



# SAUFLEY LANDFILL

## C&D LANDFILL

**LOCATION**

Pensacola, FL

**OWNER**

Escambia County

**ENGINEER**

Jones Edmunds

**SIZE**

25 Acres

**DATE COMPLETED**

2013

**Saufley Landfill marked the first deployment of ClosureTurf® in Florida, where the system had not previously been permitted or constructed. Today, it demonstrates one of the cleanest, easy-to-maintain closure sites in the state, even after several large weather events.**

In 2008, Saufley Landfill was abandoned by its previous owner. Prior to the abandonment of the facility, the Florida Department of Environmental Protection (FDEP) documented numerous compliance issues since the site was permitted in 1990.

The most severe non-compliance issues included operation of the facility at elevations higher than the permitted design height (approximately 40 feet higher) and the presence of hydrogen sulfide emissions. In fact, the air pollution associated with the operations of the facility became so extreme in 2007 that the Florida Department of Health issued a report declaring a Public Health Warning with regards to the elevated levels of hydrogen sulfide around the facility affecting the local community.

Additionally, the storm water management design of the facility allowed both sediment and leachate to be released off-site, discharging into neighboring storm water systems maintained and operated by Escambia County, FL. Lastly, ground water contamination was recorded with elevated levels of aluminum, arsenic and manganese which also resulted in significant fines and violations.

FDEP and Escambia County quickly realized that while this site remained open, it posed a threat to the environment and health of the citizens surrounding the facility. The only answer to the problem was to close the facility, which in itself posed several significant challenges to overcome; funds were not available to construct a closure and the closure plan would need to involve significant site improvements to address the non-compliance issues previously mentioned in order to minimize the negative impacts the landfill had to the people of Pensacola.

After evaluating other traditional soil cover systems in 2012, the decision was made to complete the closure plan with ClosureTurf. Both FDEP and Escambia County recognized that the ClosureTurf system presented the best solution for stakeholders because the technology provided for:

- The most economical approach to performing a closure.
- A reduction on the impact to the environment since natural resources (soil) needed to construct this closure system were minimal because of the “soilless” technology.
- Superior protection against erosion along slopes and in downchutes and perimeter conveyance channels.
- Reduced infiltration of storm water into the waste therefore reducing impacts to groundwater quality.
- Enhanced emission control of the facility.
- Reduced sediment loadings of storm water run-off to the surrounding watershed.

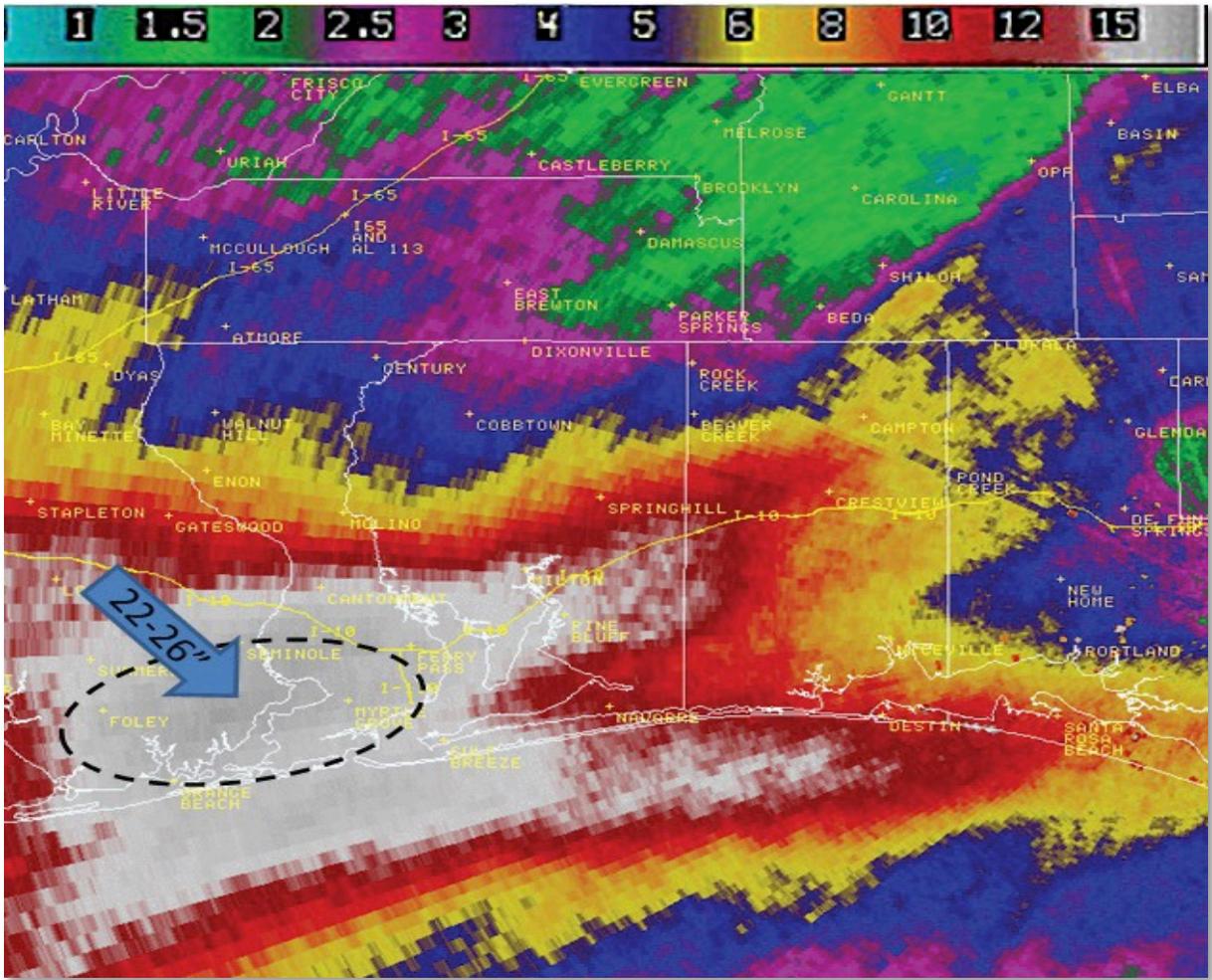
Another advantage that Escambia County benefited from was that ClosureTurf typically installs 50% faster than traditional vegetated systems. Crews were able to complete the installation at Saufley in only 59 days.



**Photographic time-lapse of Saufley Landfill's closure in 2013.**

For its use of ClosureTurf®, the Saufley Field Landfill in Pensacola, FL received a 2014 Excellence Award from the Solid Waste Association of North America (SWANA). Through the award, Escambia County has been recognized on a national level for their forward-thinking efforts to address a serious environmental challenge while protecting human life and the environment. In the end, the local community has received the benefit of not only a durable cover system, but one that also transformed an unsightly and problematic landfill into an aesthetically pleasing site that blends well with the natural surroundings.

ClosureTurf has also proven noteworthy due to its performance in 2014 during a historic flash flood. During the epic rain event, the ClosureTurf System performed despite rainfall levels of 5.68 inches in a single hour (and between 22 to 26 inches of rain over a 24-hour period). According to NOAA, this is the greatest calendar day total on record with data going back to 1879. A quick reference of the NOAA HDSC Precipitation Frequency Map shows this to be a 1-in-200 year to 1-in-500 year single hourly amount, with the 24-hour rainfall total being between a 1-in-50 and 1-in-100-year event. ClosureTurf performed as designed and only required a 3-man crew over a 3-day period to brush sand infill back into place.



**Pensacola, FL**  
**April 2014 – 22”+ of rain fell in a 24-hour**



**Before: Vegetation was very difficult to establish due to the high rain volume of the coastal area.**



**Before: Perimeter ditches constantly overflowed often causing flooding on the nearby roadway.**



After installation of ClosureTurf®: The water in the retention pond no longer contained muddy sediment.



Site after one-hour intensity of rain considered to be a 500-year event.

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