Chapter Three

Compatibility

In Florida, compatibility is defined as a condition in which land uses or conditions can coexist in relative proximity to each other in a stable fashion over time, such that no use or condition is unduly negatively impacted directly or indirectly by another use or condition. Compatibility, in relation to military readiness, can be defined as the balance or compromise between community needs and interests and military needs and interests. The goal of compatibility planning is to promote an environment where both entities can coexist successfully. A number of factors influence the degree to which community and military plans, programs and activities are compatible or in conflict. For this Joint Land Use Study (JLUS), a list of 24 compatibility factors was used to identify and confirm local issues (see box below). From this list, issues relevant to this area were identified for nine of the 24 factors. The identified issues addressed in this chapter are highlighted with colored dots below and are organized within three broad categories: man-made, natural resources, and competition for scarce resources.

Man-Made

1. Land Use
2. Safety Zones
3. Vertical Obstruction
4. Local Housing Availability
5. Infrastructure Extensions
6. Antiterrorism / Force Protection
7. Noise
8. Vibration
9. Dust / Smoke / Steam
10. Light and Glare
11. Alternative Energy
12. Air Quality
13. Frequency Spectrum
14. Public Trespassing
15. Cultural Sites
16. Legislative Initiatives
17. Interagency Coordination

Natural Resources

18. Water Quality / Quantity
19. T & E Species
20. Marine Environments

Competition for Scarce Resources

21. Scarce Natural Resources
22. Land, Air, and Sea Spaces
23. Frequency Spectrum Capacity
24. Ground Transportation

Note: ● Denotes compatibility factors determined not to be an issue by the JLUS committees.

3.1 Methodology of Evaluation

The JLUS evaluation approach consisted of a comprehensive and inclusive discovery process targeted to the key stakeholder issues which could, directly or indirectly, affect the JLUS process and implementation.

The discovery process entailed four major components:

- Existing information and reports research;
- Interviews and briefings conducted with key stakeholders: Naval Support Activity Panama City (NSA PC), Bay County, the City of Panama City, the City of Panama City Beach, and the Florida Department of Environmental Protection (FDEP);
- An extensive field visit to NSA PC and the surrounding areas to collect information, and
- Public meetings where comments and input were identified and collected.

During the preparation of the Bay County JLUS, the public, the Policy Committee (PC), and the Technical Advisory Committee (TAC) assisted the Matrix Team in working through all 24 factors to identify, describe and prioritize the extent of existing and potential future compatibility issues that could impact lands within or near the JLUS study area. During the initial workshops and public meeting, these groups identified the location and type of compatibility issues they thought existed today or could occur in the future. Other issues were then added by the Matrix Team based on their professional evaluation of existing information. When reviewing this information, it is important to note the following:

- This chapter provides a general technical background on the issues discussed based on the availability of secondary source information. The intent is to provide an adequate context for awareness, education and input by all stakeholder interests. As such, it is not designed or intended to be utilized as an exhaustive technical evaluation of existing or future conditions within the study area.
- Of the 24 compatibility factors, 15 factors were determined by the JLUS committees not to be an issue for this area (#4: Local Housing Availability, #5: Infrastructure Extensions, #7: Noise, #8: Vibration, #9: Dust, #10: Light and Glare, #11 Alternative Energy Development, #12 Air Quality, #15: Cultural Sites, #16: Legislative Initiatives, #18: Water Quality / Quantity, #19: Threatened & Endangered Species, # 20: Marine Environments, and #21: Scarce Natural Resources, and #23: Frequency Spectrum Capacity).

Three criteria were used to evaluate the identified issues, which include current impact, issue location, and potential impact. Each criterion was assessed to determine the overall compatibility concern for each of the identified issues.

The criteria utilized for this assessment included the following:

- **Current Impact:** Each issue was rated based on its current impact to sustainability of either the installation or a local jurisdiction. Issues posing the most extensive operational constraints or community concerns were identified as the highest priority.
- **Location:** This criterion measures the proximity of each issue in relation to activities occurring on the installation or within local jurisdictions. Issues occurring on or near the installation or local communities are more critical than those occurring remotely or in areas more distant from

operational activities. Challenges that were located inside the JLUS study area and were presently occurring were considered high priority. Challenges located inside the JLUS study area with the potential to occur, or located outside the JLUS study area and presently occur, were considered medium priority. Challenges located outside the JLUS study area with minimal or no potential of occurring were considered low priority.

- **Potential Impact:** Although an issue may not present a current threat to the installation or the community, it may possess the ability to become an issue. Should conditions change, adjacent or proximate development increase, or other factors become apparent, new conflicts with the existing or future missions and operational activities at NSA PC could arise. Issues were rated on their future potential.

3.2 Loss or Reduction of Operations and Missions

NSA PC, whose mission is focused on both on-installation and off-installation training areas, is similar to many other military installations around the country that are surrounded by growing communities. As a result of future growth, NSA PC could be at risk of losing key mission components.

The existing mission of NSA PC is to provide research, development, test and evaluation (RDT&E) and in-service support for expeditionary / amphibious warfare, diving, maritime special operations, and mine warfare. The diversity of test environments at the installation and mission area synergy make NSA PC an ideal location for development, test, and training in littoral (i.e. along the shore) warfare missions. Beach contours and water depths of its training areas replicate over 80 percent of the world's littoral regions, and offer a setting very similar to the Persian Gulf. The key activities on the installation include the:

- Naval Surface Warfare Center Panama City (NSWC PC), which provides RDT&E and in-service support for amphibious warfare, diving maritime special operations, mine warfare (mines and mine countermeasures), and other Naval missions that benefit from a coastal training area;
- Naval Diving and Salvage Training Center (NDSTC), which provides training 12 months throughout the year for selected officers and enlisted personnel in diving, ship salvage, and submarine rescue. Its location, adjacent to St. Andrew Bay, provides convenient access to the Gulf of Mexico for training exercises in rough and calm water conditions;
- Navy Experimental Diving Unit (NEDU), which acts as a technical agent to the Naval Sea Systems Command (NAVSEA) in all matters involving diving and hyperbaric operations; and
- Center for Navy Ordnance Disposal and Diving (CENEODDIVE), which maintains the continuums that will define the knowledge, skills and abilities required by all EOD technicians and divers to achieve specific career milestones.

3.3 Man-Made Compatibility Factors

For NSA PC, 7 of the 17 man-made compatibility factors were identified that currently, or in the future, could produce issues that should be addressed in this JLUS study among the installation and surrounding community stakeholders. Man-made factors are those that are generated by community development which conflict with military activities. Conversely, these conditions may be generated by military activities, operations, and training that encroaches upon nearby communities. In either case, these factors may impact military readiness, as well as negatively affect a community's quality of life.

Figure 3-1 identifies specific locations for those compatibility factors that are geographically based within proximity of the installation and its training areas.

1 Land Use

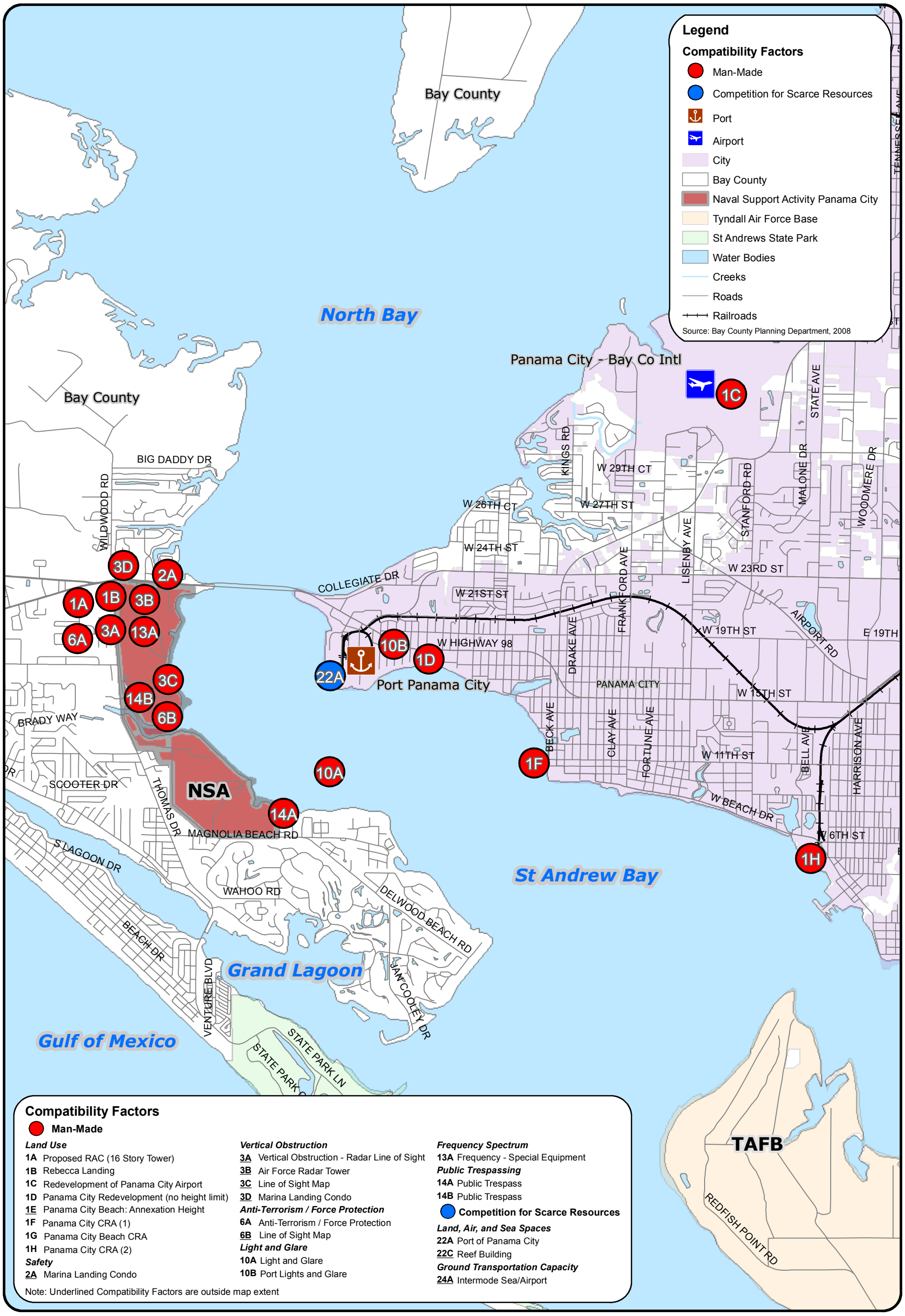
Definition: The basis of land use planning relates to the government's role in protecting the public's health, safety, and welfare. Local jurisdictions' general plans and zoning ordinances can be the most effective tools for avoiding or resolving land use compatibility issues. These tools ensure the separation of land uses that differ significantly in character. Land use separation also applies to properties where the use of one property may impact the use of another. For instance, industrial uses are often separated from residential uses to avoid impacts related to noise, odors, lighting, and traffic.

Land use planning for property surrounding military installations and their training areas is similar to the process used to evaluate other types of land uses. For instance, local jurisdictions typically consider compatibility issues such as noise when locating residential developments near commercial or industrial areas. As the land between the municipality and the military installation is sold and developed, many facets of both entities are affected. Regardless of whether a proposed development is commercial, industrial, or residential, new residents, tenants, or building owners are typically not fully aware of the implications associated with locating in close proximity to an active military installation or training area.

Many of the issues related to land use compatibility raised by the public, the PC, and the TAC were associated with existing or proposed development plans located near NSA PC. Land uses may be considered incompatible with a military installation, and their operations based on many factors. Among the most common factors causing incompatibility with NSA PC are uses that pose safety and security threats to the installation such as large high-rise residential structures and overpass bridges, or uses that generate a high level of water traffic through their training areas such as marinas and ports. Military representatives have identified several reoccurring compatibility issues of concern, including:

- Development located near the installation that poses a safety or security concern due to the opportunity for public trespass;
- Development that creates water based conflicts with military training areas; and
- Development that interferes with the military's use of the frequency spectrum.

The land immediately surrounding NSA PC is part of unincorporated Bay County. The City of Panama City Beach's city limits are located approximately two miles to the west of the installation, while the City of Panama City is approximately one mile to the east. This is to the advantage of NSA PC in terms of addressing land use compatibility, because the majority of these identified issues will be addressed by one jurisdictional body, Bay County. In addition, the Navy is attempting to purchase additional land on the west side of Thomas Drive as discussed later in this chapter.



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Compatibility Factors
Figure 3-1

The military has identified specific land uses that are considered incompatible for development around NSA PC. These include:

- Developments within 3,500 feet of the installation boundary, with building heights that exceed the maximum allowable in the anti-terrorism / force protection (AT/FP) buffers. These uses will be discussed later in this chapter in the section on AT/FP;
- Land uses which could create a vertical obstruction into the microwave tower line-of-sight which will be further discussed later in this chapter in the section on Vertical Obstruction;
- Uses such as radio and television stations that might interfere with the frequency spectrum. The potential for such uses will be discussed later in this chapter in the section on Frequency Spectrum; and
- Uses which create a high level of boat traffic through St. Andrew Bay, which impacts the use of the water training areas. These uses will be discussed later in the chapter in the section on Competition for Land, Air, and Sea Spaces.

2 Safety Zones

Definition: Safety zones are areas in which development should be more restrictive in terms of use and reducing concentrations of people due to the higher risks to public safety. Issues to consider include aircraft accident potential zones, weapons firing range safety zones, water based training areas, and explosive safety zones.

Military installations often engage in activities or contain facilities that, due to public safety concerns, require special consideration by local jurisdictions. The activities evaluated relative to this compatibility factor include helicopter safety zones, water-based training areas, the potential for unexploded ordnance, and the storage of explosives. Although helicopter safety zone and explosive safety quantity distance arcs extend beyond the perimeter of NSA PC, they have not been identified as a compatibility issue at this time.

As identified previously in Chapter 2, the Navy utilizes 10 restricted water based training areas, nine of which are located in St. Andrew Bay and one in the Gulf of Mexico. Both boater safety and the safety of the Navy personnel utilizing these areas is of paramount concern to both the adjacent communities and the Navy. Although accidents in the training areas have been minimal in the past, the possibility for mishaps is expected to increase as waterfront development continues in the future, and the need for both day and night training is desired by the military. Both existing waterfront development and the potential demand for access through St. Andrew Bay are incompatible with the Navy's training areas. Of specific concern is the construction of permanent structures such as docks and piers that either penetrate or are located within proximity to the 10 training areas.

3 Vertical Obstructions

Definition: Vertical obstructions are created by buildings, structures, or other features that may encroach into the areas used by military operations (aircraft approach, transitional, inner horizontal, outer horizontal, and conical areas, military training routes as well as water based training areas), presenting a safety hazard to both the public and military personnel, and potentially reducing military readiness and mission effectiveness of the installation.

Vertical obstructions in relation to helicopter operations at NSA PC have not currently posed a compatibility issue, but should the use of different flight paths, increased use of helicopters in training missions, or use of different equipment begin to take place at the installation, vertical obstructions could become a more recognizable issue. The flight paths currently used by the Navy have a ceiling of 500 feet. This elevation is used to avoid interference with the Class-D controlled airspace for the Panama City-Bay County International Airport. Over-water helicopter operations include towing equipment while flying at an elevation between 250 and 350 feet.

Vertical obstruction in relation to flight operations from an airport (military or civilian) are addressed through compliance with Federal Regulation Title 14 Part 77, which establishes standards and notification requirements for objects affecting navigable airspace. Commonly referred to as Part 77 compliance, this regulation provides details on how to evaluate the potential for a vertical obstruction based on the elevation of the airfield, the height and resulting elevation of the new structure or facility, and the location of the structure or facility in relation to the airfield in question.

To determine when structures or facilities should be evaluated regarding vertical obstruction, Part 77 states the following requirements:

§77.13 - Any person / organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration
  - 7.1 within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet.
  - 7.2 within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet.
  - 7.3 within 5,000 feet of a public use heliport which exceeds a 25:1 surface.
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed the above noted standards.
- When requested by the FAA.

NSA PC operates two helicopter landing areas where some provisions of Part 77 apply. It is important to ensure coordination and planning are addressed concerning surrounding development and activities that might be affected by flight patterns and departure and approach corridors. Currently most flight operations are conducted to and from NSA PC over the bay shoreline.

There is one microwave tower located at the northwest corner of NSA PC, inside the installation boundary. This tower provides critical communication and radar linkage to the Eglin / Gulf Range Complex, as well as between Eglin Air Force Base (AFB) and Tyndall AFB. The line-of-sight between this tower and the two radar sites located along the gulf shoreline, as well as the receiver site on Eglin, is critical to mission sustainability. The line-of-sight to all receiver locations is illustrated on Figure 3-2.

Development can have a significant impact on this critical communication link. The concern is related to anything that might interfere or block the signal. The line-of-sight for the microwave tower faces northwest with an antenna height of 265 feet. Two other antennae transmit from the tower; one at a height of 223 feet and the other at a height of 276 feet. Although the parcel directly to the northwest of the tower is currently vacant, the existing C-3 zoning would allow a building to be constructed up to 230 feet in height. If developed to its maximum allowable height, the new building could impede the ability of the tower to communicate with Eglin Air Force Base. Figure 3-3 depicts the zoning for all parcels relative to the three lines-of-sight for the microwave tower, while Figure 3-4 illustrates the location of vacant parcels within the microwave tower line-of-sight. Figure 3-4 and Figure 3-4 also illustrate the anti-terrorism / force protection line-of-site-buffers which will be discussed in the next section.

The height of structures in the line-of-sight is a major concern. The ability to ensure communication and coordination of activities along this corridor is paramount. Appropriate height limitations along these line-of-sight corridors can significantly prevent potential disruption or permanent loss of this critical mission element. The most easily impacted line-of-sight corridor extends to the south-southwest of NSA PC to a radar site on the beach. The transmission antenna for this line-of-sight transmits at 30 feet. Structures built in the line-of-sight could impact mission sustainability at NSA PC. Frequency spectrum dependant uses could additionally interfere with the line-of-sight transmission, and ultimately mission sustainability which will be illustrated later in this chapter in the section on Frequency Spectrum.

6 Anti-terrorism / Force Protection

Definition: Anti-terrorism/Force Protection relates to the provision of defensive measures to reduce the vulnerability of individuals and property to terrorist acts and the preventive measures undertaken to mitigate hostile actions against Department of Defense personnel (including family members), resources, facilities, and critical information.

Both physical and electronic security breaches pose immediate compatibility concerns to military installations. Due to current world conditions and recent events, military installations are required to meet more restrictive standards for anti-terrorism and force protection. These standards include increased security checks at installation gates and specific AT/FP fencing standards to thwart any unintended or intended trespassing on installation property. NSA PC has developed three AT/FP line-of-sight security buffers around the installation to prevent direct line-of-sight onto the installation. These buffers

represent a height at which line-of-sight is considered a threat and are set at 60, 160, and 300 foot heights, as measured from the finish floor of the building at distances of 1,000, 2,000 and 3,500 feet, respectively.

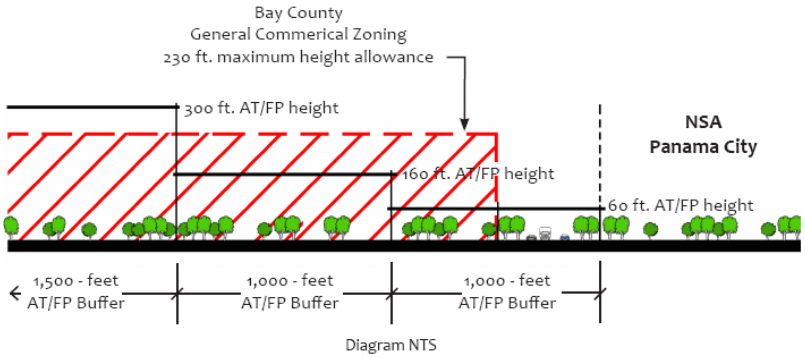

Figure 3-5. Bay County Maximum Zoning Height Allowance versus AT/FP Line-of-Sight Buffers

Several of the Bay County zoning districts have maximum building heights that exceed the height limits recommended by the Navy within the AT/FP buffers. For example, the C-3, General Commercial zoning district has a maximum allowable building height of 230 feet. Figure 3-5 demonstrates the issue of incompatibility between the AT/FP lines-of-sight and the existing allowable height of structures in the C-3 zone. The R-5, Multifamily, C-3A, General Commercial Low, and C-4, Research and Design zoning districts each have a maximum building height of 100 feet.

Although vacant parcels pose a more immediate risk for developing incompatibly with NSA PC, redevelopment of parcels zoned R-5, C-3A, C-3, SR-1, SR-1A, SR-2, and C-4 could also create incompatibility. Additionally, redevelopment of a site with these zoning designations could be coupled with vacant parcels, which would allow development to breach the height limits recommended for the 60 and 160 foot AT/FP line-of-sight buffers. Figure 3-3 shows the zoning of parcels within the AT/FP buffers. Figure 3-4 shows the zoning of the vacant parcels within the AT/FP buffers.

One notable structure, the Marina Landing Condominium has already been built exceeding the AT/FP height standards. Although the Marina Landing building was built adjacent to the portion of the installation primarily used for residential purposes, the existing zoning surrounding the installation permits structures up to 230 feet, as discussed previously. Due to the location of numerous vacant parcels designated with C-3 zoning, it is currently feasible to construct buildings within the AT/FP line-of-sight buffers. Figure 3-6 highlights parcels which are currently zoned to allow structures with a finished building height over the allowable 3,500 foot line-of-sight buffer's maximum building height of 230 feet.

Marina Landing Condominiums

Figure 3-7 shows the location of the Barefoot Palms site relative to the installation. The parcel was partially developed, however the developer was unable to complete the project and thus is selling the site. Based on the limited amount of available land (partially due to the fact that the installation is bordered by water on its eastern boundary) if future land needs are warranted, they will have to be addressed either through the redevelopment of existing buildings on the installation or accommodated on off-installation military locations. When the site was cleared to begin developing the Barefoot Palms community, fill dirt was brought in to level the site. This raised the elevation of the property significantly, causing the property to

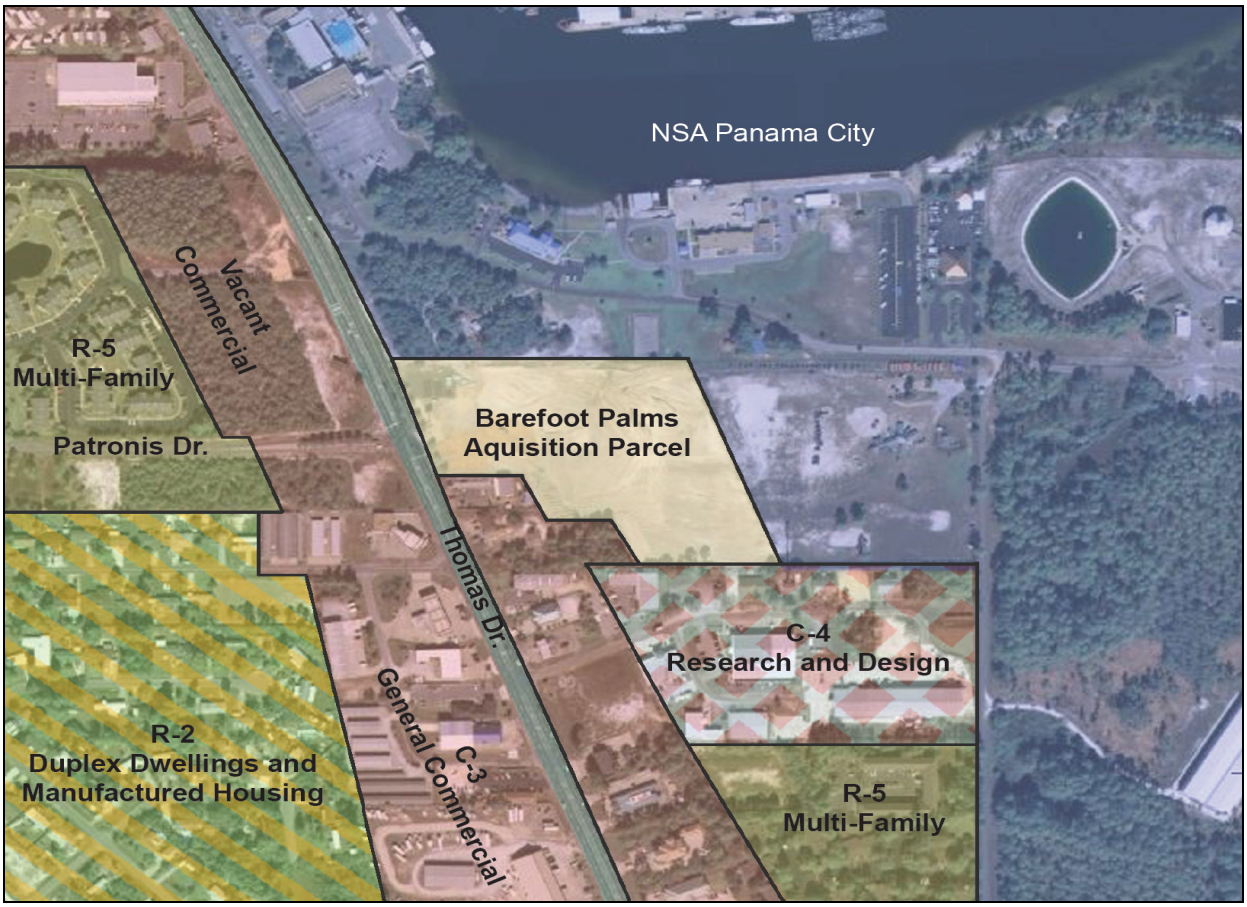

Figure 3-7 Barefoot Palms Acquisition Parcel

sit higher than NSA PC causing an AT/FP concern. By purchasing this site, the Navy will have an additional buffer around the installation, and more land to utilize for a multitude of purposes.

The Hathaway Bridge over St. Andrew Bay poses an additional AT/FP issue. The fly-over bridge used to access east bound U.S. Highway 98 (located west of the Hathaway Bridge) has a direct view onto the installation. Similar to the Marina Landing building, the fly-over bridge provides unobstructed views into the northern portion of the installation, which are used for residential purposes. Due to the lack of large tracts of vacant land adjacent to the western and southern boundaries of the installation, future redevelopment of this portion of the installation for uses other than residential may be limited due to the presence of these structures.

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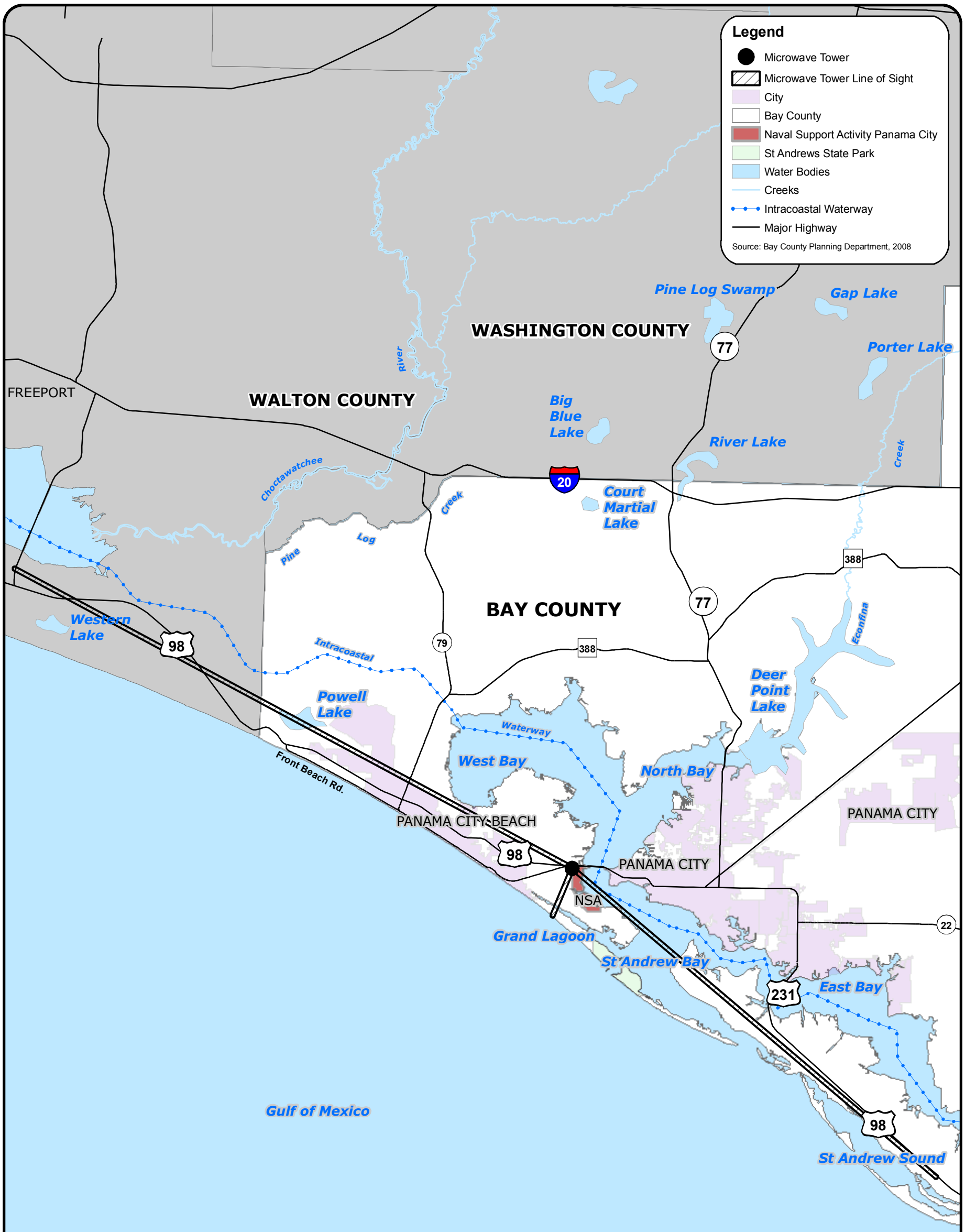

Regional Microwave Tower Line-of-Sight
Figure 3-2

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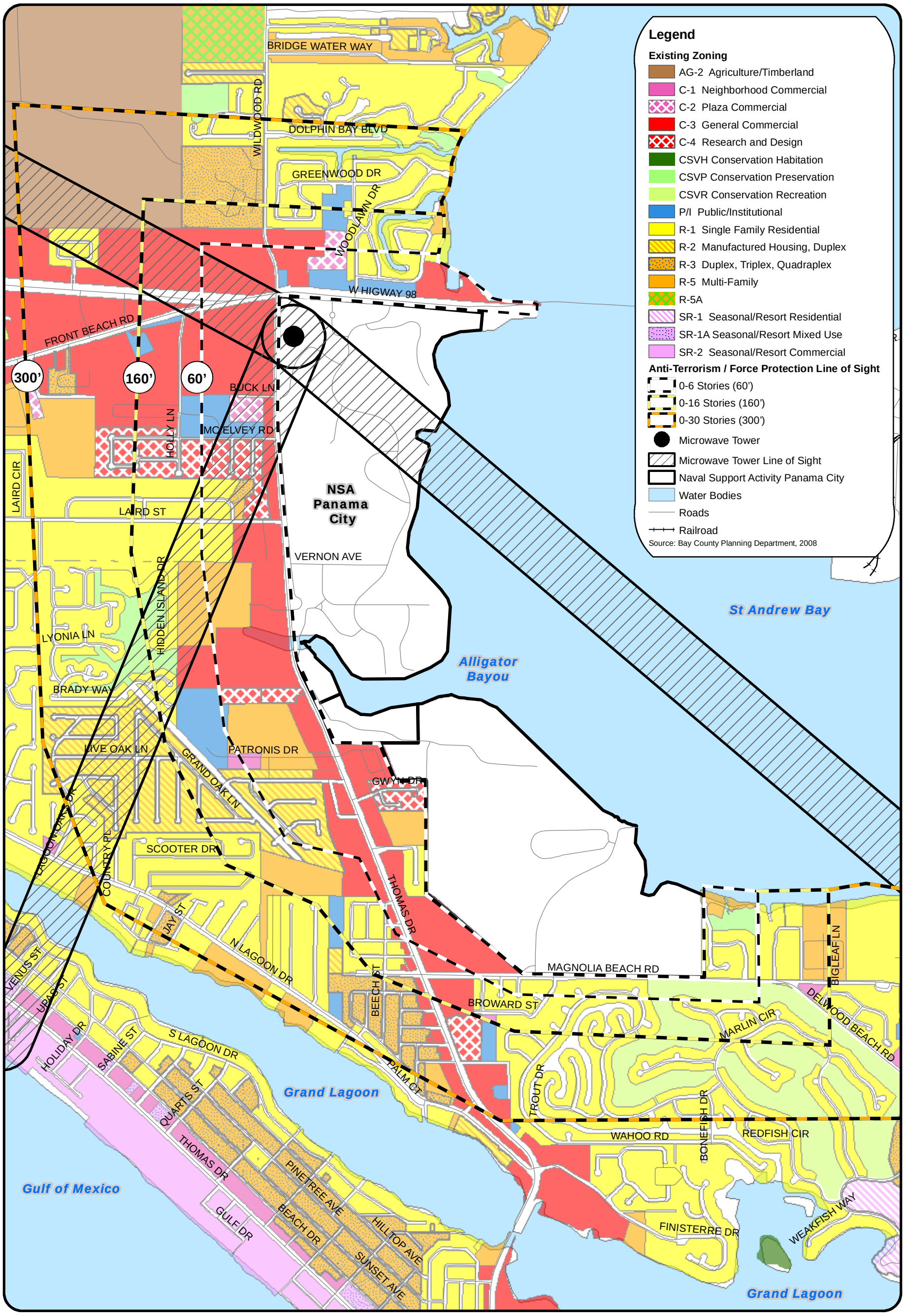

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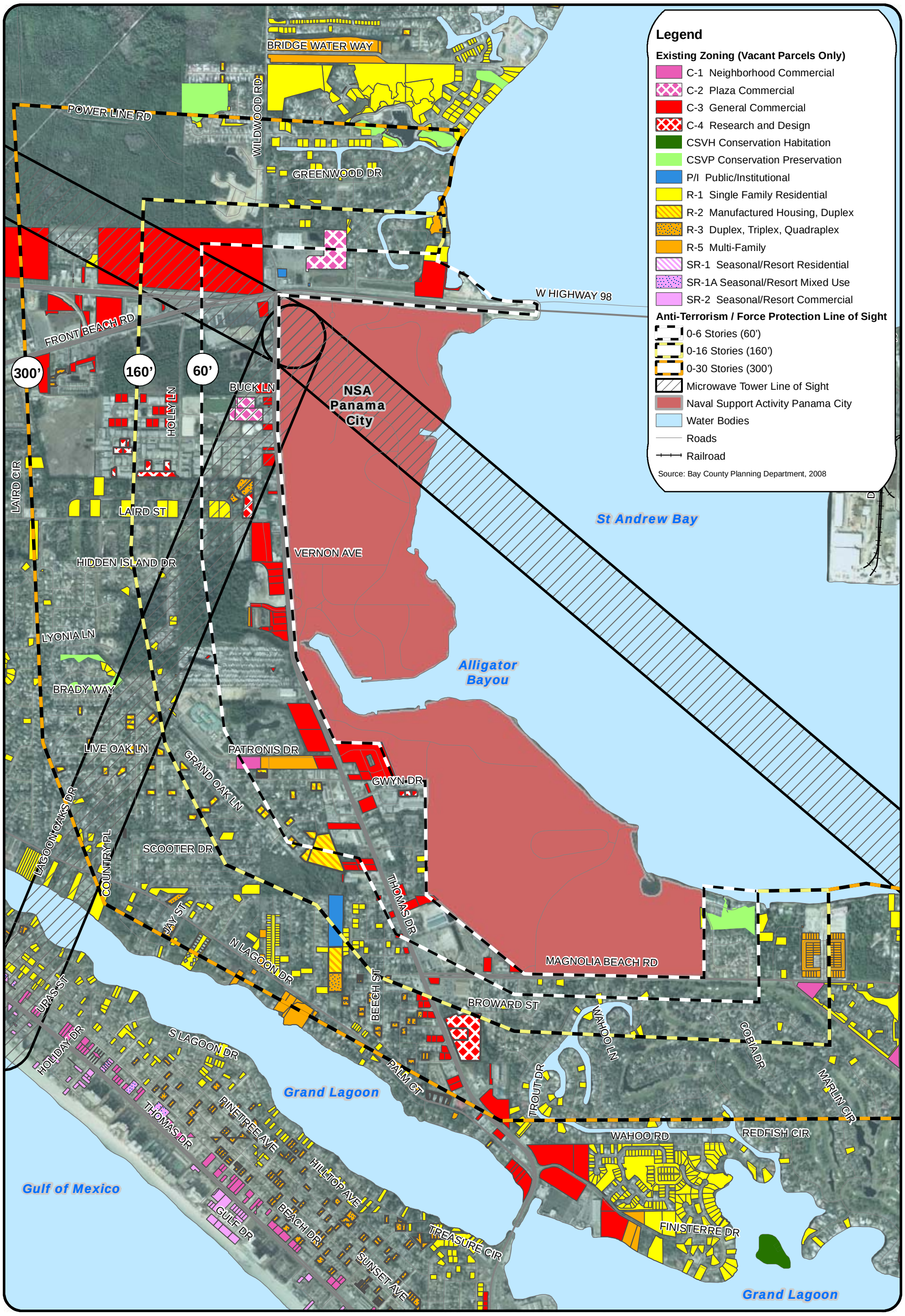
Zoning / Line of Sight
Figure 3-3



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Vacant Parcel Zoning / Line of Sight
Figure 3-4

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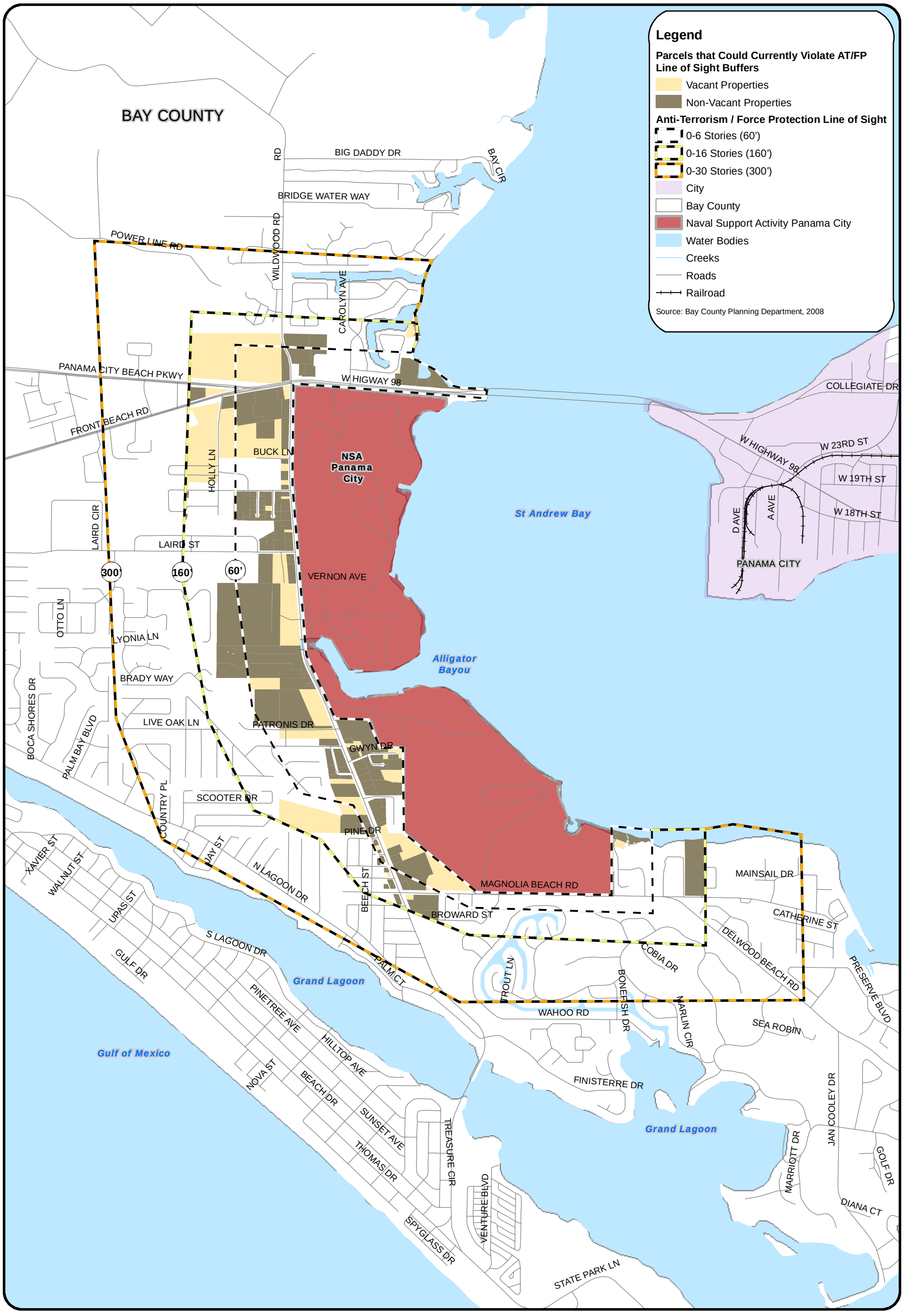

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Incompatible Development Potential
Figure 3-6

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13 Frequency Spectrum Impedance and Interference

Definition: Frequency spectrum impedance and interference refers to the interruption of electronic signals by a structure (impedance) or the inability to distribute / receive a particular frequency because of similar frequency competition (interference).

The ability to utilize capacity within the electromagnetic spectrum is important for the training and developmental / operational testing missions at NSA PC. A reduction in access or availability to the spectrum could potentially limit the effectiveness of training exercises by restricting the number of systems available to participate. Spectrum limitations restrict the use of state-of-the art instrumentation systems and could potentially limit the development and testing of new technologies at the installation or between the installation and its supportive training areas.

Frequency Impedance

Frequency interference is related to other transmission sources. Interference can result from a number of factors, including:

- Using a new transmission frequency that is near an existing frequency;
- Reducing the distance between two antennas transmitting on a similar frequency;
- Increasing the power of a similar transmission signal;
- Using poorly adjusted transmission devices that transmit outside their assigned frequency or produce an electromagnetic signal that interferes with a signal transmission; and
- Existing electronic sources and uses created by portable systems affecting entire communities utilizing Wi-Fi broadband systems and industrial sources that produce electronic noise by-product.

In order to successfully complete its operational activities within the installation and its training areas, the military relies on a range of frequencies for communications and support systems. Since 1993, Congress has been selling federal spectrum bands for reallocation to the private sector, promoting the development of new telecommunications technologies, products and services. The expanding public and commercial use of the frequency spectrum from Wi-Fi wireless transmitters to consumer electronics can encroach on the military's use of the frequency spectrum. Increasing community and DOD demands for this important resource can create conflicts for all users. NSA PC has purchased a "RF spectrum analyzer" device which is used to detect interference between frequency bands. This tool is used to identify interference from on-installation to other military sources as well as off-installation sources including military and public / commercial users. NSA PC has been requested by public and commercial users to engage this tool to identify the source of spectrum interference.

In addition to the microwave tower, the Navy utilizes three beach sites as communication tower / radar locations as shown on Figure 3-8. These locations are surrounded by beachfront development. Although these sites are mainly used to transmit signals to the offshore training area (3-A), additional development may further impede the utilization of these sites.

Figure 3-8 identifies the areas where the Navy utilizes the frequency spectrum. A one nautical mile buffer has been drawn around each site where the Navy utilizes the frequency spectrum. This has been identified as the area where frequency usage can impact military operations.

14 Public Trespassing

Definition: Trespassing is the intrusion, either purposeful or unintentional, within the boundaries of the NSA PC installation in a physical or non-physical manner.

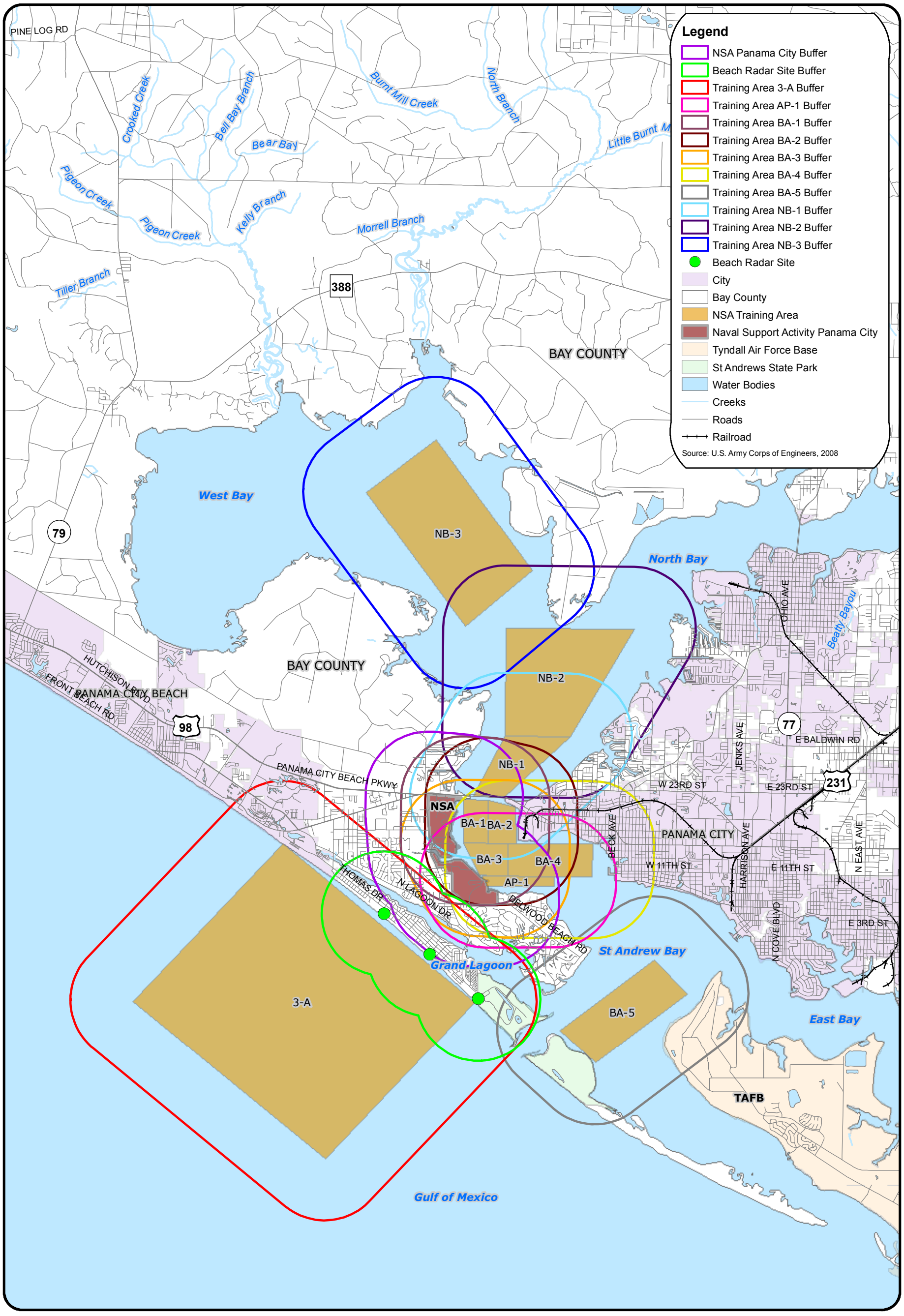
Public trespassing is a concern for both public safety and military security purposes. The extent of training, boat and vehicular traffic, and research and development operations that take place on NSA PC increases the potential for harm by any unauthorized persons entering the installation. The perimeter of NSA PC is enclosed by a six-foot, chain link fence topped with barbed wire. Periodically, vehicular accidents have occurred along Thomas Drive resulting in breaches in the installation fence through which unauthorized access could take place. This does not mean that public trespassing occurred each time the fence was breached; however, breaches in the perimeter fence pose a security risk and allow for the possibility of trespassing, whether by accident or on purpose.

Public trespassing can occur along the waterfront, which forms the eastern boundary of NSA PC. The installation, along with Port Panama City and the United States Coast Guard, monitors public trespassing along the waterfront on both the installation side of St. Andrew Bay and the eastern side at the Port. Although the areas near the channel entering the installation are clearly identified as military property, the natural shoreline areas along the extreme northern and southern portions of the installation's shoreline are not clearly identified as military property. On occasion, boaters have mistaken NSA PC property as land suitable to access the shore. A camera monitoring system is in place; however, it is not fully operational for this purpose.

17 Interagency Coordination

Definition: Interagency coordination relates to the timing and frequency of communication, coordination and collaboration to resolve land use compatibility issues among military installations, local jurisdictions, land and resource management agencies, and conservation authorities.

The development of proactive partnerships between the DOD, Navy, other governmental agencies, and local jurisdictions is required to ensure continued sustainability of NSA PC. Due to the number of agencies involved in development, permitting, and water access in relation to the mission at NSA PC, coordination between agencies can be difficult to achieve. The lack of interagency coordination in the past has led to structures being built within the boundaries of the water training areas, the designation of training areas over existing structures, tall buildings developed in proximity to the installation with view sheds into installation property, and a general lack of procedural knowledge on several issues pertaining to compatibility.



Frequency Spectrum Buffer
Figure 3-8

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The process of permitting docks, piers, and marinas poses the biggest communication challenge. These structures create an immediate encroachment issue when located within or near training areas. Agencies involved in at least one aspect of the permitting process include:

- Florida Department of Environmental Protection (FDEP)
- Florida Fish and Wildlife Conservation Commission (FWC)
- United State Army Corps of Engineers (USACE)
- National Marine Fisheries Service (NMFS)
- United States Fish and Wildlife Service (USFWS)
- National Oceanic and Atmospheric Administration (NOAA)
- Local jurisdictions (building permits)

Interagency coordination is an integral part in addressing several of the compatibility factors impacting NSA PC. Frequency, AT/FP, public trespassing, and land use issues can be partially addressed through a coordinated interagency communication policy. NSA PC has already established a strong relationship with Port Panama City. This relationship is an example of how two agencies sharing common issues (access to the water, AT/FP) can work together for the benefit of all participating parties. In this case, safety has been the focus of the coordination efforts between the Port and the installation. The implementation of the Navy's restricted water training areas, which are explained in depth in Chapter 4 of this JLUS, is another example of how developing strong interagency relationships can have a positive affect on compatibility between the military and the local communities.

3.4 Competition for Scarce Resources

22 Land, Air, and Sea Spaces

Definition: The provision of a limited amount of land, air, and sea spaces with regard to other civilian uses in the proximity of NSA PC and its surrounding military training areas creates a competitive environment.

As stated earlier in this chapter, the Navy utilizes 10 open water training areas in St. Andrew Bay and the Gulf of Mexico. Many other users such as commercial and recreational fisherman, recreational boaters, and tenants at Port Panama City utilize the same sea space for access and their respective activities. Increases in boat traffic due to new development or increased activity at the Port will add to the demand for use of the littoral zone, which can be in direct conflict with military training. Additionally, this could lead to the increase in incompatibility between civilian and military users of the same sea space. St. Andrew Bay provides a unique and extensive littoral training opportunity for the tenants at NSA PC that represents over 80 percent of the littoral zones in the world. It has been compared with characteristics of the Persian Gulf, and as such, the use of these particular training areas is vital to continued military readiness.

Due to the fact that Bay County marinas and yacht clubs contribute 2,194 boat slips, 1,888 of which are currently occupied, conflicts between the recreational boating community and Navy operations are possible. Additionally, this is compounded with users utilizing personal boat slips, local boat launch areas, and visiting the Bay from other areas. As explained earlier in the JLUS, the mission at NSA PC has expanded significantly over the past 20 years. This expansion, coupled with increasing local development and vessel traffic, has increased the Navy's concern for the local boating community and military divers in the water.

St Andrews Marina contributes 104 boat slips along with a boat launch

The United States Army Corps of Engineers (USACE) has established ten restricted water areas associated with NSA PC. These restricted waters meet the strict military training parameters that cannot be duplicated elsewhere. Thus, a large majority of military dive training is concentrated at NSA PC. The purpose of these restricted areas is to ensure continued public safety and to preserve current military training vital to the Global War on Terror and to all-service military readiness.

The restricted areas are limited to times when they are used as "military security zones." Military security zones are identified as specific portion(s) within any of the restricted areas. Within the ten restricted areas, limitations are only in place when training exercises are underway and the military security zone definition is enacted. A General Local Notice to Mariners will be communicated for normal / routine activations, while a Notice to Mariners and Broadcast Notice to Mariners will be communicated for significant exercise and training events.

Through the designation of the restricted water training areas, safety to the local community and military personnel has been greatly enhanced, primarily due to increased awareness of the ongoing military training. The Navy has intentionally coordinated and scheduled training and testing operations in such a way as to reduce the overcrowding of vessels in any given area and to maximize safety and navigation to civilian and military vessels. Operations in the training areas typically do not utilize all the space within the restricted area, but rather in controlled military security zones. Military security zones are created by safety vessels, while accompanying each exercise and directing private boat traffic by clearly designating a navigable area outside of the military exercise. Private boat traffic can pass through the restricted area during training and testing operations by avoiding the military security zone. The Navy's primary goal in creating the restricted water training areas was to ensure safe navigation and preserve military training. The only noticeable difference to the public is heightened awareness of the training underway. While safety incidents in the training areas have been minimal, public awareness efforts will need to continue and expand to ensure continued safety for both the boating community and military personnel.

24 Ground Transportation Capacity

Definition: Ground transportation capacity relates to the capacity of existing freeways, highways, arterials and local roads to provide adequate mobility and access among military installations and their surrounding communities.

As urban development expands into rural areas, roads once used for limited purposes begin to function more as urban major arterial roadways. These once rural roads are often the main transportation corridors for access to military installations. Such is the case with Thomas Drive which is located along the western boundary of the installation. The main access point to NSA PC is on Thomas Drive at approximately ¾ of a mile south of its intersection with Back Beach Road. Because Thomas Drive functions as a major north-south access route to popular tourism destinations in Panama City Beach, seasonal beach traffic creates congestion at high travel times during the day. Although development encroaching on the installation contributes to several compatibility factors, ground transportation is a difficult issue to resolve due to the cost and space limitations for either new roadways or lane expansions.

Additionally, the proposed intermodal air and sea port associated with the relocation of the Panama City-Bay County International Airport to the west side of St. Andrew Bay, will provide *new commercial aviation services, 1,400 acres of commercial and industrial space with access to the runway, and a regional employment center, have been incorporated into the master plan for the site. These new uses could potentially add traffic to the roadway network near NSA PC.* The airport relocation is scheduled for May 2010, while master planning efforts for the entire facility have recently begun (January 2009).

Additional information pertaining to the new airport can be found online at:

http://www.airport-technology.com/projects/panama_city_bay

http://newpcairport.com/category/economic-development

Please see next page.