



INTERIM LAND USE CONTROL IMPLEMENTATION PLAN



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION KENNEDY SPACE CENTER BREVARD COUNTY, FLORIDA

FACILITY: Propellants Support Building Area
Solid Waste Management Unit 102
CONTAMINANTS: Volatile Organic Compounds in Groundwater
CONTROL: Prohibit Groundwater Use

PURPOSE OF LAND USE CONTROL IMPLEMENTATION PLAN

This Interim Land Use Control Implementation Plan (LUCIP) has been prepared to inform current and potential future users of the Propellants Support Building Area (PSBA) of institutional controls that have been implemented at the site¹. Although there are no current unacceptable risks to human health or the environment associated with PSBA, institutional land use controls (LUCs) are necessary to prohibit future use of groundwater at the site. Controls will include periodic inspection, condition certification, and agency notification.

WHY LAND USE CONTROLS ARE NEEDED

The Solid Waste Management Unit (SWMU) Assessment for PSBA identified seven Locations of Concern (LOCs) including areas of known drum storage and potential equipment cleaning operations. Soil and groundwater samples were collected as part of Confirmatory Sampling (CS) activities

conducted from October 2007 to April 2008, and all soil results were less than regulatory criteria. The CS Report (CSR) recommended No Further Action (NFA) for all LOCs except LOC 2 due to the presence of volatile organic compounds (VOCs) in groundwater. Florida Department of Environmental Protection (FDEP) approved the CSR in July 2008.

SITE DESCRIPTION

SWMU 102 is located along Fluid Servicing Road north of the Components Cleaning Facility (CCF) and the Converter Compressor Building (CCB), and consists of the Liquid Nitrogen Storage Area (K7-0314) (Figure 1). In 1967, K7-0314 was used for storage of drums that may have contained trichloroethene (TCE) and Freon. In 1996, K7-0314 was outfitted for storage and transfer of Halon and Freon R-21. K7-0314 is currently used for the storage and transfer of Halon, Freon R-21, liquid nitrogen, argon, ammonia, and ethylene glycol. No record of spills were identified for the PSBA area. The primary contaminants at PSBA are TCE and degradation daughter products.

¹ This Interim LUCIP summarizes institutional controls regarding the NASA PSBA site. For detailed information on the site, consult the PSBA administrative file, which is available for review by contacting the KSC Environmental Assurance Branch at telephone number (321) 867-8402.

SITE LOCATION

PSBA includes paved areas and undeveloped portions classified as brushland and shrub areas. PSBA is found in Section 8, Township 22S, Range 37E, as shown on the 7.5-minute Orsino topographic quadrangle map. The groundwater use control area covered by this Interim LUCIP is shown on Figure 2.

Coordinates of the corners of the LUC area are provided in Figure 2 in the State Plane Coordinate System, North American Datum (NAD) 1983, Florida East, meters.

SITE CONTAMINATION AND CONTROL

Groundwater at the site contains VOCs at concentrations greater than FDEP Groundwater Cleanup Target Levels. The past, current, and projected future land use of PSBA is industrial in nature. LUCs are required to prohibit the use of groundwater at the site until cleanup levels are achieved. The current and projected land use of PSBA does not include the use of site groundwater; therefore, there is no current or projected future exposure risk.

DECISION DOCUMENT

The Kennedy Space Center (KSC) Remediation Team determined that interim

institutional controls should be implemented at PSBA. The interim institutional controls are temporary while investigation, interim measures, and corrective measures are in progress.

IMPLEMENTATION

Institutional controls will be implemented by the KSC Environmental Assurance Branch in accordance with their Resource Conservation and Recovery Act (RCRA) permit and a Land Use Control Assurance Plan included in a Memorandum of Agreement (MOA)² between National Aeronautics and Space Administration (NASA), FDEP, and United States Environmental Protection Agency (EPA), effective February 23, 2001. Property transfer (if conducted in the future) will be conducted in accordance with Section X of the MOA.

KSC's Environmental Assurance Branch will provide KSC's Master Planning Office with survey coordinates of the LUCs for PSBA. Restrictions will specify limitations on development and reuse for the area for as long as LUCs are necessary to protect human health and the environment.

MONITORING

Quarterly inspections to monitor that the LUCs specified herein are in place and operating and will be conducted by KSC's

² By separate MOA effective February 23, 2001, with the EPA and FDEP, KSC, on behalf of NASA, agreed to implement Center-wide, certain periodic site inspections, condition certification, and agency notification procedures designed to ensure the maintenance by Center personnel of any site-specific LUCs deemed necessary for future protection of human health and the environment. A fundamental premise underlying execution of that agreement was that through the Center's substantial good faith compliance with the procedures called for herein, reasonable assurances would be provided to EPA and FDEP as to the permanency of those remedies which included the use of specific LUCs.

Although the terms and conditions of the MOA are not specifically incorporated or made enforceable herein by reference, it is understood and agreed by NASA KSC, EPA and FDEP that the contemplated permanence of the remedy reflected herein shall be dependent upon the Center's substantial good faith compliance with the specific LUC maintenance commitments reflected herein. Should such compliance not occur or should the MOA be terminated, it is understood that the protectiveness of the remedy concurred in may be reconsidered and that additional measures may need to be taken to adequately ensure necessary future protection of human health and the environment.

Environmental Assurance Branch. The inspections will verify that no groundwater use is occurring at PSBA.

REPORTING

KSC's Environmental Assurance Branch will submit annual reports to FDEP certifying retention of the implemented LUCs.

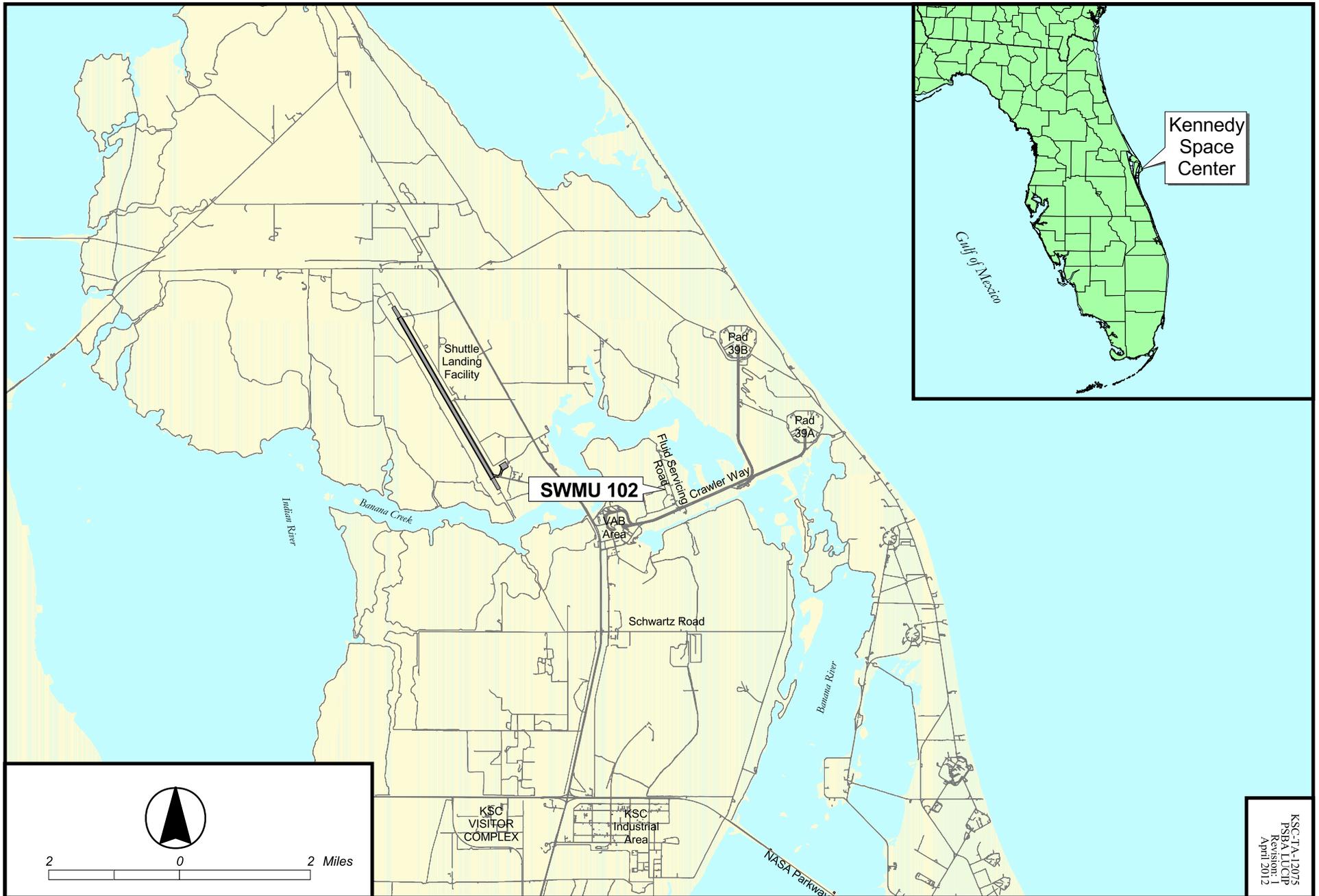
ENFORCEMENT

KSC's Environmental Assurance Branch will be responsible for stopping any activities at KSC that are not compliant with this Interim LUCIP.

MAINTENANCE

The Interim LUCIP shall remain in place until a land use change is implemented or the concerns managed by the Interim LUCIP are mitigated, or until there is a discovery, based on analytical evidence, that scenarios managed by the Interim LUCIP are no longer a concern.

FIGURE 1 LOCATION OF KENNEDY SPACE CENTER AND SWMU 102
SWMU 102 - PROPELLANT SUPPORT BUILDING AREA, KENNEDY SPACE CENTER, FLORIDA



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FIGURE 2 GROUNDWATER LAND USE CONTROL AREA
 SWMU 102 - PROPELLANT SUPPORT BUILDING AREA, KENNEDY SPACE CENTER, FLORIDA

