

# Dewatering Contingency Plan for Southbrook Corporate Center, LLC at 10950 S. Belcher Road, Largo, Pinellas County, Florida

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U.S. DEPARTMENT OF  
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Legacy  
Management

# Contents

Abbreviations .....	ii
1.0 Introduction .....	1
2.0 Previous DOE Dewatering Actions.....	1
3.0 Dewatering Effluent Management Process .....	2
4.0 DOE Effluent Management Infrastructure .....	3
5.0 Design Drawings of Existing Infrastructure.....	3
6.0 References .....	3

## Figure

Figure 1. Southbrook Site .....	5
---------------------------------	---

## Table

Table 1. List of Infrastructure Designs .....	3
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## Abbreviations

ATP	authorized third party
DOE	U.S. Department of Energy
STAR Center	Young - Rainey Science, Technology, and Research Center

## 1.0 Introduction

The U.S. Department of Energy (DOE) is responsible for remaining contaminants at the Young - Rainey Science, Technology, and Research (STAR) Center due to past activities in groundwater beneath and adjacent to the STAR Center. DOE's objectives related to this area are to prevent human exposure and environmental impacts and to limit DOE and stakeholder liability. At the Southbrook Corporate Center, LLC (Southbrook) property, impacted groundwater occurs at about 10 to 40 feet below ground. Based on the depth of the contaminants, DOE's aggressive corrective actions, engineering controls, and institutional controls implemented on the STAR Center (source) property and offsite impacted properties, the potential for human exposure or environmental impacts related to the remaining groundwater contamination is negligible. However, to further reduce the possibility of human exposure or environmental impacts, proper controls need to be evaluated and implemented when necessary for subsurface construction (such as excavation) and associated dewatering near groundwater contamination.

This contingency plan addresses potential dewatering issues that could occur on property owned by Southbrook. The property is at 10950 S. Belcher Road, Largo, Florida, and shown on Figure 1. In addition, this plan compiles information and lessons learned from two major construction projects that were performed near the Building 100 Area groundwater plumes in 2011. Both of those projects required active management of dewatering effluent and can be used as a template for managing future activities.

## 2.0 Previous DOE Dewatering Actions

In 2008, Pinellas County, Florida, officials advised DOE of plans for two major construction projects that were likely to require dewatering near the STAR Center: (1) Belcher and Bryan Dairy Road expansion and (2) Belcher Road water line replacement. DOE evaluated these dewatering activities to determine the potential impacts of the contaminant plumes on worker health and water disposal issues, and the potential impact of the dewatering activities on the stability of the contaminant plumes.

This evaluation was documented in the *Dewatering Evaluation Report for Road Construction and Water Line Replacement Along Bryan Dairy and Belcher Roads* (DOE 2008). DOE elected to coordinate with Pinellas County agencies and their contractors to actively manage the water discharged from the construction projects. This effort included collecting the water into a series of aboveground portable tanks, pumping the water through an underground transmission line, treating the water using an air stripper to remove volatile organic compounds, and discharging the treated water to the STAR Center wastewater pretreatment facility. To manage the various tasks associated with this activity, DOE prepared the *Pinellas County, Florida, Site Environmental Restoration Project, Road Construction Dewatering Work Plan* (DOE 2011c). DOE also prepared two procedures for operating the system: (1) *Pinellas Air Stripper #2 Operations, Pinellas County, Florida, Site* (DOE 2011b, retired) and (2) *Dewatering Effluent Treatment System and Pump Station Operations, Pinellas County, Florida, Site* (DOE 2011a, retired).

### 3.0 Dewatering Effluent Management Process

Dewatering activity on the Southbrook property could include installing and operating the dewatering system, transmitting the water to DOE's water transmission line connection point, pumping the water to a treatment system, treating the water to meet discharge standards, monitoring the treated water to document compliance with standards, and discharging the water to a publicly owned treatment works.

DOE shall reimburse Southbrook, its successor in interest to the Southbrook Property, or an authorized third party (ATP) for the dewatering if DOE elects not to or is unable to conduct the dewatering activities itself in a timely manner. An ATP (as defined in this plan) shall be considered a party authorized in writing by Southbrook and having legal access to the property. If Southbrook or the ATP performs the dewatering, DOE and Southbrook or the ATP must agree on a mutually acceptable location for DOE to collect the effluent and the point at which DOE assumes responsibility for managing the water (expected to be DOE's referenced connection point).

The dewatering effluent management process consists of the following:

- Prior to conducting any dewatering activities in close proximity to the known groundwater plume, Southbrook or the ATP shall develop a project-specific dewatering plan and submit it, along with all applicable permits and approvals as required by law and the Declaration of Restrictive Covenant, to DOE for review and comment. Increased expenses for the dewatering plan and obtaining approvals for activities conducted solely due to the contaminated groundwater would be at DOE's expense.
- Dewatering plan activities such as the appropriate handling, treatment, and disposal (including sampling, investigation, and the actual dewatering) of any extracted contaminated groundwater, required specifically due to the contaminated groundwater, will be DOE's effort and at DOE's expense.
- Reimbursement of approved expenses (as defined above) that are incurred by Southbrook, the successor in interest to the Southbrook Property, or the ATP through DOE's contractor via a reimbursement arrangement acceptable to both parties.

If an emergency arises during which dewatering is necessary, Southbrook or the ATP will contact **Sunshine 811** for immediate response. The definition of "emergency" means any occurrence, or threat thereof, whether natural, technological, or man-made, in war or in peace, which results or may result in substantial injury or harm to the population or substantial damage to or loss of property.

## 4.0 DOE Effluent Management Infrastructure

This section describes DOE’s existing effluent management infrastructure, as well as additional infrastructure needed to support any dewatering activities.

- Existing infrastructure includes the following:
  - Under-road piping (beneath Belcher Road and Bryan Dairy Road)
  - Onsite underground transmission line
  - Field operations base
  - Discharge points for treated water
- Additional infrastructure includes the following:
  - Portable air stripper
  - Pumping station
  - Portable holding tanks

## 5.0 Design Drawings of Existing Infrastructure

Figure 1 presents the DOE infrastructure installed at the STAR Center and remaining in October 2021. The remaining infrastructure, as listed above, was left in place to support future dewatering activities. Detailed engineering drawings for each of the structures are in DOE Office of Legacy Management engineering files. The record drawings present the current state of the infrastructure for future use. Table 1 presents the infrastructure drawings and the project numbers, which are used to find the drawings in the engineering files.

*Table 1. List of Infrastructure Designs*

<b>Infrastructure Drawing Title</b>	<b>Project Number</b>
Bryan Dairy and Belcher Road Pipeline Road Boring	PIN-041-0014-08-001
Field Operation Base, Air Stripper Discharge Pipe Re-Route	PIN-041-0005-12-001
Field Operation Base Relocation	PIN-041-0005-12-000
Building 100, S.E. Groundwater Test Well System, RW03 and Transfer Pump Power Installation (Owned by the STAR Center)	PIN-041-0014-07-001
Building 100 Groundwater Transmission Line and Treatment System Power Installation (Owned by the STAR Center)	PIN-041-0014-06-000

## 6.0 References

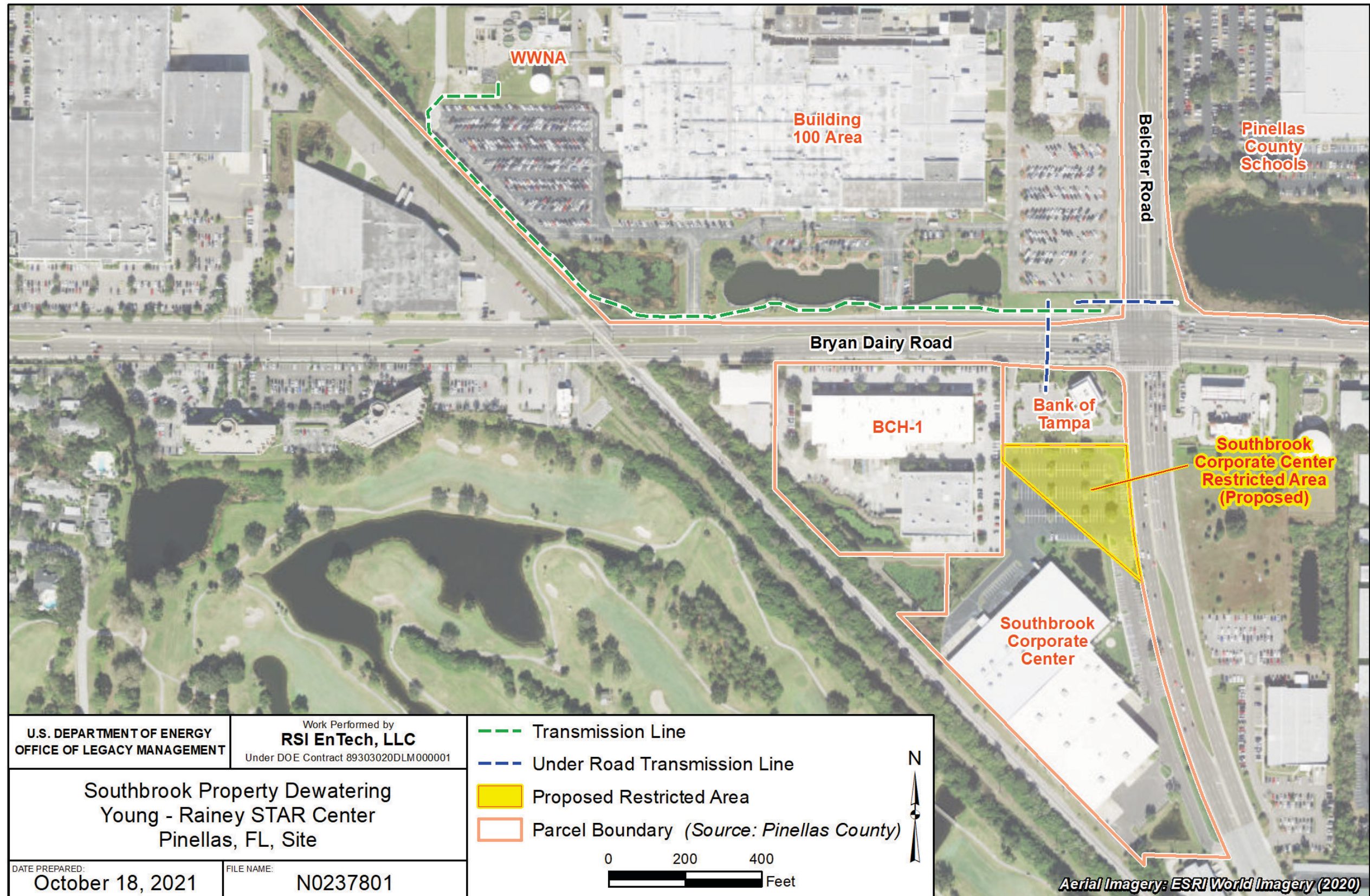
DOE (U.S. Department of Energy), 2008. *Dewatering Evaluation Report for Road Construction and Water Line Replacement Along Bryan Dairy and Belcher Roads*, LMS/PIN/N01113, Office of Legacy Management, June.

DOE (U.S. Department of Energy), 2011a, retired. *Dewatering Effluent Treatment System and Pump Station Operations, Pinellas County, Florida, Site*, LMS/PIN/N01652, Office of Legacy Management, July.

DOE (U.S. Department of Energy), 2011b, retired. *Pinellas Air Stripper #2 Operations, Pinellas County, Florida, Site*, LMS/PIN/N01651, Office of Legacy Management, July.

DOE (U.S. Department of Energy), 2011c. *Pinellas County, Florida, Site Environmental Restoration Project, Road Construction Dewatering Work Plan*, LMS/PIN/N01555, Office of Legacy Management, July.





Abbreviation: WWNA = Wastewater Neutralization Area

Figure 1. Southbrook Site