



**Thirty-Year Erosion Projection Report
Fiscal Year 2023-24**

**Office of Resilience and Coastal Protection
Coastal Construction Control Line Program
Florida Department of Environmental Protection
27 | June 2024**

Reporting Requirements

The Florida Department of Environmental Protection (DEP) is statutorily required to annually report to the Legislature the status of the Coastal Construction Control Line (CCCL) Program regarding the 30-year erosion projection, including any changes to the previously adopted procedures for determining erosion projections.

This report provides the statutory background for the CCCL Program, the definition of the 30-year erosion projection, the methodology defined in program rule Chapter 62B-33, Florida Administrative Code (F.A.C.), a list of permits issued during Fiscal Year (FY) 2023-24 seaward of the projection line and the authority for such issuance. In FY 2023-24, no changes were made to the methodology to determine the 30-year erosion projection, and two permits were issued for single-family dwellings seaward of the 30-year erosion projection line.

Background

Pursuant to the Dennis L. Jones Beach and Shore Preservation Act, section 161.053(1)(a), Florida Statutes (F.S.), DEP is directed to establish a CCCL in areas where there are sand beaches fronting on the Atlantic Ocean, the Gulf of Mexico or the Straits of Florida. DEP has established a CCCL in 25 of Florida's coastal counties. Construction and other activities proposed seaward of this line must obtain a permit from DEP. These permits are intended to preserve and protect the beaches and dunes from imprudent construction, which can jeopardize the stability of the beach-dune system as a whole, accelerate erosion, provide inadequate protection to upland structures, endanger adjacent properties or interfere with public beach access. The items necessary for a CCCL permit application and criteria to receive a CCCL permit can be found in the following chapters of the F.A.C.:

- Chapter 62B-33, F.A.C., relating to CCCL individual and areawide permits.
- Chapter 62B-34, F.A.C., relating to general CCCL permits.
- Chapter 62B-56, F.A.C., relating to buried geotextile armoring structures.

In addition to other permitting considerations, section 161.053(5)(b), F.S., prohibits DEP from issuing permits for certain structures seaward of the predicted location of the seasonal high-water line (SHWL) 30 years from the permit application date (30-year erosion projection) (Figure 1).

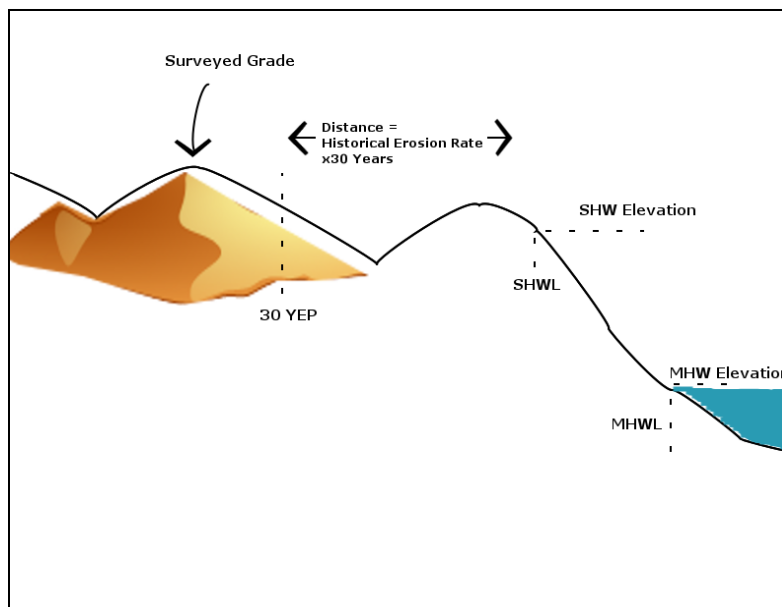


Figure 1. Cross-section of the location of the 30-year erosion projection.

Furthermore, the statute states that this 30-year erosion projection may not extend landward of the established CCCL. Also, the landward extent of the 30-year erosion projection may be limited when:

- (1) An armoring structure can be demonstrated to survive and provide protection from the effects of a 30-year return interval storm; or
- (2) A beach restoration project is either in place or has been fully permitted and funded.

Section 161.053(5)(b), F.S., exempts certain structures from the 30-year erosion projection prohibition, including:

- Coastal and shore protection structures.
- Minor structures.
- Piers.
- Facilities sited pursuant to Part II of chapter 403, F.S.

Additionally, single-family dwellings may be exempt from prohibition, pursuant to section 161.053(5)(c), F.S., if the parcel meets the following criteria:

1. The parcel was platted or subdivided by metes and bounds before the effective date of this section.
2. The owner of the parcel does not own another parcel immediately adjacent to and landward of the parcel for which the dwelling is proposed.
3. The proposed single-family dwelling is located landward of the frontal dune structure.
4. The proposed single-family dwelling will be as far landward on its parcel as is practicable without being located seaward of or on the frontal dune.

DEP performs a 30-year erosion projection each time it receives a permit application for a major structure. The method used to make these projections is set forth in Rule 62B-33.024, F.A.C. This rule was adopted in 1985 and was last updated in 2018.

Methodology

DEP performs 30-year erosion projections for major structures on beaches **without** beach restoration or beach nourishment in the following manner (Figure 2):

1. DEP determines the location of the SHWL from the applicant's survey.
2. DEP determines the shoreline change rate (in feet-per-year) for the beach in the area of the project, based on historical shoreline change data in DEP's database.
3. DEP multiplies the shoreline change rate by 30 (years) to determine a distance.
4. The distance determined in Step 3 is measured landward from the SHWL found in Step 1. This will be the 30-year erosion projection for areas without a beach restoration or nourishment project. Major structures (unless exempt) cannot be sited seaward of this projection.

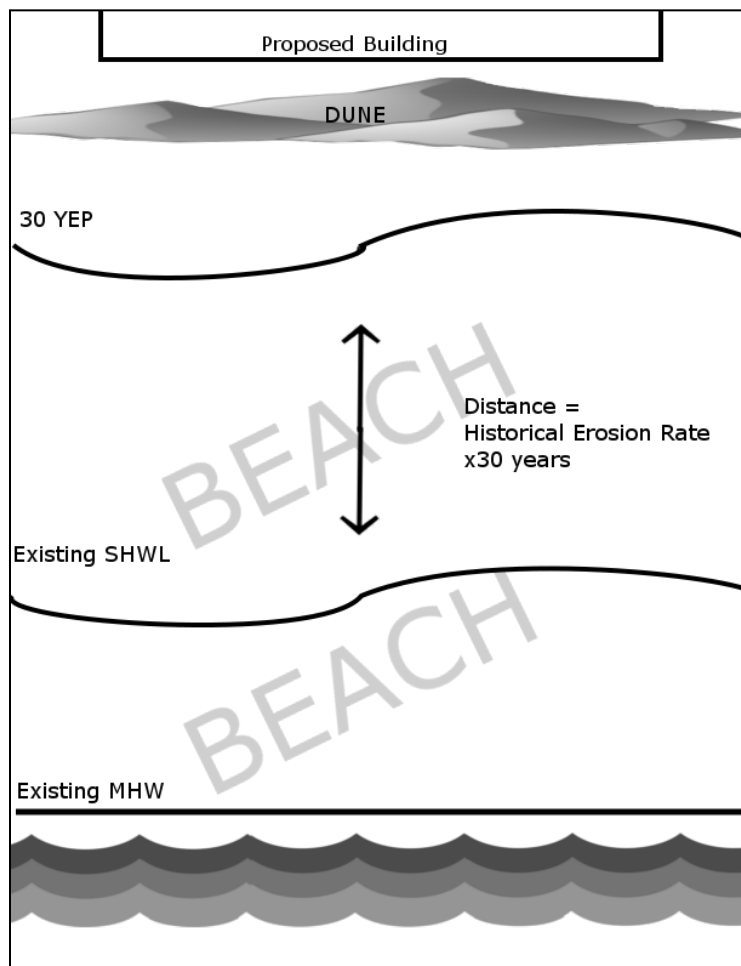


Figure 2. Map view of the location of the 30-year erosion projection.

DEP performs 30-year erosion projections for major structures on beaches **with** beach restoration or beach nourishment in the following manner (Figure 3):

1. DEP determines the location of the mean high-water line (MHWL) that existed prior to the beach restoration project by using pre-project surveys. In most cases, the pre-project MHWL becomes the erosion control line (ECL) prior to the construction of the restoration project.
2. DEP determines the location of the SHWL that existed prior to the beach restoration project from the pre-project survey.
3. DEP determines the distance from the pre-project SHWL to the pre-project MHWL.
4. DEP adds the distance determined in Step 3 landward from the ECL. This distance is applied landward of the pre-project MHWL in cases where the ECL was not established based on a pre-project MHWL because the ECL was established after beach restoration was constructed.
5. DEP determines the pre-project shoreline change rate based on historical shoreline change data in DEP's database.
6. DEP determines the remaining life of the beach restoration or beach renourishment project by determining the number of years the restored beach MHWL is expected to be seaward of the ECL. This will be a credit for the restoration or renourishment project.
7. DEP subtracts the remaining life of the project in years as determined in the Step 6 from 30 (years).
8. DEP multiplies the number of years determined in Step 7 by the shoreline change rate determined in Step 5.
9. DEP adds the distance determined in Step 8 landward to the distance determined in Step 4. This will be the 30-year erosion projection for areas with a beach restoration or renourishment project. Major structures (unless exempted) cannot be sited seaward of this projection.

To expedite permitting, DEP estimates the 30-year erosion projection using publications and guidance memos produced by DEP for permit applications for all major structures. Guidance memos may defer the 30-year erosion projection determination to DEP's engineering staff.

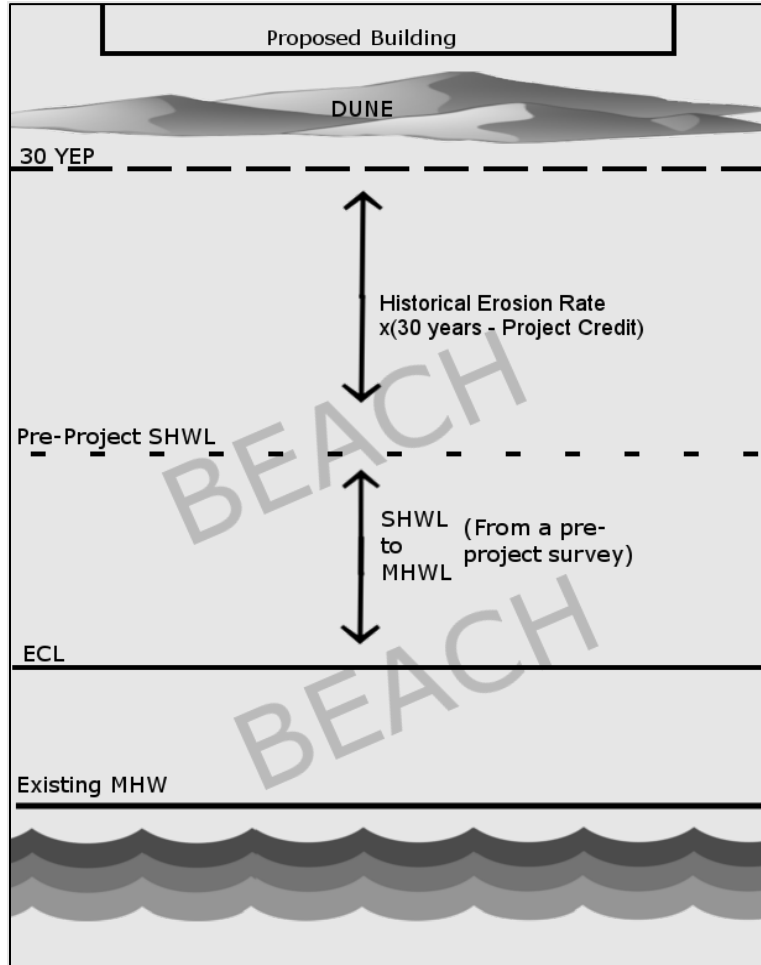


Figure 3. Map view of the location of the 30-year erosion projection for a restored beach.

Current Status: Program Application of the 30-Year Erosion Projection

Below is a list of the permits issued in FY 2023-24 for single-family dwellings that were located seaward of the 30-year erosion projection. All the permit applications met the four criteria specified in section 161.053(5)(c), F.S., allowing permitting seaward of the 30-year erosion projection.

- SL-000439, SFD at R-036 Ft. Pierce, St. Lucie County.
- SL-000437, SFD at R-039 Ft. Pierce, St. Lucie County

No permit applications were denied based on the 30-year erosion projection during FY 2023-24.