

Coastal Bend Mitigation Action Plan Projects within the City of Corpus Christi

Project #	Project Description
NU-18	Major Outfall Upgrade Phase I. Description/Background: A periodic inspection of over 71,400 linear feet (13.5 miles) of storm water runoff conveyance lines during mid-2003 indicated that some sections of the lines needed upgrade. The structural integrity and functionality of these outfall lines are critical in preventing flooding and in improving water quality. There are eight major storm water outfalls that convey storm water runoff into Corpus Christi Bay. The purpose of this action is to perform needed upgrade along sections of the major outfalls.
NU-19	Major Outfall Upgrade Phase II.3 Description/Background: A periodic inspection of over 71,400 linear feet (13.5 miles) of storm water runoff conveyance lines during mid-2003 indicated that that two of the eight major outfalls needed replacement. The structural integrity and functionality of these outfall lines are critical in preventing flooding and in improving water quality. The purpose of this is to upgrade the two outfalls: Brawner Proctor, and Gollihar. Outfall upgrades under Phase II has been re-scoped and has been included in the adopted Capital Improvement Plan for FYI 12-13.
NU-20	Major Drainage Channel Improvements. Description/Background: The purpose of this action is to mitigate erosion and other damages to major drainage channels as a result of a heavy rain or other severe weather. A number of earthen ditches throughout the City have steep side slope (2:1) which makes them more prone to erosion of stream beds and slopes during a prolonged and intense rain event. In order to make improvements which will stabilize the slopes and stream beds of major channels, an allocation of funds is earmarked for this to be utilized on a priority basis on those ditches where erosion and slope failures becomes a serious and critical problem. This will include some or all the following: shaping, grading, flattening side slopes, seeding, adding concrete flumes or lined channels, adding storm water appurtenances such as inlets, pipes, and some minor right-of-way acquisitions as necessary.
NU-21	Obtain Drainage Rights of Way. Description/Background: Having adequate and available drainage ROW is critical to developing drainage infrastructure to meet the demand for orderly growth and development within the City. Adequate ROW helps to prevent/minimize flooding, helps to facilitate maintenance, and allows potential for improving quality of storm water runoff. The purpose of this is to provide funding for acquiring right-of-way (ROW) where needed in order to implement drainage problem solutions, such as ditch widening, erosion control, extending storm sewers, providing easements, etc. During design, it is often required that additional ROW is provided for implementation.
NU-22	Upgrade Flood Control Pumps at Power St. Pump Station. Description/Background: Flooding in the downtown area is a frequently recurring event, and

a major concern for both citizens and businesses. In addition to a variety of private businesses, several local and federal public facilities are located within this area. The existing pumps date from 1948 and are outdated and subject to failure. Upgrading the pumps will minimize the potential of a future catastrophic failure.

- NU-23 Flood Map Modernization Program/CTP Community. **Description/Background:** The Federal Emergency Management Agency's Multi-Hazard Flood Map Modernization Program will update and digitize flood hazard maps across the nation. The majority of the City of Corpus Christi's FIRMs are nearly 20 years old. It is for the safety of the City and its residents for the maps, which determine flood insurance premiums, to be accurate and up-to-date. FEMA has notified the City by letter regarding the flood mapping effort. A key FEMA strategy is to form local partnerships for this purpose under the Cooperating Technical Partners program to leverage local resources. In addition to preparation for the contractor visit, the City will implement becoming a CTP partner.
- NU-24 Enhance Community Rating System (CRS) Rating. Multiple mitigation objectives as well as Objective 3.2 related to increasing participation in available insurance options.
- NU-26 Emergency Generators for Oso Waste Water Treatment Facility. **Description/Background:** The existing Oso Wastewater Treatment Plant facility depends entirely on outside utility power sources. In the event of power outages, wastewater treatment is not possible. Emergency power generating systems on site would help to ensure that the facility remains in operation during power outages, and protect public health and welfare. Design of the emergency power systems is currently underway.
- NU-27 Flood Proof 4 Lift Stations at Oso Waste Water Treatment Facility. **Description/Background:** The Oso Treatment Plant is situated in a location subject to flooding from coastal inundation. The wastewater lift stations are also vulnerable to flooding. The proposed improvements include structural elevation and/or the installation of dikes, berms and other flood control devices.
- NU-33 Elevate Power Transfer Switch at Police Dept. HQ. **Description/Background:** The Police Headquarters building is located in an area of downtown Corpus Christi that is vulnerable to street flooding. The automatic generator transfer switch is presently located in a control room on the ground floor of the building. If the switch is damaged due to flooding, the Police Headquarters building, the 9-1-1 call taking/dispatch function, and the Metro-Com emergency alert and notification systems would be without electrical power, even if the auxiliary generator was undamaged.
- NU-34 Uninterruptible Power Supply System for Emergency Operations Center (EOC).

Description/Background: Install an Uninterruptible Power Supply (UPS) system compatible with the existing auxiliary generator which provides emergency power to the Emergency Operations Center (EOC) and alternate 9-1-1 call center/dispatch function. A UPS system designed to work with the auxiliary generator, would ensure that computers in the EOC and alternate 9-1-1 center would not lose functionality during the transition to backup power.

- NU-49 Prevent Erosion of Sunfish Island. **Description/Background:** Coastal erosion in Corpus Christi Bay is very high and if stabilization is not done soon, the entire island may erode away and would have to be rebuilt (or abandoned). Sunfish Island is an important bird sanctuary in the Corpus Christi area. An alternatives analysis and engineering design were conducted for Sunfish Island during CEPRA Cycle 2. Construction could not be done due to restrictions during bird nesting season.
- NU-50 Prevent Erosion at Cole Park. **Description/Background:** Prevention of further erosion of shoreline at Cole Park on Corpus Christi Bay through installation of groins and/or breakwaters. Cole Park is a high use park in Corpus Christi. The area behind the bulkhead is eroding and needs to be retrofitted.
- NU-51 Community Wildfire Risk Assessment. Nueces County OEM, Emergency Service District (ESD) 1, 2, 3, 4, 5, Corpus Christi Fire Department, and Corpus Christi Naval Airs Station Fire and Emergency Services. **Description/Background:** Conduct a Community Wildfire Risk Assessment for Nueces County to evaluate public safety and property vulnerabilities and to examine fire response resources. Develop a Community Wildfire Protection Plan in cooperation with the local fire departments to Create and implement defensible area around structures and non combustible construction ordinances. The County is geographically diverse and has a substantial urban/rural interface with heavy fuel loads making portions of the county highly susceptible to potentially catastrophic wildfires. Additionally, the County experiences drought or near drought conditions almost annually and is placed under numerous red flag condition warnings by the National Weather Service. The 2008 wildfire season was very challenging for fire departments throughout the region. There were numerous very large wildfires in Nueces County with the potential to cause millions of dollars in property loses and had a great potential for loss of life. The Laureles Fire in the Laureles Division of the King Ranch threatened thousands of homes on the south side of Corpus Christi and required Texas Military Forces support with UH-60 helicopters conducting water drops under the direction of the Texas Forest Services and the then Governor's Division of Emergency Management. Several additional large fires threatened residents living on North Padre Island near the National Seashore. The light dry fuels and high winds created extremely dangerous firefighting conditions.
- NU-52 Community Wildfire Protection Plan. Nueces County OEM, Emergency Service District (ESD) 1, 2, 3, 4, 5, Corpus Christi Fire Department, and Corpus Christi

Naval Air Station Fire and Emergency Services. **Description/Background:** Develop a Community Wildfire Protection Plan in cooperation with the local fire departments to Create and implement defensible space around structures and non combustibile construction ordinances. The County is geographically diverse and has a substantial urban/rural interface with heavy fuel loads making portions of the county highly susceptible to potentially catastrophic wildfires. Additionally, the County experiences drought or near drought conditions almost annually and is placed under numerous red flag condition warnings by the National Weather Service. The 2008 wildfire season was very challenging for fire departments throughout the region. There were numerous very large wildfires in Nueces County with the potential to cause millions of dollars in property loses and had a great potential for loss of life. The Laureles Fire in the Laureles Division of the King Ranch threatened thousands of homes on the south side of Corpus Christi and required Texas Military Forces support with UH-60 helicopters conducting water drops under the direction of the Texas Forest Services and the then Governor's Division of Emergency Management. Several additional large fires threatened residents living on North Padre Island near the National Seashore. The light dry fuels and high winds created extremely dangerous firefighting conditions.

NU-73

Implement Flood Plain Ordinance. **Description/Background:** Create and implement city ordinance to require a 2' elevation above the current freeboard requirement. This action will help to reduce the flooding on development in all flood prone areas including minimal flood prone areas. The City of Corpus Christi Flood Damage Prevention Ordinance is enforced to comply with the requirements of the NFIP and to minimize the threat to life and property resulting from flooding.