



LAND USE CONTROL IMPLEMENTATION PLAN

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



FACILITY: Orsino Storage Yard Facility
Solid Waste Management Unit No. 4

CONTAMINANTS: VOCs in Groundwater and
PCBs and PAHs in Soil

CONTROL: Prohibit Residential and Groundwater Use

PURPOSE OF LAND USE CONTROL IMPLEMENTATION PLAN

This Land Use Control Implementation Plan (LUCIP) has been prepared to inform current and potential future users of the Orsino Storage Yard Facility 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 Orsino Storage Yard, institutional land use controls (LUCs) are necessary to: (i) prohibit the use of groundwater from the site; and (ii) prohibit residential use of the site. Controls will include periodic inspection, condition certification and agency notification.

WHY LAND USE CONTROLS ARE NEEDED

Human health and ecological risk assessments were completed as part of a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI). Chemicals of concern identified for human health risk during the RFI that exceeded Florida Department of Environmental Protection

(FDEP) and Environmental Protection Agency (EPA) cleanup target levels were volatile organic compounds (VOCs) in groundwater, and polychlorinated biphenyls (PCBs) and polynuclear aromatic hydrocarbons (PAHs) in soil.

SITE DESCRIPTION

The Orsino Storage Yard is a NASA-operated facility that has been used as a staging facility for electrical equipment since 1966. The facility comprises an area of approximately 2.6 acres and contains several storage trailers/offices that are permanently staged at the facility. The facility has no buildings onsite and generally is unpaved, with the exception of a concrete area used for drum storage. Past and current operations at Orsino Storage Yard include storage of wooden electric poles, transformers containing PCBs, electric cables, control panels, metal pipes, oil-based switches, 55-gallon drums containing dielectric fluid drained from discarded transformers, and other miscellaneous equipment, as well as maintenance and repair activities.

1. This LUCIP summarizes institutional controls regarding the NASA KSC Orsino Storage Yard Facility. For detailed information on the site, consult the Orsino Storage Yard administrative file, which is available for review by contacting the KSC Environmental Program Office at telephone number (321) 867-8411.

SITE LOCATION

The Orsino Storage Yard is located southeast of the intersection of Southeast 5th Street and C Avenue in the KSC Industrial Area. (Figure 1). The site is located within Section 5 of Township 23S, Range 37E which is in the Orsino Quadrangle. The soil and groundwater use control areas covered by the LUCIP are shown on Figure 2. Coordinates of the corners of the LUC are provided in Figure 2 in the State Plane Coordinate System NAD 1983 meters, Florida East.

SITE CONTAMINATION AND CONTROL

Groundwater at the site contains VOCs above FDEP's groundwater cleanup target levels. PCBs and PAHs are present in soil above FDEP's residential soil cleanup target level (SCTL). PAHs are present in soil below FDEP's industrial SCTL. The past, current, and projected future land use of Orsino Storage Yard is industrial in nature. LUCs are therefore required to prohibit the use of groundwater at the site and to prohibit residential use/exposure to soils. Indoor air quality shall be evaluated prior to any construction within the groundwater use control area.

DECISION DOCUMENT

A Statement of Basis (SB) establishes institutional controls as a component of the remedy for the site. The SB for the site, KSC

document number KSC-TA-7756, is available for review by contacting the KSC Environmental Program Office at telephone number (321) 867-8411.

IMPLEMENTATION

Institutional controls will be implemented by the KSC Environmental Program Office in accordance with their RCRA permit and a Land Use Control Assurance Plan included in a Memorandum of Agreement (MOA)² between NASA, FDEP, and EPA, effective February 23, 2001. Upon approval of this LUCIP, it will be incorporated into the permit by reference. Property transfer (if conducted in the future) will be conducted in accordance with Section X of the MOA.

KSC's Environmental Program Office will provide KSC's Master Planning Office with survey coordinates of the LUCs. 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 institutional controls specified herein are in place and operating will be conducted by KSC's Environmental Program Office. The inspection will verify that no residential or groundwater use is occurring and that pavement in the specified area remains intact.

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.

REPORTING

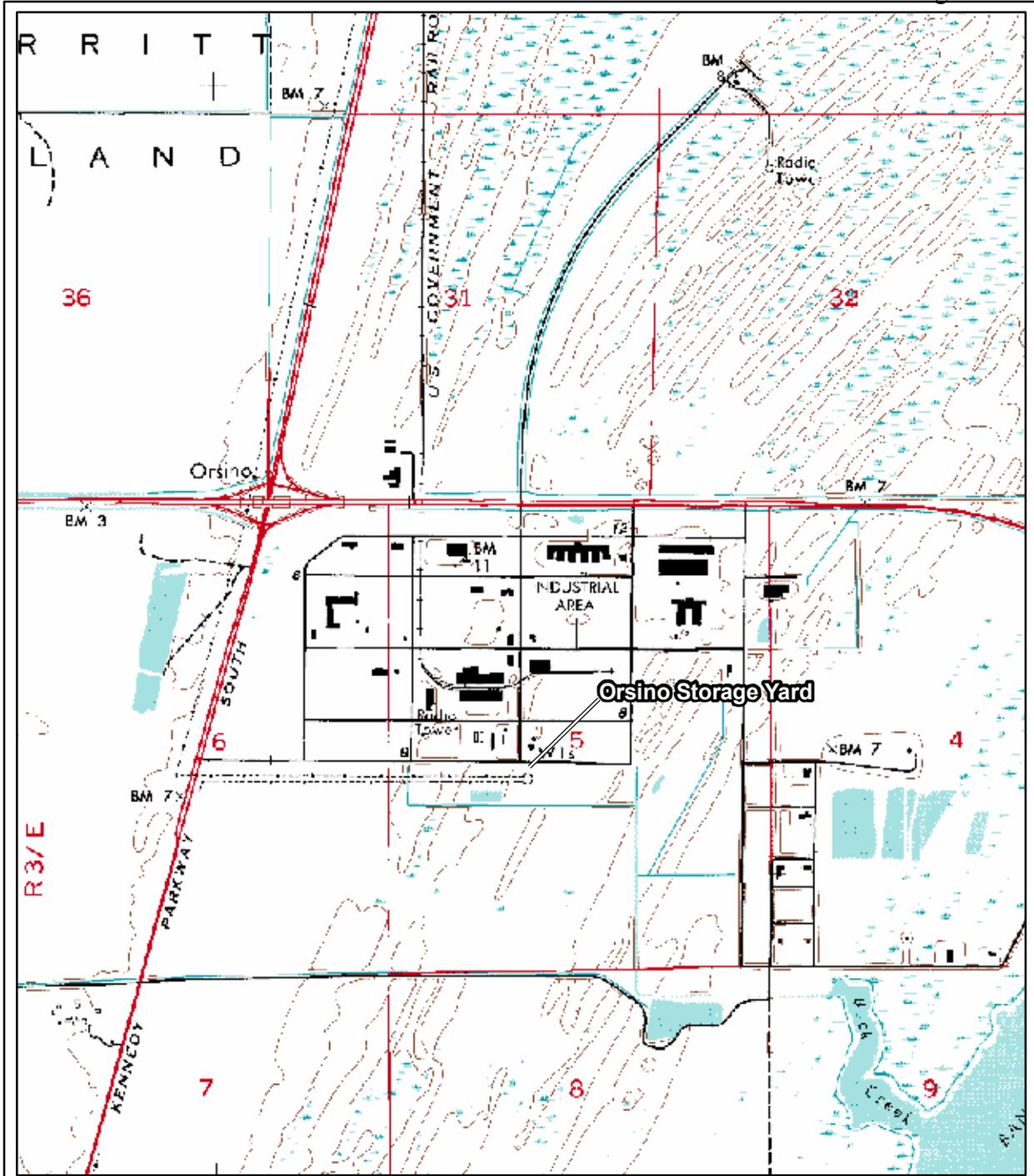
KSC’s Environmental Program Office will submit annual reports to EPA and FDEP certifying retention of the implemented LUCs.

ENFORCEMENT

KSC’s Environmental Program Office will be responsible for stopping any activities at KSC that are not compliant with this LUCIP.

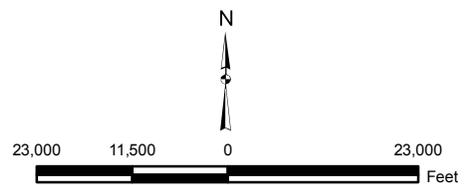
MAINTENANCE

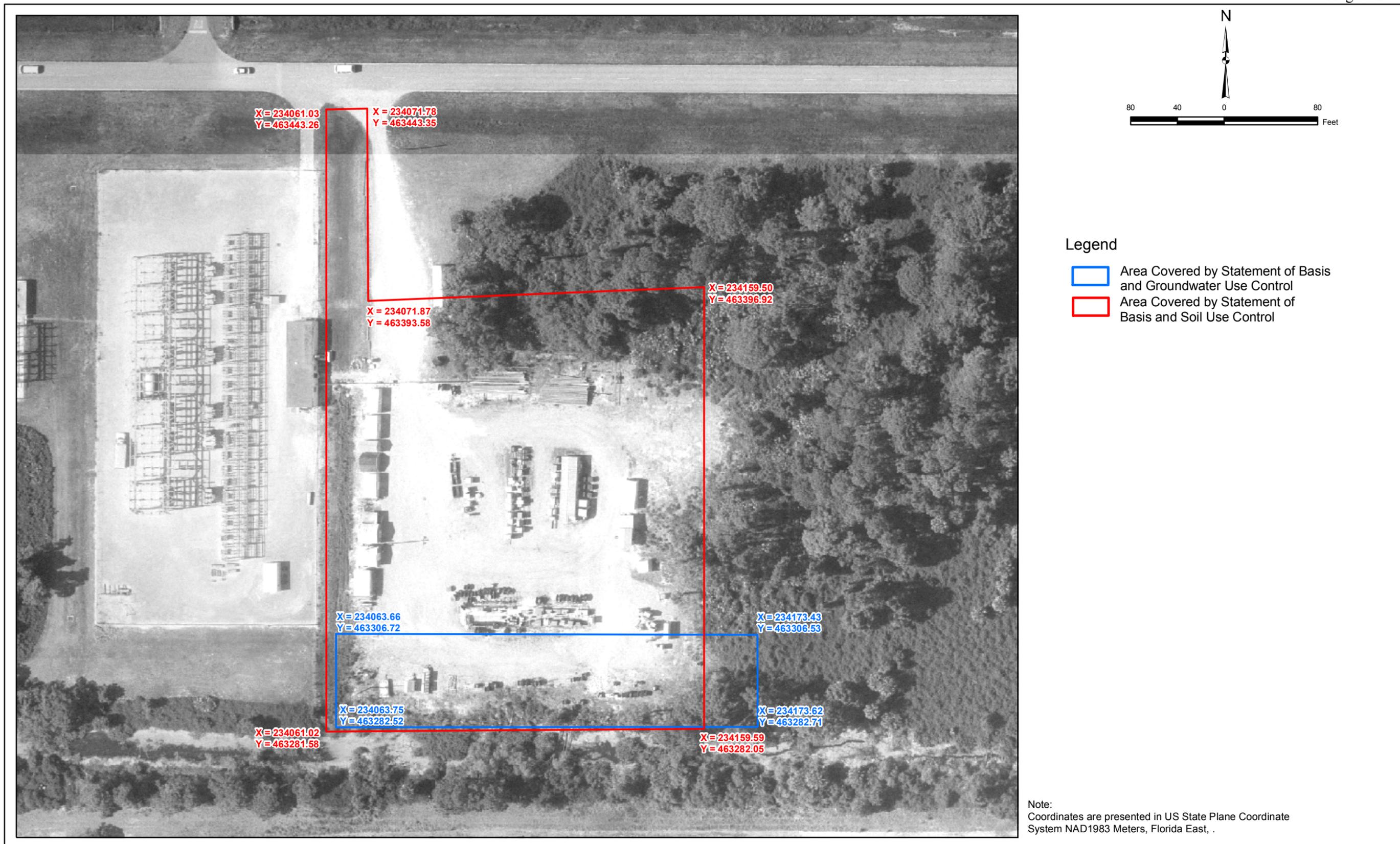
The LUCIP shall remain in place until a land use change is implemented and the concerns managed by the LUCIP are mitigated; or there is a discovery, based upon analytical evidence, that scenarios managed by the LUCIP are no longer a concern. Any change in LUC management must be approved by the EPA and FDEP and implemented by modification of NASA’s operating permit.



1976 USGS 7.5 Minute Orsino Quadrangle

Figure 1
Location Map
Orsino Storage Yard





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Figure 2
 Site Map of Orsino Storage Yard (SWMU 04) Area