# HABITAT CONSERVATION PLAN

**For**
**SEABREEZE PROPERTIES, LLC**

SEABREEZE CONDOMINIUMS
16991 Perdido Key Drive
Perdido Key, Florida

Revised Final
July 22, 2008

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# 1. INTRODUCTION

This habitat conservation plan (HCP) addresses potential impacts to habitat for state and federally listed species which may occur due to development of the Seabreeze Condominiums located on Perdido Key in Escambia County, Florida (Figure 1).


**Figure 1. Location of the Seabreeze project site with respect to the Gulf Coast of Florida and Alabama.**

A single species has prompted the need for an Incidental Take Permit (ITP), although other listed species may occur in the habitats addressed by this plan. The "trigger" species is the Perdido Key beach mouse (*Peromyscus polionotus trissyllepsis)* which is listed as an endangered species. This HCP is limited to areas designated as suitable habitat for the Perdido Key beach mouse. However, the HCP includes conservation measures for nesting sea turtles and non-breeding piping plover that resulted in the Service determining that an ITP would not be needed for sea turtles or piping plover.

This HCP focuses on suitable habitat designations as associated with the PKBM. The proposed project area also includes areas designated as critical habitat for the Perdido Key beach mouse (PKBM).

It is the responsibility of the United States Fish and Wildlife Service (USFWS) to determine whether issuance of an ITP will jeopardize the continued existence of a species whereas, the Florida Fish & Wildlife Conservation Commission (FWC) is to ensure that such a permit is issued only when the permitted activity will clearly enhance the survival potential of the species. The intent of this HCP is to provide the information necessary for the agencies to make such a determination.

Seabreeze Properties LLC is seeking an incidental take permit (ITP) from the USFWS pursuant to section 10(a)(1)(B) of the Endangered Species Act of 1973 (Act), as amended and the FWC regulates "take" under the Florida Administrative Code 68A-27.003. The

permit would authorize the take of the federal and state listed PKBM mouse within the project areas in Escambia County, Florida.

The proposed taking would be incidental to the development of one 10-story condominium building with 15 units to be situated within 16,283 SF (0.37 acre) of designated suitable habitat for the beach mouse (Figure 2).

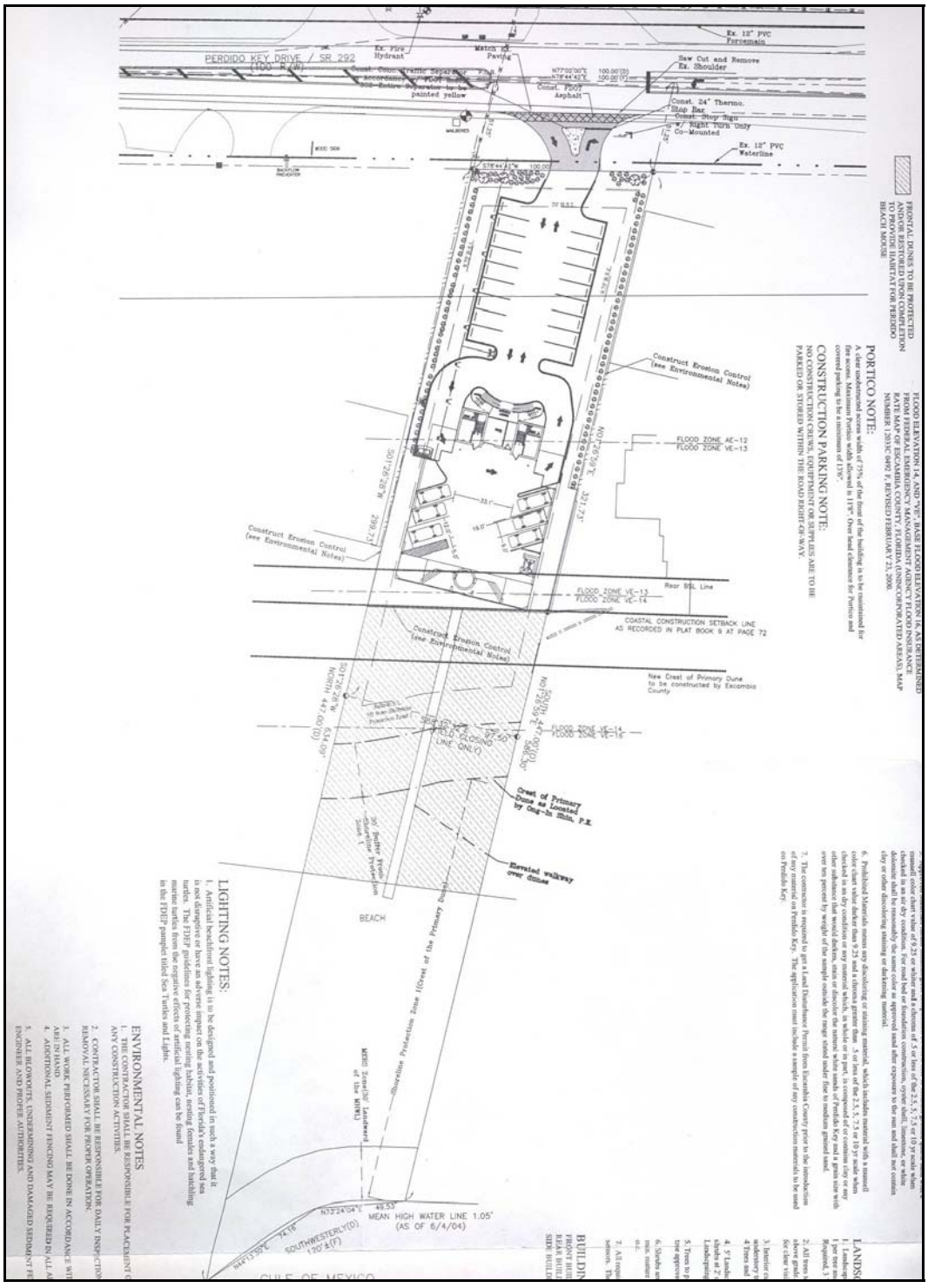

**Figure 2. Site plan of the Seabreeze project preferred alternative transposed on current development and condition of the project site.**

## 1.1 Impacts to Listed Species

The habitat impacted by the Seabreeze Condominiums project areas consists of frontal dunes. Animal and plant species likely to inhabit the coastal dunes and scrub habitat of the project areas and designated as endangered or threatened by the USFWS or the FWC are referred to hereafter as listed species.

The HCP addresses these and other species, which occur or are likely to occur in the project areas. Some species are limited to the north Florida Gulf coast in contrast with wide ranging distributions of many other species. Further, species not endemic to the habitats addressed in the HCP will benefit due to the proposed conservation measures to be implemented as a result of the project.

## 1.2 HCP Development

This HCP is prepared in accordance with the requirements of the USFWS in Section 10(a)(1)(B) of the Endangered Species Act (ESA). The *Habitat Conservation Planning Handbook* (Handbook), published by the USFWS and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA-Fisheries), November 1996 was used to guide the preparation of the plan as was the *Choctawhatchee Beach Mouse, Perdido Key Beach Mouse, and Alabama Beach Mouse Recovery Plan, USFWS* (August 1987).

This HCP addresses the four mandatory elements as required by the ESA and Code of Federal Regulations [50CFR 17.22(b)(1), 17.32 (b)(1), and 222.22]. An HCP submitted in support of an incidental take permit application must detail the following information (corresponding section numbers in this HCP are noted in parentheses).

I. Impacts likely to result from the proposed taking of the species for which permit coverage is requested (sections 1.2, 1.4, 2.1, 2.2,).

There are four steps to determine the likely effects of a project or activity on federally listed or candidate species. These are:

A. delineation of the HCP boundaries or plan area
B. collection and synthesis of biological data for species to be covered by the HCP
C. identification of activities proposed in the plan area that are likely to result in incidental take
D. quantification of anticipated take levels

II. Measures the applicant will take to monitor, minimize, and mitigate such impacts, including the funding that will be made available to undertake such measures, and the procedures to deal with unforeseen circumstances (sections 2.3 and 2.4)

III. Alternative actions the applicant considered that would not result in take, and the reasons why such alternatives are not being utilized (section 2.1)
IV. Additional measures required USFWS /FWC (to be addressed in subsequent meetings with USFWS & FWC).

### 1.3 Project Location and Delineation of Habitat Boundaries

The HCP is associated with a 1.35 acre gulf front parcel which is currently undeveloped (Figure 3). The proposed project consists of the construction of one 10-story building and associated amenities including parking and a swimming pool. Approximately 0.37 acre of this project site will be permanently impacted by the proposed development and is designated suitable habitat of the beach mouse (Figure 2).

**Figure 3. Parcel of proposed Seabreeze project on Perdido Key with respect to adjacent land use.**

Adjacent property use does not appear to provide connectivity of suitable habitat for the beach mouse. The adjacent property to the east is developed with a multi-story condominium complex which is the process of being renovated as of June 2006. The adjacent property to the west is presently vacant but was previously developed with low-rise condominium buildings which were demolished as a result of damage from Hurricane Ivan.

Because of biological needs of the beach mouse and other listed species addressed herein, the primary focus of the HCP will be primary, secondary, and scrub dune habitats within the project areas, which provide habitat for the beach mouse. The Applicant will focus conservation and mitigation activities on the suitable and restorable habitat of the project area.

### 1.3.1 Critical Habitat

Critical habitat was designated for the PKBM, CBM, and the ABM at the time of listing (50 Code of Federal Regulations [CFR] § 17.95, 50 FR 23872), and revised October 12, 2006 (71 FR 60238). Five units were designated for the PKBM spaced throughout its historic range, depending on the relative fragmentation, size, and health of habitat, as well as availability of areas with beach mouse primary constituent elements. The five units are: (1) Gulf State Park Unit, (2) West Perdido Key Unit, (3) Perdido Key State Park Unit, (4) Gulf Beach Unit, and (5) Gulf Islands National Seashore Unit (**Table 1** and **Figure 4**). The proposed project is located in lands designated as critical habitat within the Gulf Beach Unit (Unit 4) and the project site contains critical habitat primary constituent elements (PCE).

**Table 1**: Critical Habitat Units for the Perdido Key Beach Mouse.

| Critical Habitat Unit | Federal Acres | State Acres | Local and Private Acres | Total Acres |
|---|---|---|---|---|
| 1. Gulf State Park Unit | 0 | 115 | 0 | 115 |
| 2. West Perdido Key Unit | 0 | 0 | 147 | 147 |
| 3. Perdido Key State Park Unit | 0 | 238 | 0 | 238 |
| 4. Gulf Beach Unit | 0 | 0 | 162 | 162 |
| 5. Gulf Islands National Seashore Unit | 638 | 0 | 0 | 638 |
| Total | 638 | 353 | 309 | 1300 |

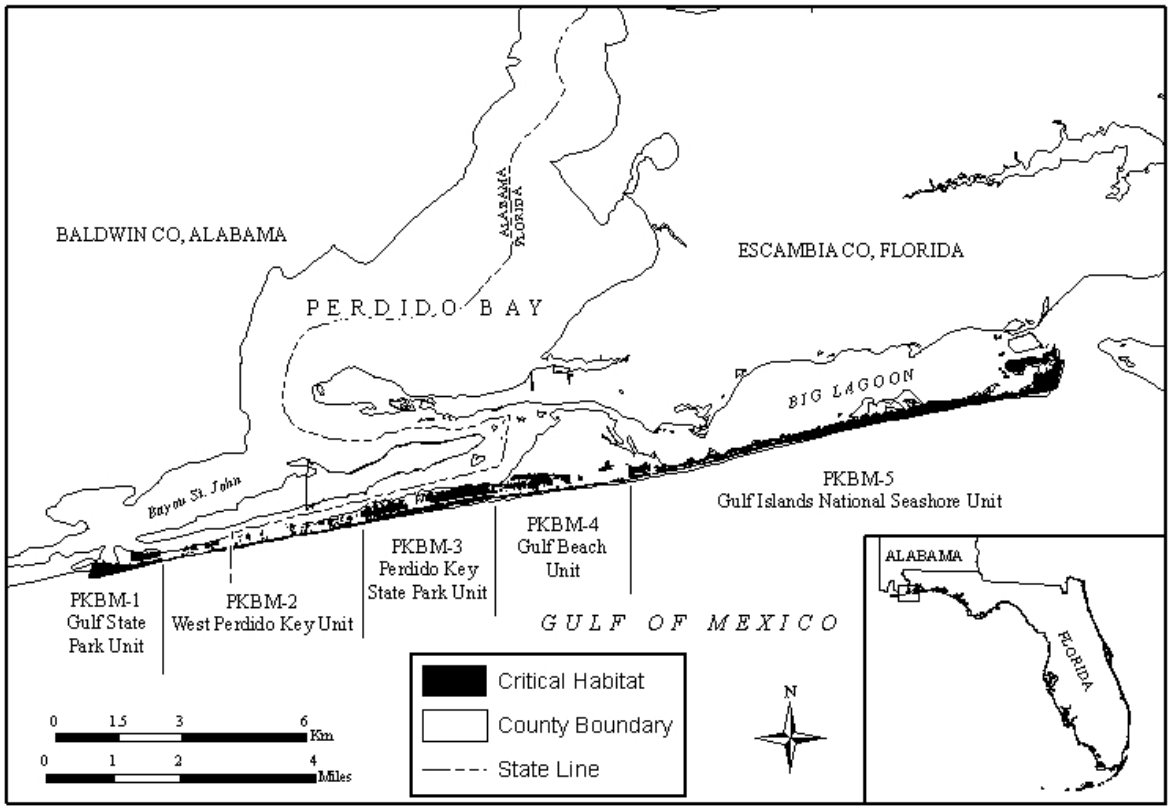


Figure 4. **Designated Critical Habitat Units for the Perdido Key Beach Mouse.**

### 1.3.2 Seabreeze Condominiums

Seabreeze Condominiums at Perdido Key is proposed to be located on a 1.35 acre gulf front parcel located in southwest Escambia County, Florida. The entire parcel is undeveloped and 0.91 acres are considered to be Perdido Key beach mouse habitat. The project area includes low dunes and open beach on the Gulf of Mexico. Landforms and vegetative communities on this tract include open beach and frontal sand dunes.

The frontal dune system is vegetated by sea oats (*Uniola paniculata*), with moderate to sparse cover of beach grasses (*Panicum amarum*). Elevations between the frontal dune (vegetated areas) and SR 292 range from 7-11 feet throughout much of the project site. Photographs of habitat associated with the Seabreeze Condominiums project are presented in Appendix B.

The Perdido Key beach mice were reintroduced into the Perdido Key State Park in the year 2000 and periodic monitoring indicates that the species continues to persist in the areas surveyed (personal communication, USFWS, January 2006). Recent monitoring and observations continue to indicate the presence of mice within the State and National Park as well as within the secondary and tertiary dune system into interior areas of the island located north of SR 292.

## 1.4 Biological Overview of Species Addressed by this Plan

Several species are addressed in this HCP due to their listed status or their reliance upon suitable habitat within the project area. The listed species addressed in the HCP includes:

- Perdido Key beach mouse
- Atlantic loggerhead, green turtle, leatherback, and Kemp's ridley sea turtle
- Piping plover

Biological overviews for these species are provided in the following sections. Certain additional species listed by the state of Florida are also protected by this HCP due to similarity of habitat with the species listed above. These species may include snowy plover (*Charadrius alexandrius*), peregine falcon (*Falco peregrinus*), tricolored heron (*Egretta tricolor*), snowy egret (*Egretta thula*), little blue heron (*Egretta caerulea*), least tern (*Sterna antillarum*), black skimmer (*Rynchops niger*), American oystercatcher (*Haematopus pallaitus*), Cruise's golden aster (*Chrysopsis cruseana*), large-leaved jointweed (*Polygonella macrophylla*), and coastal lupine (*Lupinus westianus*). Potential habitat impacts, conservation mitigation intents, and habitat management programs are addressed in Section 2.

### 1.4.1 Perdido Key beach mouse

The Perdido Key beach mouse (*Peromyscus polionotus trissyllepsis)* (PKBM) is a subspecies of the old field mouse (*Peromyscus polionotus*) and is endemic to Florida (Humphrey 1992). The PKBM is one of several subspecies of beach mouse that inhabit the coastal areas and barrier islands of Alabama and Florida. These subspecies differ from the old field mouse in color, markings, and size. The Perdido Key beach mouse is pale and smaller than the other subspecies and lack the stripe on the tail. The mouse generally ranges from 70 to 85 millimeter (2.7 to 3.3 inches) in length.

The historic range of the Perdido Key beach mouse included coastal dunes extending from Gulf State Park-Florida Point in Baldwin County, Alabama to the eastern terminus of Gulf Islands National Seashore-Johnson's Beach in Escambia County. The USFWS (1987) originally identified three areas of critical habitat for the mouse, including:

- Gulf State Park West, Florida Point in Alabama (GSP) (status unknown)
- Perdido Key State Park (PKSP) and adjacent privately owned lands (currently occupied)
- Johnson Beach section of the Gulf Islands National Seashore (GINS) (occupied)

Populations of PKBM also occur on privately owned, developed and undeveloped areas with in the historic range. Critical habitat was revised October 12, 2006 (71 FR 60238).

#### 1.4.1.1 Habitat

Habitat for the Perdido Key beach mouse consists of rolling, stabilized, inland and frontal sand dunes which support vegetation communities of sea oats, grasses, herbs, and small shrubs. Suitable beach mouse habitat, as defined in the Biological Opinion for the

Alabama beach mouse (1999) added primary, secondary, scrub dunes, and interdunal areas to habitat previously described by the USFWS Recovery Plan (1987). Data has indicated the presence of beach mice in interior areas beyond the traditional areas (primary, secondary, scrub dunes approximately 700-1000 feet inland). Habitat may also include connecting corridors between other habitats. Suitable beach mouse habitat, based on trapping data through 1999, is characterized by:

- primary, secondary, and scrub dunes, and interdunal areas
- high maximum elevation of the coastal sand dunes
- relatively great difference between maximum dune height and minimum interdunal elevation
- close proximity of forest
- sparse cover of ground vegetation with moderate number (average 3.5) of plant species
- relatively low cover of sea oats

### 1.4.1.2. Local Populations

The habitat types described above for the Alabama beach mouse are found in coastal dune habitats of northwest Florida along Perdido Key and extending to St. Andrews Bay in Bay County. This habitat description is consistent with suitable habitats of the Perdido Key subspecies.

Currently, it is theorized that potentially three core populations of the PKBM may exist along an estimated 10 to 12 miles of coastline (**Figure 5)**. Each of these core populations are described below.

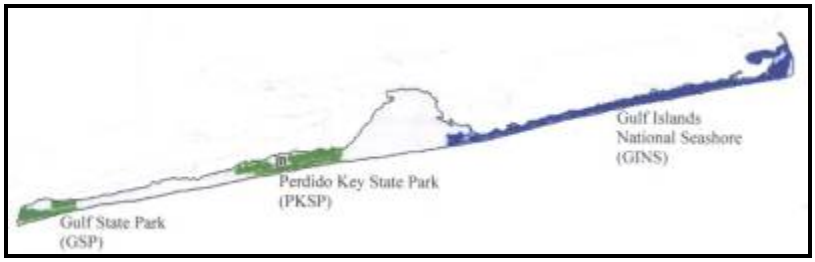


**Figure 5. Map of public lands on Perdido Key.**

The GSP population is located in the extreme western section of Perdido Key within Baldwin County Alabama, approximately 2 miles west of the Seabreeze project area. This 115-acre State Park has 1.1 miles of shoreline on the Gulf of Mexico with a bank of primary, secondary, and scrub dunes, paralleling the coast. The PKBM population at GSP was believed to be the only remaining population in the early 1980s. Mice from GSP were reintroduced to GINS in 1986, but have since suffered the effects of hurricane Opal and a problematic feral cat population. The population at GSP may be extirpated, though trapping to determine absence has not been conducted.

The PKSP consists of 1.5 miles of Gulf of Mexico frontage with considerable back dune acreage the width of the Key. This area is located approximately 1 mile east of the project area. The beach mouse population at PKSP was thought to be extirpated in the early 1980s. Reintroduction efforts occurred in 2000 and 2001, and until the passage of hurricane Ivan, indication was that the population was doing well. Personal communications with the USFWS (2006) indicate that the beach mouse is currently present within both the Gulf front section of land as well as the scrub dunes north of SR 292.

The GINS population is located along the easternmost section of Perdido Key
This section of habitat extends for 7 miles of Gulf frontage and maintains a mosaic of habitats from tidal marsh to primary dune systems. This population was thought to be extirpated in the early 1980's, but reintroduction efforts in 1986 yielded a healthy population. Since hurricane Ivan, and the numerous tropical storms in 2005, the population and its habitat have been severely impacted. Personal communications with the USFWS (2006) indicate that the beach mouse is currently present in the park.

#### 1.4.1.3 Life History

The Perdido Key beach mouse is primarily a granivore, foraging mainly on seeds and fruits of bluestem, sea oats, and evening primrose (*Oenothera humifusa*); however, insects are also an important component of their diet (Moyers, 1996). These foods are often stored in burrows excavated by the mouse. The PKBM is likely preyed upon by a variety of larger animals such as foxes, raccoons (*Procyon lotor*), herons, and coyotes (*Canis latrans*), as well as domestic cats (*Felis cattus*). PKBM are nocturnal foragers, in part to avoid predation.

The PKBM constructs intricate burrows. Entrances to the burrows are typically on the sloping side of a dune at the base of vegetation, where the burrow is both stabilized and concealed. The burrows usually have secondary exits, which provide escape from predators. The beach mouse burrow consists on an entrance tunnel, usually descending obliquely for some distance before continuing straight into the dune bank, where there is typically a nesting chamber 2 to 3 feet in depth, and an escape tunnel rising steeply to within an inch from the surface. Beach mouse home ranges may include numerous burrows for safe refuge from predators and shelter for food storage and nesting.

### 1.4.2 Sea Turtles

Four species of sea turtles occur along the north Florida Gulf coast, including the Gulf coast of Escambia County (Wolfe et al., 1988). Of these four, three are listed as endangered at both the state and federal levels (FNAI, 1999). The sea turtles which may nest along the Gulf coast in Escambia County include the Atlantic loggerhead turtle (*Caretta caretta*), which is listed as threatened with both the USFWS and the FWC, and the Atlantic green turtle (*Chelonia mydas*), leatherback turtle (*Dermochelys coroacea*) and Kemp's ridley (*Lepidochelys kempii*), which are listed as endangered by both the USFWS and FWC. While the green sea turtle population has exhibited historic declines

in response to commercial exploitation, the loggerhead, Kemp's ridley, and leatherback have no commercial value and population declines may be primarily a result of habitat loss (McDiarmid 1978), although losses have also been due to commercial fishing nets.

The green and loggerhead turtles (family Chelonidae) are characterized by heart-shaped, scute-covered carapaces, paddle-like limbs with one or two claws, and with the exception of the leatherback, are the largest living aquatic turtles. The Kemp's ridley is among the smallest of the sea turtles. These marine turtles typically forage and breed offshore in shallow water and the sandy beaches along the Gulf coast provide important nesting habitat. The leatherback is the largest living turtle, sometimes exceeding 540 kg (1200 lb) and is classified in a different family because of the absence of a hard carapace. Sea turtles live mostly in warm waters and are graceful swimmers, with limbs modified into long flippers that enable them to migrate long distances. The green turtle, for example, migrates from the coast of Brazil to breed on the small island of Ascension, some 1400 miles out in the Atlantic.

The sandy beaches along the coastal area are important nesting habitat for sea turtles. Reaching sexual maturity, females of most species of marine turtles return to the beaches where they were hatched (Behler, 1978 and McDiamid, 1978). At night they crawl on to the beach, dig a hole in the sand, and deposit their eggs. This may occur from one to several times in a season, depending on the species. After filling the nest with eggs they return to the sea.

When female sea turtles crawl above the tide line to bury their eggs, they and their large egg clutches are easy prey to shoreline predators, including humans. Many hatchlings never reach the water and still fewer survive their first year. Drowning of turtles in fishing trawls and diminished nesting grounds due to shore development have led to the endangered status of most sea turtles.

The Florida Department of Environmental Protection (FDEP) Florida Marine Research Institute (FMRI) coordinates and maintains the state Sea Turtle Stranding and Salvage Network (STSSN). The Florida STSSN is part of the national STSSN, which was established in 1980 and is responsible for gathering data on all stranded sea turtles in the United States. Stranding data are often used to monitor mortality rates and may sometimes be used as an indicator of relative distributions and abundances of different species and sizes of sea turtles (FMRI 1998). The number of strandings of sea turtles in Escambia County, by species, provides some indication of the relative abundance of sea turtles species on the project sites. It is important to note that absence of a stranding may not indicate the absence of the species.

The reproductive strategy of sea turtles involves producing many offspring to compensate for the high natural mortality through their first several years of life. Some mortality factors include disease; predation of the nest by raccoons, foxes, coyote (*Canis latrans*), hogs (*Sus scrofa*), and ghost crabs; loss of the nest from inundation or erosion due to wave action, storms, beach erosion or rain; predation of hatchlings on the beach by birds, fox, and ghost crabs; and predation in the aquatic environment by fish or marine species.

However, increased unnatural mortality is now occurring due to increased human-caused pressures on sea turtle populations. One such pressure is the loss and degradation of nesting habitat because of coastal development. Activities that affect the behavior and/or survivability of turtles on their nesting beaches (i.e., artificial lighting), also significantly reduce our ability to conserve sea turtles. The recovery of sea turtles is based on the protection of all nesting beaches through habitat conservation, minimizing effects of beachfront lighting, and minimization of the incidental catch of sea turtles in marine commercial fisheries.

A general description of the four sea turtle species potentially occurring along Perdido Key of Escambia County, Florida, within the project area is provided below. This includes a physical description, geographical distribution, and habitat requirements of the sea turtles.

#### 1.4.2.1 Loggerhead Turtle

The loggerhead sea turtle was federally listed as a threatened species on July 28, 1978 (43 FR 32800). This species inhabits the continental shelves and estuarine environments along the margins of the Atlantic, Pacific, and Indian oceans. Loggerhead sea turtles nest within the continental U.S. from Louisiana to Virginia (NOAA-Fisheries and Service 1991a). Major nesting concentrations in the U.S. are found on the coastal islands of North Carolina, South Carolina, and Georgia, and on the Atlantic and Gulf coasts of Florida (Hopkins and Richardson 1984). Nesting by loggerhead sea turtles has been documented in all northwest Florida counties including Escambia County (Brost 2005). Critical habitat has not been designated for loggerhead sea turtles along the Gulf coast of Florida.

Loggerhead turtles are the most common nesting sea turtle and account for over 99 percent of the nests in northwest Florida. The loggerhead sea turtle nesting and hatching season in this region generally extends from about May 1 through October 31. Average annual nesting in northwest Florida is about 897 nests (range 565 – 1285 nests) (Brost 2005). Nest incubation ranges from about 49 to 95 days. The National Park Service and Florida Park Service documented approximately 238 sea turtle nests on Perdido Key between 1994 and 2005 (Brost 2005; GINS 2005).

Recent genetic analyses have been employed to identify management units among loggerhead nesting cohorts of the southeastern United States. Assays of nest samples from North Carolina to northwest Florida have identified three genetically distinct nesting subpopulations: 1) north nesting subpopulation - Hatteras, North Carolina, to Cape Canaveral, Florida; 2) south Florida nesting subpopulation - Cape Canaveral to Naples, Florida; and 3) northwest Florida nesting subpopulation - Eglin Air Force Base and the beaches around Panama City, Florida. These data indicate that gene flow between the three regions is very low. If nesting females are extirpated from one of these regions, regional dispersal will not be sufficient to replenish the depleted nesting population (Bowen et al. 1993; Encalada et al. 1998).

### 1.4.2.2 Green Sea Turtle

The green sea turtle was federally listed on July 28, 1978 (43 FR 32808). Breeding populations of the green sea turtle in Florida and along the Pacific Coast of Mexico are listed as endangered; all other populations are listed as threatened. The green sea turtle is a circumglobal species in tropical and subtropical waters. Within the U.S., green sea turtles nest in small numbers in the U.S. Virgin Islands and Puerto Rico, and in larger numbers along the east coast of Florida (NOAA-Fisheries and Service 1991b). Nesting also has been documented as far north as North Carolina and along the southwest and northwest Gulf coasts of Florida (Meylan et al. 1995; Brost 2005). Critical habitat has not been designated for green sea turtles along the Gulf coast of Florida.

The green sea turtle nesting and hatching season for northwest Florida beaches extends from May 1 through October 31. Nest incubation ranges from about 60 to 90 days. Nesting in northwest Florida has been consistently documented at least every other year since 1990 (Brost 2005). Only a few dozen green turtle nests have been documented on Perdido Key (Brost 2005).

### 1.4.2.3 Leatherback Sea Turtle

The leatherback sea turtle was federally listed as an endangered species on June 2, 1970 (35 FR 8491). Nesting grounds are distributed circumglobally, with the Pacific coast of Mexico supporting the world's largest known concentration of nesting leatherbacks (National Research Council 1990; NOAA-Fisheries and Service 1992). The leatherback regularly nests in Puerto Rico, the U.S. Virgin Islands, and along the Atlantic coast of Florida as far north as Georgia (NOAA-Fisheries and Service 1992). Sporadic leatherback nesting also has been documented in northwest Florida and North Carolina (LeBuff 1990; Longieliere et al. 1997; Boettcher 1998; Brost 2005). Critical habitat has not been designated for leatherback sea turtles along the Gulf coast of Florida.

Documented leatherback nests are rare in northwest Florida. From 1993 to 2005, 32 nests have been reported for northwest Florida beaches, 20 in Franklin County, three in Okaloosa County, five in Bay County, three in Gulf County, and one in Escambia County (Brost 2005). Leatherback sea turtle nesting has not been documented on Perdido Key. The leatherback sea turtle nesting and hatching season for northwest Florida beaches extends from May 1 through October 31. Documented nest incubation in northwest Florida ranges from about 63 to 84 days (Miller 2001; Brost 2005; GINS 2005).

### 1.4.2.4 Kemp's Ridley Sea Turtle

The Kemp's ridley sea turtle has received protection in Mexico since the 1960s and was federally listed as an endangered species throughout its range on December 2, 1970. They occur in the Gulf of Mexico and the northern Atlantic Ocean (Pritchard 1989; Marquez 1994 as cited in Turtle Expert Working Group 1997; 1998) and are assumed to constitute a single stock. The range of the species includes the Gulf coasts of Mexico, the U.S., and the Atlantic coast of North America as far north as Nova Scotia and

Newfoundland. They also have been reported from Bermuda, European Atlantic waters, the Mediterranean Sea, Madeira, the Azores and Nicaragua (Marquez, 1994 as cited in Turtle Expert Working Group, 1997; 1998; Service and NOAA-Fisheries, 1992). There have been six confirmed nests in northwest Florida in recent years (1998, 2001, 2002, and 2004) (GINS, 2005; Spector, 2005).

Documented Kemp's ridley nests are rare in northwest Florida. The first Kemp's ridley nest documented in northwest Florida was on Perdido Key in 1998 (GINS 2005). Since then (1998-2005), there have been four Kemp's ridley nests documented on Perdido Key and one on GINS (Brost 2005). Average incubation for the three documented nests is 63 days (range 61 to 65 days) (GINS 2005; Spector 2005).

### 1.4.3 Piping Plover

The piping plover (*Charadrius melodus*) is a small, American shorebird. It breeds in three distinct areas (the Northern Great Plains, Great Lakes, and Atlantic Coast) and winters in coastal areas of the United States from North Carolina to Texas. On December 11, 1985, the Great Lakes population of piping plovers was listed in the Federal Register (50 FR 50720) as endangered, while all other populations were listed as threatened under the ESA. All populations are considered threatened when on their wintering grounds. Critical habitat for wintering piping plovers was designated July 10, 2001 (66 FR 36038). Migratory patterns for the plover are not well understood. Piping plover generally migrate to their wintering areas from late July through September, returning to their breeding grounds beginning in late February.

Habitat used by piping plovers for foraging, roosting and shelter include intertidal beaches and flats (between annual low tide and annual high tide), and associated dune systems and flats above annual high tide. The sand or mud flats possess no or minimal emergent vegetation. Important features of the beach and dune systems include surf-cast algae, sparsely vegetated backbeach, spits, and washover areas. In addition, adjacent non- or sparsely vegetated sand, mud, or algal flats above high tide are important habitat for roosting piping plovers, and are primary constituent elements. These roost sites may have debris and detritus that provide shelter from high winds and cold.

Non-breeding piping plover are found consistently in the Florida panhandle from July 15 to May 15. Areas used by piping plovers are ephemeral habitats that due to their nature change over time. Hurricanes and episodic storm events increase overwash processes that transport sediment (sand) across barrier islands and form inlets and sand and mud flats. Washover areas are created by the flow of water through the primary dune line with deposition of sand on the barrier flats, marsh, or into a lagoon, depending on the storm magnitude and the width of the beach. On developed beaches, structures may prevent or minimize this occurrence. Washover passes are used by migrating and wintering piping plovers for feeding and roosting. Dredging projects and shoreline manipulations in wintering areas can have an effect on the piping plovers food base, and result in habitat loss and direct disturbance of individual birds. The current use of this area by piping plovers post recent hurricane events is currently unknown.

The Florida critical habitat unit 1 – Big Lagoon encompasses 19 acres, within the majority in Big Lagoon State Park. This unit covers the peninsula, emerging sand and mudflats, emerging sandbars, and shoreline from Mean Low Water (MLW) ending at densely vegetated habitat. Occurrence records document one to five piping plovers consistently using the Big Lagoon area during migration and winter months, with no presence likely from May 15 to July 15. This area is north and east of the Perdido Key action area. If suitable habitat is found on the project site, piping plovers may be using the project area sometime during the nonbreeding season. Regular surveys would be needed to confirm their presence.

#### 1.4.4.1 Additional Species

Although the ESA does not generally prohibit the incidental taking of listed plants on private property in accordance with State Law (USFWS 1996), plants listed by the State of Florida may be protected by this HCP due to the similarity of habitat needs are Cruises golden aster, large-leaved jointweed, and coastal lupine. Because these species are tolerant of high-energy dune systems, they may also occur in locally disturbed areas where other plant species have not yet been established or re-established.

## 2. PROPOSED ACTIVITIES

Proposed development of the Seabreeze Condominiums may result in an incidental take on the project areas. The first mandatory element of the HCP (USFWS 1996) related to the potential incidental take requires that:

- activities proposed in the plan area that are likely to result in incidental take must be identified; and
- anticipated take levels be quantified.

### 2.1 Project Alternatives

#### 2.1.1. Alternatives considered but not included in the analysis

##### 2.1.1.1. Build out alternative

The applicant originally proposed maximum build out for the development. The developments included more parking and more amenities for the residents and visitors. The amenities would have been more accommodating to the users of the developments including more expansive decks, larger pools, etc. However, the full development scenario would not meet local or State of Florida regulatory requirements including conservation of protected species. Revisions were submitted with successive reductions of impacts to suitable habitat.

#### 2.1.1.2. Redevelopment of property at current level

As the Seabreeze Condominium would be a new development on previously undeveloped property, redevelopment of the property at the current level is not applicable. The property was purchased as an investment for development and sale.

#### 2.1.1.3. Building at other locations

Other beachfront locations on Perdido Key exist on which the proposed projects could be constructed. However, most available alternative sites also contain suitable habitat for the PKBM. Thus, selection of alternative beachfront sites in lieu of the proposed site would not eliminate the potential take associated with the development. There are some beachfront properties that are currently developed and have little beach mouse habitat remaining. However, land values may have increased since the applicants purchased the subject properties and acquiring other sites may be cost prohibitive.

## 2.2 Alternatives included in the analysis

### 2.2.1.Alternative 1, No Action

Under Alternative 1, the Service would not issue the ITP. If the applicant does not develop the property, then the property could be sold to other individuals or developers. Alternatively, the property could be purchased by a conservation entity and preserved in perpetuity, although this is highly improbable because of the property's small size, distance from other conservation areas, and its proximity to other existing development.

### 2.2.2. Alternative 2, Preferred Alternative Development Intent: Proposed Activities Which May Result in Incidental Take

Proposed activities, which may result in an incidental take, are described for each of the project areas in the following paragraphs.

The applicant proposes to develop Seabreeze Condominiums, within a 1.35 acre parcel along the Florida Gulf coast beaches of southwest Escambia County. Developments will include the following:

- one 10-story building consisting of 15 residential dwelling units and associated parking;
- amenities including one swimming pool and one elevated walkway (with handrails) for pedestrian access to the beach.

Development is planned to occur upon receipt of all applicable State, Federal and County permits. Construction is anticipated to take 18 months and occupancy expected thereafter.

The beachfront area will provide day-use portable recreational amenities. These amenities are for day use only and are to be moved each day before dusk. These amenities include beach chairs, cabanas, umbrellas, and beach recreational equipment for use by the residents and guests of the project. These items are to be stored within or under the building. Items may also be stored under the boardwalk at the toe of the dune. Materials are not to be stored on vegetation or vegetated areas.

## 2.2 Impact on Habitat: Quantifying Anticipated Incidental Take

Anticipated incidental take levels have been quantified for the Seabreeze Condominiums project areas and are presented below. Quantifying the anticipated take of the Perdido Key beach mouse is directly dependent upon impacts to the designated suitable habitat. Suitable, non -suitable, and open beach habitats are quantified in an effort to better evaluate incidental take.

The project site is undeveloped and the habitat consists primarily of frontal dunes with a fairly consistent cover of *Uniola* and *Schizachyrium*. There exists approximately 0.91 acres of frontal dunes on the site which may be considered suitable habitat. The remainder of the parcel consists of approximately 0.44 acres of beach front.

Permanent impacts to suitable habitat due to pavement, buildings, and amenities amount to 0.37 acre. Habitat which will be disturbed but not permanently converted to a more intensive land use (e.g., temporary construction) will be restored (**Table 2**). The development is anticipated to only permanently or temporarily impact frontal dune habitat **(Table 3**). The value of retaining habitat, where possible, within the project area and augmented with native landscaping will be accomplished in all areas outside the developed core of the lot.

**Table 2. The current and preferred alternative for the Seabreeze condominium related to impacts on Perdido Key beach mouse habitat.**

| Seabreeze Condominiums | Current Condition | Preferred Alternative |
|---|---|---|
| Total property Acres | 1.35 | 1.35 |
| PKBM habitat on site | 0.91 existing | 0.54 to remain |
| Permanently impacted PKBM habitat | NA | 0.37 |
| Temporarily impacted PKBM habitat | NA | 0.15 |
| Development of non-PKBM habitat | NA | 0 |

**Table 3. Perdido Key habitat types that will be impacted by the Seabreeze preferred alternative.**

| | Open Beach | Frontal Dunes | Scrub Dunes | Current Infrastructure/ Impacted Area | Current | Preferred Alt. |
|---|---|---|---|---|---|---|
| Parcel Total acres | 18,977 | 39,627 | 0 | 0 | 58,604 *(1.35ac)* | 58,604 *(1.35ac)* |
| PKBM Habitat Existing/remaining | | 39,627 | | 0 | 39,627 (0.91 ac) | 23,522 *(0.54 ac)* |
| Permanently Impacted PKBM habitat | 0 | 16,283 | 0 | 0 | 16,283 *(0.37 ac)* | 16,283 *(0.37 ac)* |
| Temporarily Impacted/Restored | 0 | 6,600 | 0 | 0 | NA | 6,600 (0.15 ac) |

In addition to direct impacts of habitat loss, indirect impacts due to increased human activity may occur. These include increased pedestrian traffic resulting in disturbance, introduction of house pets, attraction of feral animals, increased trash, disturbance due to lighting, and habitat fragmentation. Many of these secondary impacts will be reduced or eliminated by the implementation of the HCP.

Based on habitat and local distributions, impacts to the Perdido Key beach mouse, the piping plover, and sea turtles as a result of the project are addressed in the following sections. The loss of habitat comprises a direct effect only to habitat suitable to the Perdido Key Beach Mouse.

A limited study was conducted for this project in order to ascertain the presence or absence of the PKBM. The study was conducted in November 2005 and involved selected placement of 50 traps per night for 5 nights. No PKBM, house mice, or other mammals were captured during the limited study. There was no evidence of disturbance of the traps by potential predators.

### 2.2.1 Seabreeze Condominiums

The Seabreeze Condominiums project area contains a total 1.35 acres. Approx. 0.91 acres is currently considered suitable habitat for the Perdido Key beach mouse. The designated critical habitat for Perdido Key Beach Mice can be obtained at www.fws.gov/panamacity; page 60238; 50CFR part 17; RIN 1018-T90; Action: Final Rule. Non-suitable habitat is limited to the open beach area (0.44 acre).

### 2.2.2 Habitat Types

Two general habitat types make up the suitable habitat associated with the PKBM described for the Seabreeze Condominiums project area. Dune and disturbed habitats are

described below. The third type of habitat found within the project area consists of open beach that is utilized by the piping plover and sea turtles as described.

#### 2.2.2.1 Open beach habitat

Open beach habitat includes those areas of uniformity flat to gentle sloping open sand between the shoreline and the toe of the primary dune. Areas of historically recent tidal washover from high tidal and storm surges are also included within this open beach habitat. The beaches have little to no vegetation and are subjected to periodic tidal and storm surge inundation. Beach habitat includes approximately 0.44 acre. There will be no loss of beach habitat in the project area. Beach habitat provides:

- essential nesting and wintering habitat for the piping plover;
- essential nesting habitat for the four sea turtles listed and described earlier;

Habitat used by piping plovers for foraging, roosting and shelter include intertidal beaches and flats (between annual low tide and annual high tide), and associated dune systems and flats above annual high tide. Piping plover generally migrate to their wintering areas from late July through September, returning to their breeding grounds beginning in late February. All populations are considered threatened when on their wintering grounds. Snowy plover breeding habitat is relatively undisturbed dry or sandy ground near to water (Richards, 1988) where they nest on open, dry white sand. Other bird species are intolerant of the bare sand and beach habitat for either feeding or nesting or both, thereby eliminating competition with other species, and providing a niche in which the snowy plover are considered adverse.

While sea turtles feed and live in offshore waters, the female turtle must come ashore to nest and lay their eggs, and most return to the same beaches on which they were hatched. Soft, sandy beaches provide the habitat in which the females dig the nest, deposit their eggs, and return to the ocean. Hatchlings later dig out of the sand before racing to the ocean amid predation, disturbance, and possible disorientation from artificial lights. Development on these beaches results in direct loss of nesting habitat, as well as decreased nesting success due to disturbance, increased predation, and disorientation of hatchlings due to lighting. Impacts, which preclude nesting by a sea turtle, are considered adverse.

Although seeds are their primary source of food, the Perdido Key beach mouse may occasionally forage for invertebrates, especially during the late winter and early spring when seeds are scarce, and venture from the cover of the vegetation for short periods of time. The sandy beaches are not primary habitat for Perdido Key beach mouse, however, because it is at a greater risk of predation when on the open beach.

Indirect impacts are expected as a result of the project. These may include disturbance of nesting activities or physical disturbance of nests by increased pedestrian traffic; predation on adult or hatchling species of interest due to pets; predation due to increased feral animals; competition with invasive species (e.g. house mice) due to construction of

dwellings and accessible trash; erosion of habitat due to increased pedestrian traffic; and disturbance due to increased artificial lighting.

#### 2.2.2.2 Dune Habitat

The dune habitat consists of a severely impacted frontal dune system. The generally flat primary and secondary sand dunes, which occur along the coastal portions of the project areas, support vegetation communities of sea oats, grasses, herbs, and small shrubs. Vegetation along the dunes includes sea oats and grass.

The project areas include 0.91 acres of dune habitat of which the applicant is proposing to permanently impact 0.37 acre. The loss of this dune habitat may result in the taking of PKBM.

Impacts to sea turtle nesting success as a result of loss of dune habitat are similar to those described for the beach habitat. The seaward portions of the sand dunes along the project areas also make up the edge habitat along which sea turtles nest. The increase elevation and vegetation prevents the turtles from progressing farther, and they often nest along the seaward edge of the dunes.

Vegetated dunes do not provide habitat for snowy plover or other shorebirds, which prefer bare, sandy beaches. Other passerine birds and gulls may occasionally inhabit these dunes. In addition, gull colonies, oyster catchers, and willets (*Catoptrophrus semipalmatus*) often nest in or along the edge of dune vegetation. Indirect impacts to each of these species are similar to those described for the beach habitat.

## 2.3 Conservation and Mitigation Intent and Alternative Actions

This section specifically addresses the conservation, mitigation, and restoration intent of the HCP, listed previously in section 1.1. These mandatory elements concern:

- minimizing and mitigating impacts; and
- alternative actions.

### 2.3.1 Conservation and Mitigation

Mitigation measures will be employed to benefit the listed species. The mitigation and conservation portion of the plan contains the following three parts.

- Restoring remaining habitat areas along the sides of the developed area to allow for natural movement of PKBM between the dune habitats north and south of the roadway.
- Management and conservation of remaining natural areas.
- Implementation and participation of conservation measures currently considered by the agencies including trapping, monitoring, and management efforts.

In summary, the proposed project will result in permanent impact to approximately 41% of the suitable PKBM habitat within the entire project area. Unimpacted open beach, and restored frontal dunes make up approximately 40% of the entire parcel. All undeveloped lands shall be placed under a conservation easement.

#### 2.3.1.1 Dune Restoration/Enhancement

Measures to provide assurance that restoration of habitat would occur in the future after any losses occur shall be implemented in the covenants and/or restrictions of the development. These conditions shall require restoration of sand and vegetation in the dune community after a named storm event, should such be lost or degraded, and if these areas are not otherwise restored by a government entity or other third party as part of an overall or isolated dune restoration program, provided this requirement shall not interfere with or otherwise prohibit future participation in any such dune restoration program.

The impacted areas of beach dune located southward of the Seabreeze Condominiums project will be restored. The dune system was impacted by Hurricane Ivan in 2004 and continues to be disturbed by routine pedestrian access from the highway and developments on the north side of the highway. To provide conditions appropriate for the natural recovery of the dunes, several steps will be required:

- place sand to begin the dune building process;
- install sand fencing to expedite natural sand accretion in restored areas;
- acquisition of sea oats and other appropriate native plant species which are of sufficient quality, health and genetic integrity,
- installation of plants in a way that ensures their success,
- maintenance of the plants to ensure their continued success
- installation of additional sand fence as necessary to inhibit disturbance by pedestrians, and
- protection of the plants to avoid disturbance from human activities.
- covenant conditions.

Escambia County has completed the post-hurricane 2004-05 seasons berm construction and re-vegetation program. The applicant proposes to supplement the County effort with additional species and number of plantings. The exact numbers and species has yet to be determined, but is expected to aid in overall coverage of the newly established dune system, as well as provide additional forage opportunities for the PKBM.

The objective of this restoration/enhancement project is to achieve rapid and effective dune stabilization through plantings of sea oats and other native plants. The habitat to be restored in the Seabreeze Condominiums project areas is made up of the frontal dunes south of the proposed building. The vegetation is relatively sparse along those areas proposed for restoration and bare sand makes up most of the area. The dominant vegetation along the foredune is sea oats.

Other species which occasionally occur on the fore dune include blue stem, beach panic grass, beach morning glory (*Ipomoea stolonifera*) and railroad vine (*Ipomoea pes-caprae*). The PKBM forages and nests among beach grasses and sea oats that will be addressed as part of the dune restoration. A generalized restoration design is presented in the following sections.

#### 2.3.1.2 General Planting Design

The foredune vegetation will be restored using container plants. Sea oats, panic grass and other appropriate vegetation will be planted in a 12-foot wide strip along the frontal dunes and throughout area to repair the dune breaches. The plantings will be arranged on eighteen-inch (18) to twenty four inch (24) centers in linear patterns. The plants will be planted six inches deep with a small amount of slow release fertilizer and a hydrated biodegradable polymer placed in each planting hole.

The planting will be patterned after the species composition in the adjacent native community. To insure acceptable survival rates of these plants, temporary irrigation will be used in the initial establishment of appropriate herbaceous plantings. Post and rope fences and appropriate signs will be used to deter pedestrian traffic from the newly restored areas.

This effort is intended to supplement the County effort. It is usually considered that more planting units tends to solicit higher survival rates and will provide habitat (forage and cover) more quickly.

All disturbed areas outside the development footprint in Perdido Key beach mouse habitat will be landscaped with appropriate native beach mouse habitat vegetation and neither sod nor mulch should be used. The landscape plan for the development shall be reviewed and approved by the United States Fish and Wildlife Service.

#### 2.3.1.3 Conservation Intent in the Seabreeze Condominiums Project Area

The conservation intent in the Seabreeze Condominiums project area includes several components:

- Conservation of suitable habitat area
- Recording of a conservation easement, or restrictive covenant
- Restoration of the hurricane impacted dune habitat
- Development of appropriate covenants and restrictions.
- A project management program (described in section 2.4).

Each of these components is intended to conserve and manage habitat for the listed Perdido Key beach mouse and benefit other species with similar habitat requirements.

### 2.3.2 Additional Measures that may be Required for the HCP

Section 10(a)(2)(B) of the ESA which describes issuance criteria for incidental take permits authorizes the USFWS to obtain "such other assurances as (they) may require that the plan will be implemented." This provision allows the USFWS broad latitude to require measures as necessary to accommodate the wide variety of circumstances often encountered in HCPs.

## 2.4 Management Program

The project management program (PMP) addresses the protection and management of the coastal beaches and secondary and primary dune habitat in the project area. Design and habitat management activities will be accomplished through appropriate:

- design of facilities
- construction
- operation, including long-term management of the project area

The PMP will include restoration of marginal habitat, mitigation for impacted habitat, and installation of boardwalk and lighting compatible with management for coastal beach and dune habitat. Finally, there will be allocation of responsibilities to management agencies (e.g. hotels, homeowners association). The activities requires for the management of these areas, as well as the entities responsible for the management, are specifically addressed in the following sections.

### 2.4.1 Design

The design of the condominium to minimize impacts to beach and dune habitat through the scale and orientation of structures and the placement of associated facilities, such as dune walkovers, parking lots, recreation facilities, and landscaped areas.

The facilities development is anticipated to impact 0.37 acre of suitable habitat for the Perdido Key beach mouse.

The remaining acres of dune and beach habitat will be managed as natural habitat areas and landscaping will be limited to native vegetation consistent with beach mouse foraging and shelter needs. No invasive or exotic species shall be planted during any landscaping or restoration activities.

Existing dune loss will be restored by establishing natural topographic relief (if appropriate) and replanting with sea oats to stabilize the dune and thus restoring 0.54 acre of optimal habitat for the Perdido Key beach mouse. This restoration effort will replace dune loss with dune creation and re- vegetation efforts.

The design of the elevated dune walkover is intended to minimize impacts to the existing habitat. A handrail will be provided to keep pedestrians from entering the dune habitat. The elevated walkover will be placed with a minimum 3 feet above grade, which will not

inhibit plant growth beneath the walkway. This design elevation will not preclude foraging or nesting of the beach mouse.

### 2.4.2 Construction

Habitat management during the construction phase will include the placement of sediment barriers and flagging around habitat areas to restrict access and avoid incidental impact on the habitat. The general contractor's scope of services will stipulate the conservation objectives of the HCP and that all sub-contractors will abide by the same objectives. Objectives will include avoidance of impacts to the delineated habitat areas during the construction process. Weekly inspections will be performed during construction by a qualified biologist in an effort to identify and curtail unnecessary impact on the habitat. Construction methods to minimize impacts to natural areas will be discussed with the contractor. These construction methods are anticipated to include top down construction of the boardwalks dune walkovers and decking in sensitive habitat areas. Placement of construction materials and equipment will be restricted to appropriate staging areas and will be prohibited adjacent to delineated habitat areas. The contractor will be required to keep the construction site clean through periodic site inspections and clean-up efforts. Rubbish and construction debris will also be restricted to areas away from the delineated natural areas. Additional considerations are listed below.

#### 2.4.2.1 Establishment of Limits of Disturbance

The limits of disturbance due to construction grading shall be delineated on all building plans. An appropriate buffer area between the habitat fence and the physical construction activities of 6 feet to the south and 3 feet on the east and west shall be maintained. Temporarily disturbed areas within this buffer shall be revegetated.

#### 2.4.2.2 Habitat Fencing

Fences to ensure the protection of adjacent habitat on the subject property and off-site shall be erected before construction begins. The fence shall be placed along the perimeter of construction grading disturbance and signs giving notice to the building contractor/workers of the building contract penalty for disturbing habitat beyond the fence shall be posted at 100-foot intervals. The fence would allow movement of beach mice and prevent pedestrian trespass.

#### 2.4.2.3 Revegetation of Temporarily Disturbed Areas

Areas designed for habitat protection, which are temporarily disturbed during construction grading shall be revegetated to ensure habitat conditions compatible with the Perdido Key beach mouse. Areas included under the revegetation provision include road shoulders, boardwalk areas, and natural areas impacted by construction. Topographic restoration (regarding of sand or placement of additional sand) and re-vegetation efforts are expected to occur in conjunction with the construction sequencing. For instance

when areas are deemed to be outside and clear from potential future disruption, they will be cleared for restoration. Plants to be installed in these natural areas shall include only species native to coastal Escambia County.

#### 2.4.2.4 Turtle Lighting

Any lighting on permanent structures as well as lighting which may be used during the construction phase which occurs during turtles nesting and emergence seasons (May through October).

### 2.4.3 Management Activities

Management and conservation activities proposed to provide for long term management of the coastal communities addressed in the HCP are presented in this section. These management activities will:

- avoid and minimize impacts to Perdido Key beach mouse suitable habitat through design consideration
- restore and enhance 0.54 acre of disturbed dunes and restore temporarily disturbed habitat associated with the project area.
- implement management actions designed to avoid impacts, maintain, and enhance the ecological integrity of habitat in the project area
- following the Applicant funded 12 PKBM trapping events, consent to and allow access for trapping/participation recovery efforts of beach mouse by the USFWS or FDEP as funded by the PKBM Conservation Fund

#### 2.4.3.1 Conservation

Conservation of remaining Perdido Key beach mouse habitat on the site shall be accomplished through conservation easement or deed restriction on condominium tract, and covenants and restrictions within the homeowners association. The specific language within the document will allow a right of entry for County, State, and Federal Wildlife entities for purposes of permit inspection and/or species recovery work. These will insure that the responsible party will comply with the conditions of the HCP, on all portions of the site under their ownership or lease.

#### 2.4.3.2 Dune Restoration

Because dune restoration requires natural accretion of sand, it cannot be conditioned as a single event. Restoration of disturbed areas within the preserved habitat area will occur as described previously. Restoration shall include the grading of the dunes to historic elevations and vegetation of the dunes with characteristic vegetation.

### 2.4.3.3 Reporting

The ITP issued under Section 10 (a) requires an activities report submitted to the USFWS by 31 January of each year. The annual report shall be prepared by the responsible party and submitted to the USFWS and the FWC. The report shall contain a summary of development activities which took place on the project area and other information relevant to preservation of the habitat for the species of interest discussed in previous sections.

### 2.4.3.4 Control or Removal of Pests and/or Predators

If house mice are found within the managed project area, a trapping program by the condominium shall be implemented and the mice removed. Domestic cats will be prohibited from the premises. Dogs will be allowed when kept confined inside the condominium units. Dogs may be walked on a 6-foot hand held leash, outside of beach and dune areas (PKBM habitat) in the hardscape areas of the condominium complex. All solid waste material must be picked up and disposed of properly by the pet owner/caretaker. Any feral animals will be captured and removed. The capture and removal of these species will be accomplished through contractual arrangements with permitted nuisance species trappers and/or Escambia County Animal Control. Pesticide and herbicide application would be prohibited outside the units at the development.

### 2.4.3.5 Litter and Trash Control

Litter and trash attract raccoons as well as feral pets and other animals. Raccoons especially are notorious turtle egg eaters and have been observed standing on a turtles back and catching and eating the eggs as they are deposited. Strict ordinances to conceal trash and litter are necessary if turtle eggs are to be protected from these animals.

A trash and rubbish control program will be incorporated into the deed restrictions and covenants of the condominium complex. This program will include consideration of control of trash generated during the use of the outdoor recreational amenities and control of the rubbish and domestic solid waste generated by residents of the condominiums. Only one trash receptacle (predator proof) will be in the exterior of the building at the pool and deck area. Predator proof trash receptacles will be installed to prevent trash exposure and subsequent attraction of pests. Containers will be elevated above the ground and covered to limit wildlife scavenger access. Frequent pickup will be scheduled to remove waste from the project site. There will be no trash receptacles on the beach.

Solid waste from the condominium complex will be collected and placed in a predator proof dumpster in the parking lot for frequent collection. A standard rodent control program, as approved by the United States Fish and Wildlife Service, will be implemented for the solid waste collection point in order to prevent attracting house mice into the area.

### 2.4.3.6 Identification and Protection of Turtle Nests

The maintenance of natural beach areas in the nesting territory of this species of recommended for this species survival. Nesting sites, when they occur on-site, should also be closed to public access to minimize disturbance. The Applicant will work with the local State permitted sea turtle monitoring program concerning sea turtle nests on the project site.

### 2.4.3.7 Turtle Lighting

Many coastal counties and communities in Florida have developed lighting ordinances to reduce nesting adult and hatchling disorientation. Specific lighting requirements for sea turtles are presented here. The lighting for the development shall be Sea Turtle friendly and coastal dark sky compliant. Lighting restrictions will be implemented as part of the construction plans.

The lighting plan for the development shall be reviewed and approved by the United States Fish and Wildlife Service. The lighting plan shall be a plan view drawing or schematic plainly showing the location of all exterior lighting fixtures. Distinctive and clearly marked symbols shall be utilized to show the location of each type of proposed fixture. The plan shall include a table with the following column headings:

- Symbol
- Fixture (name or stock number)
- Total number of each fixture
- Bulb wattage and type (e.g. 40 watt yellow “bug”lamp)
- Type of mount (e.g. wall, pole, bollard)
- Mounting height
- Windows and glass doors will have glass that only allows 45% or less inside-to-outside light transmittance in the visible spectrum (400 to 700 nanometers).

A detailed description (manufacturer’s cut sheet) for each fixture shall be included. Two copies of the completed lighting plan shall be transmitted to:

Marine Turtle Coordinator
Bureau of Beaches and Coastal Systems
3900 Commonwealth Blvd., Mail Station 300
Tallahassee, FL 32399

U. S. Fish and Wildlife Service
Field Office
1601 Balboa Avenue
Panama City, FL 32405

### 2.4.3.8 Identification and Protection of Snowy Plover Nests

The restoration of natural beach areas in the breeding territory of this species is recommended for this species survival. Identified nesting areas should also be closed to public access during breeding season to minimize disturbance. These birds nest individually, not in colonies, so closing large areas to public access will not be

advantageous. Designated roped areas with signs warning pedestrians of possible nests during the nesting season should be marked with warning signs.

#### 2.4.3.9 Storage of Beach Equipment During Nesting Season

Recreational beach equipment including beach chairs, umbrellas, and surf boards will be removed from the beach and stored in a centralized area during nesting season from May 1 though October 31. This beach equipment will be placed in storage facilities located adjacent to the dune walkover for the condominium complex. Please refer to section 2.2.1 of this document for clarification of storage facilities and locations.

#### 2.4.3.10 Controlled Beach Access

Access to the beach from the condominium complex, as well as public access, will be controlled by a strategically placed dune walkover. Fencing, signs, and information kiosks will direct pedestrian traffic along pathways and walkovers, plus inform the public of the sensitivity of the dune communities and the associated Perdido Key beach mouse, sea turtle, and shorebird habitat.

#### 2.4.3.11 Education of Guests and Residents

An environmental education program will be developed to inform the residents and guests of the listed species that inhabit the coastal areas. This program will include the development of an informational brochure regarding the listed species and the coastal habitat, the placement of an informational kiosk, and signs.

### 2.4.4 Allocation of Management Responsibilities

Section 10 [50 CFR] regulations require the Applicant to provide legal and financial assurances that HCP obligations will be met for minimization, monitoring, and mitigation of project impacts. Allocation of management responsibilities and commitment to these elements are addressed below.

#### 2.4.4.1 Minimization of Impacts

Minimization of impacts associated with the development of the project include protection measures accomplished through activities described previously, including restoration and conservation measures, construction setbacks, boardwalks and walkovers, environmental friendly lighting, as well as proposed activities associated with day to day operation and management of the project. Where relevant, operation policies will be included in the condominium documents provided to each resident. The allocation of management responsibilities between the condominium complex and the homeowners association would occur via deed restrictions on the condominium complex and the covenants and restrictions for the homeowners association. Shared allocation of management responsibilities would also be

addressed in these same documents. The responsible entities for individual management activities were identified previously.

### 2.4.4.2 Responsibilities for Beach Mouse Monitoring

Section 10 regulations require that an HCP specify the measures the Applicant will take to "monitor" the impacts of the taking resulting from the project actions [50 CFR 17.22(b)(1)(iii)(B) and 50 CFR 222.22 (b)(5)(iii)].

The Applicant would commit to a three year trapping program designed to establish the presence and population dynamics of the Perdido Key beach mice in association with the proposed condominium. The applicant would place in escrow, funds sufficient to finance 12 PKBM monitoring events at the property.

Subsequent to the initial three year program, the Applicant is committed to the continuing annual report for the life of the permit (indefinite). The annual reports will describe activities and provide an analysis of whether the terms of the HCP were met for the reporting period. The responsible party during construction will be the Applicant, and once construction is complete the homeowners association will take over responsibility.

### 2.4.4.3 Mitigation

Implementation of the habitat restoration will be part of the construction plans and specifications. These plans will provide details of restoration and project associated landscaping. Funding for the restoration will be included as part of the construction budget for the development of the project's land uses. The management and maintenance activities requires for these restoration areas will be addressed in the covenants and restrictions. These provisions will provide a means of allocating responsibility for activities required for compliance with the ITP.

### 2.4.4.4 Changed and Unforeseen Circumstances

The HCP proposes all reasonable and demonstrated methods for protecting listed species and species of concern, including the Perdido Key beach mouse, snowy plover, and sea turtles.

The Applicant and the U.S. Fish and Wildlife Service acknowledge that even with the above detailed provisions for mitigating and/or minimizing impacts to the covered species, changes in circumstances could arise which were not fully anticipated by this permit and which may result in substantial and adverse change in the status of the covered species. Unforeseen and/or changed circumstances may become apparent either to the Applicant to the U.S. Fish and Wildlife Service. Unforeseen circumstances are defined as changes in circumstances affecting a species or geographic area covered by the HCP that could not reasonably have been anticipated by the HCP developers and the U.S. Fish and Wildlife Service at the time of the

HCP's negotiation and development, and that result in a substantial and adverse change in the status of the covered species. Changed circumstances are defined as changes in circumstances affecting a species or geographic area covered by the HCP that can reasonably be anticipated by HCP developers and the U.S. Fish and Wildlife Service, and that can be planned for. Should either unforeseen or changed circumstances arise, the Applicant shall contact the office of the U.S. Fish and Wildlife Service and meet within twenty (20) working days following contact. The applicant and the U.S. Fish and Wildlife Service shall together agree upon appropriate and reasonable measures for addressing such circumstances, within the rule of applicable law, and the Applicant shall implement appropriate and reasonable measures within an additional thirty (30) working days, unless a longer period of time is agreed to by the U.S. Fish and Wildlife Service.

### 2.5 Regulatory Controls and Enforcement

The provisions of this HCP will be enforced through the terms and conditions of the Section 10(a)(1)(B) permit and the HCP as well as through provisions mandated by the State incidental take permit. Should any development disturbance take place outside the limits set by this HCP, the agencies can enforce provisions of the Endangered Species Act as they relate to the taking of an endangered species with respect to each unit in the development or Home Owners Association. If general terms and conditions required under the HCP and the Section 10(a)(1)(B) permit are not carried out in a timely manner, the USFWS may suspend the Section 10(a)(1)(B) permit for the entire project.

After issuance of the incidental take permit and prior to the occupancy of land uses within the suitable habitat area, the Applicant will produce legally binding covenants and restrictions to implement the provisions of this HCP. These will include building restrictions, trash, and pest control regulations, as well as funding and enforcement to insure full compliance with the HCP. In accordance with State of Florida condominium Association requirements the ITP will be transferred to the property owners association at the appropriate time when a majority of the units are no longer owned by the Applicant.

#### 2.5.1 Boundary Violations

A series of controls intend to reduce the chances that construction will damage habitat will be specified in the HCP and plans approved by Escambia County. In general, the construction boundary will be delineated with a fence. Any construction related damage that extends across the construction boundary is a violation of the terms of the HCP and the Section 10(a)(1)(B) permit. Violation of the construction boundary will be followed by enforcement action including, but not limited to:

- notification of the USFWS or FWC of the violation
- termination of work
- preparation and submission of a damage report

- restoration of damaged area
- return to work once these steps have been completed

Construction related damage is defined as direct damage, such as bulldozer activity through a fence, and indirect damage, such as slope failure in the construction area across the construction boundary, erosion, or unauthorized vehicle activity.

Enforcement action is taken against a property owner regardless of the actual agent of the damage in order to accelerate abatement and remediation and also because there is a direct link between the landowner and the Section 10(a)(1)(B) permit.

### 2.5.2 Failure to Re-vegetate or Restore Specified Areas

The HCP requires that the developer/landowner restore degraded sand dunes to enhance habitat for the Perdido Key beach mouse. The principal means of enforcement for the restoration requirement is through permitting, inspections and as-built certifications by the developer. If the developer does not meet the obligation in a timely fashion, the USFWS or FWC will notify the developer and landowner of the deficiencies and request that remedial actions be taken to meet the intent of the HCP and ITP. Re-vegetation efforts will proceed in a manner consistent with the elimination of potential construction influences. When an area is deemed to be outside the construction corridor, then appropriate grade and vegetation will be planted.

### 2.5.3 Post-Construction Enforcement

Once construction is completed, there must be long term assurances that future homeowners association will maintain the transferred ITP including maintaining the development boundaries and the open space as habitat. In no case shall an individual homeowner or tenant violate the ITP conditions. Any resolution of violations by individuals shall be handled by the homeowners association.

## 2.6 Amendment Procedures

The HCP includes a wide range of management efforts designed to limit and mitigate take of the endangered Perdido Key beach mouse and develop the condominium in a manner consistent with Escambia County land use policies. Over the usual thirty year life of the permit the permittee may wish to modify the project, activity, or conservation program as described in the original HCP. Amendment of the section 10(a)(1)(B) permit (ITP) is required. Such modifications may include significant boundary revisions, alterations in funding or schedule, addition of a species to the iTP that were not addressed in the original HCP, or adjustments to the HCP necessacited by unforeseen circumstances. Types of amendments which may be included are listed and described below.

### 6.1 Administrative Amendments

Some amendments to an HCP are minor and can be incorporated in a more expedited fashion. Changes may include: correction of land ownership, minor revisions to survey, monitoring, or reporting protocols; and minor changes to habitat conservation boundaries that result in no net loss of the conservation value of the HCP. Changes which would not appreciably alter the extent of incidental take, the mitigation prescribed for take, or the funding of the HCP, are primarily administrative and can be accomplished by amending the HCP text without modifying the underlying Section 10(a)(1)(B) permit. The determination of the administrative status of a change will be made by the USFWS and must take into account the cumulative effect of the proposed change and all preceding or pending administrative changes.

To accommodate conditions encountered during construction, an explicit provision is made for minor construction boundary adjustments for the proposed project. Upon request by the landowner, the USFWS and the FWC shall allow the construction boundary fence to be moved up to 50 feet from the approved location if there is a compelling reason to do so. A written request must be made to the USFWS and the FWC for such a request. The USFWS and FWC shall determine the appropriateness of fence movement on a case by case basis. Minor boundary adjustments cannot increase the cumulative extent of temporary disturbance of habitat by more than 5 percent. Construction boundary adjustments are not intended allow a change in the permanent development footprint.

### 2.6.2 Significant Permit Amendments

Changes which may appreciably alter the extent of the incidental take, the mitigation prescribed for take, and the funding of the HCP will require an amendment to the Section 10(a)(1)(B) permit as well as to the HCP text. Only the permittee can request a permit amendment, and the request is processed by the USFWS and the FWC.

## 3. STATUS OF OTHER PERMITS REQUIRED

Prior to start of construction the Owner will secure the necessary permits for the proposed project.

The status of permits is as follows:

1. Corps of Engineers permit – not required.
2. Florida Department of Transportation – State Highway Access Connection Completeness review. Application No. 04A3950072. Review has been completed but additional information is required to be submitted.
3. Florida Department of Environmental Protection – Bureau of Beaches and Coastal Systems. Old file number ES-554 / New file number ES-643. Application has

been resubmitted with the approved development order. Note that the applicant was a previous developer.

4. Escambia County DRC – D.O. # 04071639, Development Order has been approved.

## 4. LITERATURE REVIEW

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