

BROOKHAVEN NATIONAL LABORATORY

LAND USE & INSTITUTIONAL CONTROLS WEBSITE MAINTENANCE PLAN

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EXPLORING EARTH'S MYSTERIES
...PROTECTING ITS FUTURE

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LAND USE & INSTITUTIONAL CONTROLS WEBSITE MAINTENANCE PLAN

1 INTRODUCTION

1.1 LUIC Background

The Land Use and Institutional Controls (LUIC) website provides centralized, integrated access to information pertaining to Brookhaven National Laboratories remediation areas that are subject to land use and institutional controls as per the BNL CERCLA Records of Decision (RODs). It includes summary information on each of the BNL contaminated sites and facilities, their cleanup status, contaminants or concern (known as factsheets), and maps depicting land use and land use restrictions. It defines the scope of activities intended within each contaminated area, so that stewards and stakeholders have a clear understanding of restrictions and stewardship responsibilities. This information can be accessed by everyone logged into the BNL network through a menu based system or a GIS based graphical user interface. Use of the site by people without BNL network access is limited to regulatory personnel who are given special login privileges to the website. The website and its supporting systems need to be properly managed and updated in order to maintain stable application in which to provide accurate information for those seeking to utilize it.

1.2 Purpose

The purpose of the Land Use and Institutional Controls maintenance plan is to provide a system of management for LUIC related information as well as the application itself and its supporting software systems. The goal of this document is to designate responsibility for regular updates to the LUIC information and software systems, as well as how often this should occur. There are several types of data being used and presented by the LUIC website, and the appropriate measures to insure the accuracy of this data will be outlined. Additionally, there are several software systems which support the LUIC and the frequency and manner in which these systems should be evaluated and/or upgraded will be detailed as well.

2 ROLES AND RESPONSIBILITIES

2.1 Information Management

The management of the information and GIS data presented by the LUIC application is the responsibility of the Groundwater Protection Group (GPG) manager or a specified designee. The management of LUIC involves the following aspects:

- Factsheet revision as well as the addition new Factsheets to accurately reflect laboratory conditions
- Ensuring ArcGIS map information is updated and displaying properly

2.2 Software Management

The management of the LUIC application and the supporting ESRI software is the responsibility of the Environmental Information Management Systems (EIMS) Manager or a specified designee. Proper maintenance of LUIC systems involves the following aspects:

- Review of the LUIC application website and underlying technology
- Review and application of updates as necessary to supporting ESRI ArcGIS software including:
 - ArcServer
 - ArcSDE
 - ArcMap
 - Geodatabase
- Renewal of BNL network conduits allowing external website access to designated federal, state, and county regulators.

Section 5 lists the schedule maintenance tasks are performed under.

3 INFORMATION MANAGEMENT

3.1 Factsheets Revisions and Additions

Each factsheet contained on the LUIC website will be reviewed for accuracy on an annual basis during the LUIC inspections. Factsheets may additionally be revised at any time throughout the year to reflect changes which occur at BNL, and which should be reflected in the factsheet information presented. Additionally, factsheets will be created as necessary to address new areas of the site requiring LUICs.

Factsheets are updated through the editing console provided by the LUIC web application. Any changes made to factsheets are logged by the factsheet database for audit purposes. Access to this console is secured and limited to users which are deemed to have the correct privileges by the GPG manager and website administration. See the LUIC User's Guide for details on site administration and the factsheet revision process.

3.2 ArcGIS Map Revisions

All ArcGIS map information displayed through the LUIC website will be updated annually at a minimum. Maps will be updated in order to accurately reflect changes to BNL infrastructure due to construction as well as changes to the various remediation areas. Major or important map revisions may be performed as needed in addition to regular annual revisions.

All updates to LUIC map data will be done through the ArcMap software and will be automatically reflected in the LUIC application through the ArcServer infrastructure. The EIMS manager, EIMS staff, and specific designees have sole permissions to manage the ArcServer management interface as well as access the ArcMap software.

4 SOFTWARE MANAGEMENT

4.1 LUIC Web Application

The LUIC Web Application is built using Microsoft ASP .NET and Microsoft Silverlight technology. The application will be reviewed for the need to upgrade or rebuild at least once every 5 years. This

review will examine the support for the technology the application is built on and upgrades to operating systems used by the servers and PCs that utilize the LUIC. A determination will be made on the stability and expected longevity of the current software. If it is determined that the software is becoming or will soon become outdated, an upgrade plan will be put together. Small changes, bug fixes, and minor upgrades will be made on an as needed basis.

The web server and database server which host the application and Geodatabase will be maintained by the ITD division according to their standards and protocols.

External access to the site is required by a small number of federal, state, and county regulators. Current cyber security standards require that network conduits be created to allow access outside users. These conduits are created and maintained by ITD, and will need to be renewed as required by ITD. Currently, renewals are on an annual basis as required by ITD security procedures. ITD can change this frequency without notice. ITD will contact the EIMS manager or designee when renewals are required.

4.2 ESRI ArcGIS Software

ESRI periodically releases service packs and major updates to its software. Every service pack released will be reviewed by the EIMS Manager or designee for relevant fixes or major changes that will affect the performance of the LUIC.. Each major revision released by ESRI will be applied upon the release of the first service pack for that major update to ensure stability of the update. For example if we are working with ArcGIS 10, we will update our systems upon the release of ArcGIS 10.1 service pack one.

If the service pack is deemed important enough our ArcGIS software will then be updated with the service pack.

5 MAINTENANCE SCHEDULE

5.1. Schedule

Table 5. Maintenance Tasks and Their Frequency.

<u>Task</u>	<u>Frequency</u>	<u>Notes</u>
Application Review	5 Years	Application review is being conducted during 2013. Further reviews will be completed within 5 years of previous review finalization.
ESRI Update Review	Within 1 month of release	ESRI releases updates on an as needed basis.
BNL Network Conduit Renewal	Annually	ITD notifies EIMS Manager or designee when needed. Annual frequency based on ITD standards. Frequency may change without notice.
Factsheet Review	Annually	Factsheets are reviewed during LUIC inspections.
Map Information Update	Annually	The annual Site Environmental Report (SER) is finalized by September of the following year. Maps will be updated by October after the finalization of the SER.

6 REFERENCES

LUIC User's Guide

<https://luic.bnl.gov/LUIC/Documents/LUIC%20Users%20Guide.pdf>

BNL Information Technology Division Cyber Security

<http://intranet.bnl.gov/cybersecurity/>