

Potential Landfill Site Identification Modeling the ACUA Landfill

OF ACUA

To find two suitable locations in Atlantic County to construct a landfill based on New Jersey state regulations

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ABSTRACT

This project was designed to determine suitable locations for the construction of a landfill site in Atlantic County, New Jersey, based on state regulations.

INTRODUCTION

The population in Atlantic County continues to rise, particularly in the three major growth townships of Egg Harbor, Galloway, and Hamilton. Family and business growth are contributing to the increase in the waste. Today, the waste in Atlantic County is being handled by the Atlantic County Utility Authority (ACUA) landfill. This landfill has a finite amount of space that will eventually reach capacity, as shown in the studies at the ACUA Fleming). The projected year is based on the ACUA landfill capacity, which will eventually reach capacity by the year 2015. Without approval of these expansions, the ACUA landfill will be at capacity by the year 2015. Currently, the production of waste is covered by the ACUA, but capacity will be reached by the year 2015. The ACUA landfill operates a state-of-the-art landfill, which will eventually cover 120 acres. In addition to the Fleming area, there is also a permit for a new facility, which will cover 120 acres. In addition to the Fleming area, there is also a permit for a new facility, which will cover 120 acres. In addition to the Fleming area, there is also a permit for a new facility, which will cover 120 acres.

ACKNOWLEDGEMENTS

This project was completed with the assistance of Dr. William Van and Tom Caffery of the Atlantic County Utility Authority. Special thanks go to Tom Caffery for the layout and GIS data collecting and analysis. Special thanks go to Tom Caffery for the layout and GIS data collecting and analysis.

Industry-related information was used in the original map. These include: public well sites, wildlife management areas, and lands preservation areas, residential land, and the system (GIS), supplemented by aerial photographic images.

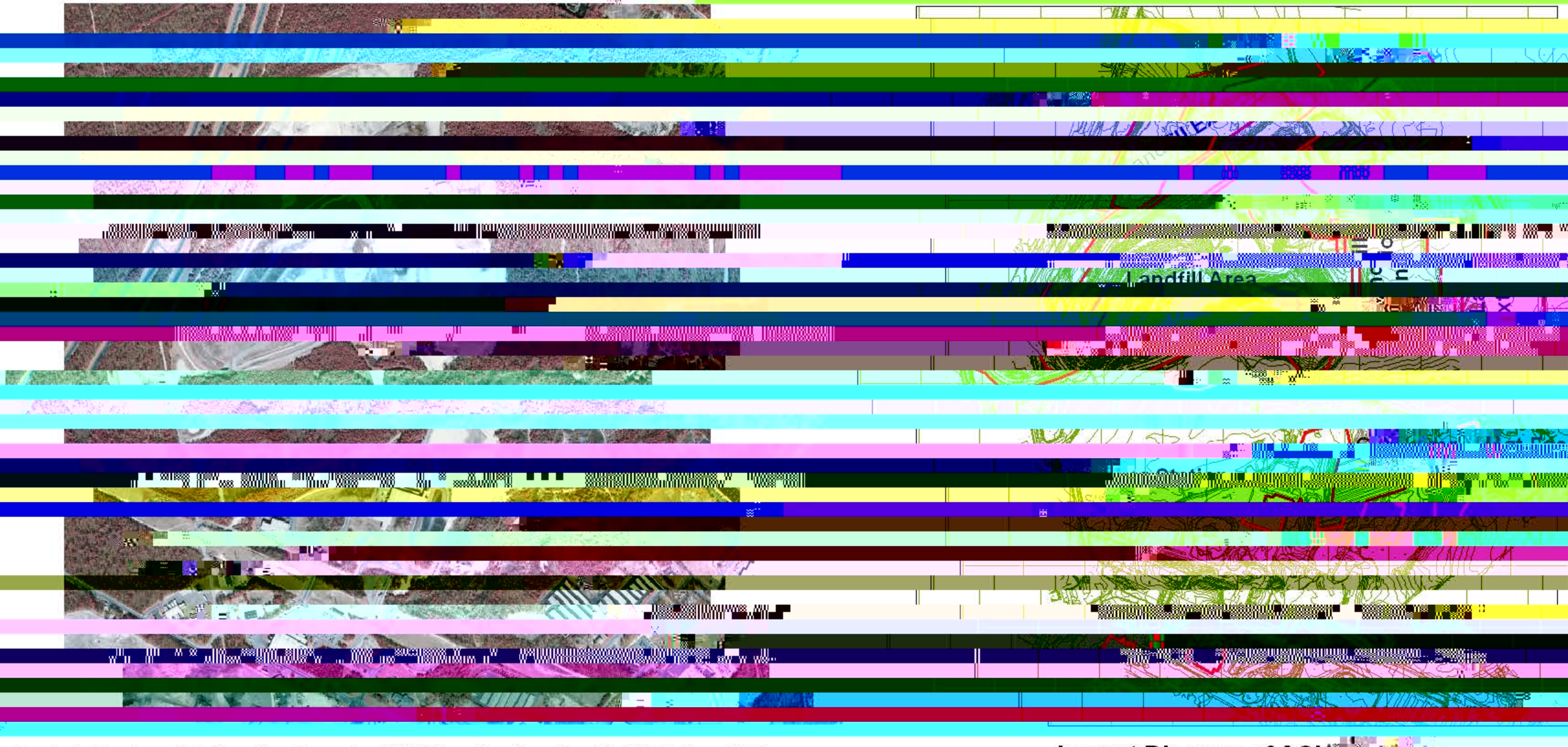
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ACUA landfill site showing various areas and structures.

0 625 1,250 2,500 3,750 5,000 Feet

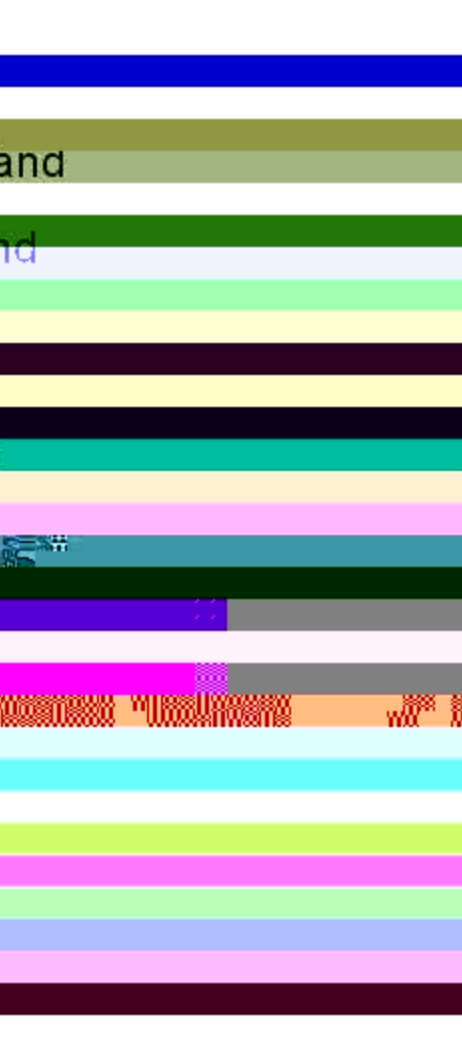
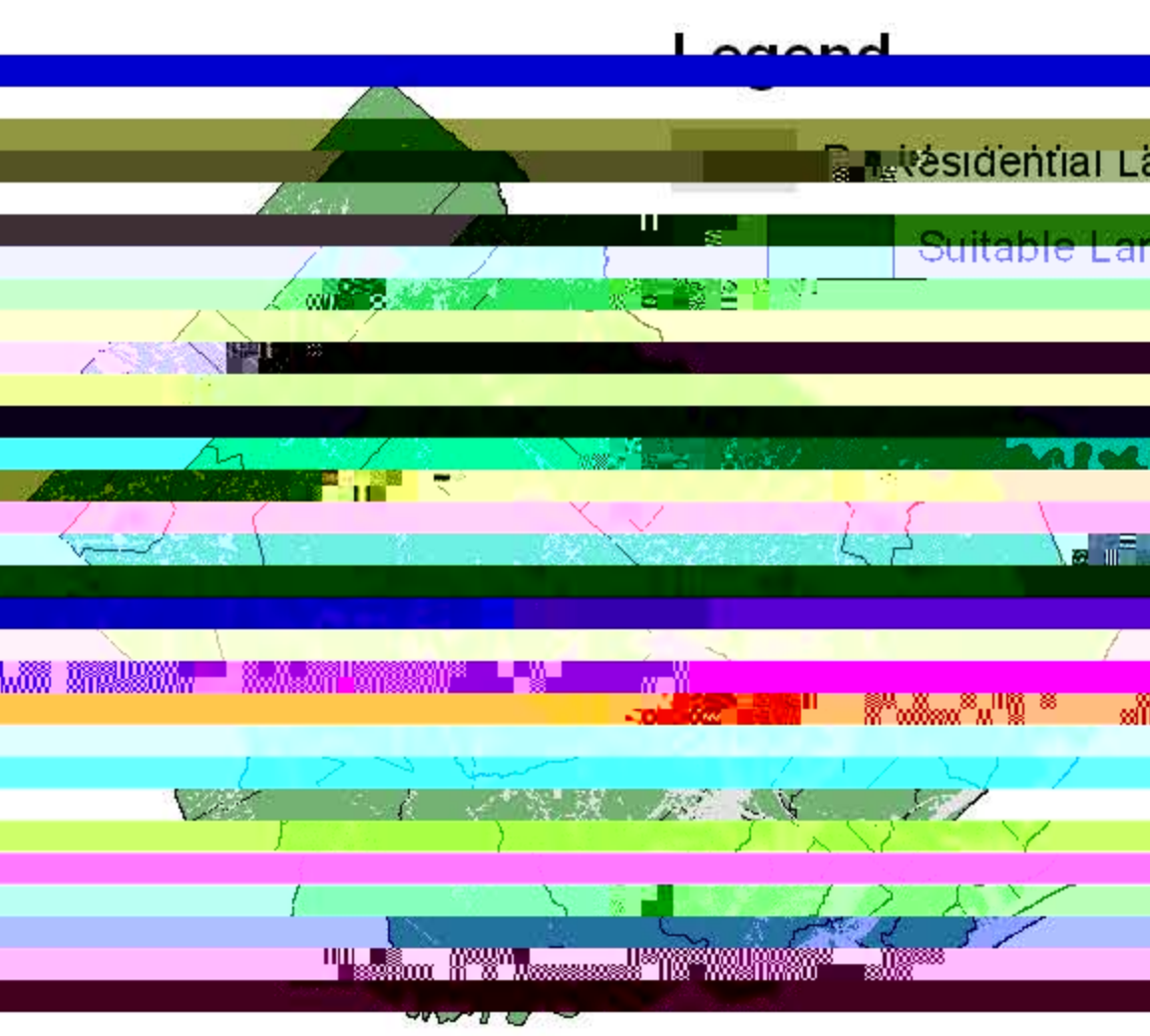
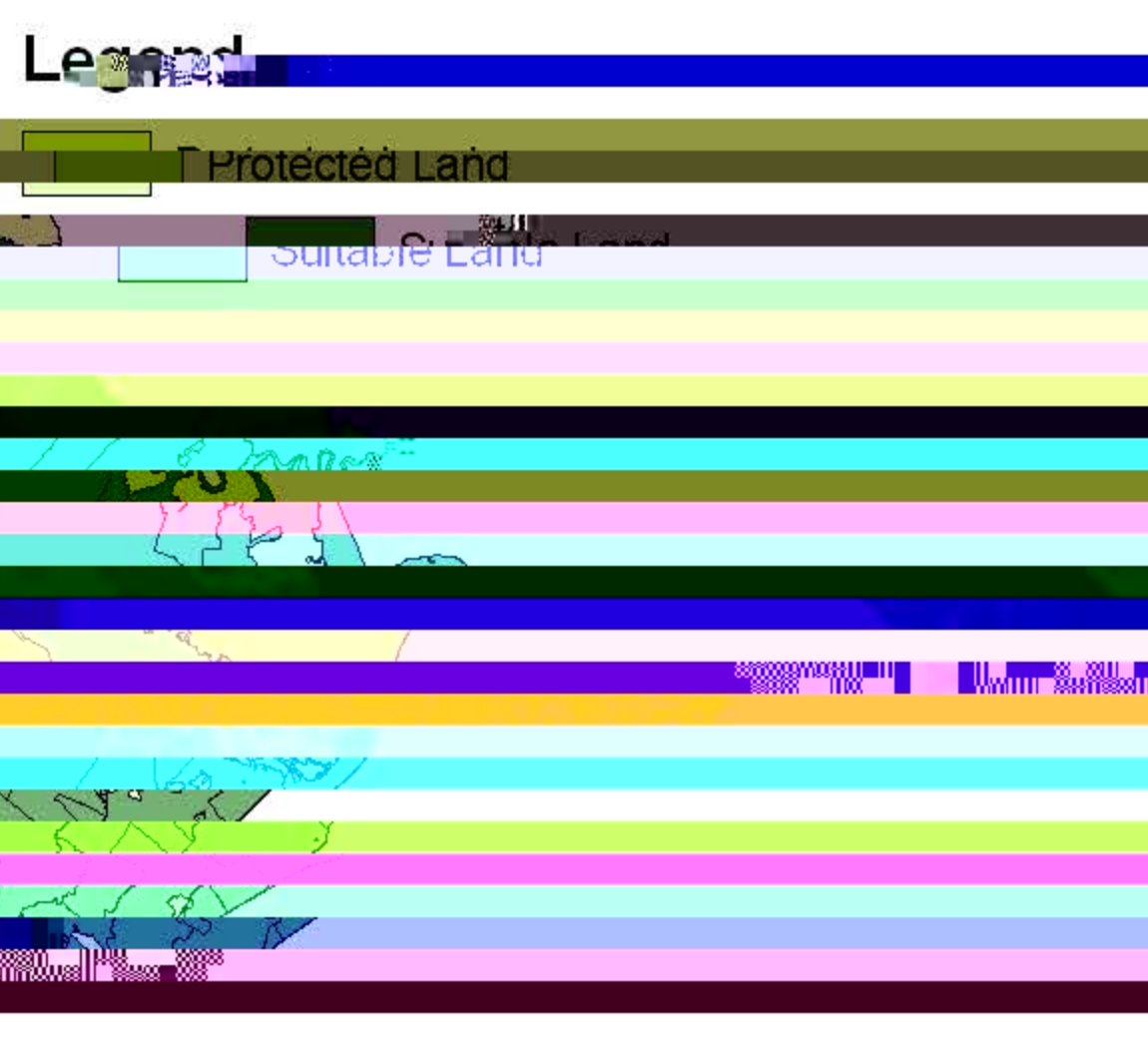
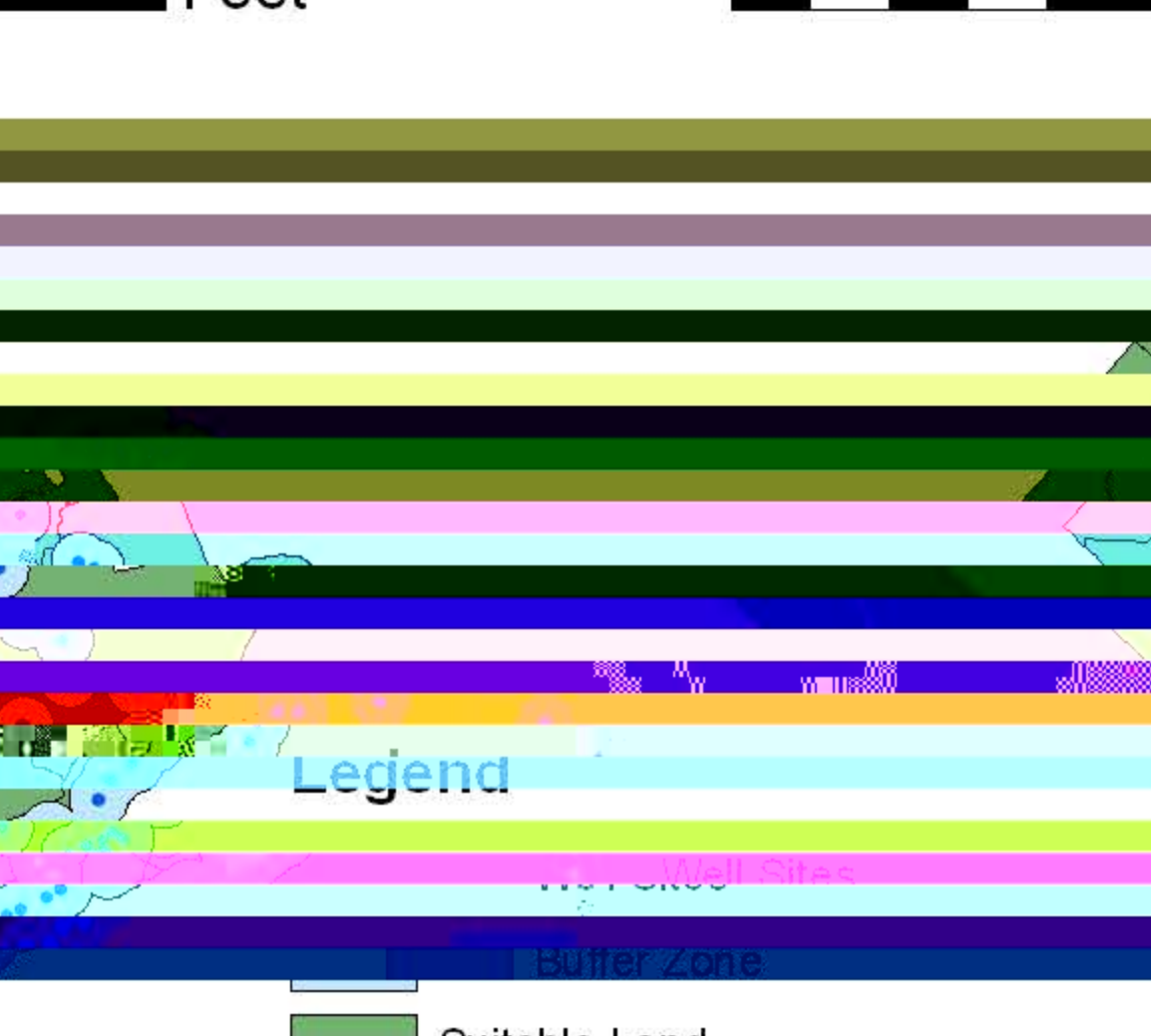
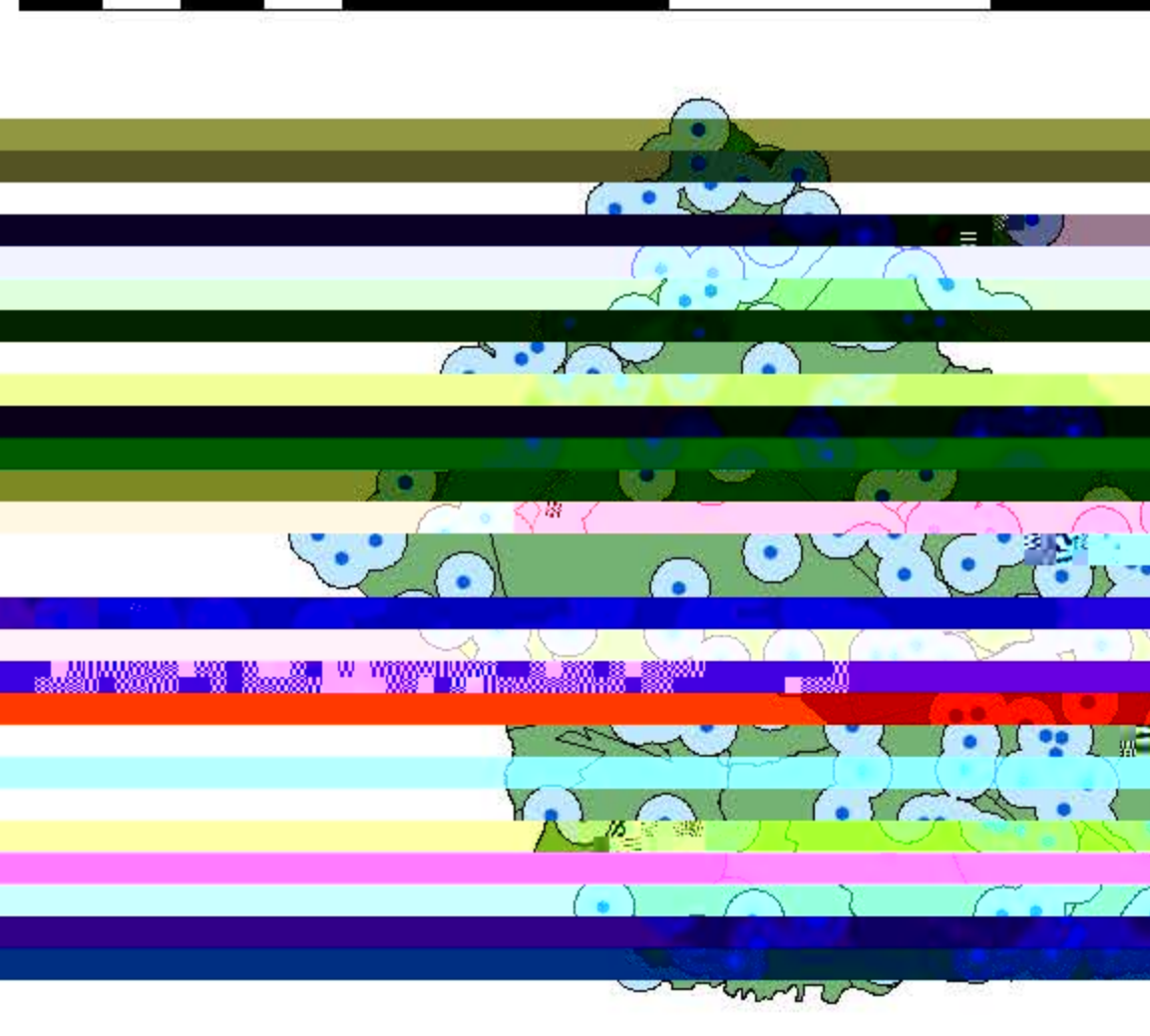
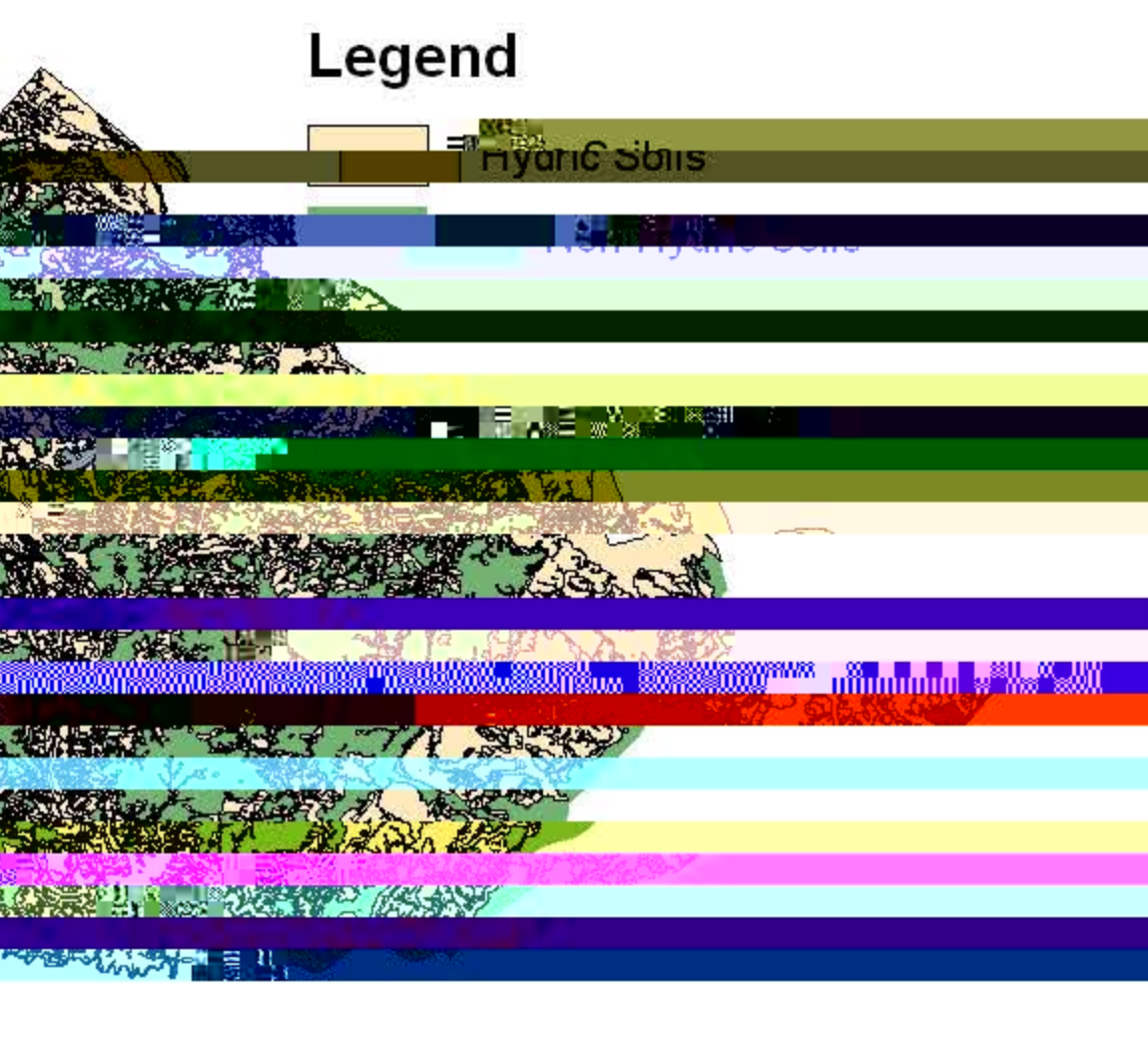
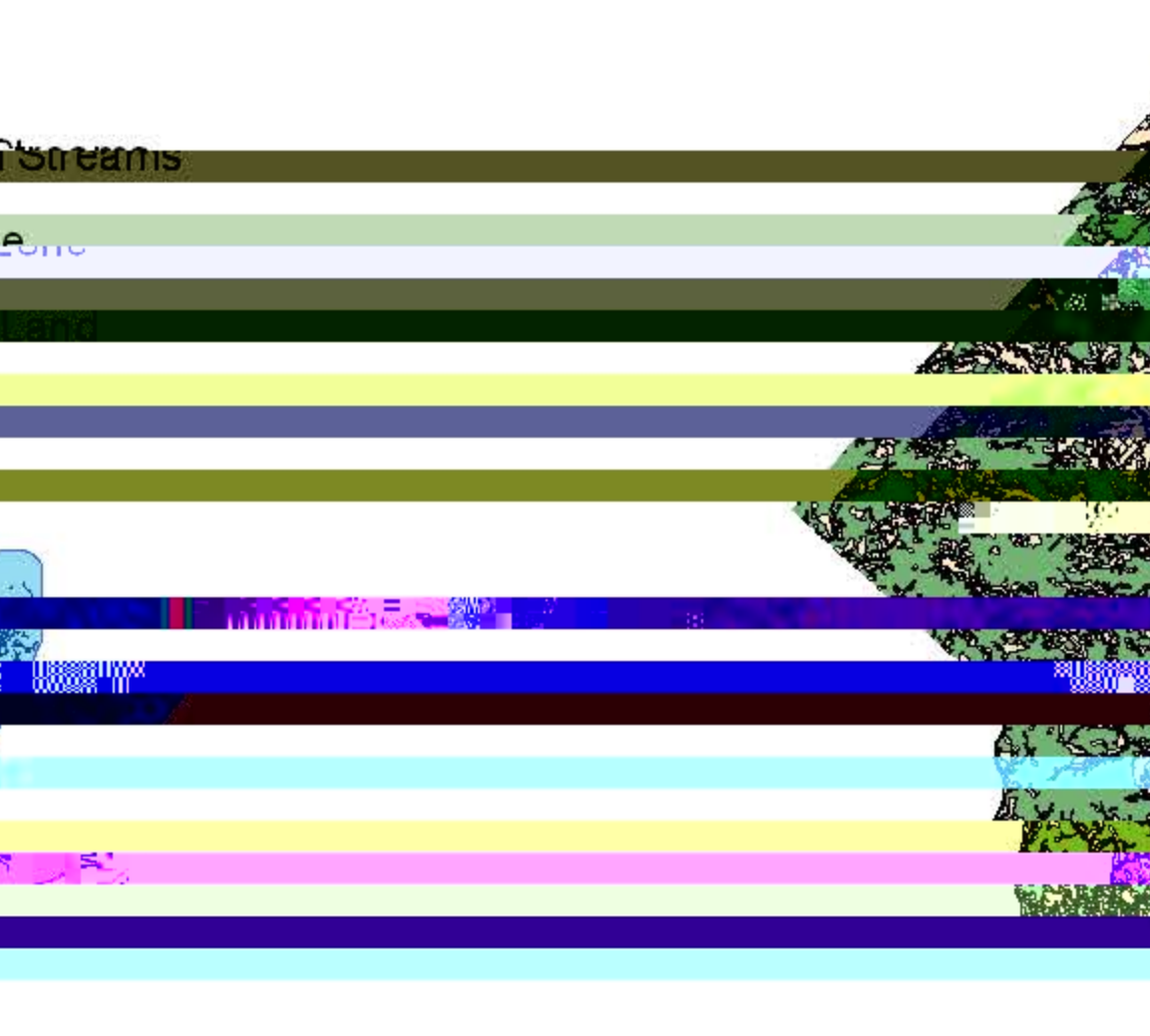
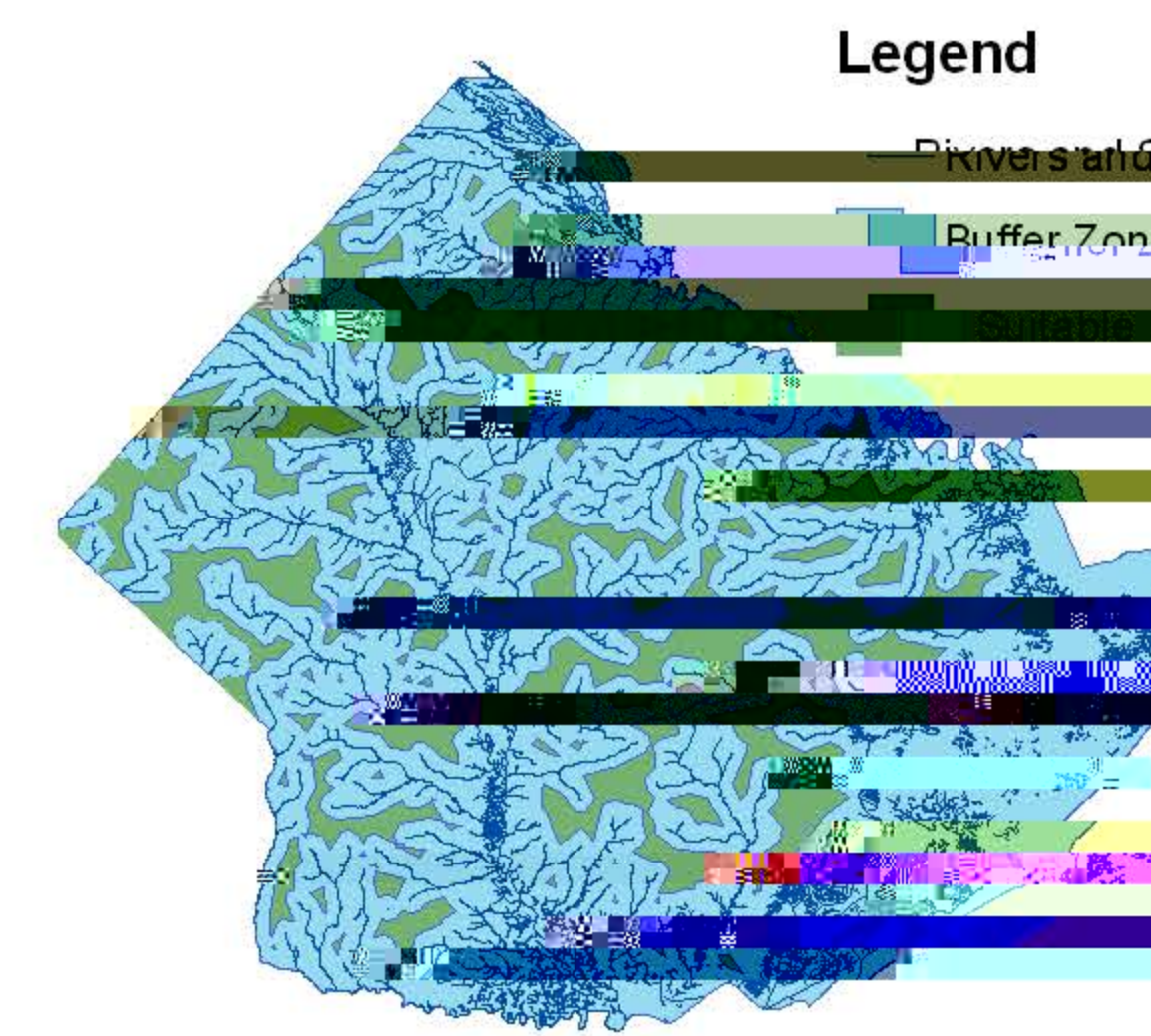


Figure 1. Streams, Rivers, Lakes, and Floodprone Areas

Figure 2. Soils Limiting Landfill



Figure 3. Exclusion Areas and Candidate Areas

0 850 1,700 3,400 5,100 6,800 Feet

The ACUA landfill will continue to collect waste. The ACUA landfill will eventually cover 120 acres, which will allow the landfill to operate for 20 years.

Site 1 and Site 2 both have advantages. Site 1 is located near Arawak Paving Company, which would limit the size of the landfill. Site 2 is located near the highway, which would provide easy access for trucks.

Further investigation of the area would be needed to determine if the landfill would be an environmental risk.

SITE 1
This 44-acre area is located on Seaboard Road in Hamilton township and is approximately 2,000 feet from the Atlantic City Expressway. It is currently a sand and gravel extraction operation owned by Arawak Paving Company. The proximity to the Expressway gives the site easy accessibility for all of Atlantic County. The nearest residential land is 340 feet from the nearest residential land. There are no airports or well sites in close proximity to the site. The ACUA landfill will eventually cover 120 acres, giving it a large excess capacity of area to meet the specifications of the ACUA landfill and have enough area for the other facilities. Further investigation of the area would be needed to determine if the landfill would be an environmental risk.



Aerial photo of Arawak Paving Company

SITE 2
This 54-acre area is located near the highway. It is currently a sand and gravel extraction operation owned by Arawak Paving Company. The proximity to the highway gives the site easy accessibility for all of Atlantic County. The nearest residential land is 340 feet from the nearest residential land. There are no airports or well sites in close proximity to the site. The ACUA landfill will eventually cover 120 acres, giving it a large excess capacity of area to meet the specifications of the ACUA landfill and have enough area for the other facilities. Further investigation of the area would be needed to determine if the landfill would be an environmental risk.

Aerial photo of Site 2

0 250 500 750 1,000 Feet