

QSE- Procedure	Title: NASA BORROW PIT OPERATIONS & MAINTENANCE PLAN			Number: EAP-P-4600	
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SUBJECT NASA BORROW PIT OPERATIONS & MAINTENANCE PLAN

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PURPOSE

This procedure provides guidance on the Operations & Maintenance (O&M) of the National Aeronautics and Space Administration (NASA) Borrow Pits, identifies environmental requirements, and the company's plan to meet these objectives as directed in the Base Operations and Spaceport Services (BOSS) Contract #80KSC018C0017 Performance Work Statement, Section 3.2.14.2.3.

SCOPE AND APPLICABILITY

This procedure applies to BOSS and describes the environmental support necessary to perform continuing and periodic O&M for the NASA Borrow Pits. There is one active, permitted borrow pit hereafter referred to as the Jerome Road Borrow Pit. There is one inactive, unpermitted borrow pit located at Schwartz Road. The O&M responsibilities include security fences and gates, the borrow pit property access, internal perimeter roads, and water levels for the active pit. Equipment used is Government furnished. .

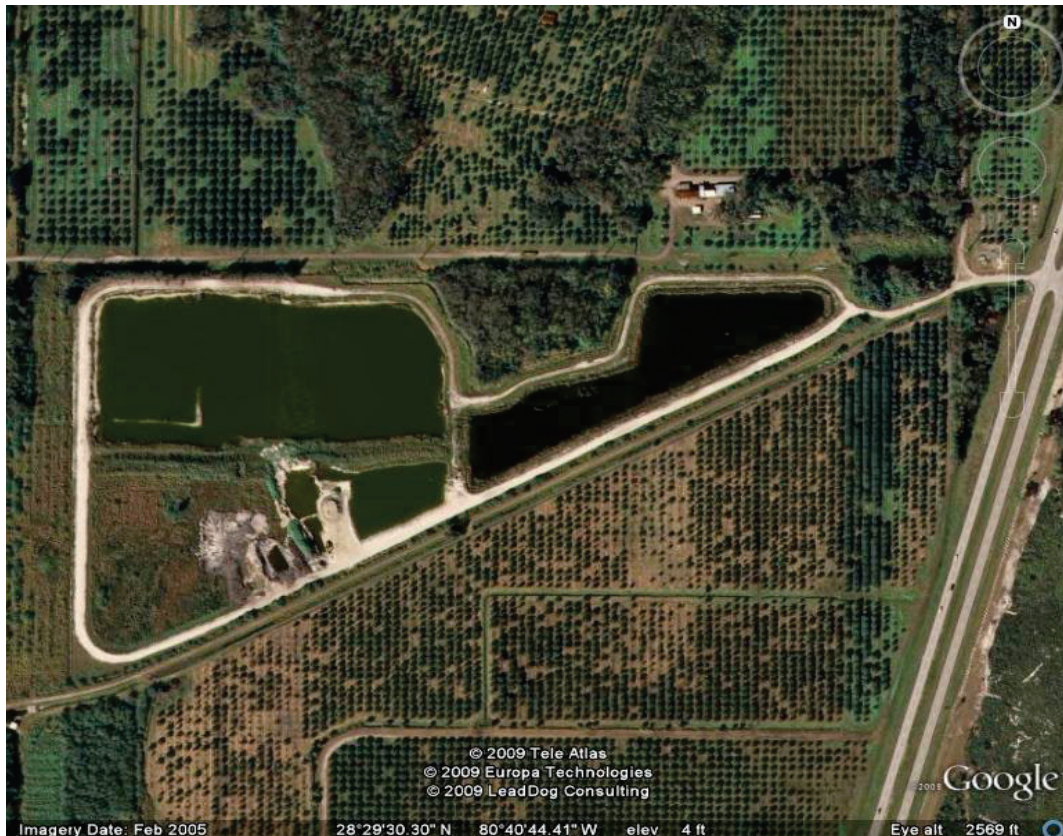
PROCESS

1. GENERAL

1.1. The Jerome Road Borrow Pit

- 1.1.1. The Jerome Road Borrow Pit is located on approximately forty (40) acres, north of Jerome Road and west of Kennedy Parkway (See Figure 1). The Jerome Road Borrow Pit design was intended to provide all the necessary documentation to obtain a Saint Johns River Water Management District (SJRWMD) Environmental Resource Permit (ERP # 4-009-0602G-ERP, issued December 8, 1998), and any other permits required to construct, operate and maintain the borrow pit. The initial design provides all necessary construction details. The design was performed by Jones, Edmunds & Associates (JEA), Incorporated under drawing number 79K35224. The construction was performed by V.A. Paving, Inc. The project was originally designed to provide borrow material for Kennedy Space Center (KSC) Landfill cover.
- 1.1.2. The active borrow pit (SJRWMD Permit ERP # 4-009-16858-2, issued November 13, 2007), is currently used by NASA contractors who have mined a significant portion of the available borrow materials. Additional borrow materials have been earmarked for upcoming NASA construction projects, routine KSC roads and grounds maintenance tasks, and KSC landfill cover material..

Figure 1: Jerome Road Borrow Pit



1.2. The Schwartz Road Borrow Pit

- 1.2.1. The Schwartz Road Borrow Pit is located on approximately one hundred and forty-nine (149) acres, west of Avenue "A" and south of Schwartz Road (See Figure 2). The unpermitted Schwartz Road Borrow Pit design was intended to provide all the necessary documentation to obtain a SJRWMD Environmental Resource Permit and any other permits required to construct, operate and maintain the borrow pit. The initial design provides all necessary construction details. The design was performed by JEA Inc. under drawing number 79K36048.
- 1.2.2. The project was originally designed to provide borrow material for the KSC. At the present time, BOSS has no O&M responsibility for this borrow pit per NASA Environmental Assurance Branch (EAB).

Figure 2: Schwartz Road Borrow Pit



2. NASA BORROW PIT AUTHORIZATION

- 2.1.** BOSS in-house and/or sub-contracted projects may be authorized to use the Jerome Road borrow pit area as a source of supply for earthen fill material per construction specifications.
- 2.2.** BOSS work-centers/subcontractors will submit a written estimate of fill amount required for the job and a written estimate of the proposed date that the fill will be transported to the job site. These estimates must be routed to BOSS Environmental Assurance Branch (EAB) at least two weeks prior to usage.
- 2.3.** BOSS EAB will coordinate all requests with NASA for borrow approvals. TA-B3E will approve/disapprove all work authorizations via written communication and TA-B1B will review all requests for environmental compliance permitting conditions.
- 2.4.** All approvals and usage plans will be returned to the project managers.
- 2.5.** Borrow pit usage will be monitored by Environmental Assurance (EA) to ensure environmental compliance.
- 2.6.** Upon project completion, BOSS EAB and NASA TA-B1B will conduct a final inspection to ensure SJRWMD permit compliance and record it on EAP-F-4400D. Final inspection results will be recorded on EAP-F-4400D. Any discrepancies will

be communicated to the authorized project user for repair actions prior to project close-out.

3. NASA BOROW PIT OPERATIONS

3.1. NASA Environmental Assurance

Specific NASA Environmental Assurance activities include the following:

- 3.1.1. Submit As-Built Survey(s), Certification Form and Certification of Completion Form, as requested in the St. Johns River Management District permit for the project.
- 3.1.2. Provide oversight of implementation, maintenance and/or removal of any erosion, sediment or stabilization measures.
- 3.1.3. Provide oversight on stormwater system design, management, and O&M activities.
- 3.1.4. Manage NASA's Borrow Pit operation permit process.
- 3.1.5. Coordinate soil sampling operations.
- 3.1.6. Coordinate water sampling operations.
- 3.1.7. Coordinate periodic and/or annual environmental permit monitoring. Submit construction status reports for the borrow pit operation per the SJRWMD permit.
- 3.1.8. Manage Jerome Borrow Pit closure activities.

3.2. NASA Operations and Maintenance

Specific NASA Operations and Maintenance activities include the following:

- 3.2.1. Manage overall Jerome Road Borrow Pit operations.
- 3.2.2. Coordinate road surface repairs damaged by contractors during the excavation and hauling of borrow materials.
- 3.2.3. Coordinate erosion control and re-vegetation/stabilization of the borrow pit shoreline areas and road shoulders.
- 3.2.4. Provide oversight of Jerome Borrow Pit closure activities.
- 3.2.5. Authorize NASA contractors/subcontractors required to conduct borrow operations in accordance with permit requirements. Contractor will submit a written request to the Contracting Officer for approval by TA-B3E

3.3. S.C. JONES AND ASSOCIATES

Specific S.C. Jones and Associates activities include the following:

- 3.3.1. Mowing will be completed by SC Jones and Associates.
- 3.3.2. Routine mowing will be scheduled every six months. It is anticipated that mowing will be completed in April and October yearly.

- 3.3.3. It is recommended that the shore line area will be maintained utilizing a boom-arm mower, due to the steep slopes of the borrow pit.

4. BOSS OPERATIONS & MAINTENANCE ACTIVITIES

4.1. BOSS Environmental Assurance

Specific BOSS Environmental Assurance activities include the following:

- 4.1.1. Perform quarterly assessments of the borrow pit to ensure environmental compliance. Discrepancies, nonconformities, and defects identified will be documented and a support request will be prepared by BOSS Environmental Assurance for resolution.
- 4.1.2. Submit a request to BOSS Work Receipt if repairs are needed.
- 4.1.3. Enter all site assessments and borrow pit usage during BOSS construction projects on an BOSS Environmental Assurance Report – Projects form (EAP-F-4400D).
- 4.1.4. Coordinate with NASA/ TA-B1B to submit a water discharge permit with SJRWMD in the event that Borrow Pit dewatering is needed.
- 4.1.5. Coordinate additional environmental issues with NASA TA-B1B as they arise.

4.2. BOSS Operations & Maintenance

Specific BOSS Operations & Maintenance activities include the following:

- 4.2.1. Jerome Road Borrow Pit access will be controlled by the BOSS Roads Branch. The vehicle entry point will be locked at all times. Entry/Exit into this area will be annotated in a logbook or equivalent and kept at the Roads Office. Contractors using the borrow pit must sign-in upon contract start and sign-out when completed. Contractors will be allowed to utilize their own “contractors lock” to gain access on a 24/7 basis while under contract.
- 4.2.2. BOSS Roads Branch will perform inspection and maintenance of perimeter security fencing and gates annually. The perimeter fence consists of approximately 3,000 linear feet of 6’ high chain link fence. There is one entry point with 2 vehicle swing-gates. There are no personnel gates. A request will be submitted to BOSS Work Receipt if repairs are needed.
- 4.2.3. BOSS Roads Branch will perform quarterly inspections, maintenance, and/or grading of the unimproved road surface from Jerome Road to the perimeter fence (approximately 600 linear feet) and inside the perimeter fence (approximately 6,400 linear feet) and repair any damage to erosion, sedimentation and/or turbidity controls and the ground cover caused by BOSS maintenance activities.
- 4.2.4. BOSS will perform water level adjustments in the borrow pits as directed by NASA/TAB3E. In the event that water levels rise to overflow capacity, emergency pumping actions may be required to reduce water levels and

prevent borrow pit washouts. The BOSS Roads Branch will mobilize the required water pumps and associated equipment necessary to accomplish this task.

5. TRAINING

Refer to SHP-P-0002, Environmental, Safety & Health Training Requirements for associated training, medical, physical, and certification requirements.

RECORDS

The following records are retained by the organizations listed below:

Record	Responsible Organization
Borrow Pit Access Log	BOSS Roads Branch
Written Borrow Requests with Estimate of Fill Requirements	BOSS Design Engineering or Planning & Estimating

AFFECTED DIVISIONS/OFFICES

Engineering Services
FSEU and OM&E
Program Management
Safety & Mission Assurance

MANAGEMENT ROLES AND RESPONSIBILITIES

Division Manager: Ensures compliance within the Division to the requirements stated in this procedure.

Branch Manager: Ensures compliance at the branch level to the requirements stated in this procedure.

FUNCTIONAL ROLES AND RESPONSIBILITIES

BOSS Quality Safety and Environment (QSE) Department: The BOSS organization responsible for the routine environmental oversight of the Jerome Borrow Pit.

BOSS Roads Branch: The BOSS organization responsible for the general operation and maintenance of the Jerome Borrow Pit.

NASA Environmental Assurance Branch: The NASA organization responsible for environmental permitting and compliance issues for the Jerome Borrow Pit.

NASA Operations and Maintenance Branch: The NASA organization responsible for operations and maintenance issues for the Jerome Borrow Pit.

REFERENCE DOCUMENTS

The following documents are referenced in this procedure:

Document Number	Title
DWG 79K35224	Borrow Pit Design (Jerome Road)
DWG 79K36048	Borrow Pit Design (Schwartz Road)
EAP-F-4400D	BOSS Environmental Assurance Report – Projects
EAP-P-4400	BOSS Environmental Assurance Support - Projects
ERP 4-009-0602G-ERP	Saint Johns River Water Management District Permit
ERP 4-009-16858-2	Saint Johns River Water Management District Permit
KNPR 8715.3	KSC Safety Practices Procedural Requirements
NNK08OC01C	Institutional Services Contract, PWS 2.4.7

ACRONYMS

BOSS	Base Operations and Spaceport Services Contract
EA	Environmental Assurance
EAB	Environmental Assurance Branch
JEA	Jones, Edmunds & Associates
KSC	Kennedy Space Center
NASA	National Aeronautics and Space Administration
O&M	Operations & Maintenance
OFI	Opportunities for Improvements
PWS	Performance Work Statement
SJRWMD	Saint Johns River Water Management District
TA-B1B	NASA Environmental Assurance Branch
TA-B3E	NASA Operations and Maintenance Branch
URS	United Research Services Corporation

DEFINITIONS

Construction Project: Any project involving demolition, construction, or modification of an existing or new facility.

NASA Borrow Pit: An approved area of land designated for project contractors to remove various grades of earth materials for KSC construction contracts.

Site Assessment: An Environmental Assurance specialist visits the construction site to confirm that environmental requirements are met.

TechDoc: A computer based document repository.

REVISION RECORD

The following revisions have been applied to this document:

Revision Number	Change Description	Date
0	Initial Release	07/29/10
1	Training, Physicals and Certification section reviewed only. Requirements moved to SHP-P-0002, where appropriate	06/29/15
2	Updated for contract change from ISC to BOSS	3/27/20

DOCUMENT APPROVALS

X

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Quality, Safety and Environmental Manager

Signature on File

X

Ron Traylor
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Signature on File