application will begin generating three summary files at midnight each night. The first file will contain the data from each NOI form or Waiver filled out during that day, and the second file will contain the data from each NOT form. The third file will contain the list of "other" permits for any NOI forms that had them. Once the files are completely generated, they will be moved into the ADEQ FTP user's directory for ADEQ retrieval.

Also included in the NOI file will be data describing each user session that began the process of filling out an NOI form but, in the end, did not require one. This includes projects eligible for a Permit Waiver Certification and projects on Indian lands.



### 3.3.2 ADEQ Processing Overview

The ADEQ will be responsible for retrieving daily summary files from the Portal FTP server, importing those files into the existing Oracle Database Application (ODA), and keeping track of which files have been successfully processed.

### 3.3.3 FTP, File Naming, and File Format Definitions

#### 3.3.3.1 File Names and Locations

All summary files will be store under a top-level directory named "database". Inside that directory, files will be stored under subdirectories named with the current date in YYYYMMDD form. For example, "20030314" for files submitted on March 14<sup>th</sup>, 2003. Summary files will be named NOI.txt, OtherPermits.txt, and NOT.txt.

The recommended way for ADEQ to keep track of processed files is to "move" the entire dated subdirectories into another subdirectory named "processed".

The "database" directory will only allow file download, file move/rename, and directory creation. It will not allow file upload.

#### 3.3.3.2 File Formats

The Summary files will contain a single line for each NOI or NOT form processed for the given day. A single End-of-File line will terminate each file so that ADEQ can know that a complete file was retrieved. This EOF line will also contain a count of forms that precede it in the file.

Each line will be terminated by the server's native end-of-line character (0x0D on UNIX), so the FTP transfer of these files must use FTP ASCII mode to ensure proper translation into the local end-of-line character.

The format of each line in the file will be "delimited" values, with each individual field separated by semicolons. Double quotes will be placed around string fields. Dates will not have double quotes around them. Empty fields will have no data between adjacent delimiters.

#### 3.3.3.3 Individual Record Formats

A "record" is a single line in the Summary file. All values are ASCII text, although some represent numeric values while other represent "string" data.

##### 3.3.3.3.1 NOI/Waiver Record

The following table describes the data in an ADEQ NOI Form record.

Field	Description	Data Format
Application ID	Unique number generated for each NOI or Waiver	Number from 500000 to 999999.
Previously Authorized flag	Also known as "Grandfather" flag	Boolean, see note 1
Previous Authorization Number		String (15). ADEQ NOI numbers are only 6 digits, but EPA or other agency numbers could be larger.
Revision flag	Whether or not this is a revision to an existing NOI.	Boolean, see note 1. This is always "N", since revisions are no longer supported.
Indian Lands flag	Whether or not this request was for a project on Indian lands	Y/N/B. "B" means that the project is on both Indian

Interface Control Document - Arizona @ Your Service Portal to ADEQ NOI System

Field	Description	Data Format
	project on Indian lands.	project is on both Indian lands and non-Indian lands.
Waiver flag	Whether or not this record is for an NOI Waiver	Boolean, see note 1
Operator First Name		String (20). See note 2, 3
Operator Last Name		String (60). See note 2, 4
Operator Business Name		String (60)
Operator Status Code		Character (1). List of possible values will be provided by ADEQ.
Operator Email		String (60)
Operator Phone		String (20). See note 2, 5
Operator Address		String (60). See note 2, 6
Operator City		String (25). See note 2, 7
Operator State		String (2). See note 2, 8
Operator ZIP		String (10). See note 2, 9
Project Name		String (60)
Project Type code		String (2). List of possible values will be provided by ADEQ
Subdivision NOI Number	NOI Number for the subdivision to which this project belongs. Empty if none.	String (15). ADEQ NOI numbers are only 6 digits, but EPA or other agency numbers could be larger.
Subdivision Name	Name of subdivision to which this project belongs. Empty if none.	String (60)
Part Of Larger Development flag	Whether or not this project is part of a larger development.	Boolean, see note 1
Site Phone		String (20). See note 2, 5
Site Address		String (60). See note 2, 6
Site City		String (25). See note 2, 7
Site State		String (2). See note 2, 8
Site ZIP		String (10). See note 2, 9
Site Access (Directions)	Textual description of driving directions to the site location. We may have to strip out quote symbols from this description since the delimited fields use quotes.	String (500)
Latitude	Degrees, minutes, seconds in the format: ddmms.sss	String (10)



Interface Control Document - Arizona @ Your Service Portal to ADEQ NOI System

Field	Description	Data Format
Longitude	Degrees, minutes, seconds in the format: dddmmss.sss	String (11). Note that the negative sign is not passed back.
Start Date		String (10), see note 10
Stop Date		String (10), see note 10
Acres Disturbed Project	Size of this project in acres	String (5)
Acres Disturbed Operations	Size of common construction plan in acres	String (5)
Non Storm Water Discharges	Construction Activities comments	String (500)
Closest Water - Entered	Closest Water name as entered by the user. This may override that calculated by the GIS application.	String (60)
System Conveyance flag	MS4 Canal Conveyance	Boolean, see note 1
Storm Collection	MS4 Canal Conveyance Owner	String (60)
Linear Project flag		Y/N/A. "A" means "Not Applicable"
SWPPP Confirmation flag	SWPPP Developed	Boolean, see note 1
SWPPP Contact First Name		String (20). See note 2, 3
SWPPP Contact Last Name		String (60). See note 2, 4
SWPPP Contact Business Name		String (60)
SWPPP Address		String (60). See note 2, 6
SWPPP City		String (25). See note 2, 7
SWPPP State		String (2). See note 2, 8
SWPPP ZIP		String (10). See note 2, 9
SWPPP Contact Phone		String (20). See note 5
Signer First Name		String (20). See note 2, 3
Signer Last Name		String (60). See note 2, 4
Signer Business Name		String (60)
Signer Title		String (30)
Signer Address		String (60). See note 2, 6
Signer City		String (25). See note 2, 7
Signer State		String (2). See note 2, 8
Signer ZIP		String (10). See note 2, 9
Signer Phone		String (20). See note 5
Site County	County FIPS Code from GIS service	String (2)
Watershed Code		String (3)
Stream Name	Closest Water from GIS service	String (60). See note 11

Interface Control Document - Arizona @ Your Service Portal to ADEQ NOI System

Field	Description	Data Format
Stream HUC		String (9). See note 12
Stream Reach		String (11). See note 13
Stream Distance		Decimal. See note 14
Perennial Name	Perennial Water from GIS service	String (60). See note 11
Perennial HUC		String (9). See note 12
Perennial Reach		String (11). See note 13
Perennial Distance		Decimal. See note 14
TMDL Name	TMDL Water from GIS service. These fields could be empty.	String (60). See note 11
TMDL HUC		String (9). See note 12
TMDL Reach		String (11). See note 13
TMDL Distance		Decimal. See note 14
Unique Name	Unique Water from GIS service. These fields could be empty.	String (60). See note 11
Unique HUC		String (9). See note 12
Unique Reach		String (11). See note 13
Unique Distance		Decimal. See note 14
Impaired Name	Impaired Water from GIS service. These fields could be empty.	String (60). See note 11
Impaired Water Body ID		String (15)
Impaired Distance		Decimal. See note 14
Critical Habitat flag	Data from US Fish & Wildlife Service GIS cover	Boolean, see note 1
EI Zone Number		String (2)
Adjusted Erosivity		Number (5.2) e.g. 123.45
Max Erosivity Date		String (10), see note 10
TRS	Township/Range/Section string. e.g. "A(16-01-26)AAD"	String (20)
Quad	TRS Quad character	Character (1)
Township	TRS Township without alphabetic last character	Number (4.1) e.g. 123.4
Range	TRS Range without alphabetic last character	Number (4.1) e.g. 123.4
Section	TRS Section	Number (2.0) e.g. 12
Quarter 1	TRS Quarter 1	Character (1)
Quarter 2		Character (1)
Quarter 3		Character (1)



Field	Description	Data Format
Received Date	Date user entered NOI via the Smart NOI application.	Character (10), see note 10
Subdivision Approval Flag	Flag indicating if subdivision approval was obtained for projects whose type is subdivision.	Boolean, see note 1. "N", if not applicable.
Web approval date	The NOI approval date calculated by the Smart NOI application: for ESA, webDate+32 business days; for Good NOI (no issues), the webDate; for Water Issue, null (blank)	String (10), see note 10

Notes:

1. All flag/Boolean fields are single-character fields with the value "Y" or "N" unless otherwise noted.
2. Some of the address and name fields may have identical data, but each will contain a copy of that data rather than a reference to the common data.
3. All First Name fields are up to 20 characters.
4. All Last Name fields are up to 60 characters.
5. All Phone Number fields are up to 20 characters and only contain numeric characters.
6. All Address fields are up to 60 characters.
7. All City fields are up to 25 characters.
8. All State fields are exactly 2 characters.
9. All ZIP Code fields are up to 10 characters and include the hyphen in 9-digit ZIP Codes. If the ZIP Code is only five digits long, then no dash will be passed back.
10. All Date fields will be in the format MM/DD/YYYY.
11. All GIS Name fields are up to 60 characters.
12. All GIS HUC fields are up to 9 characters.
13. All GIS Reach fields are up to 11 characters.
14. All GIS Distance fields are 8 numeric digits, 2 after the decimal place, for a total of 9 text characters. e.g. 123456.78. Distances are measured in meters.

**3.3.3.3.2 Other Permits Record**

Field	Description	Data Format
Application ID	Unique number generated for each NOI or Waiver	
Other Permit Name		String (60)
Other Permit Number		String (15)

**3.3.3.3.3 NOT Record**

The following table describes the data in an ADEQ NOT Form record. Unless otherwise indicated, all fields are the same format as described in the NOI Form record in section 3.3.3.3.1.

Field	Description	Data Format
Application ID	NOI number of the project being terminated.	
Operator First Name		
Operator Last Name		
Operator Business Name		String (60)
Operator Address		
Operator City		
Operator State		
Operator Zip		
Project Name		
Site Address		
Site City		
Site State		
Site Zip		
County Code		
County Name		
Latitude	Degrees, minutes, seconds in the format: ddmms.sss	String (10)
Longitude	Degrees, minutes, seconds in the format: dddmms.sss	String (11)
Signer First Name		
Signer Last Name		
Termination Reasons	Codes representing the termination reasons. 1-4 single-character codes will be provided in this field. Specific codes to be provided by ADEQ.	String (4)

Notes:

**3.3.3.3.4 End-of-File Record**

Field	Description	Data Format
File Date		See NOI notes
Number of preceding records		Integer

**3.4 PDF FORM FILES**

**3.4.1 Portal Processing Overview**



NOI forms, NOT forms, and Permit Waiver Certifications will be generated as Adobe Acrobat PDF files and returned to the user for printing and mailing to ADEQ. These files will also be made available for retrieval directly by the ADEQ from the IBM FTP server.

"Confirmation" PDF documents will also be generated and returned to the user for their records. The user will not mail these documents to ADEQ, and the files will not be made available on the FTP server. They will not be retained on the IBM server for any extended period of time.

### 3.4.2 ADEQ Processing Overview

The ADEQ will be able to retrieve any and all PDF files that were submitted by application users. These can be retrieved as needed for verification purposes, or wholesale for archival.

### 3.4.3 FTP, File Naming, and File Format Definitions

#### 3.4.3.1 File Names and Locations

Each file will be made available as it is generated, not simply once at the end of the day. However, at the end of the day, the individual PDF files will be compressed into ZIP format. The individual files will subsequently be removed. Files will be stored under the same dated subdirectories under which the Summary files are stored, as described in section 3.3.3.1.

Each file will be named according to its NOI and Revision number. For example, "AZNOI33125-I0.pdf" or "AZNOT33125.pdf". The "-I0" portion of the name indicates that the file is IBM revision number zero. Other revisions will be suffixed with "-I1", "-I2", etc.

*There is still some question as to whether the individual PDF files will be served to the user directly from this same directory. This is an implementation issue, but will affect the question as to whether the file names can be altered to use an uppercase extension. i.e. ".PDF" rather than ".pdf". This document will be updated when that issue is resolved.*

*ADEQ has requested "tarball" compression instead of ZIP compression. IBM will investigate the ease of providing this format. Since ADEQ can work with ZIP files, however, this is not be a critical interface issue at this time.*

### 3.5 COVER FILES

There will be a total of TBD standard GIS "cover" or "shape" files used for drawing maps and for determining NOI site data. These files are quite large (approximately TBD MB per file) and will be updated no more than once per year, per file. As such, there will be no automated process to update them. ADEQ can email them, mail them on physical media (such as a CD-R), or transfer them via FTP to the IBM FTP server and notify IBM of their delivery.

It is recommended that if the files are FTPed or emailed that they be compressed to reduce network transfer time. Standard ZIP compression should be used.

In the event that ADEQ prefers to use FTP for deliver of GIS file updates, an additional top-level directory named "gis" will be created on the FTP server. This directory will allow FTP uploads.

### 3.6 FILE RETENTION

Summary and PDF files will remain available from the FTP Server for a period of 3 months from their creation date. After that time, summary files will be able to be regenerated from the stored database records for whatever time period the database retains individual records.

#### 4. INTERFACE MILESTONE DATES

Key interface milestones and associated dates or frequencies provided in the table below.

Milestone	Date or Frequency



## 5. OUTSTANDING ISSUES

Any outstanding issues associated with the interfaces defined in this document are provided in the table below.

Issue Description	Issue Owner	Resolution Due Date
None		

## APPENDIX A. GLOSSARY OF TERMS AND ACRONYMS

ADEQ	Arizona Department of Environmental Quality
AZP	Arizona Portal
YYYYMMDD	Year Month Day
EOF	End of File
FTP	File Transfer Protocol
GIS	Geographic Information Systems
HUC	Hydrologic Unit Code
IBM	International Business Machines
ICD	Interface Control Document
IP	Internet Protocol
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NOT	Notice of Termination
ODA	Oracle Database Application
PDF	Portable Document Format used by Adobe Acrobat
SWPPP	StormWater Pollution Prevention Plan
TBD	To Be Defined
TMDL	Total Maximum Daily Load
TRS	Township, Range, Section



**Problem Reporting Contact Information for the  
ADEQ Smart NOI Application**

This document provides the problem reporting contact information to be used by ADEQ staff to inform IBM of technical issues encountered by ADEQ staff using the Smart NOI application hosted by the Arizona Portal.

**Business Hours: 8:00 AM to 5:00 PM Arizona Time Monday through Friday:**

Help Desk: (866) 436-9533

If no contact is made in 2 hours, escalate to the following:

Primary Escalation: Bhaskar Meka  
Office: (602) 248 7381

Secondary Escalation: Debbie Cardenas  
Office: (281) 335 4408

**After Hours or Holidays:**

Ops Pager: (800) 759-8888

If no contact is made in 2 hours, escalate to the following:

Primary Escalation: Bhaskar Meka  
Cell: (480) 206 9057

Secondary Escalation: Debbie Cardenas  
Cell: (281) 686 3918

**Wayne Hood - Change in Helpdesk number for contacting Arizona Portal Helpdesk Staff**

---

**From:** Bhaskar Meka <mbrmurty@us.ibm.com>  
**To:** "Wayne Hood" <Hood.Wayne@ev.state.az.us>  
**Date:** 9/8/03 2:28 PM  
**Subject:** Change in Helpdesk number for contacting Arizona Portal Helpdesk Staff  
**CC:** Gene Martel <gmartel@gita.state.az.us>, Debbie Cardenas <dcardena@us.ibm.com>, Mathew A Taylor <taylor1m@us.ibm.com>, Melinda Morgan <memorgan@us.ibm.com>, Joe Barrey <jbarrey@us.ibm.com>, Brian Shell <bshell@us.ibm.com>, "Michael Curry" <m-curry1@attbi.com>, Krista McCaleb <kmccaleb@us.ibm.com>

---

Hi Wayne

Please find attached, document detailing the updated numbers/procedures for ADEQ staff to contact the Arizona Portal helpdesk in case of problems with the Smart NOI application.

Please forward this email to your staff, who might be initiating the contact.

(See attached file: Portal Customer Help Desk Procedures ADEQ 09-08-2003.doc)

Thank you and please give me a call if you have any questions.

Bhaskar Meka  
Project Manager, Arizona Portal  
IBM Global Services  
Phone : (602) 248 7381  
Cell : (480) 206 9057



**Wayne Hood - Change in Helpdesk number for contacting Arizona Portal Helpdesk Staff**

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**From:** Bhaskar Meka <mbrmurty@us.ibm.com>  
**To:** "Wayne Hood" <Hood.Wayne@ev.state.az.us>  
**Date:** 9/8/03 2:28 PM  
**Subject:** Change in Helpdesk number for contacting Arizona Portal Helpdesk Staff  
**CC:** Gene Martel <gmartel@gita.state.az.us>, Debbie Cardenas <dcardena@us.ibm.com>, Mathew A Taylor <taylor1m@us.ibm.com>, Melinda Morgan <memorgan@us.ibm.com>, Joe Barrey <jbarrey@us.ibm.com>, Brian Shell <bshell@us.ibm.com>, "Michael Curry" <m-curry1@attbi.com>, Krista McCaleb <kmccaleb@us.ibm.com>

---

Hi Wayne

Please find attached, document detailing the updated numbers/procedures for ADEQ staff to contact the Arizona Portal helpdesk in case of problems with the Smart NOI application.

Please forward this email to your staff, who might be initiating the contact.

(See attached file: Portal Customer Help Desk Procedures ADEQ 09-08-2003.doc)

Thank you and please give me a call if you have any questions.

Bhaskar Meka  
Project Manager, Arizona Portal  
IBM Global Services  
Phone : (602) 248 7381  
Cell : (480) 206 9057



Arizona Portal ADEQ Smart NOI Web Application  
Requirements Specification

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
OFFICE OF REGULATORY SERVICES  
1500 W. WASHINGTON AVENUE, SUITE 1000  
PHOENIX, ARIZONA 85007-1500  
TEL: 602-974-3000 FAX: 602-974-3001  
WWW.AZDEQ.GOV

## Requirements Specification History

### Revision History

Date of this revision: July 3, 2003		Date of next revision: (tbd)	
Revision Number	Revision Date	Summary of Changes	Changes marked
1	3/3/2003	First Issue	N
1.1	3/4/2003	Requirements Review	Y
1.2	7/3/2003	<ul style="list-style-type: none"><li>As-delivered documentation.</li><li>Spell out ODA everywhere</li><li>Remove "Revisions" requirements.</li><li>Remove "experienced user" requirements.</li></ul>	Partial (significant changes are marked)

### Approvals

This document requires the following approvals.

Name	Title
Dave Kempson	ADEQ Chief Information Officer
Chris Varga	AZPDES Permit Manager
Wayne Hood	Supervisory Hydrologist/WQT IT Manager





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Arizona Portal ADEQ Smart NOI Web Application  
Requirements Specification

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
1000 N. GILBERT AVENUE, SUITE 1000  
MESA, ARIZONA 85203  
TEL: 480-986-6000 FAX: 480-986-6001  
WWW.AZDEQ.GOV

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Arizona Portal ADEQ Smart NOI Web Application  
Requirements Specification



1. INTRODUCTION

1.1. PURPOSE

The purpose of this document is to define the requirements for the Arizona Portal ADEQ Smart NOI Web Application. The Arizona Portal ADEQ Smart NOI Web Application is a web browser based mechanism to allow the public to submit forms associated with the General Permit for Discharge from Construction Activities to Waters of the United States for the state of Arizona. This application will be built to execute in the Arizona @ Your Service Portal and will interface with the existing Oracle Database Application (ODA) to deliver the application data collected to the State host database.

1.2. SCOPE

This requirements document is limited to the Arizona Portal ADEQ Smart NOI Web Application. Much of the Notice of Intent (NOI) processing is performed by the Oracle Database Application and not covered by these requirements. Interface and integration with the Oracle Database Application is covered in this document and related interface control documents.

1.3. DEFINITIONS

eForm	Online NOI form that contains all the information on a single web page. This version of the form is expected to be used by experienced users.
Endangered Species Issue	The situation that arises from the construction site lat/long falling into an area designated as sensitive because of an endangered species. The ADEQ has agreed to allow the US Fish and Wildlife Agency to be notified in these cases.
Erosivity Waiver	The situation that arises from the construction site lat/long and construction dates indicating there being a very low chance of stormwater runoff. The ADEQ permit does not require an NOI or SWPPP for this case.
Grandfathered Permits	A construction project that was originally authorized under a 1998 EPA Construction General Permit. These permits have been manually entered into the Oracle Database Application and can be revised/extended with the new Smart NOI web application.
NOI	Notice of Intent - an application (form) that construction related public users must fill out to get a general permit authorization for the possible storm water runoff into waters of the US, within Arizona.
NOT	Notice of Termination - an application (form) that a user fills out to indicate the completion of the construction project covered by the corresponding NOI.
ODA	Oracle Database Application - the existing, ADEQ host based permitting application that processes paper NOI forms currently.
Q&A NOI Form	The version of the NOI form that is structured as a Q&A session. This version of the form is expected to be used by inexperienced users.
SWPPP	The Storm Water Pollution Prevention Plan is the plan that an operator must prepare (and provide if needed) to define their plan for mitigating stormwater pollution.
Water Issue	The situation that arises from the construction site lat/long falling near a TMDL, impaired, or unique water. The ADEQ addresses these situations during the approval process.
Weekday	For purposes of calculating days in disclaimer messages, a "weekday" is considered to be all Mondays through Fridays. Holidays are included as weekdays.
Whoa Nellys	Any of the above situations that can cause a permit coverage request to be called out as needed special consideration.



## Arizona Portal ADEQ Smart NOI Web Application Requirements Specification

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### 1.4. ACRONYMS

ACL	Access Control List
ADEQ	Arizona Department of Environmental Quality
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FTP	File Transfer Protocol
GIS	Geographic Information System
HTML	Hyper Text Markup Language
ICD	Interface Control Document
IETF	Internet Engineering Task Force
J2EE	Java Enterprise Edition
JSP	Java Server Pages
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NOT	Notice of Termination
ODA	Oracle Database Application
PCR	Project Change Request
Q&A	Question and Answer
TMDL	Total Maximum Daily Load

### 1.5. REFERENCES

This document references the Interface Control Document (*Interface Control Document - Arizona @ Your Service Portal to ADEQ NOI System*) that documents the file interface between the Portal web application and existing Oracle database system and application for NOI processing.

### 1.6. OVERVIEW

The Arizona Portal ADEQ Smart NOI Web Application is a web browser based mechanism to allow the public to submit forms associated with the General Permit for Discharge from Construction Activities to Waters of the United States for the state of Arizona. The application, which is applicable to both large and small construction sites, is filled out with assistance from the web application and is called a Notice of Intent (NOI). Once completed, the form is printed out by the user, signed and faxed, hand delivered or certified mailed via US Postal Service to ADEQ. At that time the NOI is completed and, in most cases, the Certificate of Authorization is also printed out for the user to display at the construction site. In some cases, the application is not approved immediately and the State will mail out the Certificate of Authorization at a later date. For some very small construction activities (less than 1 acre), the need for the permit is automatically noted as not required. In other situations, for example, for 1 to 5 acre construction activities in low erosivity situations, the need for the permit coverage can be optionally waived by the user.

This web application will guide the user through the determination if a waiver is appropriate and then, if not, it will guide the user through the application process. The web application will provide a map based service to assist the applicant in location the construction site and obtaining the required latitude and longitude. The web application will log all transactions and create a file of all the application transactions. ADEQ will use FTP to transfer (via "pull") this data to the ADEQ host for importing into the Oracle Database which will hold the data permanently. The Oracle Database Application also implements all the further business processing surrounding the handling of the applications.

This web application will allow the user to fill out a form indicating that the construction activities are terminated (Notice of Termination - NOT).

The web application will also provide various reports for ADEQ Administrators on usage statistics and user experience survey comments.





## 2. GENERAL DESCRIPTION

### 2.1. PRODUCT PERSPECTIVE

Construction site storm-water discharge permits are currently being transitioned from EPA to the State of Arizona Department of Environment Quality Water Quality Division. A modified permitting application has recently (completed in Jan 2003) been developed on a State host with an Oracle Database to manage these applications and permits that the State has taken over from the EPA. The purpose of this project is to extend that system to support users applying for their permits via the web.

The web application will use the Arizona @ Your Service Portal standard architecture of Java Server Pages (JSP) and Java Servlets executing in a WebSphere application server. After collecting the NOI information the web application will make the data available daily, in a file for the Oracle Database Application to pick up with FTP for importing into the Oracle database and completion of the business processing associated with the NOI application, NOT application, and Waiver certification.

### 2.2. PRODUCT FUNCTION

This product have been divided into four functional areas for requirements specification:

1. NOI Form application (including Waiver Certification)
2. NOT Form application
3. Reports
4. Data transfer to the State Host

### 2.3. USER CHARACTERISTICS

There are two sets of users: one set of users consists of the general public who are using the application; the other set are ADEQ administrators who need to know how the system is being used.

#### 2.3.1. General Public

There are two types of general public users that the application must address. New users are assisted via a question and answer flow though the process of filling in the application. More experienced users have an option of using a single page that allows them to enter all parameters at once.

#### 2.3.2. ADEQ Administrator

ADEQ Administrators and other authorized entities (e.g. EPA) are assumed to web-knowledgeable users who are gathering statistics for management reporting functions.

### 2.4. CONSTRAINTS, ASSUMPTIONS, AND DEPENDENCIES

- The mapping capabilities and design will be based on the Open Source MapServer for map/GIS services.
- Map cover data will be hosted in the IBM secure data layer at the Arizona @ Your Service Portal hosting location.
- Map cover data changes are initially manually processed (nothing automated) between ADEQ and IBM. Automated changes are a possible but future capability.
- Map cover data is about 200 Mbytes in 22 files and the files change only once every year at the most. Changes to each of the map covers can be made independent of the other covers. No Project Change Requests (PCRs) will be required to handle this level of change to the map cover data.
- ADEQ maintains configuration management of GIS/cover data: i.e., ADEQ decides when the changes are made and when the changes are sent to IBM for implementation.



## Arizona Portal ADEQ Smart NOI Web Application Requirements Specification



- All software will be implemented in Java (including rehosting of the existing Erosivity/Mapping application), the standard implementation language of the Arizona @ Your Service Portal.
- ADEQ (via the Oracle Database Application) satisfies the Fish & Wildlife interface requirements, either via listserver, reports or e-mails for both web-entered and the Oracle database-entered entered NOIs.
- "Whoa Nelly" status and dispositions are communicated to users from the State via the Oracle Database Application.
- Manual (paper) forms that are submitted to ADEQ are entered manually directly into the Oracle Database Application, as is currently done.
- Paper based signatures on printed web NOIs will be used to satisfy security/legal requirements.
- Database changes in the Oracle Database Application are expected to be required to support the Arizona Portal ADEQ Smart NOI Web Application.
- The existing Erosivity/Mapping application or a new ADEQ hosted MapServer application will support the Oracle Database Application queries for erosivity/"Whoa Nellys".
- The Oracle Database Application will provide information/reports to ADEQ web for public access to NOI filing information.

### Future Capabilities

- Automated changes between ADEQ and IBM regarding map cover changes are a possible but future capability.
- Linking NOIs which share a common "Project" name to simplify data entry is a possible, but future, capability.
- Processing for attaching SWPPPs to NOIs is a possible, but future, capability.
- A unique web application that would be used exclusively for evaluating a latitude/longitude for erosivity and "Whoa Nellys" is a possible, but future, capability.
- A Kiosk implementation of Smart NOI is a possible, but future, capability.
- Spanish is a possible future enhancement.
- A full implementation of a paperless environment is a possible, but future, capability.
- Implementation of possible cartology standards - e.g. underground storage tank symbols, is a possible, but future, capability.
- Customized reports/handheld information/interfaces for inspectors is a possible, but future, capability.
- Revisions are a possible, but future, capability.
- Capabilities to support experienced users entering Smart NOI information by using a single web eForm where all parameters can be entered is a possible, but future, capability.

### 2.5. BUSINESS RULES

Most of the business rules associated with NOI applications are implemented in the Oracle Database Application. These include verification of signature, reviewing the application for special considerations (dry wells), approving or disapproving the application, visiting the construction site, etc. The Arizona Portal ADEQ Smart NOI Web Application implements a set of rules in the waiver determination process and in the validation of fields where the user enters data. These rules and validations are documented in the tables in the "Input" sections of section 3.0 Specific Functions.





### 3. SPECIFIC FUNCTIONS

#### 3.1. FUNCTIONS

There will be 4 main functions provided by this application:

1. NOI Form (including Waiver Certification) - Submit an NOI (or get a waiver) and log the transaction.
2. NOT Form - Submit an NOT and log the transaction.
3. Web Reports - Provide web reports on user transactions.
4. Transfer Transaction data to the Oracle Database Application – Create files for Oracle Database Application to pull.

##### 3.1.1. NOI Form (including Waiver Certification)

###### 3.1.1.1. Functions

The purpose of this section is to define the requirements for the smart NOI Form web application.

###### 3.1.1.2. Inputs

The following information is currently on the NOI Form and shall be received as inputs or calculated in the identified ways when the user is filling in an NOI Form.

Data Item	How Entered	Default Value	Validations/Rules/Processing
Grandfathered Permit flag	Checkbox on form	None	If Grandfathered, NOI will be handled as a new NOI with a normal situation (2 day approval). "Whoa Nelly" checks will be passed to the Oracle Database Application.
Grandfathered Authorization Number	Text Field	None	Only entered if user indicates that this is a Grandfathered permit.
New/Revised NOI/Waiver	Checkbox on form	No	Revisions are not implemented, so this checkbox is always "No".
Prior Authorization #	Text field	No	Revisions are not implemented, so this field is always blank.
Located on Indian Country Lands	Y/N	None	If Yes, terminate the application process with a message that the user will be redirected to the EPA.
Owner/Operator First Name	Text field	None	None. Either the first and last name are entered or the business name, but not both.
Owner/Operator Last Name	Text field	None	None. Either the first and last name are entered or the business name, but not both.
Operator Phone	Text Field	None	None
Operator's Business Name	Text Field	None	None. Either the first and last name are entered or the business name, but not both.
Operator Address	Text Fields (Address, City, State, ZIP)	AZ defaulted for State	None











Arizona Portal ADEQ Smart NOI Web Application  
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Phone Number			
Within ¼ mile of an impaired water or discharged into an impaired water	Checkbox: Yes, No	None	Filled in by user looking at provided map. Encumbrances based on the lat/long will be passed to the Oracle Database Application in the log file. This field will be the Operator's determination of the encumbrance, which should take the shape of the construction site into account – not just a single point lat/long.
Certification Printed First Name	Text Field	None	Required
Certification Printed Last Name	Text Field	None	Required
Certification Title	Text Field	None	Required
Certificate Address	Text Field	None	Required
Certificate Phone	Text Field	None	Required

**3.1.1.3. Processing**

The NOI Application processing requirements are as follows:

- 3.1.1.3.1. The Arizona Portal ADEQ Smart NOI Web Application shall provide a method for “filling in” the NOI application that supports inexperienced users (using a directed, question and answer approach – Q&AForm).
- 3.1.1.3.2. The Arizona Portal ADEQ Smart NOI Web Application Q&AForm shall guide a user through the process of answering the questions designed to determine if they are not regulated by the State (less than an acre or Indian Country Lands) or are allowed to get a waiver. If regulated and no waiver is granted, the Smart NOI web application shall then guide a user through the process of filling out the remainder of the NOI application.
- 3.1.1.3.3. Deleted
- 3.1.1.3.4. The Arizona Portal ADEQ Smart NOI Web Application Q&AForm shall always require the following data entered before beginning the Q&A process:
  - Operator First Name and Last Name or Business Name
  - Operator E-mail Address
  - Operator Phone
  - Operator's Address, including city, state, and ZIP code
  - Operator Status (Federal, State, Other Public, Private, Tribal)
  - Project/Site Name
- 3.1.1.3.5. The Arizona Portal ADEQ Smart NOI Web Application Q&AForm shall allow the user to provide the latitude and longitude of the project site by either entering them directly or using a map to pan and zoom and select the exact location. The capabilities of this map function shall be roughly equivalent to the prototype Smart NOI application provided by the State.
- 3.1.1.3.6. At the point where users determine that they are eligible for a waiver, the Arizona Portal ADEQ Smart NOI Web Application shall allow them to decide whether to accept the waiver or continue on to submit the NOI form.
- 3.1.1.3.7. If the user takes the waiver path, the Arizona Portal ADEQ Smart NOI Web Application shall not check for the “Whoa Nelly” situations (in release 1 these are water issues (impaired/unique/TMDL) and ESA issues), but the application shall acquire all the relevant “Whoa Nelly” info from the GIS data for the purpose of passing it to the Oracle Database Application via the transaction log.
- 3.1.1.3.8. If the user decides to take the waiver path, the “Latest Completion Date” field printed on the Permit Waiver Certification form shall be the end construction date entered by the user on the form. The latest erosivity waiver date shall be logged however, for transfer to the Oracle Database Application.





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- 3.1.1.3.9. The Arizona Portal ADEQ Smart NOI Web Application shall provide the ability to print a blank NOI, NOT and Waiver Certification forms from the web site (may be via links to existing ADEQ web site).
- 3.1.1.3.10. The Arizona Portal ADEQ Smart NOI Web Application shall provide the ability to print a filled-in form without the ID number before actual submission.
- 3.1.1.3.11. The Arizona Portal ADEQ Smart NOI Web Application shall explain how users can save PDF files locally for printing later.
- 3.1.1.3.12. The Arizona Portal ADEQ Smart NOI Web Application shall allow multiple attempts at getting a waiver (allow changing start/end date over and over).
- 3.1.1.3.13. The Arizona Portal ADEQ Smart NOI Web Application shall allow a waiver (no permit required) if the construction site is between 1 and 5 acres (and not part of a larger project) and the erosivity factor ("R value") is less than 5 between the construction start and end dates (using the State provided map covers and the lat/long of the project site).
- 3.1.1.3.14. The Arizona Portal ADEQ Smart NOI Web Application shall use the State provided map covers to determine the following information about the lat/long of the project site (for use in deciding upon certificate generation and approval dates – this information will be logged for retrieval by the State but will not be communicated to the user).
- Within 1/4 miles of Impaired or Unique or TMDL Waters
  - Within an Endangered Species defined area
- 3.1.1.3.15. The Arizona Portal ADEQ Smart NOI Web Application shall, upon completion of all data entry and processing, provide instructions for the user to print out two documents on their local printer. The first document will be the actual NOI Form (*NOI.pdf*). The instructions will tell them to sign and mail in that document. The second document will be a document that they will keep for their records, which will describe to them the results of their application (as known at that time). This document will be in the form of the current NOI Certificate being printed from the Host application that works with paper based applications (*Normal.pdf*).
- 3.1.1.3.16. The Arizona Portal ADEQ Smart NOI Web Application shall handle the following cases. Each case results in a different situation to communicate to the user via the two documents that will be printed out. (More details about these cases can be found in the table following in the output section).
- Indian Country Lands – project is not regulated by ADEQ, but the user needs to talk to EPA Region 9. (Indian Lands case)
  - Less than an acre – project is exempt from having to submit the NOI application (minimum information of name and address of operator is acquired) (Unregulated situation – nothing is mailed in).
  - Between 1 and 5 acres with low erosivity during the construction period (Waiver case - Permit Waiver Certification form is printed, signed and mailed in).
  - Normal case: the project will be approved in 2 weekdays as long as the user mails in a signed copy of the NOI form and ADEQ doesn't find any problems pending a review of the application. (Normal case).
  - The project authorization is not approved, the user needs to sign/mail the NOI Form and send in the SWPPP for approval, and within 32 weekdays (goal) the NOI/SWPPP will be approved or rejected. (This is referred to as the "Water Issue Case" – impaired, TMDL, or unique waters).
  - The Project authorization is not approved yet, the user needs to sign/mail the NOI Form, they will hear within 32 weekdays or else they are approved. (This is referred to as the "ESA" case). If the total acres disturbed is less than five acres, then the ESA check shall not be performed.
- 3.1.1.3.17. The Arizona Portal ADEQ Smart NOI Web Application shall allow a user to review the whole NOI before submission – implementing a multi-step process to ensure there was intent to do the submission.
- 3.1.1.3.18. The Arizona Portal ADEQ Smart NOI Web Application shall assign an "ID number" sequentially within a range to be provided by the State.
- 3.1.1.3.19. The Arizona Portal ADEQ Smart NOI Web Application shall create the "Authorization Number" for the printed NOI Certificate by concatenating the string "AZCON-" with the ID Number.
- 3.1.1.3.20. The Arizona Portal ADEQ Smart NOI Web Application shall assign an "Inventory Number" on the printed NOI Certificate of "105246".



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- 3.1.1.3.21. The Arizona Portal ADEQ Smart NOI Web Application shall create the "AZPDES #" field by concatenating "AZCON-" plus the ID Number.
- 3.1.1.3.22. The Arizona Portal ADEQ Smart NOI Web Application shall support "Grandfathered" Permits:
1. The user must enter the previous Authorization number and all NOI application data.
  2. No waiver, water issue or ESA checks will be applied in the Web Application.
  3. The NOI certificate will be issued as a Normal Case (2 weekday stipulation).
  4. The NOI entry in the transaction log will include the Grandfather Authorization number and all the GIS water issue and ESA issue information to support a manual examination of the Grandfathered NOI in the Oracle Database Application.
- 3.1.1.3.23. Deleted
- 3.1.1.3.24. The Arizona Portal ADEQ Smart NOI Web Application shall collect optional user experience opinions/data via "Contact ADEQ" and will e-mail the collected data to a provided ADEQ e-mail address. Data collected shall include:
- Name
  - City
  - State or Country (if not US)
  - E-mail
  - User type:
    - Owner/Operator
    - Consultant
    - Regulator
    - Government
    - Financial
    - Law
    - Interested Party
    - Other
  - Message (required field)
  - The system will automatically collect standard browser information, including browser used and screen resolution.
- 3.1.1.3.25. The Arizona Portal ADEQ Smart NOI Web Application shall collect optional user experience opinions/data and store them in the log via a Survey. Data collected shall include
- An introductory explanation of "Thank you for your interest in taking this short survey. Your responses are anonymous."
  - The system will automatically collect standard browser information, including browser used and screen resolution.
  - The system will automatically collect which form(s) were used.
  - How did you find out about Smart NOI?
    - Radio
    - Television
    - Newspaper/Print Media
    - Mail
    - Internet
    - Search Engine
    - Other
  - How satisfied were you using Smart NOI
    - Very Satisfied
    - Somewhat Satisfied
    - Not Satisfied
  - Was the application easy to use?
  - Was help easy to find?
  - Was the "Help" useful?
  - Please give us your comments on Smart NOI: <text>





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- 3.1.1.3.26. The Arizona Portal ADEQ Smart NOI Web Application Survey information shall be stored for six months.
- 3.1.1.3.27. The Arizona Portal ADEQ Smart NOI Web Application shall provide two levels of help: simple help on getting through the process of using the web application, hosted locally with the Smart NOI application, and a more sophisticated help which will point to information to be hosted on the ADEQ web site.
- 3.1.1.3.28. The Arizona Portal ADEQ Smart NOI Web Application shall maintain a log of all transactions as defined in more detail in the Outputs section table below.
- 3.1.1.3.29. The Arizona Portal ADEQ Smart NOI Web Application shall print distances in miles.
- 3.1.1.3.30. The Arizona Portal ADEQ Smart NOI Web Application shall provide the capability for the user to copy the "Operator's" information into the "Site" information, the "SWPPP" information, and the "Signer" information.
- 3.1.1.3.31. The Arizona Portal ADEQ Smart NOI Web Application shall provide the capability for the user to copy the "Site" information into the "SWPPP" information.
- 3.1.1.3.32. The Arizona Portal ADEQ Smart NOI Web Application shall provide the capability for the user to copy the "SWPPP" information into the "Signer" information.
- 3.1.1.3.33. The Arizona Portal ADEQ Smart NOI Web Application shall indicate that the "ID number" is an "Authorization Number" if it a standard NOI or an NOI with ESA issue. If the NOI has a water issue, then the number shall be called a "Reference Number".

**3.1.1.4. Outputs**

The outputs of the Arizona Portal ADEQ Smart NOI Web Application are (in general) a printed document for the user to sign and send to the state, a printed document for the user to keep as a history of the transaction and an entry in the transaction log recording the transaction.

The following table summarizes the requirements for these outputs based on the different situation of users.

User scenario/case	Web form option(s)	Printed by the user to keep	Printed by the user to send to the State	Logged
Land is on Indian Country Lands	Smart NOI Q&A Form and eForm.	Message about talking to EPA Region 9. Example provided with Requirements package – <i>Indian.pdf</i>	Nothing printed out to send to the state.	NOI entry with the minimum identifying information collected and flag Indian Lands and the user PDF.
Unregulated situation (less than 1 acre)	Smart NOI Q&A Form and eForm	Partial NOI certificate with unregulated words. Example provided with Requirements package – <i>Unregulated.pdf</i>	Nothing printed out to send to the state.	NOI entry and the user PDF. Flag as unregulated.
Waiver situation (1-5 acres, low erosivity)	Smart NOI Q&A Form and eForm	Partial NOI certificate with Waiver words. Example provided with Requirements package – <i>WaiverLetter.pdf</i>	Permit Waiver Certification Example provided with requirements package – <i>Waiver.pdf</i> .	NOI entry, the user PDF and the State PDF (Permit Waiver Certification)
Normal case – no water or ESA issues (or a Grandfathered EPA Permit).	Smart NOI Q&A Form and eForm	NOI Certificate using the Oracle Database Application certificate as an example with language about contingencies. Approval date is the current day. Example provided with Requirements package –	NOI Form. Example provided with requirements package – <i>NOI.pdf</i> .	NOI entry, the user PDF and the NOI Form PDF.



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User scenario/case	Web form option(s)	Printed by the user to keep	Printed by the user to send to the State	Logged
		<i>Normal.pdf</i>		
Water Issue case	Smart NOI Q&A Form and eForm	Partial NOI certificate with Water Issue words. Example provided with Requirements package – <i>WaterIssue.pdf</i>	NOI Form. Example provided with requirements package – <i>NOI.pdf</i> .	NOI entry, the user PDF and the NOI Form PDF.
ESA Issue case	Smart NOI Q&A Form and eForm	NOI Certificate w/ 32 weekday day disclaimer Example provided with Requirements package – <i>ESAIssue.pdf</i>	NOI Form. Example provided with requirements package – <i>NOI.pdf</i> .	NOI entry, the user PDF and the NOI Form PDF.

In addition to all the NOI Form parameters being logged (for the State “Pulling” daily), the following parameters from the GIS data for the lat/long will be logged for passing to the state:

- Impaired Waters encumbrance (True/False and related data – see the *Interface Control Document - Arizona @ Your Service Portal to ADEQ NOI System* for details)
- Unique Waters encumbrance (True/False and related data – see the *Interface Control Document - Arizona @ Your Service Portal to ADEQ NOI System* for details)
- TMDL Waters encumbrance (True/False and related data – see the *Interface Control Document - Arizona @ Your Service Portal to ADEQ NOI System* for details)
- Endangered Species encumbrance (True/False and related data – see the *Interface Control Document - Arizona @ Your Service Portal to ADEQ NOI System* for details)

In addition, the following data items about the user’s experience using the Arizona Portal ADEQ Smart NOI Web Application shall be logged:

- Flag to indicate whether the user displayed the printed format of the “User” document.
- Flag to indicate whether the user displayed the printed format of “State” document.
- Scenario that user followed to completion (e.g. Not regulated, waiver, Normal case, Water issue, ESA issue, etc).





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ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
 1700 W. WASHINGTON AVENUE, SUITE 1000  
 PHOENIX, ARIZONA 85007  
 (602) 971-2000  
 WWW.AZDEQ.GOV

**3.1.2. NOT Form**

**3.1.2.1. Functions**

The NOT web application allows a user to file the Notice of Termination form that will denote the completion of the construction activity covered by the original NOI. The user must provide at least the NOI Permit Authorization Number and the NOI Owner/Operator Name and the application will find the existing NOI if present and pre-populate the appropriate fields from the transaction log. If the NOI is not in the history log, then the user will have to provide all the data for the form.

**3.1.2.2. Inputs**

The following information shall be received as inputs or provided from the history log when the user is filling in an NOT application.

Data Item Name	How Entered	Default Value	Other Description
General Permit Authorization Number	Text field	None	User must provide
NOI Operator First Name	Text field	None	User must provide and it must match the NOI (accessed via the Authorization number)
NOI Operator Last Name	Text field	None	User must provide and it must match the NOI (accessed via the Authorization number)
NOI Operator Address	Text Field	None	If not in log, then user must fill in.
NOI Operator City	Text Field	None	If not in log, then user must fill in.
NOI Operator State	Text Field	None	If not in log, then user must fill in.
NOI Operator ZIP	Text Field	None	If not in log, then user must fill in.
NOI Operator Phone	Phone Number	None	If not in log, then user must fill in.
Project/Site Name	Text Field	None	If not in log, then user must fill in.
Site Physical Location	Text Field	Defaulted if in Log	If not in log, then user must fill in.
County	Text Field	Defaulted if in Log	If not in log, then user must fill in.
Site ZIP	Text Field	None	If not in log, then user must fill in.
Latitude	Text Field	Defaulted if in Log	If not in log, then user must fill in.
Longitude	Text Field	Defaulted if in Log	If not in log, then user must fill in.
Termination Reason	Checkbox	None	User must check one.
Certification Printed First Name	Text Field	Defaulted if in Log	If not in log, then user must fill in.
Certification Printed Last Name	Text Field	Defaulted if in Log	If not in log, then user must fill in.
Certification Title	Text Field	Defaulted if in Log	If not in log, then user must fill in.

**3.1.2.3. Processing**

- 3.1.2.3.1. The Arizona Portal ADEQ Smart NOI Web Application shall provide a web form for the Notice of Termination action.
- 3.1.2.3.2. The NOT form shall be automatically pre-filled with information from the log if the NOI was filled in with the Arizona Portal ADEQ Smart NOI Web Application within the archive period. (After the user identifies the corresponding NOI with the authorization number and the NOI Owner/Operator Name data). The NOI Owner/Operator Name check shall be case independent.
- 3.1.2.3.3. The NOT form shall collect all information as described in the Input table above, implementing all business rules/data validations called for there.
- 3.1.2.3.4. The NOT form shall log the transaction (all data items) in the Portal based transaction log.



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ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
1500 W. WASHINGTON AVENUE, SUITE 1000  
PHOENIX, ARIZONA 85007  
PHONE: (602) 971-2000  
WWW.AZDEQ.GOV

- 3.1.2.3.5. The NOT form shall instruct the user in printing the NOT form to sign and send to the State.
- 3.1.2.3.6. The NOT form shall instruct the user in printing a form to keep as their record of the transaction.

### 3.1.2.4. Outputs

The outputs of the NOT Form process are (in general) a printed document for the user to sign and send to the state, a printed document for the user to keep as a history of the transaction and an entry in the transaction log recording the transaction.





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ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
1000 N. CENTRAL AVENUE, SUITE 1000  
PHOENIX, ARIZONA 85004  
TEL: 602.974.3100 FAX: 602.974.3101  
WWW.AZDEQ.GOV

The following table summarizes the requirements for these outputs.

User scenario	Web form option(s)	Printed for user to keep	Printed for user to send to State	Logged
Termination	NOT Form	Example provided with Requirements package – <i>NOTletter.pdf</i>	NOT Form. Example provided with requirements package – <i>NOT.pdf</i> .	NOT entry, user PDF, State PDF.

In addition, the following data items about the user's experience using the Arizona Portal ADEQ Smart NOI Web Application shall be logged:

- Flag to indicate whether the user displayed the printed format of the "User" document.
- Flag to indicate whether the user displayed the printed format of "State" document.



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ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY	ARIZONA
DESIGN CONSULTING SERVICES	ARIZONA
2000 N. CENTRAL AVENUE	ARIZONA
PHOENIX, ARIZONA 85004	ARIZONA
PHONE: (602) 971-1000	ARIZONA
FAX: (602) 971-1001	ARIZONA
WWW: WWW.AZDEQ.GOV	ARIZONA
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY	ARIZONA

### 3.1.3. Web Reports

#### 3.1.3.1. Functions

The purpose of this function is to allow Arizona Portal ADEQ Smart NOI Web Application administrators to access online reports about usage and user experiences.

#### 3.1.3.2. Inputs

Inputs to this function will be the type of report and any associated report parameters (e.g. start and end date). Details of these reports and parameters will be provided at design and prototype reviews.

#### 3.1.3.3. Processing

- 3.1.3.3.1. The Arizona Portal ADEQ Smart NOI Web Application Web Reports will be secured by the Arizona @ Your Service Secure Gateway to known and approved users authenticated with user ids and passwords.
- 3.1.3.3.2. The Arizona Portal ADEQ Smart NOI Web Application shall provide web based, online reports about use of the Arizona Portal ADEQ Smart NOI Web Application:
  - Number of NOI forms created online using the Q&A Form.
  - Number of NOT forms created online.
  - Summary of documents that were displayed to the user for printing.
  - Number of each type of NOI user scenario (e.g. Not regulated, waiver, Normal case, Water issue, ESA issue, etc).
  - Number of abandoned transactions.
  - Number of forms by County.
  - Summary and detail reports on user survey feedback.
- 3.1.3.3.3. The Arizona Portal ADEQ Smart NOI Web Application user interaction reports shall cover the most recent six months of historical data.
- 3.1.3.3.4. The reports shall be provided in a printer-friendly format.

#### 3.1.3.4. Outputs

Outputs of this function are web pages that represent the above data to the administrators. Detail screen/report formats will be provided at design and prototype reviews.





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ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
1000 N. GILBERT AVENUE, SUITE 1000  
MESA, ARIZONA 85203  
TEL: 480.724.7000 FAX: 480.724.7001  
WWW.AZDEQ.GOV

### 3.1.4. Transfer Transaction Data to the Oracle Database Application

#### 3.1.4.1. Functions

This section defines the requirements for the transfer of Smart NOI user transaction data from the Portal to the State host. The *Interface Control Document - Arizona @ Your Service Portal to ADEQ NOI System* will define the details of this interface. The Oracle Database Application will FTP "Pull" files from the Portal at night.

#### 3.1.4.2. Inputs

The inputs to this function are the transaction logs that have recorded the user's transaction in terms of NOI and NOT form filled parameters, the PDFs that represent the printed version (kept by the user and sent to the state) of the transaction, and data collected by the application about the user's experience when filling in the forms.

#### 3.1.4.3. Processing

- 3.1.4.3.1. The Arizona Portal ADEQ Smart NOI Web Application shall create a file of all the day's transactions at midnight AZ time and make that file available for the State host to "FTP Pull" after that time. Details of that interface can be found in the *Interface Control Document - Arizona @ Your Service Portal to ADEQ NOI System*.
- 3.1.4.3.2. The Arizona Portal ADEQ Smart NOI Web Application shall implement the transfer mechanism so that nothing is lost if the State host does not Pull the file at the correct time or misses a day completely.
- 3.1.4.3.3. The Arizona Portal ADEQ Smart NOI Web Application shall maintain a history of the actual data transfers (date, time, # records, status, etc?) for managing, auditing and testing purposes.
- 3.1.4.3.4. The Arizona Portal ADEQ Smart NOI Web Application (or manual procedures) shall support a State request to retry a particular day's transfer.
- 3.1.4.3.5. The Arizona Portal ADEQ Smart NOI Web Application shall retain all transaction log and file transfer information for at least three years.

#### 3.1.4.4. Outputs

The outputs of this function are the files created for the State to pull and the history data about the success of the transfers.



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## 4. EXTERNAL INTERFACE REQUIREMENTS

### 4.1. USER INTERFACE

- 4.1.1. User interfaces shall be consistent in display and messaging.
- 4.1.2. The Portal shall provide a mechanism to make any service or information available within a "three click" limit.
- 4.1.3. The Portal shall be accessible as verified by Bobby 4.0, priority A.
- 4.1.4. The Arizona Portal ADEQ Smart NOI Web Application shall support Netscape 4.x and Internet Explorer 5.x. The site shall provide recommended browser information. The Portal and applications will be tested on Netscape version 4.7 and IE 5.5.
- 4.1.5. Elements of the system developed in HTML shall be in accordance with the Internet Engineering Task Force (IETF) standard for HTML 4.0.1 transitional.
- 4.1.6. The User Interface shall be in English.

### 4.2. HARDWARE INTERFACE

N/A

### 4.3. SOFTWARE INTERFACE

- 4.3.1. The Arizona Portal ADEQ Smart NOI Web Application shall be built using the open architecture and industry standards of the IBM e-business application framework, specifically, the IBM WebSphere Application Server and the IBM HTTP Server environments.
- 4.3.2. Elements of the Arizona Portal ADEQ Smart NOI Web Application developed in Java shall be written in the Java programming language, version 1.2.
- 4.3.3. Elements of the system developed as Java Servlets and Java Server Pages (JSPs) shall use Java Servlets API 2.2 and JSP 1.1.

### 4.4. COMMUNICATIONS INTERFACE

- 4.4.1. The Arizona Portal ADEQ Smart NOI Web Application shall interface to the State via a private IP communication link between the State network and the IBM hosted AZ Portal.
- 4.4.2. The Arizona Portal ADEQ Smart NOI Web Application shall provide an FTP interface for the State host to retrieve the interface files.





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STATE OF ARIZONA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
1000 N. CENTRAL AVENUE, SUITE 1000  
PHOENIX, ARIZONA 85004  
TEL: 602.974.3100 FAX: 602.974.3101  
WWW.AZDEQ.GOV

## 5. PERFORMANCE REQUIREMENTS

### 5.1. RESPONSE TIMES

- 5.1.1. The Arizona Portal ADEQ Smart NOI Web Application shall exhibit response times consistent with normal web/browser based applications (2 to 10 second range).

### 5.2. DELIVERY TIMES

N/A

### 5.3. SYSTEM AVAILABILITY

- 5.3.1. The Arizona Portal ADEQ Smart NOI Web Application shall be available to customers 7 day/week, 23 hours/day. (Note 1 hour per day is available for required system maintenance)
- 5.3.2. A daily window between 5:00am and 6:00am Central shall be available for IBM support personnel to perform any required System maintenance.
- 5.3.3. Any other scheduled downtime shall be coordinated with and approved by the State Portal Manager with at least 5 days advanced notice when possible.
- 5.3.4. During scheduled downtime, whenever possible (e.g. Web Server is still up), the system shall inform end users of the status of the Arizona Portal ADEQ Smart NOI Web Application, ADEQ hours of operation and a ADEQ contact number in the event the customer wishes to contact ADEQ.
- 5.3.5. Backup and archival of files (to tape or to some other external storage media) shall be supported while the system is in use and shall be made with minimal degradation of service to the customer.
- 5.3.6. Databases shall be stored on a highly available external data storage system that utilizes RAID.
- 5.3.7. Backups shall be captured nightly and master recovery tapes are stored off-site.
- 5.3.8. The capability to restore system data shall be provided. Procedures and programs shall be provided to enable rapid recovery from hardware or software failure restoring to the most recent backup data available.
- 5.3.9. Agents on all servers and network devices shall produce diagnostics that are captured and analyzed by a system monitoring application. Support staff shall be notified immediately in the event of trouble.
- 5.3.10. External monitors shall view the web pages from the end-user's perspective. These monitors shall notify support staff in the event that response times are outside of acceptable parameters, if there is no response, or if the response is an error. Performance and capacity trends are analyzed to maintain current and anticipated future needs.



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ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
1000 N. GILBERT AVENUE, SUITE 1000  
PHOENIX, ARIZONA 85004  
TEL: 602-974-3000 FAX: 602-974-3001  
WWW.AZDEQ.GOV

## 6. SYSTEM ATTRIBUTES

### 6.1. SECURITY

- 6.1.1. Router Access Control Lists (ACL) shall provide the first line of security for the site.
- 6.1.2. Behind the routers, sophisticated well-configured firewalls shall protect hosts' services from unauthorized access.
- 6.1.3. The Portal shall provide the ability to execute secure, authenticated, two-way transactions using SSL protocols with 128 bit encryption.
- 6.1.4. On the servers, LAN intrusion detection software shall run that is constantly looking for the signature of an attacker. This software works in conjunction with the firewall software to shutdown an attack in progress.
- 6.1.5. Frequent "port scans" shall be performed to monitor the expected level of security, and verify that it is being met
- 6.1.6. Security monitors shall watch network traffic as well as server log files to detect attempted security breaches.
- 6.1.7. If security incidents occur, IBM shall provide the State (GITA) a security report identifying the security incidents encountered and the resolution action taken for each.
- 6.1.8. IBM shall protect the confidentiality and integrity of both customer supplied and Arizona State data during network transmission.

### 6.2. MAINTAINABILITY

- 6.2.1. Use of vendor specific or non-standard functions shall be minimized. Any such instances shall be well documented, and isolated to function modules, which may be easily replaced.
- 6.2.2. Systems shall incorporate reuse assets; use IBM frameworks and other middleware products whenever possible to decrease the development and maintenance costs of in-house developed software.
- 6.2.3. Commercially available software components shall be utilized, when practical, to decrease development and maintenance costs.





## Arizona Portal ADEQ Smart NOI Web Application Requirements Specification



### 7. OTHER REQUIREMENTS

#### 7.1. DESIGN AND DEVELOPMENT PLATFORMS

- 7.1.1. All developed libraries shall be reentrant.
- 7.1.2. All standard libraries that are non-reentrant shall be protected against threads making damaging calls.
- 7.1.3. The Arizona Portal ADEQ Smart NOI Web Application shall not use hardware specific libraries that would limit portability.
- 7.1.4. The Arizona Portal ADEQ Smart NOI Web Application shall not require kernel modifications or vendor specific extensions; however, these are allowed for higher performance.
- 7.1.5. Software components shall handle exceptions.
- 7.1.6. Script in the HTML pages shall be written in JavaScript, at the level supported by the above browsers.
- 7.1.7. The Arizona Portal ADEQ Smart NOI Web Application shall conform to the programming standards defined by Sun for the Java Programming language – see: <http://java.sun.com/docs/codeconv/>.
- 7.1.8. The system shall be developed in accordance with the IBM Houston Solution Development Processes.

#### 7.2. OPERATIONS

- 7.2.1. The operations of the Arizona @ Your Service Portal web site which will host the ADEQ Smart NOI Web application shall be monitored with automated alert software 24 hours a day, 7 days a week.
- 7.2.2. Portal operation support personnel shall be available 24 hours a day, 7 days a week via phone and e-mail:
  - 1-888-759-8888, pin 2180357
  - ops@clearlake.ibm.com
- 7.2.3. IBM shall provide operational and diagnostic support and coordinate with ADEQ for problem resolution.
- 7.2.4. Backup and archival of files (to tape or to some other external storage media) and other routine system maintenance activities shall be supported while the system is in use and shall be made with minimal degradation of service to the user.
- 7.2.5. Incremental backups shall be performed nightly.
- 7.2.6. The capability to restore system data shall be provided.

#### 7.3. TEST PLANS

- 7.3.1. Test plans and test specifications shall be created and executed.

## Survey

## Individual Response

How did you find out about Smart NOI?	How satisfied were you using Smart NOI?	Was the application easy to use?	Was the help easy to find?	Was the help useful?	Comments?
Mail	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Other	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Please enter your comments here. Very go...
Other	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Please enter your comments here. Based o...
Internet	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Other	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Internet	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Pretty nice setup!
Internet	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Good system with helpful structure.
Other	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Other	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Great application
Other	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Please enter your comments here. I wasn't a...
Internet	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	This process takes most of the guesswork out of...
Other	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Being able to jump back to a particular questio...
No Response		<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Mail	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Newspaper/Print Media	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Please enter your comments here. Excellent t...
Other	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Please enter your comments here. T...
Radio	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Please enter your comments here. These are my ...
Other	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Other	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Newspaper/Print Media	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Please enter your comments here. VERY NICE!
Other	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Very Easy to Use. On-Line Maps help find the i...
Internet	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Internet	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Other	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	I received a timeout, which made me have to sta...
Other	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Other	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Other	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Nice Work!
Internet	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Please enter your comments here. Not real sur...
Search Engine	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Please enter your comments here. Great to have...



Other	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Internet	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	In looking for the NOI form, I found the Smart ...
Other	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Please enter your comments here. There didn't ...

## Comments

How satisfied ... ?	Comments
<input checked="" type="radio"/>	
<input checked="" type="radio"/>	Please enter your comments here. Very good, and easy to use. The best thing is the (Help)
<input type="radio"/>	Please enter your comments here. Based on discussions with ADEQ the receiving waters was required to be from the list of Arizona waters and was not applied to this application. Also need to have option for physical location instead of operators address. Otherwise for was easily applied. Please contact Charles Ruenup (928-328-2977) or Dwight Clark (928-328-3946) concerning questions above.
<input type="radio"/>	
<input checked="" type="radio"/>	
<input checked="" type="radio"/>	Pretty nice setup!
<input type="radio"/>	Good system with helpful structure
<input checked="" type="radio"/>	
<input checked="" type="radio"/>	Great application
<input checked="" type="radio"/>	Please enter your comments here. I wasn't able to put as much detail got site location as I would have liked. Please contact Liz Schuppert for directions to the site if you expect to inspect the area.
<input checked="" type="radio"/>	This process takes most of the guesswork out of completing the NOI and saves a significant amount of time. It is an example of a brilliant use of computers and the internet. Thanks.
<input type="radio"/>	Being able to jump back to a particular question would be very helpful.
<input type="radio"/>	
<input checked="" type="radio"/>	Please enter your comments here. Excellent tool for filing NOI's. This makes my job so much easier! THANK YOU!
<input checked="" type="radio"/>	Please enter your comments here. THIS PROCESS IS VERY CONVENIENT & EFFICIENT
<input checked="" type="radio"/>	Please enter your comments here. These are my comments...
<input checked="" type="radio"/>	
<input checked="" type="radio"/>	
<input checked="" type="radio"/>	Please enter your comments here. VERY NICE!
<input type="radio"/>	Very Easy to Use. On-Line Maps help find the information that is difficult to find. (lat. & long.)
<input type="radio"/>	
<input type="radio"/>	
<input type="radio"/>	I received a timeout, which made me have to start over, this was not good.
<input checked="" type="radio"/>	
<input type="radio"/>	
<input checked="" type="radio"/>	Nice Work!
<input checked="" type="radio"/>	Please enter your comments here. Not real sure if everyone at ADEQ is aware of that the online form exists.
<input checked="" type="radio"/>	Please enter your comments here. Great to have permit forms readily available for this permit.



<input type="radio"/>	
<input type="radio"/>	In looking for the NOI form, I found the Smart NOI which sent me back to the NOI form. Smart NOI only confused the process and added steps that were not needed. Smart NOI could be a great process but the current system has very little effort in the design. ADEQ needs to overhaul their entire web site and make it more user friendly.
<input type="radio"/>	Please enter your comments here. There didn't seem to be any information in the help boxes. If there was any I couldn't see it or a way to access it. However, I very much like the feature of selecting the site location from a computer screen that then automatically shows longitude and latitude

## Smart NOI

# ADEQ Administration Frequently Asked Questions

The ADEQ Administration screens are only intended for trained users. Training can be obtained by request via [the ADEQ Smart NOI program](#).

## Survey Report

The "Survey" report displays the results of the customer survey. Each response gets its own line, and the responses are ordered from earliest to latest. All responses are displayed since the initial release of software: i.e., the survey responses are time-tagged, so there is no way to limit the display of information.

The survey questions have responses of either Yes/No or High/Medium/Low. These answers are indicated by a color-coded dot as well as a left-right positioning.

- The green dots are on the left side of each result. Green means "Yes" or "High"
- The yellow dots are in the middle of each result. Yellow means "Medium"
- The red dots are on the right side of each result. Red means "No" or "Low".

## Users Report

The "Users" report shows the number of users who have used each section of the Smart NOI. The "Total" for both sections (NOI and NOT) will always be the same: the number reflects the total number of users who have accessed any part of the ADEQ web site.

Note that "Used Lat/Long Tool" flag did not work until Release 2, so the value does not take into account the first approximately 450 users of the system.

## County Report

The "County" report shows the number of users who have generated NOIs/Waivers from each county.

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