

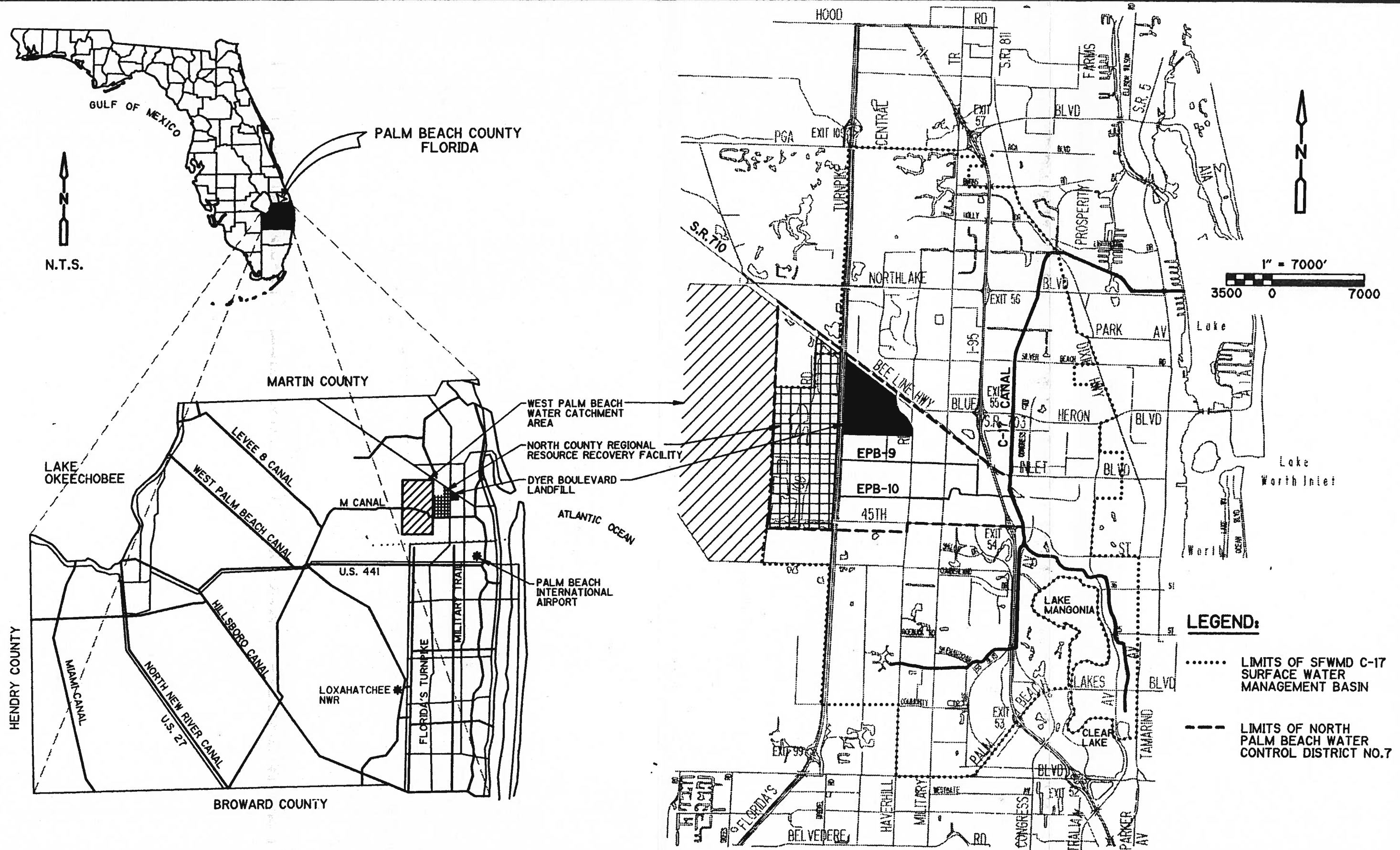
## 1.0 INTRODUCTION AND BACKGROUND

### 1.1 SITE LOCATION AND DESCRIPTION

The North County Regional Resource Recovery Facility (NCRRRF) is an existing 1,320-acre resource recovery facility that accepts Class I (sanitary) and Class III waste (construction debris and yard wastes). Inert ash residue and non-combustibles resulting from the plant's combustion process are disposed of at the Class I landfill. This site was certified in 1985 by the Florida Department of Environmental Protection under Florida's Electrical Power Plant Siting Act (Chapter 17-17, Florida Administrative Code [FAC]). This facility was constructed to meet the county's solid waste needs after closure of the Dyer Boulevard Landfill in 1989.

The NCRRRF is located west of the City of West Palm Beach in northeastern Palm Beach County, Florida. A map of northern Palm Beach County showing the location of the NCRRRF is presented on Figure 1-1. More specifically, the NCRRRF is bounded on the east by the Florida Turnpike, on the south by 45th Street, on the west by the City of West Palm Beach Water Catchment Area, and on the north by State Road 710. Prior to development as a landfill, the site was relatively flat vacant land. Predevelopment topographic elevations ranged from +17.0 to +18.0 feet National Geodetic Vertical Datum.

The NCRRRF and the Dyer Boulevard Landfill have an extensive groundwater and surface water monitoring plan. The Dyer Boulevard Landfill was closed in 1989 and has an approved monitoring plan in place. According to Section 17-701.510(3)(d)3, FAC, the well spacing can be no greater than 500 feet apart in the downgradient direction of groundwater flow in the uppermost aquifer unit unless it can be demonstrated that a greater well spacing is appropriate.



## 1.2 OVERVIEW OF THE LANDFILL'S HISTORICAL OPERATION

The NCRRRF will eventually be a 327-acre lined landfill (buildout condition). The Class I landfill has a synthetic double liner and the Class III landfill has a synthetic single liner. Both landfills have a dedicated leachate collection system. The NCRRRF has been accepting Class I solid waste since 1989. The Class III landfill is located north of the current operations center (between Florida's Turnpike and Jog Road) and the Class I landfill is located south of the operations center. At buildout, the Class III landfill will occupy approximately 153 acres and the Class I landfill will occupy approximately 174 acres. Presently, a total of approximately 103 acres of landfill (Class I and Class III) are constructed. A map showing the location and operating sequence of each landfill cell is presented on Figure 1-2 and summarized in Table 1-1.

## 1.3 PERMITS

The Palm Beach County Solid Waste Authority is operating the NCRRRF under Florida's Electrical Power Plant Siting Act (Power Plant Site Certification PA 84-20 - Chapter 17-17, FAC).

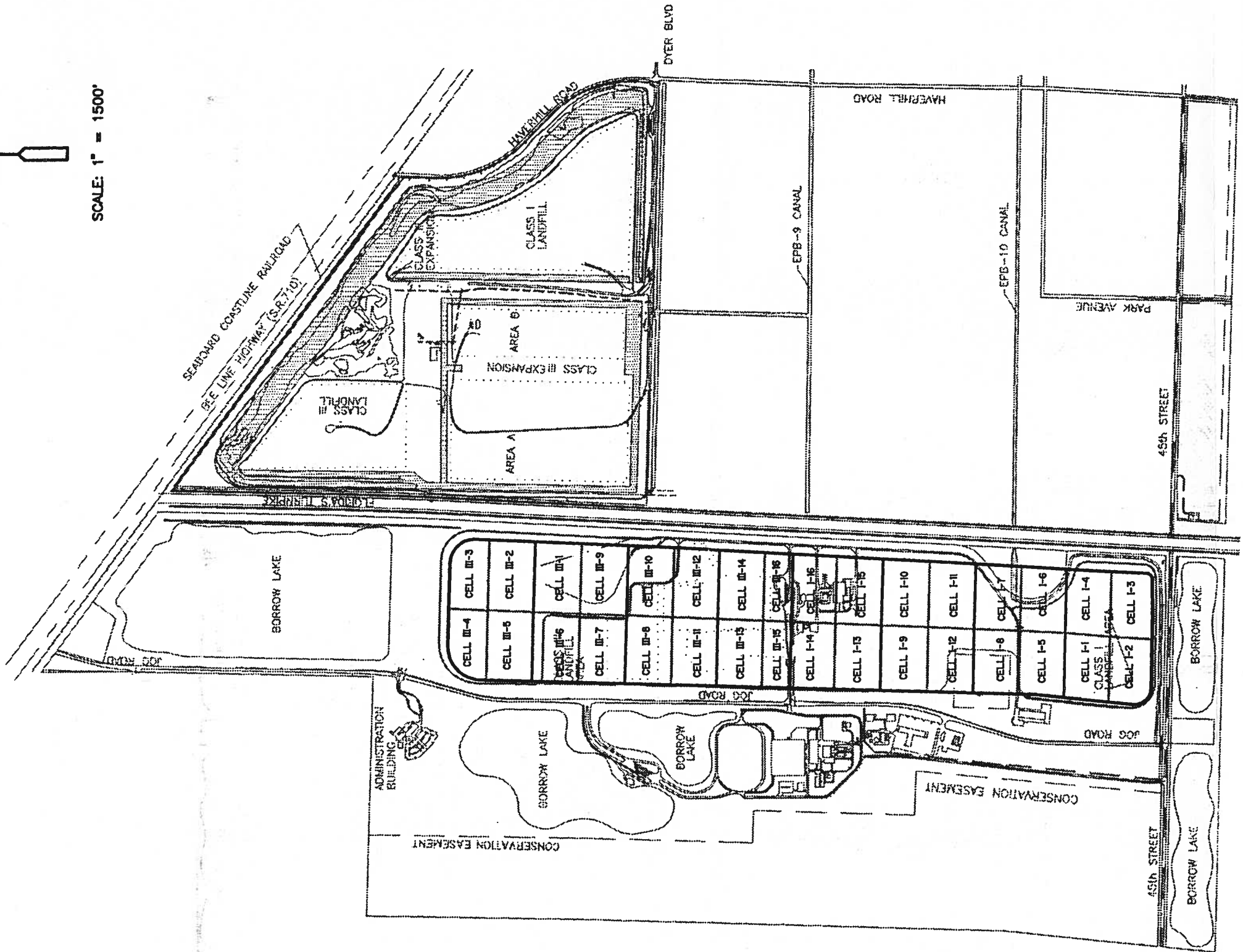
## 1.4 PURPOSE AND SCOPE

The purpose of this study is to review the existing monitoring data and to develop a groundwater and surface water monitoring plan, in accordance with the latest revision to Chapter 17-701, FAC, which describes the rules and regulations affecting permitting of solid waste management facilities. More specifically, this report addresses Section 17-701.510, FAC (Water Quality and Leachate Monitoring Requirements for Solid Waste Management Facilities). This application meets the requirements of both Chapters 17-701, FAC, and 17-522, FAC (Groundwater Permitting and Monitoring Requirements).

SOLID WASTE AUTHORITY OF PALM BEACH COUNTY  
EXISTING AND PROPOSED SITE OPERATIONS  
PLAN FOR THE NCRRRF LANDFILL

Figure No. 1-2

SCALE: 1" = 1500'



**LEGEND:**  
— LIMITS OF THE LANDFILL CELLS

SEE TABLE 1-1 FOR THE OPERATIONAL SEQUENCE  
OF THE LANDFILL CELLS

Table 1-1. Operational Sequence of the Landfill Cells at the NCRRRF

| Class I Landfill |              |                       |                      | Class III Landfill |              |                       |                      |
|------------------|--------------|-----------------------|----------------------|--------------------|--------------|-----------------------|----------------------|
| Cell Number      | Area (acres) | Phase of Construction | Date of Construction | Cell Number        | Area (acres) | Phase of Construction | Date of Construction |
| I-1              | 11           | I                     | 1989                 | III-1              | 11           | I                     | 1989                 |
| I-2              | 10           | I                     | 1989                 | III-2              | 12           | I                     | 1991                 |
| I-3              | 10           | I                     | 1990                 | III-3              | 10           | I                     | 1992                 |
| I-4              | 10           | I                     | 1990                 | III-4              | 9            | I                     | 1993                 |
| I-5              | 10           | II                    | 1993                 | III-5              | 10           | II                    | 1994-1995            |
| I-6              | 11           | II                    | 1994-1995            | III-6              | 10           | II                    | 1996-1997            |
| I-7              | 11           | II                    | 1996-1997            | III-7              | 10           | II                    | 1998-1999            |
| I-8              | 11           | II                    | 1996-1997            | III-8              | 10           | II                    | 1998-1999            |
| I-9              | 11           | III                   | 1998-1999            | III-9              | 11           | III                   | 1989                 |
| I-10             | 11           | III                   | 2000-2001            | III-10             | 10           | III                   | 2000-2001            |
| I-11             | 11           | III                   | 2000-2001            | III-11             | 10           | III                   | 2002-2003            |
| I-12             | 11           | III                   | 2002-2003            | III-12             | 10           | III                   | 2002-2003            |
| I-13             | 11           | IV                    | 2004-2005            | III-13             | 10           | IV                    | 2004-2005            |
| I-14             | 11           | IV                    | 2006-2007            | III-14             | 10           | IV                    | 2006-2007            |
| I-15             | 12           | IV                    | 2008-2009            | III-15             | 5            | IV                    | 2008-2009            |
| I-16             | 12           | IV                    | 2010-2011            | III-16             | 5            | IV                    | 2010-2011            |
| Total            | 174          |                       |                      |                    | 153          |                       |                      |