

**Northern Beaufort County Regional Plan Implementation Committee
Executive Conference Room
Beaufort County Administration Building
100 Ribaut Road, Beaufort, SC
February 27, 2015
9:30 a.m.**

Members:

Joe DeVito, Metropolitan Planning Commission Chair (Chair)
Robert Semmler, Beaufort County Planning Commission Chair (Vice-Chair)
Jerry Cook, Town of Yemassee Mayor
Gerald Dawson, Beaufort County Council
Vernon DeLoach, Town of Port Royal Council
Bill Evans, Beaufort County School Board Chair
Brian Flewelling, Beaufort County Council
Alice Howard, Beaufort County Council
Billy Keyserling, City of Beaufort Mayor
William McBride, Lowcountry Council of Government
Mike McFee, City of Beaufort Council
Samuel Murray, Town of Port Royal Mayor

AGENDA

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. REVIEW OF MEETING MINUTES
 - A. SEPTEMBER 26, 2014 ([backup](#))
 - B. OCTOBER 30, 2014 ([backup](#))
4. CHAIRMAN'S REPORT
5. JOINT LAND USE STUDY (JLUS) FOR MCAS BEAUFORT AND PARRIS ISLAND
 - A. Review and Discussion of Draft MCAS Joint Land Use Study Report (Tyson Smith, White and Smith, LLC, Planning and Law Group) – Chapters 1-2, & 4-6 ([backup](#))
 - B. Planning the March 19, 2015 Community Workshop
 - C. Discussion of Next Steps to Finalize the JLUS Process
6. ROUND THE TABLE COMMENTS
7. OTHER BUSINESS: Next Meeting: Friday, March 27, 2015 at 9:30 a.m., Executive Conference Room, Beaufort County Administration Building, 100 Ribaut Road, Beaufort, SC
8. ADJOURNMENT

Northern Beaufort County Regional Plan Implementation Committee Meeting
Executive Conference Room, County Administration Building
100 Ribaut Road, Beaufort, SC 29902
September 26, 2014

ATTENDANCE

Members Present: Robert Semmler, Chairman, Northern Regional Plan Implementation (NRPIC) Committee and Beaufort County Planning Commission; Jim Beckert, Beaufort County School Board member (representing Bob Evans, Beaufort County School Board Chairman); Gerald Dawson, Beaufort County Councilman; Vernon DeLoach, Town of Port Royal Councilman; Brian Flewelling, Beaufort County Councilman; Billy Keyserling, City of Beaufort Mayor; William McBride, Lowcountry Council of Governments; and Samuel Murray, Mayor of Town of Port Royal

Members Absent: Jerry Cook, Town of Yemassee Mayor; Joe DeVito, Metropolitan Planning Commission Chair; Mike Sutton, City of Beaufort Councilman; and Laura Von Harten, Beaufort County Councilman

Staff Present: Libby Anderson, City of Beaufort Planning Director; Thomas “Tab” Bendell, Jr., County Attorney; Linda Bridges, Town of Port Royal Planning Administrator; Anthony Criscitiello, Beaufort County Planning Director; Ginnie Kozak, Lowcountry Council of Governments; Robert Merchant, Beaufort County Long-Range Planner; Van Willis, Port Royal Town Manager; and Barbara Childs, Beaufort County Administrative Assistant to the Planning Director.

Other Attendees: Reed Armstrong, Coastal Conservation League; Colleen Barrett, U.S. Marine Corps Air Station Beaufort; Charlie Bright, citizen; Carol Crutchfield, Beaufort School District; Frank Cummings, citizen; Greg Disher, citizen; Jeanne Edwards, citizen; Lieutenant Colonel (LtCol) Patrick L. Fitzgerald, U.S. Marine Corps Air Station Beaufort Executive Officer; Tim Harrington, citizen; Greg and Linda Irving, citizens; Joe Lee, Town of Port Royal Councilman; Jason Mann, U.S. Marine Corps Air Station Beaufort; Sharon Reilly, citizen; and JLUS Consultants: Tyson Smith of White and Smith, LLC; Vagn Hansen II of Benchmark; and Phil Huber and Don Noonan of Marstel-Day.

CALL TO ORDER: Chairman Robert Semmler called the Northern Regional Plan Implementation Committee (NRPIC) meeting to order at approximately 9:34 a.m.

PLEDGE OF ALLEGIANCE: Mr. Semmler led those assembled with the Pledge of Allegiance to the United States of America.

Mr. Semmler asked that those in the room to introduce themselves, for the record.

CHAIRMAN’S REPORT: Mr. Semmler thanked the community members for attending today’s meeting. He noted a Military Affairs Committee meeting held at the Chamber of Commerce that he had attended where Senator Tom Davis’s overriding comment was that the Beaufort community participation was fantastic and the County’s support of the military was

unsurpassed in the state. Mr. Semmler also noted that Major Wilson, an Executive Officer of one of the units on the Air Station, commented on the reasons some of the officers from his unit had chosen to live in Bluffton; Mr. Semmler suggested that Mr. Tyson Smith contact Major Wilson regarding his comments. Mr. Semmler also acknowledged the presence of LtCol (Patrick) Fitzgerald at the meeting.

REVIEW OF NRPIC MEETING MINUTES:

1. **The May 23, 2014, minutes** were adopted at the July 25, 2014, meeting. No further action was needed.
2. **The July 25, 2014, minutes** were reviewed. No comments were received. Motion: Beaufort County Councilwoman Brian Flewelling made a motion, and Mr. Jim Beckert seconded the motion, to approve the June 25, 2014, minutes as written. The motion passed (FOR: Beckert (for Evans), DeLoach, Flewelling, Keyserling, McBride, Murray, and Semmler; ABSENT: Cook, Dawson, DeVito, Sutton, and Von Harten).

JOINT LAND USE STUDY (JLUS) FOR MCAS BEAUFORT AND PARRIS ISLAND

Mr. Tyson Smith, of White and Smith LLC, the JLUS consultant, explained that the update would be for both MCAS Beaufort and Parris Island, including the history of military planning efforts, land use compatibility, citizen surveys, SWOT (strengths, weaknesses, opportunities, and threats) that has been revised based on the Committee's input from its July 2014 meeting, and Transfer of Development Rights (TDR) implementation.

Councilman Brian Flewelling stated that he had just received the handouts yesterday (via email). Mr. Smith indicated that if the Committee needed until the November meeting to review the information, then that can be discussed.

Mr. Smith's briefing included the military's planning efforts from 1990 to present--including the 2004 Joint Land Use Study (JLUS) recommendations, the 2006 overlay jurisdictions adopted by each governing body, the 2008 Air Installation Compatibility Use Zone (AICUZ) Navy guidances, the 2010 Environmental Impact Study (EIS) for F35Bs, the 2014 revised AICUZ, and the 2015 JLUS implementation recommendations.

Mayor Billy Keyserling asked that an overlay of the growth boundaries of Northern Beaufort County be added to the AICUZ maps.

Note: Councilman Gerald Dawson entered meeting at approximately 9:45 a.m.

Mr. Vagn Hansen, a consultant from Benchmark, briefed the Committee on Land Use Compatibility Assessments:

- for the Air Station focus area that follows the 65 decibel contour line: the AICUZ impacts, the 2% increase (230 acres) in the 2013 AICUZ noise zone, the future and existing land use compatibilities, additional military impacts, and the small arms/munitions storage and range; and
- for the Parris Island area focus area that was 1-mile around island: generalized residential and land subdivision patterns, future and existing land use compatibilities, military noise

and surface training impacts, and the net impact basically covering the water around the island.

Mr. Phil Hubert, a consultant from Marstel-Day, provided the survey results—523 total received, predominantly being on-line surveys. The surveys were personal opinions, not scientific results. Discussion included geographic breakdown questioned, importance of survey to JLUS study—community input, survey URL site was mistranslated in emails, potential increased flights may cause revision of JLUS, questioned value of study that uses modeling rather than actual noise data, and existing ordinances not being affected unless actual noise data is received.

Mr. Hubert briefed the SWOT analyses of Parris Island and Air Station Beaufort, providing recommendations. Committee discussion included the reduction of taxable properties that are preserved by the Federal government for base protection, and belief that the Air Station and Parris Island should be held financially accountable for stormwater management/fees with the inclusion of stormwater in the study because of the unfunded mandate of MS4 designation.

Motion: Councilman Brian Flewelling made a motion, and Mayor Billy Keyserling seconded the motion, that the stormwater issues be added into the SWOT analysis and JLUS study. The motion carried (FOR: Beckert (for Evans), Dawson, DeLoach, Flewelling, Keyserling, McBride, Murray, and Semmler; ABSENT: Cook, DeVito, and Von Harten).

Mr. Hubert continued his briefing on the SWOT recommendations. Committee discussion included the possibility of revising the flight paths that would entailed aeronautical engineering expertise that was not the consultants' expertise, and the theoretical nature of JLUS where the issue will not be added.

Mr. Smith briefed the Committee on Transfer of Development Rights (TDRs) Implementation update that included implementing forms such as application, certificates, and a redemption process, and recommendations to the current TDR program.

LtCol Fitzgerald briefed the Committee on U.S. Marine Corps Air Station Beaufort updates. He noted that modernization continues, three aircraft are currently at the base, F35 pilot training will begin using ground simulators and progress to actual flying, post-summer 2015 new pilots will begin training on the F35s, and field carrier landing practices (FCLPs) will be reduced when the F35s are in use.

Mayor Keyserling urged the JLUS team to look at the growth boundary areas because it is the future for the municipalities.

Motion: Mr. Semmler asked for the scheduling of a special meeting in October, to be determined at later date. Mayor Keyserling made the motion, and Councilman Flewelling seconded the motion. No discussion occurred. The motion carried (FOR: Beckert (for Evans), Dawson, DeLoach, Flewelling, Keyserling, McBride, Murray, and Semmler; ABSENT: Cook, DeVito, and Von Harten).

Mr. Smith briefed the Committee further, including a public meeting proposal.

Committee discussion included recommending another public meeting before the November Committee meeting, with one general meeting for both sites; involving the community for additional input, public survey results posted to website, inform media of website.

Note: Mr. Semmler recessed the meeting at approximately 10:56 a.m., and reconvened the meeting at approximately 11:11 a.m.

REPORTS

A. Status of New Development Codes:

- Mr. Anthony Criscitiello, County Planning Director, reported that staff has been working with the consultant on testing the Code. The Natural Resources Committee will hear the results at its October 13 meeting, and will forward its recommendation to County Council for second reading on October 13.
- Ms. Linda Bridges, Town of Port Royal Planning Administrator, noted that the Town continues to use and learn the Code, and the permitting timeline has shrunk. She does advise all to read the Code closely. Almost all decisions are made from the Code through staff, as opposed to external boards and commissions; therefore the Staff has become more dynamic in moving projects forward.
- Ms. Libby Anderson, City of Beaufort Planning Director, had nothing to report.

B. Status of Spanish Moss Trail: Mr. Robert Merchant noted that the gap between Broad River Boulevard and Depot Road (Segment 5) is awaiting SCDOT approval; the construction bidding phase will occur in October, actual construction occurring in spring 2015. The finished phases were funded through the Cox Foundation with matching funds from municipalities and other individuals; Llewellyn Construction was the contractor. Mr. Merchant noted that the lowest qualified bidder will receive contract.

ROUND THE TABLE COMMENTS

- Mr. DeLoach asked if Committee will pursue off-station landing pad. Semmler noted that it was not on the agenda and a Navy issue. Someone needs to be starting that now. Military Affairs Committee discussed. Mr. DeLoach asked if the MAC could brief NRPIC. Councilman Flewelling noted Military Enhancement Committee is aware. Navy is not discussing unless upper echelon brings up the point. State and federal legislators should be aware of our desire/need.
- Beaufort County Councilman Brian Flewelling noted that Natural Resources Committee will meet on 10/9 and 10/13 due to lengthy projects that must be discussed.
- Mr. McBride noted that it was important to keep the Air Station in Beaufort rather than looking for another landing site. The Lowcountry Council of Governments (LCOG) Committee recommended Sabrina Grant as the new Executive Director, replacing Chris Bickley who will be retiring.
- Mr. Semmler noted that a special Committee meeting would be held in October, and that a public meeting would be schedule prior to the November Committee meeting. He asked that the Committee consider including the SWOT as an appendix to the final report, and asked Ms. Kozak to inform the consultants of the recommendation.

OTHER BUSINESS:

- Special Committee Meeting to be scheduled for October 2014, date to be announced at a later date.
- Next Scheduled Committee Meeting: Friday, November 21, 2014, in the Executive Conference Room, Beaufort County Administration Building, 100 Ribaut Road, Beaufort SC 29902.

ADJOURNMENT: Mr. Semmler adjourned the meeting, without objection from the Committee members, at approximately 11:29 a.m.

Note: The video link of the September 26, 2014, Northern Regional Plan Implementation Committee meeting is: http://beaufort.granicus.com/MediaPlayer.php?view_id=3&clip_id=1795

**Special Northern Beaufort County Regional Plan Implementation Committee Meeting
Executive Conference Room, County Administration Building
100 Ribaut Road, Beaufort, SC 29902
October 30, 2014**

ATTENDANCE

Members Present: Robert Semmler, Chairman, Northern Regional Plan Implementation (NRPIC) Committee and Beaufort County Planning Commission; Vernon DeLoach, Town of Port Royal Councilman; Gerald Dawson, Beaufort County Councilman; Brian Flewelling, Beaufort County Councilman; Billy Keyserling, City of Beaufort Mayor; William McBride, Lowcountry Council of Governments; Samuel Murray, Mayor of Town of Port Royal; and Laura Von Harten, Beaufort County Councilman

Members Absent: Jerry Cook, Town of Yemassee Mayor; Joe DeVito, Metropolitan Planning Commission Chair; Bob Evans, Beaufort County School Board Chairman; and Mike Sutton, City of Beaufort Councilman

Staff Present: Libby Anderson, City of Beaufort Planning Director; Linda Bridges, Town of Port Royal Planning Administrator; Anthony Criscitiello, Beaufort County Planning Director; Ginnie Kozak, Lowcountry Council of Governments; Robert Merchant, Beaufort County Long-Range Planner; Van Willis, Port Royal Town Manager.

Other Attendees: Reed Armstrong, Coastal Conservation League; Charlie Bray, Town of Port Royal councilman-elect; Frank Cummings, citizen; Alice Howard, Metropolitan Planning Commissioner; Joe Lee, Town of Port Royal Councilman; Jason Mann, U.S. Marine Corps Air Station Beaufort; Sharon Reilly, citizen; Ed Saxon, Beaufort-Jasper Water and Sewer Authority; and JLUS Consultants: Tyson Smith of White and Smith, LLC; Vagn Hansen II of Benchmark.

CALL TO ORDER: Chairman Robert Semmler called the special Northern Regional Plan Implementation Committee (NRPIC) meeting to order at approximately 9:34 a.m.

PLEDGE OF ALLEGIANCE: Mr. Semmler led those assembled with the Pledge of Allegiance to the United States of America.

Mr. Semmler asked that those in the room to introduce themselves, for the record. He then introduced the Committee members that were present, including himself.

CHAIRMAN'S REPORT: Mr. Semmler noted that he was adding "Old Business" after the #5 and "New Business" after #7 and before Round Table Discussion. No objections were raised by the Committee members.

JOINT LAND USE STUDY (JLUS) FOR MCAS BEAUFORT AND PARRIS ISLAND

Mr. Tyson Smith noted the actions that have occurred since the last Committee meeting, including visiting the Santa Elena site at the Parris Island Marine Corps Recruit Depot as recommended as a cultural site, posted the survey results on the website and on Facebook, providing draft recommendations to the Committee, preparing an augmented analysis of the land use compatibility in relation to the growth boundaries set by Northern Regional Plan, nearing

completion of the draft JLUS Plan, and receiving correspondence from the North of Broad Neighbors.

Mr. Vagn Hansen provided an overview of the augmented map with the growth boundaries, noting the increased impacts in each of the government entities. Discussion included clarification of the growth boundaries that reduces the growth opportunity for the City of Beaufort, and concern with terrorist attacks on the air station restricting growth in the industrial area. Mr. Smith noted sound attenuations were in Zone 3.

Mr. Smith noted that potential recommendations for the land use would be considered by the Technical Committee. The Technical Committee asked for a generalized list because its content was too technical. Mr. Smith will provide a simplified worksheet, with cost estimates for each recommendation, so the Policy (Implementation) Committee can prioritize and discuss the prioritized recommendations. Discussion included separating the facilities despite the study that includes both the Air Station and the Recruit Depot, clarification of the binding MOU recommendation, clarification on the prioritization scale, concern that the Technical Committee recommendations are not being forwarded to the government entities prior to being forwarded to the consultant, clarification on who compiled the recommendations, concern that governing officials are not aware of this process, desiring a buy-in to the plan by government entities, concern with compensation to property owners that are affected by the plan, the ranking process of the recommendations from the consultant to the Policy Committee to the governing entities and back to the consultants, concern with notifying the public.

Motion: Mayor Keyserling made a motion, and Mayor Murray seconded the motion, that the consultant would get the recommendation worksheet to the Policy and the Technical Committees by November 11, and the Policy Committee will discuss the worksheet at their November 21, 2014, meeting. The motion was carried unanimously.

Mr. Tyson clarified the motion, and noted that the next public meeting was on November 20 at 5:30 p.m. at the Technical College of the Lowcountry (TCL) on Ribaut Road where the survey results, the augmented map, and the process will be presented to the public. Discussion included accepting written public input, and Committee decision on how input should be handled.

Mr. Tyson noted that certain chapters of the Plan were in the works. He asked how much time the Committee would want to review the chapters. Discussion included sending chapters in draft form as they are completed.

Mr. Tyson will be asking for more meetings by the Policy Committee to complete the Plan.

NEW BUSINESS

- **Mr. Jason Mann** of the Marine Corps Air Station Beaufort noted that there are five F35B planes on board and the first instructional class will begin. The Air Station has received several noise inquiries. The Executive Officer was going to give the update, but had a conflict and offered his apologies. Discussion included the noise data for the F35B that was just released and will be reviewed by the Air Station, and the availability timeframe of the data to the public.

- **Oversight Group on JLUS Implementation:** Mr. Semmler asked that the Implementation Committee consider who should be on the oversight group after the implementation of the JLUS. Discussion included the non-existence of an oversight group for the last JLUS, and the importance of a coordination vehicle with the government.

ROUND THE TABLE COMMENTS

- Mr. Reed Armstrong stated that we must remember that the JLUS study is a 10-year plan from 2015 to 2025.
- Ms. Ginnie Kozak stated that there is no plan that is carved in stone, since plans do change. No matter what information is received from Mr. Jason Mann, the Department of Defense expects that we continue with the existing JLUS study.
- Ms. Alice Howard agreed with Mr. Armstrong that the JLUS was an evolving process.
- Mr. Frank Cummings noted that anytime someone does not have familiarity with 200-page document (like this Committee), he suggested placing an executive summary for each chapter, citing specific pages for each items in the summary.
- Mr. Anthony Criscitiello noted that the County Community Development Code would be presented as a draft to the Beaufort County Natural Resources Committee on Monday, November 3. The AICUZ overlay is included in the Code.
- Councilman Joe Lee noted that there are a lot more airplanes flying now than the last time we met. We have more ears on the ground today than a month or two ago, and he feels it will impact public comment.
- Mr. Charles Bray is a former military/civilian pilot and marvels at the good relationship between the Air Station and Beaufortonians. He read the 2004 JLUS study and noted that a citizen committee was recommended, but not implemented. Without an implementation committee, the process is for naught.
- Councilman Vernon DeLoach noted there's a lot of work ahead of us.
- Mayor Billy Keyserling asked that the regional approach to open spaces and park assets had been discussed numerous times. He would like to have that discussion placed on the Implementation Committee agenda. Maintenance of some parks is burdensome, and a regional concept may benefit all.
- Councilwoman Laura Von Harten agreed with Mayor Keyserling that funding the many regional assets should be discussed in the future.
- Mayor Samuel Murray supports the executive summary pages as recommended by Mr. Cummings.
- Councilman Brian Flewelling noted that the Committee members should be reading every page, not just the executive summaries.

OTHER BUSINESS: Next Meeting: Friday, November 21, 2014, in the Executive Conference Room, Beaufort County Administration Building, 100 Ribaut Road, Beaufort SC 29902. There will be

ADJOURNMENT: Mr. Semmler adjourned the meeting, without objection from the Committee members, at approximately 10.48 a.m.

Note: The video link of the October 30, 2014, Northern Regional Plan Implementation Committee meeting is: http://beaufort.granicus.com/MediaPlayer.php?view_id=3&clip_id=1843



2015 JOINT LAND USE STUDY

Chapter 1: Purpose and Process



Chapter 1 will familiarize the reader with:

- how Joint Land Use Studies are conducted in military communities nationwide
- the goals and objectives of this JLUS
- the community planning process and outreach efforts undertaken to accomplish this JLUS
- the JLUS Focus Area and the lands covered by the study
- the major components of the final JLUS report

This Joint Land Use Study (JLUS), developed between March 2014 and March 2015, is for the Marine Corps Air Station Beaufort. The Study examined land use compatibility between the Air Station and nearby local communities—primarily, Beaufort County and the City of Beaufort, but also the Town of Port Royal (the JLUS Jurisdictions).

This JLUS was prepared pursuant to a joint planning process that also resulted in a JLUS for the Marine Corps Recruit Depot Parris Island. That process resulted in a separate published study for each installation.

The primary impacts on the community from the Air Station include aircraft noise and accident potential, while the primary impact on the Air Station from the community include future growth and development in its vicinity. However, both the Air Station and the local communities have taken significant steps in the past to protect each other from these impacts, including adoption by all three JLUS Jurisdictions of an overlay zone that limits land uses within the Air Station's impact areas to compatible land uses with appropriate noise level reduction construction.



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The Study, nonetheless, includes a prioritized list of additional tools available to ensure ongoing compatibility as a new mission is gradually established at Marine Corps Air Station Beaufort.

I. What is a Joint Land Use Study?

Joint Land Use Studies help military communities and military installations become aware of the impacts they have on each other, and they help develop strategies for each to use to lessen those impacts for the greater good. This helps both groups ensure that land uses around the installation are compatible with its mission. Collaborating on land use issues also helps protect the safety of citizens and ensures that they are able to maintain a good quality of life over time.

In the past, military installations were usually located in rural areas, so impacts by the installation on the local communities, and vice versa, were of lesser scope than they often are today, when suburban and urban development has inched ever closer to the installations. Communities across the country have turned to Joint Land Use Studies for help in addressing this change.

Since 1985, more than 100 Joint Land Use Studies have been completed and more than



50 currently are underway around the country. The Lowcountry Council of Governments conducted a Joint Land Use Study for the Marine Corps Air Station Beaufort in 2004 that serves as a precursor to this Study.

The Department of Defense's Office of Economic Adjustment (OEA) funds Joint Land Use Studies, with a financial contribution by the local community and an administering agency, which in this case is the Lowcountry Council of Governments (LCOG). After a formal bid process, the LCOG selected White & Smith Planning and Law Group, with partners Marstel-Day, LLC and Benchmark CMR, Inc. (the "JLUS Project Team") to complete the Study for MCAS Beaufort.

This JLUS report is the result of an extensive, year-long public planning process in the local communities. Local stakeholders, landowners in the Study area, and the public at large all had many opportunities to give input into the plan. A list of stakeholders



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interviewed during the Study as well as general information about the Study's public outreach campaign are provided below.

This report provides relevant background information in terms of demographics and land uses in the Study area, identifies potential land use conflicts there, and develops and prioritizes tools that the local communities and MCAS Beaufort can use to encourage compatibility between civilian land uses and the military operations. The Joint Land Use Study does not require local communities to adopt any particular tool but rather summarizes the options available should they wish to put any into place. The JLUS Policy Committee recommended an implementation framework, set out in Chapter 6, to facilitate community dialogue after the JLUS and prior to the development or adoption of any particular tool.

II. Study Goals and Objectives

According to the Office of Economic Adjustment, the dual objectives of Joint Land Use Studies are:

- To encourage cooperative land use planning between military installations and the surrounding communities so that future growth and development are compatible with military missions; and
- To seek ways to reduce the operations' impacts on adjacent land.

The Studies meet these objectives by cataloguing existing and potential land use compatibility issues between an installation and local communities, identifying prospective tools they could use to overcome or reduce any identified incompatibilities, and creating a plan for the future coordination of land use issues.

The JLUS for MCAS Beaufort was designed with these particular outcomes in mind:

A. Increase Awareness

Paramount to future collaborative efforts between the Air Station and local communities is for each to have an understanding and appreciation of the needs and plans of the other. For example, a sensitivity to the operations and mission of MCAS Beaufort by the local communities will help inform decisions they make that could affect the installation. Likewise, an understanding of the effects it has on the local communities, as well as expected future growth patterns in the area, will help the Air Station make decisions about its operations going forward. For these reasons, the JLUS process involved a year collaborative planning by military officials, local governments, and other members of the public and private sectors.

B. Encourage Collaboration

Many of the tools that MCAS Beaufort and the local communities have available to ensure continued land use compatibility involve cooperative efforts by both. For this reason, the process of developing the Study intentionally encouraged collaboration among stakeholders, including the Marine Corps, to lay a foundation



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for additional collaborative efforts in the future. For the same reason, some of the recommendations of the Study are intentionally designed to encourage ongoing collaboration between the installation and local communities.

C. Maintain or Augment Land Use Compatibility

The JLUS examines issues of land use compatibility between MCAS Beaufort and the local communities in order to develop additional strategies that both could use to further protect the mission of the Air Station and local quality of life. Joint efforts to ensure as much compatibility between the military and civilian uses as possible will be important as the base transitions to the F35-B aircraft over roughly the next decade.

III. The JLUS Focus Area

In order to focus the scope of their compatibility analyses, the JLUS Committees established a Focus Area, shown in Figure 1-1. The JLUS Focus Area is based upon the known military operational impacts that the participating communities have identified through the 2013 AICUZ Study, the 2003 AICUZ Study, the 2004 Joint Land Use Study, and local knowledge of land use, growth patterns and military operational impacts.

The Focus Area covers lands within the 65 dB+ DNL noise contour as established in the 2013 AICUZ, as well as those areas that fall within one mile of the Air Station boundary but outside of the 65+ dB. DNL noise contour, where it falls less than one mile from the boundary. The JLUS Focus Area includes lands that are regulated in terms of land use by both Beaufort County and the City of Beaufort.



2015 JOINT LAND USE STUDY



Figure 1-1 MCAS Beaufort Joint Land Use Focus Area



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IV. The JLUS Process

The development of this Study was a year-long community undertaking. Between March 2014 and March 2015, members of MCAS Beaufort and representatives from several local governments (primarily the JLUS Jurisdictions but also Hilton Head Island and the Town of Bluffton), utilities, governmental agencies, business groups, and environmental groups, came together to discuss issues of land use compatibility and the base. Two Steering Committees—the Policy Committee and the Technical Committee, the members of which are identified in the Acknowledgement section of this report—were formed to help guide the discussion. In addition to these key stakeholders, the public gave input into the Study through a series of public meetings, which are described below. The notes from these meetings are included in Appendix D.

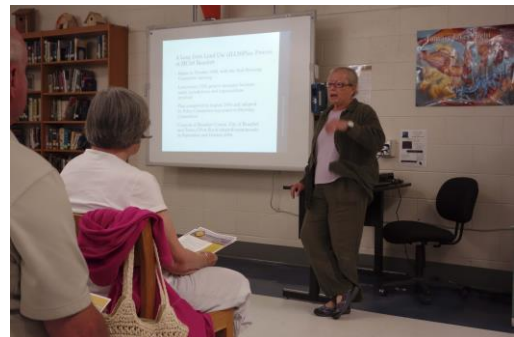
The Joint Land Use Study process included three major components, which are described below: an evaluation of existing conditions; a land use compatibility analysis; and the development of the study and implementation options. The JLUS Project Team (White & Smith Planning and Law Group, Benchmark Planning, and Marstel-Day, LLC), at the direction of the Steering Committees, facilitated the completion of each component using input by key community stakeholders and the public at large.

A. Evaluation of Existing Conditions

The Evaluation of Existing Conditions included site visits, background document review, and meetings with the public and key stakeholders in the community and at MCAS Beaufort. The JLUS Project Manager identified the Study's stakeholders, who were interviewed by the JLUS Project Team between March 17 and 20, 2014.

Additionally, the Project Team conducted a Public Survey in order to better understand the public's view of MCAS Beaufort and its role in the community. The JLUS Project Team kicked off the survey using a live-polling exercise during the first public kick-off meeting on May 22, 2014. Members of the public entered their responses to questions electronically and were able to view the responses of others in real time. In addition to being conducted during the first kick-off meeting, the survey was available for completion in hardcopy form and online at the project website through July 31, 2014.

Ginnie Kozak, the JLUS Project Manager, also met with the City of Beaufort Neighborhoods Association to familiarize neighborhood leaders with the survey and to distribute it in hardcopy to those in attendance. The survey also was available through several churches in the JLUS Focus Area and through local media, including the Beaufort Gazette and the Gullah Sentinel. Local civic organizations including the Rotary Club, Exchange Club, AAUW (Beaufort Chapter), and the Lady's Island Business and Professional Association, also were contacted directly to ensure their members were aware of the survey and of the JLUS process. Finally, the surveys were





2015 JOINT LAND USE STUDY

made available in hardcopy at the County libraries and a link to the survey was provided on the County library website. The full results of the Survey are presented as Appendix A.

The JLUS Project Team also performed a SWOT (Strengths, Weakness, Opportunities, and Threats) Analysis during this initial stage of the Study, which is included as Appendix C. SWOT Analyses are used to evaluate how internal and external factors affect an organization's objectives, in this case, compatible land use associated with MCAS Beaufort. The SWOT analysis established the foundation for the recommendations set forth in Chapter 6, by allowing the Project Team to match available land use tools with those the Steering Committees and public felt most likely to be appropriate in this specific context.

B. Land Use Compatibility Analysis

The JLUS Project Team prepared a Land Use Compatibility Analysis for the lands within the JLUS Focus Area, which is set forth in Chapter 3 of the Study. The analysis examines the current and future state of compatibility between operations occurring at MCAS Beaufort and civilian land use and development activity in its immediate vicinity. It summarizes the known impacts of MCAS Beaufort on the surrounding communities, which primarily include aircraft noise and accident potential zones, although some issues related to small arms noise, surface danger, and safety relative to the storage of munitions and operation of the Air Station's demolition range are also reviewed.

C. Development of the Study and Implementation Options

The third phase of the Study used the background information collected about the communities and the analyses described above to develop options for the JLUS Jurisdictions to consider if they wish to further protect MCAS Beaufort from encroachment and the community from Air Station impacts. The available options range from the regulatory (for example, augmented overlay zoning) to the non-regulatory (for example, purposeful communication initiatives). A spectrum of options is presented to give the local communities a complete picture of alternative ways to address land use compatibility issues. Each community will individually decide which, if any, are appropriate for it to adopt in the future, most likely, through the implementation framework recommended by the JLUS Policy Committee.

V. The JLUS Public Outreach Campaign

As mentioned above, the JLUS process sought feedback from not only key stakeholders but also general community members who impact and whom MCAS Beaufort impacts, such as nearby residents, business owners, landowners, and other interested parties. Therefore, the components of the public outreach campaign involved not only stakeholder interviews, but also public meetings, informational brochures, a project website, and a Facebook page.

A. Stakeholder Interviews



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The JLUS Project Team held a series of one-on-one, face-to-face interviews with key community stakeholders between March 17 and 20, 2014, and by teleconference at different times in order to accommodate participant availability and schedules. Among those interviewed were:

- Beaufort County
- City of Beaufort
- Town of Port Royal
- Marine Corps Recruit Depot Parris Island
- Marine Corps Air Station Beaufort
- Beaufort Jasper Water & Sewer Authority
- SCANA/SCE&G
- Beaufort Regional Chamber of Commerce
- Beaufort County Association of Realtors
- Developer, Real Estate, and Finance Stakeholders
- Coastal Conservation League
- Beaufort County Open Land Trust
- Lowcountry Economic Alliance
- Town of Bluffton
- Town of Hilton Head Island

B. Public Meetings and Input

The Project Team held three public input meetings during the development of the Study. Each of the public outreach meetings was advertised in the local media (including on radio stations WSAV and WJCL), the project website, and the project Facebook page.



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The first public kick-off meeting took place on May 22, 2014, at Battery Creek High School. During this meeting, the Project Team explained to the public the purpose of conducting the Joint Land Use Study, the process that would be used to complete it, and the products that would result from it. The Project Team also explained the opportunities that would occur throughout the process for the public to give input into the Study, which, as aforementioned, started during the meeting with a live-polling exercise, and the ways that those who were

interested could keep apprised of the status of the Study over the coming months.

On November 20, 2014, the second public input session took place at the Technical College of the Lowcountry on Ribault Road in Beaufort. The JLUS Project Team presented a history of military planning in the community, the results of the Public Survey, the initial MCAS Beaufort Land Use Compatibility Analysis, and an overview of regulations adopted by the JLUS Jurisdictions following the 2004 Joint Land Use Study at MCAS Beaufort. An opportunity for public comment also was provided and good public input was received.

A public meeting also took place in [REDACTED] to present a draft version of this report and to receive public comment and input to be incorporated thereafter.





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Public meetings were held throughout the development of the study to educate the community about the purpose of the JLUS and to seek public input about land use compatibility and other issues.

Following each public outreach meeting, presentation materials and meeting notes were posted to the project website. The notes from these meetings, including comments received, are included as Appendix D.

In addition to the general public outreach meetings, the local JLUS Project Manager, Ginnie Kozak of the LCOG, met with the City of Beaufort's Neighborhood Association in July 2014 to make sure that neighborhood leaders were familiar with the JLUS process and aware that the Public Survey was available for completion. About 25 people attended that meeting.

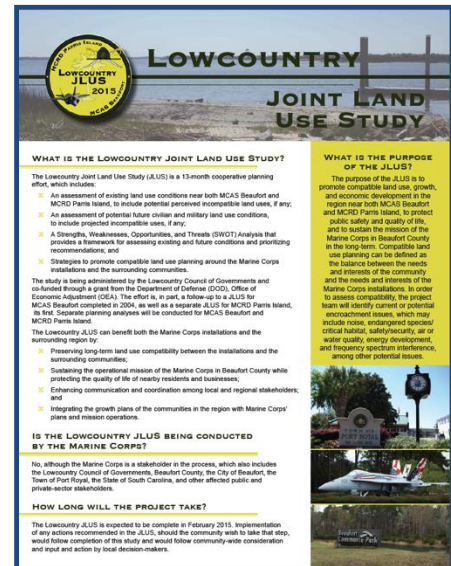
Throughout the Study, the public was invited to provide additional written input to the JLUS Project Manager at anytime. This afforded the public time to submit more detailed comments, as well as an opportunity for those who were unable to attend a particular meeting to provide direct input. The project website and Facebook page (which are described below) invited such additional written input, as did the JLUS Project Team leader, Tyson Smith, at each public input session. The written comments submitted by the public to the Project Team are included here as Appendix E.

This public input informed the SWOT Analysis, included as Appendix C, and the recommendations of the Policy Committee, which are set forth Chapter 6.

C. Informational Brochures

The Project Team prepared and distributed two informational brochures during the Study. The first introduced the community to the JLUS process and outlined what it could expect from the Joint Land Use Study effort. This brochure was distributed at the public kick-off meeting on May 22, 2014, and was made available on the project website throughout the Study.

At the conclusion of the JLUS, a second informational brochure was prepared to give an overview of the final report, direct the reader to other available JLUS resources, and define the next steps for the community.

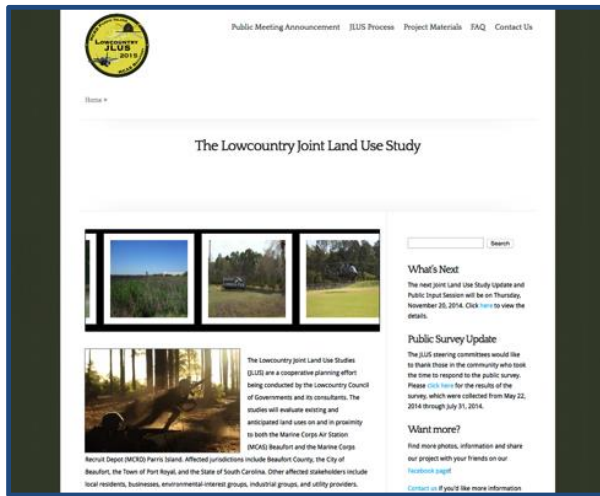


JLUS Informational brochures were provided in hardcopy and for download from the Project Website



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The brochures were made available to the JLUS Jurisdictions and agency representatives on each of Policy and Technical Committees, and were made publicly available on the project website, as well as in hardcopy form upon request.



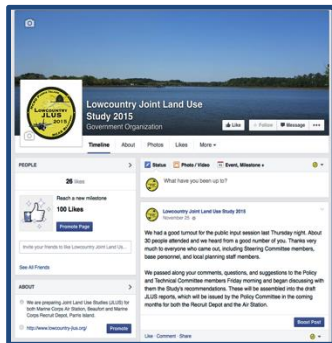
D. Project Website

The Project Team created a project website that gave general information about the purpose and objectives of the Study, contained an up-to-date summary of the JLUS process as it progressed, and served as a central, public location for key Study products and materials. These products and materials included copies of public presentations, surveys, committee minutes, and other key documents. The website also regularly indicated “next steps” so that community members could stay informed about outreach and input efforts during the Study, and it provided contact information for people to ask questions or make comments throughout the

A Project Website was maintained throughout the Study to keep the public up to date on progress and opportunities for input

Study.

E. Facebook Page



The Project Team also maintained a Facebook Page

The JLUS Project Team also maintained a Facebook page as another way to keep the public updated about the Study as it progressed. Posts included information about upcoming public input sessions, how to submit surveys and written comments to the Project Team, and updates about the status of the Study. The Project Team also used the Facebook page to link people back to the project website for more information at critical points in the process, such as when the results of the public surveys were posted and drafts of the report made available.

VI. Overview of the JLUS Report

The Joint Land Use Study consists of six chapters on the purpose of the Study and the process for conducting it (Chapter 1), a background assessment of the Air Station and the community (Chapter 2), a Land Use Compatibility Analysis (Chapter 3), possible land use issues the installation and community may experience in the future (Chapter 4), existing land use policies and tools used to ensure compatibility of land uses (Chapter 5), and a prioritization of additional policies and tools the communities could use if desired to further protect the mission of MCAS Beaufort (Chapter 6). The report also includes several appendices, such as a SWOT (Strengths, Weaknesses, Opportunities and



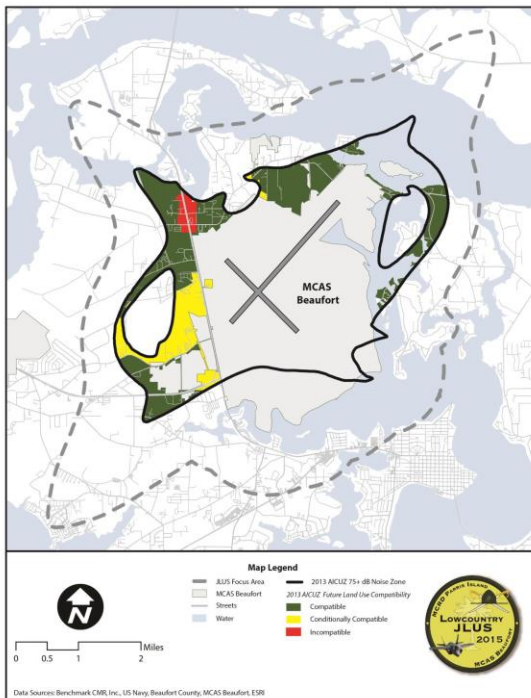
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Threats) analysis, that inform the discussion in the preceding chapters. The following briefly describes each of the chapters of the report that follow Chapter 1.

Chapter 2: Background

Chapter 2 provides the necessary background on the operations of the Air Station and its effects on the larger community, as well as the effects that the community has on it, to help inform the discussion of land use compatibility in Chapter 3. In addition to discussing MCAS Beaufort's mission and its current and future operations, this Chapter also looks at plans that MCAS Beaufort has developed in the past to deal with issues of encroachment, such as the 2004 JLUS, and steps it has taken in the past to minimize encroachment issues, such as land acquisition. This chapter also looks at growth issues in the area and how they impact the installation, as well as how the installation affects the environment and cultural resources of the area.

Chapter 3: Land Use Compatibility Analysis



This chapter reviews issues of compatibility within the JLUS Focus Area. The most significant issues relate to aircraft noise (particularly at the 65-80 dB DNL levels, since the majority of noise at higher levels is contained within the boundary of MCAS Beaufort) and accident potential (a significant portion of the accident potential zones lie outside of the MCAS Beaufort boundary, although much of that area is consumed by road right-of-way or water bodies).

Notably, this Chapter compares differences between the 2003 and 2013 noise zones, which changed with the 2013 AICUZ Study to take into account the noise impacts of the incoming F-35B aircraft. It also looks at existing and projected land uses in these areas of noise and accident potential impacts. Finally, the Chapter reviews other impacts, such as small arms noise, surface danger

zones, and safety zones associated with the storage of munitions and the operation of the Air Station's demolition range.

Chapter 4: MCAS Beaufort and the Community: The Road Ahead

The most significant change in the years ahead to both MCAS Beaufort and the local communities is the transition to the F-35B aircraft over roughly the next decade. These aircraft have noise impacts that are different than the current F-18 primary aircraft used at the Air Station, so different lands will be affected than was the case with the F-18. Chapter 4 looks at this transition and what it means for the local communities. It also



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examines potential community impacts on the Air Station, such as increased population and additional land development. It briefly describes strategies used by the JLUS Jurisdictions to address issues of encroachment, such as the Transferable Development Rights program, the establishment of growth boundaries, and the purchase of conservation easements, which are further elaborated in Chapter 5.

Chapter 5: Existing Policies and Available Tools

In order to examine the options available for the JLUS Jurisdictions to promote compatibility around the Air Station, Chapter 5 first looks at the state statutory framework for local government land use regulations, as well as at proposed legislation that may change that regulatory authority in the future. The Chapter then summarizes common types of land use regulations in the state's military communities as well as the particular tools that each of the JLUS Jurisdictions has chosen to use to date to encourage military compatibility. Following the 2004 JLUS, the JLUS Jurisdictions adopted many land use compatibility tools; at this time, they could elect to enhance their existing tools and adopt additional ones in order to further ensure land use compatibility going forward. Chapter 5 describes the adoption by the Town of Port Royal and Beaufort County of "form-based," community codes, which occurred during preparation of the JLUS. At the time the JLUS was completed, a similar code was pending consideration at the City of Beaufort.

Chapter 6: JLUS Implementation Plan

Chapter 6 lists recommended land use tools for the JLUS Jurisdictions and the Air Station, prioritizing them based on input from the stakeholders, the public at large, and the recommendations of the JLUS Policy Committee. It briefly sets out the most salient factors related to land use on and near the Air Station, summarizing the background from earlier chapters to give the Implementation Matrix context.

The Matrix then describes each tool, the likely parties that would be responsible for adopting and administering it, and its expected implementation timeframe. While this Study recognizes that each local community will need to decide for itself which tools are appropriate for it to implement, if any, Chapter 6 provides a framework for implementing the Study's various recommendations for any community that chooses to do so.

Appendices

Finally, in order to supplement understanding of the potential tools discussed in Chapters 5 and 6, several relevant documents have been included as appendices to the report. These include:

- A. Public Survey Results
- B. Current MCAS Beaufort Overlay District Regulations, by Jurisdiction
- C. Strengths, Weaknesses, Opportunities, and Threats Analysis
- D. Public Meeting Notes
- E. Public Written Comments Submitted
- F. Policy Considerations for MCAS Transferable Development Rights Program



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Chapter 2: Background

I. Marine Corps Air Station (MCAS) Beaufort Region

A. General

MCAS Beaufort is located in coastal South Carolina, approximately 70 miles southwest of Charleston and approximately 40 miles northeast of Savannah. The installation consists of a 6,949-acre main site and the 971-acre Laurel Bay Family Housing area, approximately three miles to the west. Both are within the boundaries of the City of Beaufort, in Beaufort County. The installation also includes the 5,183-acre Townsend Bombing Range (TBR), an air-to-ground bombing range located in McIntosh County, Georgia, approximately 70 miles to the southwest.

Within the local area are two other military installations, Marine Corps Recruit Depot (MCRD) Parris Island and Naval Hospital Beaufort, located approximately 13 miles south and ten miles southeast of MCAS Beaufort, respectively. MCRD Parris Island is approximately 8,095 acres in size and is the Marine Corps recruit training location for males from the eastern U.S. and all females.ⁱ Located on 127 acres, Naval Hospital Beaufort (NHB) provides medical, surgical, and emergency services to active duty and retired Navy and Marine Corps personnel and dependents. Together, these three installations (MCAS Beaufort, MCRD Parris Island, and NHB) are referred to as the Tri-Command Installations.

Located on Port Royal Island, the City of Beaufort is the county seat of Beaufort County and a principal city of the Hilton Head Island-Bluffton-Beaufort Metropolitan Statistical Area (MSA). The City of Beaufort also includes land annexed from Lady's Island. The JLUS Jurisdictions referred to within this document include all or portions of the City of Beaufort, Beaufort County, and the Town of Port Royal.

Established in 1711, the City of Beaufort is known for its historic architecture dating from the early 18th Century. In 1969, the entire 304-acre area of the city's original development was listed on the National Register of Historic Places. This was followed by its designation as a National Historic Landmark in 1973. This historic character is reflected in the local economy of Beaufort County, with tourism; and retirement and second homes, three of its primary industries. The most significant component of the local economy is the military, with MCAS Beaufort, MCRD Parris Island and Naval Hospital Beaufort providing direct employment to 8,400 military and civilian personnel in 2012.ⁱⁱ

Land use surrounding MCAS Beaufort is a mix of undeveloped and developed land, ranging from low- to high-density. It is comprised of community commercial, light industrial, neighborhood mixed use (residential and neighborhood retail), preserved lands, regional commercial, rural community, rural/undeveloped, and schools. Water bodies and



marshlands are also prominent within the local area, bordering MCAS Beaufort directly to the north and east.ⁱⁱⁱ The installation is also bordered by rural/undeveloped land to the north, northeast and west. Developed land use is adjacent to MCAS Beaufort, with neighborhood mixed use to the northwest, east, southeast and southwest. Community commercial and regional commercial land uses are located, respectively, on the northwest and south boundaries of the installation. Light industrial uses at the City of Beaufort Industrial Park border MCAS Beaufort to the west. Laurel Bay Housing is bordered by rural/undeveloped land to the north and south and by water to the west. Developed land use includes light industrial to the east and mixed neighborhood uses to the east and south.^{iv}

Given MCAS Beaufort's close proximity to residential, commercial and industrial neighbors; it is important to facilitate and strengthen engagement opportunities between the installation and the JLUS Jurisdictions.

B. MCAS Beaufort

1. Importance of MCAS Beaufort to USMC Mission

In 2010 the Final F-35B East Coast Basing Environmental Impact Statement (EIS) was completed. In accordance with the Record of Decision (ROD), the Department of the Navy made the decision to locate three F-35B Joint Strike Fighter (JSF) operational squadrons and a Pilot Training Center (PTC) at MCAS Beaufort. Described as a "next generation aircraft", the F-35B is intended to replace the legacy F/A-18A/C/D (F/A-18) Hornet and AV-8B Harrier aircraft in the Second Marine Aircraft Wing (MAW) currently located at MCAS Beaufort and MCAS Cherry Point, North Carolina.^v The full transition to F-35B operations is expected to be completed by 2023.^{vi}

Selected Public Survey Results

A large majority of respondents classified the training at MCAS Beaufort (88.7%) as "important" or "very important."

As the designated host installation of three operational F-35B squadrons and the PTC, MCAS Beaufort will continue its role in providing critical support to Marine Corps combat capability and mission readiness. The Air Station has strategic value to the Marine Corps due to its support of the new operational and flight training regimen. Although a different primary aircraft will be present, the arrival of the F-35B aircraft will not change the fundamental mission of MCAS Beaufort.^{vii}

2. MCAS Beaufort Mission

Today, MCAS Beaufort supports the operations of the 2nd MAW, attached II Marine Expeditionary Force (MEF) units and the MCRD Parris Island/ Eastern Recruiting Region. Its mission is, "to continue supporting establishment operations in support of 2nd Marine Aircraft Wing (MAW), attached II MEF units, and Marine Corps Recruit Depot Parris



Island/Eastern Recruiting Region in order to set the conditions for the enduring success of our supported commands and their missions.”^{viii}

MCAS Beaufort currently hosts all Marine Corps F/A-18 air operations on the East Coast, serving as an operational base for Marine Aircraft Group 31 (MAG-31). It provides support to the MAG-31, its squadrons and Marine Corps support units. The MAG-31 reports to the 2nd MAW, based at MCAS Cherry Point, North Carolina. Its mission is, “to conduct anti-air warfare and offensive air support operations from advanced bases, expeditionary airfields, or aircraft carriers, and conduct such other air operations as directed.”^{ix} The mission of the 2nd MAW is “to conduct air operations in support of the Marine Forces to include offensive air support, anti-air warfare, assault support, aerial reconnaissance, electronic warfare, and control of aircraft and missiles. As a collateral function, the MAW may participate as an integral component of naval aviation in the execution of such other Navy functions as the Fleet Commander may direct.”^x

MCAS Beaufort support also includes providing a variety of support services, including basic facility services, business and support functions, housing and accommodations, and quality of life.^{xi}

3. *MCAS Beaufort Aircraft Operations*

a. **Current Operations**

MCAS Beaufort is currently the home of the Marine Corps’ Atlantic Coast fixed-wing, fighter-attack aircraft assets, including seven F/A-18 Hornet fighter-attack squadrons, under the MAG-31. This includes the VMFAT-501 “Warlords”, the first F-35B squadron that arrived at MCAS Beaufort in July 2014, and six other squadrons. They are:

- VMFA-115 “Silver Eagles;”
- VMFA-122 “Werewolves;”
- VMFA (AW)-224 “Bengals;”
- VMFA-251 “Thunderbolts;”
- VMFA-312 “Checkerboards;” and
- VMFA (AW)-533 “Hawks”.^{xii}

MCAS Beaufort also hosts two other MAG-31 squadrons. The Marine Wing Support Squadron 273 (MWSS-273) provides aviation ground support, including internal airfield communications, weather services, expeditionary airfield services, aircraft rescue and firefighting, aircraft and ground refueling, essential engineering services, motor transport, messing, chemical defense, security and law enforcement, airbase commandant functions, and explosive ordinance disposal.^{xiii} The Marine Aviation Logistics Squadron 31 (MAL-31) provides aviation logistics support, personnel, guidance, planning, and direction.^{xiv}

Other tenants at MCAS Beaufort are:

- Marine Air Control Squadron-2 (MACS-2), Detachment “A”;
- Combat Logistics Company-23 (CLC-23);



- Pacific Missile Test Center-Detachment (PMTTC Det);
- NHB: MCAS Beaufort Branch Medical Clinic;
- South Carolina Army National Guard;
- Naval Criminal Investigative Service; and
- Naval Surface Warfare Center.^{xv}

The Headquarters and Headquarters Squadron (H&HS), another unit at MCAS Beaufort, supports combat readiness and quality of life with responsibility for Air Traffic Control (ATC), weather forecasts, military police, communications, legal services, meals, pay and accounting, aircraft rescue and firefighting support, and explosive ordnance disposal. It has the following mission, “supporting and enhancing the combat readiness of the Marine squadron located at MCAS Beaufort and improving the quality of life for military personnel, their families and the work force assigned to MCAS Beaufort.”^{xvi}

In addition to the F/A-18 and F-35B, other aircraft at MCAS Beaufort include the UC-12M Huron twin-turboprop aircraft and a variety of transient aircraft (those not permanently stationed at MCAS Beaufort).

Aircraft operations at MCAS Beaufort occur in the following areas: the airfield, airspace, and training areas. The airfield, called Merritt Field, is tower-controlled and located at 37 feet above mean sea level (MSL). It is comprised of two runways, 5/23 (12,202 feet in length) and 14/32 (7,999 feet in length).^{xvii} Hours of operation are Monday through Thursday (7:00 A.M. – 11:00 P.M.), Friday (7:00 A.M.-6:00 P.M.) and Sunday (4:00 P.M. – 6:00 P.M.).^{xviii} It is closed on Saturday, and on federal holidays. Hours may be extended or reduced, as needed for training.

Airspace used by MCAS Beaufort for operational training is characterized as either controlled airspace or as Special Use Airspace (SUA). Controlled airspace has ATC services provided and SUA has limitations placed upon its use, such as the restriction of non-military aircraft.^{xix} The majority of training at MCAS Beaufort occurs in SUA training areas, such as

- Restricted Areas;
- Warning Areas (W-Areas);
- Military Operating Areas (MOAs).

Restricted and Warning Areas contain restrictions on non-military aircraft due to hazardous or potentially hazardous conditions. MOAs are defined airspace areas used to separate military training from non-military flights. In addition to SUA, training also occurs in Military Training Routes (MTRs) specialized areas where high speed low-level training occurs.^{xx}

There are three Beaufort MOAs and one W-area within the local area. The MOAs are adjacent to each other, with Beaufort MOA 2 in the center, over the Air Station, and MOA 1 to the east



and MOA 3 to the west. Each MOA has a lower elevation of 100 feet MSL, with the following upper elevations:

- Beaufort MOA 1 - 10,000 feet MSL
- Beaufort MOA 2 - 7,000 feet MSL
- Beaufort MOA 3 - 2,000 feet MSL^{xxi}

The W-area, W-74, is adjacent to Beaufort MOA 1 and extending three nautical miles from the coastline. The airspace starts the surface level and extends up 10,000 feet MSL.

Training ranges include small arms firing ranges on the Air Station and two training ranges within the region, the TBR, in McIntosh County, Georgia, and the Beaufort Tactical Training Range (TTR) located southwest of MCAS Beaufort, off the Georgia Coast. The TTR is located within W-157 and is comprised of eight offshore towers. TBR is operated by the Georgia Air National Guard, Combat Readiness Center in Savannah, Georgia. It serves as the main training area, providing air combat and bombing training. SUA within the TBR is referred to as the "Coastal Airspace Complex". It is comprised of a restricted area (R-3007) which connects to coastal MOAs and MTRs in the area.

Current baseline conditions for MCAS Beaufort were analyzed as part of the F-35B East Coast Basing EIS. Authorized airfield operations at MCAS Beaufort were estimated at 62,001. This figure is based upon departures, arrivals, and pattern work generated by nine F/A-18 squadrons, including seven Marine Corps squadrons and two Navy squadrons. It also includes operations from other based and transient aircraft.

Historical data on annual aircraft operations at MCAS Beaufort are shown in Figure 2-1. Data is provided from 2003, when the total operations peaked at 42,794, to 2012, when total operations were 38,042. Operations include aircraft based at MCAS Beaufort and also transient aircraft. Differences between historical data and authorized airfield operations (62,001) are due to the number of squadrons included. Authorized operations are based on the authorization of nine F/A-18 squadrons while historical data is based on operational squadrons, which have generally been lower than the full authorization due in part to multiple overseas deployments.



Table 2-1: Annual Aircraft Operations on MCAS Beaufort

Calendar Year	Based Aircraft Operations	Transient Aircraft Operations	Total Operations
2012	37,303	739	38,042
2011	26,696	1,028	27,997
2010	32,307	810	33,117
2009	32,310	1,039	33,349
2008	27,084	1,042	28,126
2007	34,158	1,228	35,385
2006	30,678	1,145	31,823
2005	39,619	1,145	40,764
2004	40,818	931	41,749
2003	41,239	1,555	42,794

Source: *Air Installations Compatible Use Zones Study for MCAS Beaufort*, United State Department of the Navy, Naval Facilities Command Atlantic, Norfolk, Virginia, 2013.

With regard to personnel, current baseline conditions for MCAS Beaufort, as indicated by the F-35B East Coast Basing EIS, are shown in Table 2-2. Authorized military personnel total 1,821. This includes officers and enlisted personnel.

Table 2-2: Authorized Military Personnel on MCAS Beaufort

Officers	Enlisted	Total Military Personnel
229	1,592	1,821

Source: *Final United States Marine Corps F-35B East Coast Basing Environmental Impact Statement (EIS)*, October 2010.

b. Future Operations

Nicknamed, “Fightertown East”, as the current home of the F/A-18 and the future home of the F-35B, MCAS Beaufort is the “premier air station” on the East Coast.^{xxii} Future operations at MCAS Beaufort include a transition from the F/A-18 to the F-35B Joint Strike Fighter (JSF) Lightning II aircraft. As outlined in the F-35B Basing EIS, 88 F-35B aircraft are proposed to replace the 84 authorized Marine Corps F/A-18s, and the 24 other based aircraft, at MCAS Beaufort. This transition, which began in 2014, is expected to be completed in 2023, with the F/A-18 operational squadrons being deactivated over that timeframe. The PTC would be established between 2014 and 2018.

With the arrival of F-35B aircraft, operations are expected to increase.^{xxiii} Proposed airfield operations are expected to total 106,030 annually. This represents an increase of 44,029 from the authorized total of 62,001.



The Marine Corps currently takes steps to mitigate its noise impacts on the community, and will continue to do so with the introduction of the F-35B. Mitigation currently includes:

- Avoidance of prolonged periods of high-powered run-ups;
- Adherence to FAA regulations to maintain minimum altitudes; and
- A noise complaint/inquiry program.

Authorized and proposed military personnel on MCAS Beaufort are shown in Table 2-3. These figures are from the F-35B Basing EIS. Proposed military personnel are expected to total 1,593 annually. This represents a decrease of 228 from the authorized total of 1,821. According to the F-35 Basing EIS, the proposed personnel total does not include PTC pilots, estimated at 78, nor any changes in civilian or contractor personnel due to the fact that precise figures were not available.

Table 2-3: Authorized and Proposed Military Personnel on MCAS Beaufort

Officers		Enlisted		Total Military Personnel	
Authorized	Proposed	Authorized	Proposed	Authorized	Proposed
229	203	1,592	1,390	1,821	1,593

Source: Final United States Marine Corps F-35B East Coast Basing Environmental Impact Statement (EIS), October 2010.

The capabilities of the F-35B to perform Short Take-Off and Vertical Landing (STOVL) operations require the construction of new operational areas. An Amphibious Assault Ship Training Facility is to be constructed, comprised of the additional facilities (landing areas, and landing pads), as shown in Table 2-4 below.



Table 2-4: Projected F-35B Operational Areas on MCAS Beaufort

Facility	Description	Dimensions/ Location
Landing Helicopter Deck (LHD) Training Facility	Land-based amphibious assault ship LHD landing area used to simulate at-sea landings on ships.	840-foot runway Parallel to Runway 5/23, on the north side
Forward Base Operations (FBO) Landing Area	Landing area simulates FBO conditions for training on arrival and departure procedures.	3,000-foot runway Parallel to Runway 5/23, on the south side
Vertical Landing (VL) Pads	Five concrete VL pads designed to accommodate vertical thrust of aircraft from STOVL operations.	Adjacent to the runways

Source: *Air Installations Compatible Use Zones Study for MCAS Beaufort*, United State Department of the Navy, Naval Facilities Command Atlantic, Norfolk, Virginia, 2013

II. Encroachment Planning and History

A. Definition

There are many complementary definitions of encroachment. The Department of Defense's (DOD) Office of Economic Adjustment (OEA) defines encroachment broadly as incompatible development, which may include uses that adversely affect safety, public health, and welfare, as well as those that produce noise, smoke, dust, excessive light, electromagnetic interference, and vibration, which impair the military mission.

The Marine Corps identifies encroachment as, "a serious threat to the readiness of the Marine Corps."^{xxiv} Marine Corps Order 1011.22B, Policies and Procedures for Encroachment Control Management, also describes the threat of encroachment as, "Continued population growth, increased levels of environmental regulations, and incompatible development around military installations, operational ranges, and training areas can create resource (land, air, water, radio frequency spectrum) uses that are incompatible with current and future military testing, training and general mission activities."^{xxv}

Generally, encroachment refers to any factors that degrade – or have the potential to degrade – the mission capability of a military facility, installation, operational range, training area, associated special use airspace (SUA), or other areas where the military conducts and plans future testing, training, and general mission activities. The most common example of encroachment is that of physical development of lands directly adjacent to the military



installation whereby residents or users of that land are not supportive of the negative impacts associated with military testing and training (e.g., safety, noise, and dust concerns) and, therefore, push to limit military operations. In addition to urban development, endangered species/critical habitat, safety/security, air or water quality, energy development, and frequency spectrum interference are among other potential encroachment issues affecting the sustainability of military missions.

The military attempts to mitigate these encroachment impacts through service-level programs, like the JLUS program, in order to manage encroachment through established local collaborative land use planning processes. The goal of the JLUS is to preserve long-term land use compatibility between the military installation and the surrounding communities. Compatible land use planning can be defined as the balance between the needs and interests of the community and the needs and interests of the military installation.

B. MCAS Beaufort Encroachment Management Program

1. Program Overview

Encroachment management at MCAS Beaufort is the primary responsibility of the Community Plans and Liaison Officer (CPLO), who reports directly to the installation's Commanding Officer (CO). In order to prevent encroachment and achieve compatible land use in the local area, the CPLO engages with a variety of external stakeholders, including other federal agencies, state and local governments, community organizations, conservation organizations, and the business community.

Encroachment management, among other things, may include the acquisition of land areas located within the accident potential and noise zones in the local area, surrounding MCAS Beaufort. Land acquisition is performed through fee simple ownership, the purchase of development and conservation rights, and other land conservation partnerships. In the 1990s, over 400 acres of land were purchased within the Accident Potential Zones (APZs) and noise zones with Military Construction (MILCON) funding.^{xxvi} Lands and conservation easements have also been acquired through a partnership between the MCAS Beaufort and the Beaufort County Rural and Critical Lands Preservation Program (RCLPP). In addition, by working with partners from the Lowcountry Conservation Forum, a coalition of land conservation and environmental agencies formed to address land preservation, MCAS Beaufort had several encroachment partnering and Readiness and Environmental Protection Initiative (REPI) projects from 2004 to 2005. The result was the protection of over 250 acres of land from incompatible development, including 21 acres within the Air Installation Compatible Use Zone (AICUZ).^{xxvii}

In 2006, MCAS Beaufort became the first Marine Corps Installation to complete an encroachment assessment. The goal of this prototype assessment was to identify encroachment concerns and develop a plan to address them. As a result, 3,000 acres of land



were identified for encroachment partnering and land acquisition. MCAS Beaufort has implemented assessment actions by working with partners such as Beaufort County, the City of Beaufort, the South Carolina Department of Natural Resources, the Beaufort County Open Land Trust, and the Trust for Public Lands. As of 2012, the installation had used REPI and other encroachment management tools to preserve over 3,127 acres of land.^{xxviii}

In 2009, the MCAS encroachment assessment was updated in order to identify and plan for current encroachment issues. The 2009 assessment includes an action plan, with the following objectives identified to sustain the MCAS Beaufort mission:

- Maintain economic interdependence between Beaufort County and the Marine Corps amidst the county's rapid demographic changes;
- Enhance base relevance by strengthening MCAS Beaufort's cooperation with the community on social, environmental, educational and other issues; and
- Blunt the negative impacts anticipated by a change in base mission.^{xxix}

The 2009 assessment continues to be implemented by the CPLO and the CPLO office. This includes developing strategies to address encroachment threats identified in the plan, including changing demographics, such as rapid population growth and population shifts; increasing stormwater management requirements; and the impacts of climate change.^{xxx}

2. 2004 Lowcountry Joint Land Use Study (JLUS)

The 2004 Lowcountry JLUS was initiated in 1999 with the support of the three JLUS jurisdictions: Beaufort County, City of Beaufort, and Town of Port Royal. The councils of the local jurisdictions all passed resolutions, stating that, "continued operation of the Marine Corps Air Station (MCAS) Beaufort is important to the local economy and the Lowcountry regional economy and that its future operational capacity should be protected."^{xxxi} After the JLUS was begun in 1999, it was put on hold, temporarily, in order to accommodate new noise and safety data. This included a 2003 update of the 1994 MCAS Beaufort AICUZ Plan in order to capture current baseline conditions, including the decommissioning of Marine Corps squadrons and the addition of two Navy F/A-18 squadrons.^{xxxii}

The following participants contributed to the development of the 2004 Lowcountry JLUS: Beaufort County, the City of Beaufort, the Town of Port Royal, MCAS Beaufort, and the Lowcountry Council of Governments (LCOG), who also served as the study grantee and sponsor. The stated goal of the JLUS program was, "to develop a cooperative plan to maintain continued economic development to determine how best to cooperatively ensure the continued economic development of the area while maintaining the present and future integrity of operations and training at MCAS Beaufort."^{xxxiii} Work on the study was guided by the following objectives:



- To protect the health and safety of residents living or working near military installations;
- To preserve long-term land use compatibility between the installation and the surrounding community;
- To integrate the local jurisdictions' comprehensive plans and implementing ordinances and codes with those land use compatibility recommendations and consistently with each other; and
- To encourage the continuation of the cooperative spirit and good relations between the local base command and local community officials.^{xxxiv}

Both policy and technical committees were established for the study, comprised of elected officials and planning department staff, respectively. The committees developed the following objectives for land use compatibility:

- To maintain a balance among:
 - Property ownership interests in existing land uses, activities and structure
 - Property ownership interests in future uses, activities and structures
 - Protection of public, community and military interests;
- To support future land use compatibility;
- To discourage further land use incompatibility;
- Over time to mitigate existing land use incompatibility if and where feasible.^{xxxv}

The 2004 JLUS was prepared in order to promote compatible land uses within the local MCAS Beaufort area, by balancing economic growth with mission sustainment. The study addressed land uses that were identified by the 2003 MCAS Beaufort AICUZ Plan as incompatible with the installation mission. These areas included noise sensitive areas, located within noise contours (Noise Zones 2 or 3); areas located within APZs that contained a high concentration of people; and areas that interfered with safe air operations.^{xxxvi}

A variety of tools available to address development within noise and safety zones and to achieve compatible land use in the MCAS Beaufort area were discussed in the 2004 JLUS with regard to their effectiveness, including the disclosure of AICUZ boundaries in real estate transactions, which is now is a local requirement (see Appendix C). The goal of real estate disclosures is to inform buyers when a property for purchase or rent is located within an AICUZ noise contour or APZ. Its effectiveness is dependent upon the use of accurate data and understanding of the information contained in the disclosure by the parties involved.

Land use planning by municipalities within the local area is another land use tool for promoting compatible land use and includes the development of comprehensive plans and zoning ordinances that contain airport overlay districts (AODs) requiring compatible land uses in noise contours or APZs. As a result of the 2004 JLUS process, AODs are currently in place within each of the JLUS jurisdictions.



Local zoning ordinances also address nonconforming uses, which are land uses or structures that do not comply with current land use or building regulations. Nonconforming uses may be reduced over time by limiting the extent of repairs and restoration, and other restrictions on their continuation. Local zoning ordinances in the Beaufort area vary with regard to the extent of these limitations. Beaufort County and Port Royal have adopted noise attenuation building standards, which require the use of construction techniques to limit noise impacts from military aircraft. It includes methods such as adding insulation, using insulated windows, and making proofing exterior walls against sound transmission.

The recommendations presented in the 2004 JLUS were based either upon the continuation and improvement of existing compatible land use tools or the initiation and implementation of new tools, as shown in Table 2-5. Most of the recommendations from the 2004 JLUS have since been implemented, and are highlighted in the table.

Recommendations that have not been implemented, or which might be augmented, were identified by the 2015 JLUS Steering Committees and, as the committees deemed appropriate, have been included in the recommendations in Chapter 6.

Table 2-5: 2004 JLUS Recommendations

Continuation and Improvement	Initiation and Implementation
Improve existing community relations and education programs to inform citizens on JLUS plan implementation.	Develop and implement a coordinated "AICUZ Overlay District" within the three JLUS jurisdictions.
Enhance and standardize AICUZ disclosure process for all real estate transactions including sale/purchase and rental/lease.	Ensure existing land uses and structures continue as legal nonconforming uses. Adopt a uniform approach and regulations to protect property owners while transitioning to compatibility.
Maintain user-friendly and regularly-updated website with AICUZ and JLUS information and implementation updates.	Encourage existing property owners to make their structures compatible. Assistance measures should be included as part of JLUS implementation.
Disseminate information about the JLUS and its implementation through ongoing media relations.	Establish a Citizen Advisory Committee to ensure input is incorporated in ongoing JLUS planning and implementation. ^{xxxvii}
Acquire development rights and land within the AICUZ footprint through continuation of MCAS Beaufort, Beaufort County, Rural and Critical	Incorporate additional noise attenuation measures into the existing uniform building code for new construction used by local jurisdictions.



Continuation and Improvement	Initiation and Implementation
Lands Board and property owner partnerships.	
Provide frequent updates on schedules of aircraft training and other operations, to local media and also post on relevant web sites linked to the MCAS Beaufort site.	Work with local construction and development companies to ensure familiarity with noise attenuation measures, how to incorporate them cost-effectively and how to market them as a benefit to clients and prospective clients.
Continue to develop and implement noise abatement measures for MCAS Beaufort operations.	Arrange pre-planning phase meetings for subdivisions and large developments with MCAS Beaufort's Community Plans and Liaison office to ensure that AICUZ-compatible land uses are incorporated. ^{xxxviii}
N/A	Work with lending institutions to ensure that lending policies and practices are appropriate for APZ and Noise Zones.
N/A	Monitor growth and change in Beaufort County and at MCAS Beaufort to determine if there is a significant impact to AICUZ boundaries and JLUS policies and modify accordingly.
N/A	Establish a JLUS Implementation Committee to monitor and guide the implementation of JLUS policies. ^{xxxix}
N/A	Utilize the provisions of the recently enacted South Carolina legislation to protect military installations from encroachment.

Source: *Lowcountry Joint Land Use Study (JLUS) Plan*, Lowcountry Council of Governments, September 2004.

a.

3. **Land Acquisition**

Beaufort County has extensive acreage under preservation. As of 2010, the total amount of preserved land countywide was approximately 37,919 acres, or 16.1 percent of the county's total 235,496 acres.^{xl} Much of this land was preserved by the RCLPP, the county's primary mechanism for preserving land. Administered by the Beaufort County Open Land Trust, the



RCLPP has now preserved over 22,000 acres across Beaufort County since 2000.^{xli} MCAS Beaufort has established effective partnerships with the RCLPP and other land conservation entities.

a. MCAS Beaufort Acquisitions

In 2011, MCAS Beaufort proposed the land acquisition of 807.56 acres through the purchase of fee simple ownership and restrictive easements. The purpose of the land acquisition was to address encroachment from development occurring within the AICUZ footprint. The Environmental Assessment for the land acquisition noted that population growth in Beaufort County was high, making it, “one of the South’s fastest growing counties.”^{xlii} Development has been predominantly focused in the area south of the Broad River, along the U.S. Highway 278 corridor, with the conversion of farms to suburban type development patterns.

Prior to 2011, MCAS Beaufort had secured ownership of many areas within the AICUZ footprint. This included all four of the airfield clear zones, most of APZ 1 on the approach and departure ends of the primary runway, and a portion of the APZ 2 Field Carrier Landing Practice (FCLP) flight tracks.^{xliii} The 2011 land acquisition proposal included parcels located in APZ I and II, Noise Zones (NZ) I and II, and additional parcels within the local area. Included within this area were F/A-18 Field Carrier Landing Practice (FCLP) flight tracks and approach and departure flight tracks.^{xliv} Funding continues to be sought in order to effectuate these acquisitions.

b. MCAS Beaufort and Joint Acquisitions

The community surrounding MCAS Beaufort has long shown support of the installation’s mission and has taken proactive steps to protect the viability of the installation and its economic contribution to the region. As a result of the 2004 Lowcountry JLUS, the City of Beaufort, Beaufort County, and the Town of Port Royal adopted AICUZ ordinances that identified AICUZ airport overlay districts, which limited certain types of development within the AICUZ footprint. Beaufort County also developed a Transfer of Development Rights (TDR) program to provide partial compensation for property owners affected by the AICUZ ordinances.

Notably, residents of Beaufort County have approved four bond referenda for the RCLP Program since 2002, providing a total of nearly \$130 million. The fourth referendum passed on November 4, 2014, during the JLUS, authorizing \$20 million in funding. The RCLPP has conserved over 22,000 acres through the purchase of conservation easements or fee simple land acquisition and is designed to manage growth, encourage private land conservation, and preserve the rural character of the county. The program has also been used to help create natural buffers against incompatible development around MCAS Beaufort. These efforts



demonstrate the community's commitment to maintaining the Marine Corps' presence in the region and the collaborative nature in which the Marine Corps and the community can address land use compatibility challenges.

i. Conservation Organizations

Since 1971 the Beaufort County Open Land Trust has preserved thousands of acres in Beaufort and the surrounding counties of Bamberg and Hampton, South Carolina. The organization has supported the Beaufort County's RCLPP, by managing its land acquisition projects. Many of the preservation projects of the Beaufort County Open Land Trust are in support of MCAS Beaufort's land conservation efforts, including the Clarendon Planation, located west of the Air Station, which involved three phases of acquisition. Clarendon Phases I and II involved acquisition of 583 acres along the marsh areas of Let Out Creek. Clarendon Phase III, and other recent land acquisitions of the Beaufort County Open Land Trust, is shown in Table 2-6.

Table 2-6: Recent Beaufort County Land Trust Land Acquisitions

Project Name	Acreage	Property Owner
Broadmarsh	53	Shelley Rule
Clarendon Phase III	321	The Kennedy Family
The Green	1	John and Molly Gray
Summerland Plantation	47	Wilson Sanders
Palmer	27	Margaret Palmer

Source: Open Land Trust, Website, <http://www.openlandtrust.com/land-protection/recent-successes>, accessed September 29, 2014

ii. Local Government

The RCLPP has preserved approximately 22,000 acres of land since 2000. Funding was initially authorized with a \$40 million bond approved by Beaufort County voters in 2000. Additional bonds were approved by voters in 2006, 2012, and 2014 with a \$50 million bond, \$25 million bond, and \$20 million bond, respectively. RCLPP land preservation has been achieved through fee simple purchase or by a purchase or donation of development rights for the purpose of conservation, parks, buffers, scenic vistas, and for preservation of valuable economic and natural resource. The program is managed by the Beaufort County Open Land Trust through contracted services and administered by Beaufort County Council.

In 2011, the RCLPP secured the preservation of the Ihly Farm 63-acre through a \$2 million conservation easement. The farm is located on McCauley Creek on the southern border of the ACE Basin, east of US Highway 21 and south of Whale Branch Creek.^{xlv} The cost of the



purchase was shared between the DOD and MCAS Beaufort (through the REPI program) and Beaufort County RCLPP with an even split. This project brought the total number of preserved acres by the partnership between the Marine Corps and Beaufort County to 1,623.

Also, in 2011, development rights and a conservation easement were purchased on a 584-acre Coosaw Plantation. The purchase, which will prevent the parcel from being developed, was a partnership of RCLPP and DOD, with \$2,493,000 purchase price inclusive of a \$1,660,000 DOD contribution and an \$833,000 Beaufort County contribution. The property is located in northern Beaufort County on Chisholm Island within the MCAS AICUZ footprint.^{xlvi}

Additional joint land acquisition projects, between MCAS Beaufort and Beaufort County, which occurred prior to 2011, are summarized in Table 2-7 below.

Table 2-7: RCLPP and MCAS Beaufort Land Acquisitions Projects

Project Name	Acreage	Description
Winn Property	69	A restrictive easement was placed on the property while the landowner retains fee title and use of the land for agricultural purposes. The land has been placed in the County Open Space Preserve system.
Lucky Parcel	79	The county obtained fee title ownership while the Marine Corps gained a restrictive easement. A hiking trail will likely be built on the property.
Batley-Wilson Parcel	63.55	The county obtained fee title ownership while the Marine Corps gained a restrictive easement. Maritime forest that exists on the property is being protected.
Rathbun Parcel	28	Both the Marine Corps and the County obtained an easement on the Rathbun Parcel. The owner will continue to use the land for agricultural purposes.
Amgrey Donation	24	This tract was donated to the County, generating tax credit benefits for the landowner.
McLeod Property	399	Beaufort County and the Air Station collaborated to purchase development rights and place a conservation easement on this property. The Beaufort County Open Land Trust maintains the easement.
Oak Mulligan Property	157	MCAS Beaufort and the county shared the cost for a restrictive easement on this property

4. *Existing Public Communication and Outreach Interactions*



MCAS Beaufort has a positive relationship with Beaufort County, as well with the public at large. The community is generally supportive of the installation's mission and the overall presence of the Marine Corps in the region. MCAS Beaufort has a strong role in the social fabric of the civilian community and is a significant part of the region's identity, particularly in concert with MCRD Parris Island and Beaufort Naval Hospital. Community leaders are committed to protecting the installation, recognizing it as a major direct and indirect economic vehicle in the county.

The CPLO and Public Affairs Office engage in a variety of public outreach efforts throughout the local community. MCAS Beaufort provides frequent updates on aircraft operations to the local media. In addition, the MCAS Beaufort website features approximately 1-4 news articles per month on training. In 2009, an MCAS Beaufort Facebook page was created. Maintained by the Public Affairs Office, it features daily updates on training exercises, historical events and profiles, community engagement events, and services available to base personnel and their families. The Jet Stream is another official publication of MCAS Beaufort. It is a weekly newspaper with news, sports and lifestyle sections that provides information to MCAS Beaufort personnel and the local community with both hard copy and online versions.

There are a variety of community support organizations in the local area, including the Beaufort Military Enhancement Committee (MEC). The mission of the MEC is to enhance the military-community relationship in Beaufort County. Its members are appointed by local government, the Beaufort Regional Chamber of Commerce and the South Carolina Military Task Force.

Annual events such as the MCAS Beaufort Air Show provide an opportunity for all members of the community to learn about aircraft that operate at the Air Station such as the F/A-18. The air show is typically held on an annual basis in the spring. The 2015 air show is scheduled for April 11-12, 2015 and features the Navy's Blue Angels.

Selected Public Survey Results

Respondents listed the following as the top three ways they get their information about the installations: 1) newspapers, radio, television, 2) from someone who works or trains at the installation, or 3) from general discussion in the community.

Much coordination is accomplished with local governments and citizens. The Air Station held numerous public meetings for public education and input for the F-35B EIS process and most recently, the new AICUZ study. They participate in neighborhood meetings and have participated in discussions and meetings for the Civic Master Plan, the Form Based Code rewrites, the Northern Beaufort County Regional Plan, and Metro Planning Commission meetings. MCAS Beaufort is very active in the Northern Regional Plan Implementation Committee, a forum that promotes resolving



incompatible land use issues. Further, MCAS Beaufort is engaged with the Beaufort County Board of Adjustment for variances in the Airfield Overlay District.

5. *Installation and Community Impacts and Issues*

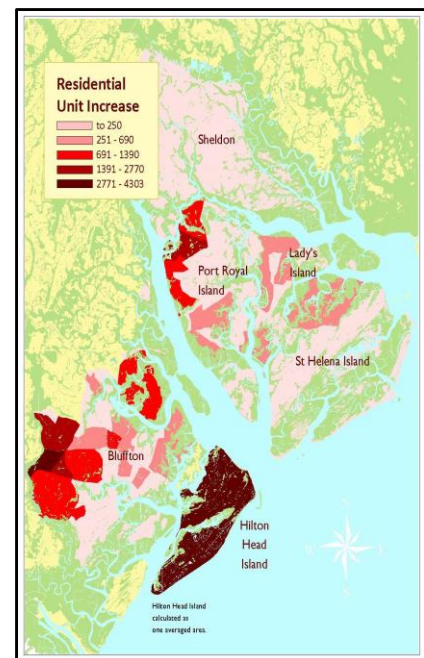
As an active Marine Corps training base and air station, MCAS Beaufort, and the surrounding local community, have the potential to be impacted by a variety of factors, including traffic, affordable housing, noise and flight patterns, and environmental concerns. Land use is intrinsic to many of these factors.

The community has taken many proactive steps to encourage compatible land use around the Marine Corps installations in Beaufort County. The adoption of policy (e.g., AICUZ ordinances) and the use of programs (e.g., RCLPP) to support the compatibility around the military installations represent an opportunity to continue and strengthen collaborative land use planning efforts in the future.

The Northern Beaufort County Regional Plan Implementation Committee provides a forum through which MCAS Beaufort may engage with community leaders on topics of mutual concern, including compatible land use, noise, regional development proposals, economic development, stormwater management, rural lands conservation, and concerns about sea level rise. While additional, more targeted forums may be appropriate for specific issues, the existing networks allow for consistent, coordinated engagement when appropriate.

Accelerated population growth in Beaufort County has paralleled burgeoning tourism and retirement-related service industries, diluting the Marine Corps' once dominant impact on the county's economy. Because of the significant population growth over the last 30 years in the Hilton Head and Bluffton areas, the southern portion of Beaufort County has picked up an extra seat on County Council, shifting the political center of gravity away from the northern portion of the county. This may result in a new County Council whose focus tends towards tourism-related interests that could create conflicts with military training missions. The effects of this dynamic population shift are still unknown, yet highlight the need for the Marine Corps to engage with its local partners in a way that is mutually supportive.

a. **Land Use Trends**





Selected Public Survey Results

There was an even split between those respondents who felt that MCAS Beaufort provided a “highly positive/positive” impact on property values (37.2%) and those who felt it had a “highly negative/negative” impact on property values (36.7%).

The majority of land use in the immediate area of the Air Station is residential or rural, undeveloped.^{xlvi} While these areas are generally low in density, in some cases they contain land uses that are incompatible with APZs and noise

Figure 2-8: Residential Unit Increases Around MCAS Beaufort

zones.^{xlvi} Higher density uses, including mixed-use residential areas, which include local retail establishments, are located predominantly south of the installation, in such areas as downtown Beaufort and Pleasant Point on Lady’s Island.

Lower density residential areas are located along Laurel Bay Road, and along Brickyard Creek, across from the Air Station. According to the Beaufort County Comprehensive Plan, the majority of rural areas in Beaufort County are located in the Sheldon area north of the Whale Branch River, on St. Helena Island, on the northern portion of Lady’s Island, and along SC 170 south of the Broad River.^{xlvi} Industrial uses are located primarily in the City of Beaufort Industrial Park, west of the Air Station. The majority of commercial uses are clustered along US 21 Business, south of the installation. A commercial corridor extends along the highway from the Parris Island Gateway area to the Greenlawn Drive area.

Future land use in the MCAS Beaufort area is expected to conform to current development patterns. It is anticipated that low and medium residential and light commercial and industrial uses will continue to be developed within existing land use areas. In terms of density and the potential for incompatible land use, higher density development is anticipated in areas to the northwest, west, and southwest of the installation.ⁱ As noted in the County’s Comprehensive Plan, currently, more rural land remains in the northern portion of the county. All but 11% of the land area in the southern portion of the county is either committed to future development or preserved from development.ⁱⁱ It is important to note that land acquisition efforts have focused within these areas, in order to obtain compatible land use.ⁱⁱⁱ Existing and future land use patterns, relative to the anticipated impacts of the F-35B aircraft are detailed in Chapter 3.

One of the most significant development trends since the adoption of the County’s 1997 Comprehensive Plan has been the amount of acreage that has been annexed into municipalities. Beaufort County is home to five municipalities: The City of Beaufort, the Towns of Bluffton, Port Royal, Hilton Head Island, and Yemassee. Each of these communities, along with the county, maintains its own individual comprehensive plan and land use



regulations. The percentage of land within the municipal boundaries has grown from 11.4% to 31.7% within the past ten years.^{liii}

b. Affordable Housing and Schools

The lack of affordable housing and the desire to access Southern Beaufort County schools has caused some MCAS Beaufort personnel to look beyond Northern Beaufort County, the City of Beaufort, and the Town of Port Royal for housing. This has driven demand up in other parts of the County and increases transportation time and costs for those traveling to and from the Air Station. It also may contribute to transportation demands in the JLUS Focus Area.

Development patterns are also influenced by the housing needs of MCAS Beaufort personnel residing within the local area. According to the Beaufort County Comprehensive Plan, Air

Selected Public Survey Results

37 individuals stated that the noise from MCAS Beaufort was “so bad I wish I could move.”

Station personnel living off the installation have historically resided in the City of Beaufort, the Town of Port Royal, Lady’s Island, and unincorporated Port Royal Island.^{liv} Newer developments in the Shell Point and Burton areas have

provided moderately priced housing options. Recent trends include strong residential growth in the southern portion of Beaufort County, in the Bluffton area. See Map X. Anecdotally, during the JLUS study, it was reported that many MCAS personnel have located in the southern county areas seeking affordable, new construction and educational opportunities.

MCAS Beaufort provides financial contributions to the local school systems. Defined as the Federal Impact Aid program, it disburses impact aid payments to local educational agencies (school districts) that are financially burdened by federal activities. These school districts face special challenges — they must provide a quality education to the children living on Federal lands (MCAS Beaufort, MCRD Parris Island and the Naval Hospital) and meet the requirements of the No Child Left Behind Act, while sometimes operating with less local revenue than is available to other school districts, because the Federal property is exempt from local property taxes.

c. Noise Impacts

Noise impacts occur both on the installation, and off the installation, within the local community. The level of impact is generally related to the proximity of the noise source. Noise generated from MCAS Beaufort is predominantly from aircraft operations, specifically, maintenance run-ups and flight operations.^{lv} Noise inquiries, received by the Air Station vary from year to year. In 2010, 58 were received.^{lvi} This is an increase from the two previous years, 2009 and 2008, when 18 were received in each year.^{lvii} MCAS Beaufort works to



actively mitigate noise impacts. A variety of techniques are employed on-base for new facilities in order to reduce noise, including optimal siting of facilities, use of noise attenuation in new construction, and construction of indoor testing facilities.^{lviii} Off-base efforts include land acquisition and compatible land use planning.

d. Environmental Impacts

Training activities at MCAS Beaufort have the potential to create environmental impacts. These may include impacts to water quality and natural resources, including protected species. In accordance with the Sikes Act, training at MCAS Beaufort is conducted in a way that provides for sustainable, healthy ecosystems, complies with applicable environmental laws and regulations, and provides for no net loss in the capability of military installation lands to support the military mission. At this time, there are no significant environmental concerns that *prohibit* any training activities on MCAS Beaufort.



III. Economic Context

A. Economic Characteristics of the Region

In addition to the Tri-Command military installations that include MCAS Beaufort, the top economic sectors in the local economy include service industries, tourism, and the retirement and vacation home industries.^{lix} Construction jobs, supported by the retirement and vacation home industries, vary in number based upon cycles in the housing industry.^{lx} According to the LCOG, during the nation-wide housing boom, construction jobs totaled 5,535 in 2007. This number was down to 3,111 in 2013.

Selected Public Survey Results

A large majority of respondents recognize the installations' contributions to the regional economy as either "substantial" or "very substantial". More than 75% of respondents believe that the local community must take action to ensure that the economic contributions of the installations are sustained and enhanced.

According to economic data from the U.S. Census for 2012, the industry that employs the largest percentage of the Beaufort County civilian worker population is educational services, and health care, and social assistance. This industry employs 13,181 people, nearly 20 percent of the employed civilian population.^{lxi} As shown in Table 2-9, three additional industries within Beaufort County, also employ over ten percent of the population. They include entertainment and food services, management, and retail. Together, these top four industrial sector employers account for more than half of the county's civilian employment, with a combined total of 62 percent. Construction and real estate account for 9 percent and 6.1 percent of industry employment, respectively. This is a reflection of the importance of tourism and second homes to the Beaufort County economy. Other top-ten employers include other services, public administration, manufacturing, and information.

Table 2-9: Top Ten Industries in Beaufort County 2012

Industry	Employment	Percentage of Workforce
Educational Services, and Health Care and Social Assistance	13,181	19.5%
Arts, Entertainment, and Recreation, and Accommodation and Food Services	10,806	16%



Industry	Employment	Percentage of Workforce
Professional, Scientific, and Management, and Administrative and Waste Management Services	9,500	14.1%
Retail Trade	8,348	12.4%
Construction	6,134	9.1%
Finance and Insurance, and Real Estate and Rental and Leasing	4,251	6.3%
Other Services, Except Public Administration	3,668	5.4%
Public Administration	3,506	5.2%
Manufacturing	3,420	5.1%
Information	1,983	2.9%

Source: U.S. Census, American FactFinder, Selected Economic Characteristics, 2012 American Community Survey 1-Year Estimates, Beaufort County, South Carolina.

As shown in Table 2-10, Beaufort County experienced rapid civilian job growth between 2000 and 2010 from 47,862 jobs to 61,870 jobs. This growth has continued, with an estimated 73,106 civilian jobs, as of 2012, an increase of nearly 53 percent from 2000. Job growth at the county level far outpaced that of the state for the same time period, with South Carolina's civilian employment growing just ten percent between 2000 and 2012, from 1.8 million to 2 million jobs statewide.

Table 2-10: Civilian Labor Force Employment for Beaufort County and South Carolina

Location	2000	2010	2012 Estimate	2000-2012: Percentage Change
Beaufort County	47,862	61,870	73,106	52.7%
South Carolina	1,824,700	1,955,035	2,007,569	10%

Source: U.S. Census, American FactFinder, Selected Economic Characteristics, 2012 American Community Survey 1-Year Estimates, Beaufort County, South Carolina.

B. Economic Impact of MCAS Beaufort

MCAS Beaufort is a major contributor to the local and state economy. According to the economic impact report prepared by MCAS Beaufort, the installation generated over \$1 billion in economic impact for fiscal year 2013. MCAS Beaufort supported more than 4,200 military and civilian employees, translating to \$230 million in salaries in FY13, with another \$591 million in retired military and civilian salaries.



1. *Economic Contributions to Local/Regional Economy*

MCAS Beaufort is an important economic generator for the local and state economies. The installation is one of the top employers in the area, with the military contributing to over 50 percent of the economy in northern Beaufort County.^{lxii} According to a 2012 statewide study, the Air Station generated a total of \$702 million in economic activity statewide and supported 8,544 jobs, with approximately \$339 million in annual employee compensation.^{lxiii}

With over 4,700 military personnel, civilian and dependents, MCAS Beaufort is one of the region's top employers, having a significant economic impact in the region.^{lxiv} The economic impact of MCAS Beaufort is due not only to the direct effect of employment but also from the multiplier effect from the payroll for active duty and inactive duty, and civilians; military retirement and disability pay; and procurement. As shown in Table 2-11, for Beaufort and Jasper Counties, the total economic impact (or output) of MCAS Beaufort employment is estimated at \$595 million for FY 2011.^{lxv}

Table 2-11: Economic Impact of MCAS Beaufort in Beaufort and Jasper Counties for FY 2011 (in Millions of Dollars)

Description	Employment	Labor Income	Output
Direct Effect	4,957	\$195	\$288
Multiplier Effect	2,613	\$104	\$306
Total	7,570	\$300	\$595

Source: *The Economic Impact of the Military Community in South Carolina*, Prepared at the request of the South Carolina Military Base Task Force by: Lu Wang, Paul Carlsen, PhD; David Clayton; Research Division: South Carolina Department of Commerce, November, 2012.

IV. Demographic Context

A. Historic Growth Trends

According to LCOG, Beaufort County “experienced unprecedented growth, development, and change between 1990 and 2005.”^{lxvi} Although growth slowed from 2007 to 2010, following national trends, economic and population growth continued to strengthen again in 2012.

MCAS Beaufort is located within two of the JLUS Jurisdictions, the City of Beaufort and Beaufort County. An additional JLUS Jurisdiction is the Town of Port Royal. As shown in Table 2-12, these three JLUS Jurisdictions contained a total estimated population of 187,228 residents. The majority of these residents, 87 percent, were in unincorporated Beaufort County, with 162,233 residents. The City of Beaufort and the Town of Port Royal contain 8 and 6 percent of the JLUS Jurisdiction population total, respectively. With regard to



population growth, JLUS Jurisdictions have outpaced the state with an average of 36.3 percent growth from 2000 to 2010. The strong growth occurring within the JLUS Jurisdictions provides an opportunity for MCAS Beaufort to work with the surrounding communities in order to shape the direction of future growth.

Table 2-12: Population Change, 1990-2020

Jurisdiction	1990	2000	2010	2020 Estimate	Percentage Change 2000-2010	Percentage Change 2000-2020
City of Beaufort	9,576	12,789	14,317	18,652	11.9%	30.3%
Town of Port Royal	2,966	3,950	10,678	N/A	63%	N/A
Beaufort County	86,425	120,937	162,233	185,220	34.1%	14.2%
JLUS Jurisdiction Total	98,967	137,676	187,228	N/A	36.3% (Average)	N/A
South Carolina	3,486,703	4,011,832	4,625,364	5,020,400	15.3%	8.5%

Source: *Air Installations Compatible Use Zones Study for MCAS Beaufort*, United State Department of the Navy, Naval Facilities Command Atlantic, Norfolk, Virginia, 2013, page 2-19, (UCSB 2009 and 2010 and City of Beaufort)

B. Projected Population Growth

Beaufort County is projected to continue strong population growth into the future. This growth is expected to outpace the growth statewide. As shown in Table 2-13, the county is projected to increase in population by 33% from 2010 to 2030 from 162,233 to 215,300. For the same time period, the state of South Carolina is expected to grow at 18%, from just over 4.5 million to nearly 5.5 million.

Table 2-13: Population Change, 2010-2030

Location	2010 Population	2030 Population Estimate	Percentage Change 2010-2030
Beaufort County	162,233	215,300	33%
State of South Carolina	4,625,364	5,451,700	18%

Source: U.S. Census Bureau, Census 2010, www.sccommunityprofiles.org. Population projections calculated by South Carolina Budget and Control Board, Office of Research and Statistics.



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C. Population Density

Strong growth within the JLUS Jurisdictions impacts land use and density. Currently, the land use in Beaufort County is predominantly non-agricultural. According to data from the U.S. Department of Agriculture's National Agricultural Statistics Service, in 2010, Beaufort County had 137 farms, with an average size of 308 acres, totaling 42,177 acres.^{lxvii} This acreage amounts to approximately 11 percent of the county's land area, of approximately 368,819 total acres. This predominance of non-agricultural land use is also reflected within the breakdown of county population living within urban and rural areas. As shown in Table 2-14, according to the U.S. Census, Beaufort County had 130,360 residents (or 80 percent) living within urban areas and just 31,873 residents (or 20 percent) within rural areas.

Table 2-14: 2010 Population Density of Urban and Rural Areas

Location	Urban Population	Urban Population as Percentage of Total	Rural Population	Rural Population as Percentage of Total
Beaufort County	130,360	80%	31,873	20%
South Carolina	1,423,307	66.6%	714,376	33.4%

Source: U.S. Census, American FactFinder, Urban and Rural Universe: Total population 2010 Summary File 1, Beaufort County, South Carolina.

Population density for Beaufort County has increased over time, along with population growth. As shown in Table 2-15, the 2010 population density is 281.5 people per square mile and 161.4 housing units per square mile. This represents an increase from the 2000 population density of 206 people per square mile and 103 housing units per square mile.

Table 2-15: Population Density of Beaufort County

Year	Population Density (People per Square Mile)	Population Density (Housing Units per Square Mile)
2000	206	103
2010	281.5	161.4

Source: U.S. Census, American FactFinder, 2000 Census and 2010 Census, Beaufort County, South Carolina.

V. MCAS Beaufort's Environmental Resources Context

A. Environmental Compliance Program



MCAS Beaufort must comply with all applicable environmental compliance program requirements, as specified in the Marine Corps' Environmental Compliance and Protection Manual (MCO P5090.2A 21 May 2009).

1. *Air Quality Management*

Air quality management requirements include compliance with all federal, state, and local laws, regulations, and ordinances on Marine Corps active and reserve installations and activities. This includes all air quality and emissions requirements for stationary, mobile, and fugitive sources of emissions. Requirements include: Clean Air Act (CAA) requirements for the prevention of accidental releases of hazardous and extremely hazardous substances (EHSs) including Risk Management Plans; annual air emissions reporting requirements under the Toxic Release Inventory (TRI) provisions; use of ozone depleting substances (ODSs) and ODS reserve, and ODS reduction requirements; radon policy; and the Marine Corps Asbestos Safety Program and workplace policy.

2. *Hazardous Waste Management*

Hazardous waste management requires compliance with statutory and regulatory requirements. This includes compliance with the Resource Conservation and Recovery Act (RCRA) program, which may be enforced by federal or state government.

3. *Water Quality Management*

Water quality management includes compliance with federal water pollution control requirements under the Clean Water Act (CWA). It includes regulatory compliance for sanitary or industrial wastewater discharges; stormwater runoff; nonpoint source pollution; sewage sludge generation; and facilities involved in the transfer, storage, and transportation of petroleum, oil, and lubricants (POL), and hazardous materials which may involve discharge or runoff. Compliance with the national federal permit program under the CWA is the National Pollutant Discharge Elimination System (NPDES) is required, as administered by the Environmental Protection Agency (EPA). The base no longer holds permits for their water and wastewater treatment plants. They were transferred to the Beaufort Jasper Water and Sewer Authority.

4. *Installation Restoration Program*

The installation restoration program requires the identification, investigation, and clean up or control of hazardous substance (HS) releases from past waste disposal operations and spills at Marine Corps installations. It includes compliance with Environmental Response, Compensation, and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA).

5. *Solid Waste Management and Resource Recovery*



Solid waste management and resource recovery requires compliance with statutory and procedural requirements such as the Solid Waste Disposal Act (SWDA) for solid waste (SW) disposal, waste minimization, recycling, and resource recovery requirements. Regulated activities include thermal processing of 50 tons or more per day of municipal-type SW; storage or collection of residential, commercial, and institutional SW; the sourcing of separate materials for recovery; the purchase of products that contain recycled materials; operation land disposal sites or use commercial off-site landfills for SW disposal; and the generation of solid waste recycling revenue.

B. Natural Resource Management Program

There are five federally-listed threatened or endangered species on MCAS Beaufort, including the American alligator, bald eagle, pondberry, southeastern myotis, and wood stork. However, the presence of these species does not currently impact mission operations at the installation. MCAS Beaufort's value as an air installation is enhanced because its training space is largely unimpeded by environmental constraints.

Responsibility for the management of natural resources at MCAS Beaufort is that of the Logistics Officer (G-4). The G-4 supervises and manages the Natural Resources and Environmental Affairs Officer (NREAO). The NREAO directs and coordinates the natural resources management program, supervising the natural resources manager (NRM) and the conservation law enforcement officer (CLEO).

The Integrated Natural Resources Management Plan (INRMP) guides the management of natural resources on MCAS Beaufort over a ten-year time period. It is reviewed annually, with a five-year update and approval cycle. The INRMP is the responsibility of the MCAS Beaufort Commanding Officer.

1. Wetlands

MCAS Beaufort contains both freshwater and estuarine wetlands. The larger wetlands are estuarine, and located along Brickyard and Albergottie Creeks. The freshwater wetlands are smaller in size and include forested and non-forested wetlands. Vegetation in the freshwater wetlands is comprised of overstory vegetation and, potentially, midstory and shrub layers, including:

- Overstory: slash or loblolly pine, Chinese tallow, blackgum, and/or red maple overstory;
- Midstory: smaller examples of the overstory species; and
- Shrub Layer: bitter gallberry, wax myrtle, and briars.

The estuarine wetlands include smooth cordgrass and saltmeadow areas. Vegetation found in these areas includes



- black needlerush, saltgrass, and sea oxeye; and
- other species, including various bulrushes and sedges^{lxxviii}

2. *Threatened and Endangered Species*

MCAS Beaufort provides important habitat for a number of animal species. The wetland areas provide habitat for rails, blackbirds, wading birds, raccoon, otter, alligator, wood stork, osprey and bald eagle.^{lxxix} Creeks and rivers on the installation provide habitat for flounder, sheepshead, black drum, black sea bass, pin fish, croaker, spotted sea trout, channel bass, whiting, rock bass, mullet, ladyfish, and immature stages of many other species. Local waters in the area contain oysters, hard clams, shrimp, and blue crabs.^{lxxx}

As shown in Table 2-16, threatened and endangered animal species known to reside on MCAS Beaufort include a federally listed threatened species, the American alligator found in the permanent and semi-permanent freshwater wetlands.^{lxxxi} A state-listed endangered species, the Bald Eagle, is known to nest on the installation.^{lxxxii} In addition, the federally listed endangered species, the Wood Stork, has been observed as a migrant species, flying over Laurel Bay.^{lxxxiii} The Southeastern Myotis, a threatened state species, is a confirmed resident having been captured at Laurel Bay by a state biologist. Finally, one federally-listed plant species, Pondberry, has been confirmed on MCAS Beaufort at four different locations.^{lxxxiv}

For a complete list of federal and state-listed threatened or endangered animal and plant species that occur or potentially occur on MCAS Beaufort, see Table 2-15, below.

Table 2-16 Federal and State Listed Threatened and Endangered Animal Species That Occur or Potentially Occur on MCAS Beaufort

Species Name	Scientific Name	Federal Status	State Status	Occurrence and Habitat
American Alligator	<i>Alligator mississippiensis</i>	Threatened due to Similarity of Appearance		Confirmed Resident
Flatwood Salamander	<i>Ambystoma cingulatum</i>	Threatened	Endangered	Unlikely Resident
Dwarf siren	<i>Pseudobranchius striatus</i>		Threatened	Possible Resident
Spotted Turtle	<i>Clemmys guttata</i>		Threatened	Possible Resident
Eastern Diamondback	<i>Crotalus adamanteus</i>	Candidate		Likely Resident



Species Name	Scientific Name	Federal Status	State Status	Occurrence and Habitat
Piping Plover	<i>Charadrius melodus</i>	Threatened	Threatened	Unlikely Migrant or Occasional Visitor
Wilson's Plover	<i>Charadrius wilsonia</i>		Threatened	Possible Migrant or Occasional Visitor /Possible Resident
Swallow-tailed Kite	<i>Elanoides forficatus</i>		Endangered	Likely Migrant or Occasional Visitor
American Peregrine Falcon	<i>Falco peregrinus anatum</i>		Endangered	Possible Migrant or Occasional Visitor
Bald Eagle	<i>Haliaeetus leucocephalus</i>		Endangered	Confirmed Migrant
Wood Stork	<i>Mycteria Americana</i>	Endangered	Endangered	Confirmed Migrant
Red-Cockaded Woodpecker	<i>Picoides borealis</i>	Endangered	Endangered	Possible Resident
Least Tern	<i>Sterna antillarum</i>		Threatened	Likely Migrant or Occasional Visitor/ Possible Resident
Bachman's Warbler	<i>Vermivora bachmanii</i>	Endangered	Endangered	Unlikely Migrant or Occasional Visitor
Bachman's Sparrow	<i>Aimophila aestivalis</i>		Of Concern, State	Possible Resident
West Indian Manatee	<i>Trichechus manatus</i>	Endangered	Endangered	Possible Migrant or Occasional Visitor
Southeastern Myotis	<i>Myotis austroriparius</i>		Threatened	Confirmed Resident
Rafinesque's Big-eared Bat	<i>Corynorhinus rafinesquii</i>		Endangered	Possible Migrant or Occasional Visitor/Possible Resident



Species Name	Scientific Name	Federal Status	State Status	Occurrence and Habitat
Northern Yellow Bat	<i>Lasiurus intermedius</i>		Of Concern, State	Possible Resident
Atlantic Sturgeon	<i>Acipenser oxyrinchus</i>	Endangered	Endangered	Possible Migrant or Occasional Visitor
Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	Endangered	Endangered	Possible Migrant or Occasional Visitor

Source: Integrated Natural Resources Management Plan for the Marine Corps Air Station Beaufort, Beaufort, South Carolina, 2013



3. *Wastewater Management*

Water resources are important to the economy of Beaufort County, given the importance of tourism, recreation, and commercial fishing. Water quality standards are maintained by cooperation between MCAS Beaufort and local utilities. Water quality improvement has resulted from consolidation of MCAS Beaufort's water and wastewater treatment system with the Beaufort-Jasper Water and Sewage Authority (BJWSA). In 2008, BJWSA took over operation of the MCAS Beaufort water and wastewater utility systems, including making necessary upgrades to aging components of the existing infrastructure. A new system was developed with \$42 million in funding from the U.S. Department of the Navy. It involved closure of the MCAS Beaufort wastewater treatment plant and use of the BJWSA's Port Royal Island Water Reclamation Facility (PRIWRF). This consolidation has resulted in the reduction of National Pollutant Discharge Elimination Systems (NPDES) program permits to one wastewater discharge site located near the J.E. McTeer Bridge. Due to water quality improvement, the South Carolina Department of Health and Environmental Control will now consider reclassifying Albergothi Creek and a portion of the Beaufort River to allow oyster and shellfish harvesting.^{lxxv} In 2014, a Municipal Separate Storm Sewer Systems (MS4) permit area was designated by the South Carolina Department of Health and Environmental Control (DHEC) for the southern portion of Beaufort County. South of the Broad River, the MS4 permit area is comprised of the Towns of Bluffton and Hilton Head.^{lxxvi} The Beaufort County Stormwater Implementation Committee (SWIC) is evaluating options for the MS4 permit application. In addition, Beaufort County is funding a study of its current stormwater programs in order to develop a one to two year work plan.^{lxxvii}

4. *Stormwater Management*

Water quality is of vast importance to Beaufort County. It is seen as the lifeblood of the area's recreation, fishing, and tourism industries, as well as a key factor in the high quality of life of the county's residents. Beaufort County has levied a stormwater management fee on all property owners, to include the three Marine Corps installations in the county. Marine Corps counsel, however, believes that the language in the stormwater management ordinance effectively renders the fee a tax and, since a local entity may not tax the federal government, the Marine Corps should be exempt from paying the management fee. Though not directly related to encroachment issues, this issue remains a source of community-military friction for some. In addition, there is a possibility of more stringent stormwater requirements in the future, especially if efforts to list Port Royal Sound as an Estuary of National Significance are successful.

5. *Coastal Zone Management*

In compliance with the federal Coastal Zone Management Act (CZMA), the Marine Corps must ensure that activities occurring within the coastal zone, or having a direct affect upon it, are



consistent with approved coastal zone management programs.^{lxxviii} The state of South Carolina has a Coastal Zone Management Program (SC CZMP), which was established in 1977 under the 1972 federal Coastal Zone Management Act guidelines.^{lxxix} The program is a partnership with federal, state, and local governments to address environmental and historical and archaeological property protection. The regulatory authority for SC CZMP is under the South Carolina DHEC Office of Ocean and Coastal Resource Management (DHEC-OCRM) as authorized under the state's Coastal Tidelands and Wetlands Act. It involves the management of development in critical areas, which include coastal waters, tidelands, and beach/dune systems, and beaches. This is accomplished through a permitting and certification program that affects the eight coastal counties, within the state, including Beaufort. The MCAS Beaufort INRMP is consistent with the South Carolina Coastal Zone Management Plan (CZMP).^{lxxx}

C. Climate Change and Sea Level Rise

Climate change has been identified as a potential concern for operational and installation sustainability. The threat of sea level rise, increased temperatures, drought events, and increased storm frequency and severity has far-reaching implications for both MCAS Beaufort and the neighboring communities. These potential climate-induced effects have the potential to impact MCAS Beaufort's facilities and infrastructure, in turn hindering the installation's ability to effectively perform operations and mission-related training. The low-lying topography of the South Carolina lowcountry makes the area especially vulnerable to even slight rises in sea level.

In 2009, Task Force Climate Change (TFCC) was established by the Chief of Naval Operations in order to address the impact of a "changing Arctic and global environment".^{lxxxi} In addition to a plan to address climate change in the Arctic, the TFCC also developed a plan to address its impact on other regions, including installations. The document, *U.S. Navy Climate Change Roadmap*, identifies objectives for observing, predicting, and adapting to climate change during the Fiscal Year (FY) 2010-2014 time period.

The Climate Change Roadmap identifies climate change as a security threat. It acknowledges that climate change is impacting installations and access to resources worldwide. The intent of the document is to address the Navy's climate change concerns, in the near-term, mid-term, and ongoing, as follows:

- Near-term (FY10-11): develop partnerships to respond to climate change, assess effects of climate change, monitor the Navy's carbon footprint reduction achieved through Task Force Energy's (TFE) energy security initiatives
- Mid-term (FY12-12): address sea level rise impacts on infrastructure and real estate through strategic investments, develop and implement installation adaptation strategies to address water resource challenges, consider impact of climate change on future missions and force structure



- Ongoing: maintain awareness of the areas in which climate change impacts and knowledge require more understanding and may be significant for the Navy, including ocean acidification, abrupt climate change, and geoengineering.^{lxxxii}

The Roadmap references the southeast and coastal areas, such as the MCAS Beaufort region. Specifically, drought in the southeast is identified as a challenge to water resource management; a sea level rise and storm surge in coastal areas is expected to increase the frequency of inundation of coastal infrastructure.

Given its coastal location, MCAS Beaufort likely is susceptible to a variety of impacts of climate change. They include sea level rise and increased storm surge.

VI. MCAS Beaufort's Cultural Resources Program

The site of MCAS Beaufort has a long history and adds to the region's overall historic resources. The acreage occupied by MCAS Beaufort was formerly the site of several prominent Lowcountry plantations and, during the Revolutionary War, British troops landed at what is now the Laurel Bay Housing area and battled American troops at Gray's Hill. The Beaufort area also played prominently in the Civil War when it served as a staging area for both Confederate and Union troops.

A. Historical Relevance to the Region

MCAS Beaufort has considerable historical relevance in the region. The site of the Air Station and Laurel Bay Housing has been inhabited by settlements for over 10,000 years.^{lxxxiii} Native Americans established seasonal camps in the area in order to utilize the area's estuarine resources. European exploration of the area began in the 1500s. The French established Charlesfort in 1562 on the site of the current location for MCRD Parris Island. It later became the site of the Spanish colony of Santa Elena in 1566. The area was not permanently settled until the 1700s. The City of Beaufort was founded by the English in 1711. The city became known for shipbuilding and trade. Crops including cotton, indigo, and rice were cultivated on large-scale plantations, with slave labor. During the American Revolution, the area was occupied periodically by the British, including Port Royal Island. In the post-Civil War period of the late 1800s, plantation lands were subdivided into smaller parcels. Agriculture continued, with many areas under cultivation by newly-freed African slaves. Cultivation changed at the turn of the Century with cotton giving way to food crops and forests being harvested for lumber. In the 1940s, lands were obtained by the Navy for construction of a Naval Air Station, which later became MCAS Beaufort.

In 1943, the Civil Aeronautics Authority established Naval Air Station Beaufort. During World War II, anti-submarine patrol squadrons conducted advanced training and operations. After the war, in 1946, the installation was deactivated. It was reactivated in 1956 as a Marine Corps Auxiliary Airfield. It was designated a Marine Corps Air Station in



1960. In 1975, the airfield was named Merritt Field after retired MGen. Louis G. Merritt, USMC.

B. Archeological/Architectural Resources

MCAS Beaufort completed an update to its Integrated Cultural Resources Management Plan (ICRMP) in 2007. The ICRMP is a five-year plan regarding installation management of cultural resources in compliance with statutory, and other, requirements. Part of the installation master plan, the ICRMP is a decision document that allows for the integration of cultural resource requirements with ongoing mission activities so the availability of mission-essential land is maintained and compliance with requirements is achieved.

The first survey of archaeological resources at MCAS Beaufort was done in 1980. Almost the entire installation and housing area has been surveyed, with the exception of the cantonment area, moat areas that border runways, and the yards of housing areas. Additional surveys to comply with Section 106 of the National Historic Preservation Act (NHPA) will be done in these areas, as projects are planned for previously undisturbed areas. All reports have been filed with the Natural Resource and Environmental Affairs Office (NREAO) at MCAS Beaufort and at the South Carolina Institute of Archaeology and Anthropology (SCIAA).^{lxxxiv}

A total of 186 archaeological sites have been identified at MCAS Beaufort and the Laurel Bay housing area to date.^{lxxxv} In addition, fourteen sites at TBR have been identified. With regard to National Register of Historic Places (NRHP) eligibility, the following determination has been made:

- 12 sites were found to be eligible for the NRHP;
- 30 sites were found to be potentially eligible for the NRHP; and
- 144 sites were found not eligible for the NRHP.

One of these sites is currently listed on the NRHP. The Tabby Ruin, or Tabby Wall site, is within the Laurel Bay Housing area. Located along the Broad River, the long tabby wall is considered a property line between two plantations owned by the Barnwell family – the Woodward Plantation and Laurel Bay Plantation.^{lxxxvi}

Architectural resources at MCAS Beaufort and the Laurel Bay housing area have also been surveyed extensively. A 2001 survey evaluated all structures at both locations. At MCAS Beaufort, a total of seven buildings were identified as over 50 years of age; however, none of these met NRHP criteria. Periodic evaluations are recommended to be conducted every five-years, to evaluate additional structures meeting the age criteria. Additionally, evaluations and/or coordination with the South Carolina State Historic Preservation Office should be conducted on an as-needed basis when demolitions of structures or buildings 45- 50 years old are planned or proposed.^{lxxxvii}



C. Relationship with Native American Tribes

As part of the management of cultural resources, MCAS Beaufort coordinates construction activities and access to cultural sites by working cooperatively with a number of Native American Tribes. Tribes are included in distributions of plans and documents that may affect Native American lands.

In 2001, MCAS Beaufort began annual meetings with Native American tribes. In March 2005, the Air Station became the first Marine Corps installation to sign a Memorandum of Understanding (MOU) with a Native American tribe. The MOU was signed in Oklahoma by the MCAS CO Col. Harmon Stockwell with the leaders of three Creek Nation tribal towns, Thloptlocco, Alabama-Quassarte, and Kialegee. During that time period MOUs were also signed with the five Native American tribes referred to as the Five Civilized Tribes, American Indian nations that lived in the Southeastern U.S. before their displacement. They include the Cherokee, Chickasaw, Choctaw, Muscogee (Creek) and Seminole Nations. The MOUs discuss the discovery and excavation of archaeological materials. In September 2005 members of the Cherokee Nation, the Seminole Nation of Oklahoma, and Muscogee (Creek) Nation visited MCAS Beaufort.



ⁱ Marines, The Official Website of the United States Marine Corps, “MCRD Parris Island: East Coast Recruit Training”, http://www.marines.com/operating-forces/presence-detail/-/presence/detail/pres_loc_parrisland, accessed August 7, 2014

ⁱⁱ Beaufort, SC Regional Chamber of Commerce Webpage, “Military Impact”, accessed, October 27, 2014
<http://www.beaufortchamber.org/pages/MilitaryImpact/>

ⁱⁱⁱ *Air Installations Compatible Use Zones Study for MCAS Beaufort*, United State Department of the Navy, Naval Facilities Command Atlantic, Norfolk, Virginia, 2013

^{iv} Ibid.

^v Ibid.

^{vi} Ibid.

^{vii} Ibid.

^{viii} Marines, The Official Website of the United States Marine Corps, “Marine Corps Air Station Beaufort: Mission”, <http://www.beaufort.marines.mil/>, accessed August 14, 2014.

^{ix} Ibid.

^x Marines, The Official Website of the United States Marine Corps, “2nd Marine Aircraft Wing: 2nd Marine Aircraft Wing History”, <http://www.2ndmaw.marines.mil/About.aspx>, accessed August 19, 2014.

^{xi} *Air Installations Compatible Use Zones Study for MCAS Beaufort*, United State Department of the Navy, Naval Facilities Command Atlantic, Norfolk, Virginia, 2013.

^{xii} Ibid.

^{xiii} Marines, The Official Website of the United States Marine Corps, “Marine Wing Support Squadron 273”, <http://www.mag31.marines.mil/MAG31Units/MWSS273.aspx>, accessed, September, 25, 2014.

^{xiv} *Air Installations Compatible Use Zones Study for MCAS Beaufort*, United State Department of the Navy, Naval Facilities Command Atlantic, Norfolk, Virginia, 2013.

^{xv} Ibid.

^{xvi} Marines, The Official Website of the United States Marine Corps, “Marine Corps Air Station Beaufort”, <http://www.beaufort.marines.mil/Units/HHS.aspx>, accessed, September, 25, 2014.

^{xvii} *Air Installations Compatible Use Zones Study for MCAS Beaufort*, United State Department of the Navy, Naval Facilities Command Atlantic, Norfolk, Virginia, 2013.

^{xviii} Ibid.



^{xxix} Ibid.

^{xx} Ibid.

^{xxi} Ibid.

^{xxii} Ibid.

^{xxiii} *Final United States Marine Corps F-35B East Coast Basing Environmental Impact Statement (EIS)*, October 2010

^{xxiv} *Marine Corps Order (MCO) 1011.22B, Policies and Procedures for Encroachment Control Management*, 2010

^{xxv} Ibid.

^{xxvi} *Lowcountry Joint Land Use Study (JLUS) Plan*, Lowcountry Council of Governments, September 2004.

^{xxvii} MCAS Beaufort, "Encroachment Partnering Brief", June 29, 2007

^{xxviii} "Readiness and Environmental Protection Integration (REPI) Program Project Fact Sheet", U.S. Marine Corps: MCAS Beaufort: South Carolina

^{xxix} Encroachment Control Plan Update for U.S. Marine Corps Air Station, Draft Report, Prepared By Marstel-Day, LLC February 2009

^{xxx} Ibid.

^{xxxi} *Lowcountry Joint Land Use Study (JLUS) Plan*, Lowcountry Council of Governments, September 2004.

^{xxxii} Ibid.

^{xxxiii} Ibid.

^{xxxiv} Ibid.

^{xxxv} Ibid.

^{xxxvi} Ibid.

^{xxxvii} As is discussed in Chapters 5 and 6, since the completion of the 2004 Joint Land Use Study, the community established the Metropolitan Planning Commission, with citizen representatives from each of the JLUS Jurisdictions, which reviews and comments on major development proposals, rezonings, water & sewer extensions, and proposed regulatory changes in the JLUS Focus Area.

^{xxxviii} Each of the JLUS Jurisdictions reports formal and informal coordination with MCAS Beaufort prior to major land development, land use changes, and proposed policy or regulatory changes. However, Chapter 6 includes opportunities and recommendations regarding the codification of these processes into local ordinances and form-based codes.



^{xxxix} The Northern Beaufort County Regional Plan Implementation Committee has served this role and also served as the Policy Committee during the development of the 2015 Joint Land Use Study.

^{xl} *Beaufort County Comprehensive Plan, 2010*

^{xli} Beaufort County, South Carolina, Website, "Rural and Critical Lands Preservation", accessed, October 27, 2014
<http://www.bcgov.net/departments/Planning-and-Development/planning/rural-and-critical-lands-preservation.php>

^{xlii} *Environmental Assessment for Proposed Air Installation Compatible Use Zone Land Acquisition at Beaufort, South Carolina*, Prepared for Marine Corps Air Station, Prepared by J.M. Waller Associates, June 2011

^{xliii} Ibid.

^{xliv} Ibid.

^{xlv} "County, MCAS Prevent Costly Development Protect Environment & Valuable Economic Engine", The Island News, May 19, 2011, <http://www.yourislandnews.com/county-mcas-prevent-costly-development-protect-environment-valuable-economic-engine/>, accessed, September 29, 2014

^{xlvi} "County, MCAS buy Sanford family land", Bluffton Today, May 11, 2011, <http://www.blufftontoday.com/bluffton-news/2011-05-11/county-mcas-buy-sanford-family-land#.VEFpcMt0ypo>, accessed, September 29, 2014

^{xlvii} *Air Installations Compatible Use Zones Study for MCAS Beaufort*, United State Department of the Navy, Naval Facilities Command Atlantic, Norfolk, Virginia, 2013

^{xlviii} Ibid.

^{xlix} *Beaufort County Comprehensive Plan, 2010*

ⁱ Ibid.

ⁱⁱ Ibid.

ⁱⁱⁱ Ibid.

ⁱⁱⁱⁱ Ibid.

^{lv} Ibid.

^{lv} Ibid.

^{lvi} Ibid.

^{lvii} Ibid.

^{lviii} *Lowcountry Joint Land Use Study (JLUS) Plan*, Lowcountry Council of Governments, September 2004.



^{lix} *Air Installations Compatible Use Zones Study for MCAS Beaufort*, United State Department of the Navy, Naval Facilities Command Atlantic, Norfolk, Virginia, 2013

^{lx} *The People and the Economy of the Lowcountry: A Demographic Overview*, Planning Department, Lowcountry Council of Governments, February 2014

^{lxi} U.S. Census, American FactFinder, Selected Economic Characteristics, 2012 American Community Survey 1-Year Estimates, Beaufort County, South Carolina.

^{lxii} *Air Installations Compatible Use Zones Study for MCAS Beaufort*, United State Department of the Navy, Naval Facilities Command Atlantic, Norfolk, Virginia, 2013.

^{lxiii} *The Economic Impact of the Military Community in South Carolina, Prepared at the request of the South Carolina Military Base Task Force by: Lu Wang, Paul Carlsen, PhD; David Clayton*; Research Division: South Carolina Department of Commerce, November, 2012

^{lxiv} Ibid.

^{lxv} Ibid.

^{lxvi} *The People and the Economy of the Lowcountry: A Demographic Overview*, Planning Department, Lowcountry Council of Governments, February 2014

^{lxvii} 2012 Census of Agriculture, USDA National Agricultural Statistics Service

^{lxviii} *Integrated Natural Resources Management Plan for the Marine Corps Air Station Beaufort, Beaufort, South Carolina*, 2013

^{lxix} Ibid.

^{lxx} Ibid.

^{lxxi} Ibid

^{lxxii} Ibid.

^{lxxiii} Ibid.

^{lxxiv} Ibid.

^{lxxv} "Parts of Albergotti Creek, Beaufort River considered for shellfish harvesting", the Beaufort Gazette, December 17, 2013, http://www.islandpacket.com/2013/12/17/2853527_parts-of-albergotti-creek-beaufort.html?rh=1, accessed, September 29, 2014

^{lxxvi} Beaufort County Stormwater Management Utility Board (SWMU Board) Meeting Minutes, February 26, 2014

^{lxxvii} Beaufort County Stormwater Management Utility Board (SWMU Board)



Meeting Minutes, October 1, 2014

lxxviii *Integrated Natural Resources Management Plan for the Marine Corps Air Station Beaufort*, Beaufort, South Carolina, 2013

lxxix South Carolina Department of Health and Environmental Control Website, “The South Carolina Coastal Zone Management Program”, <http://www.scdhec.gov/HomeAndEnvironment/Water/CoastalManagement/CoastalZoneManagement/CoastalManagementProgram/>, accessed, September 29, 2014

lxxx *Integrated Natural Resources Management Plan for the Marine Corps Air Station Beaufort*, Beaufort, South Carolina, 2013

lxxxi U.S. Navy Website, “Energy, Environment and Climate Change”, <http://greenfleet.dodlive.mil/climate-change/>, accessed September 29, 2014

lxxxii *U.S. Navy Climate Change Roadmap*, Task Force Climate Change / Oceanographer of the Navy, April 2010

lxxxiii *Marine Corps Air Station Beaufort, Nomination for Secretary of Defense/Secretary of the Navy 2012 Environmental Awards Cultural Resources Management – Installation*

lxxxiv *Integrated Cultural Resources Plan*, MCAS Beaufort, 2007

lxxxv Ibid.

lxxxvi Ibid.

lxxxvii Ibid.



Chapter 4.0: MCAS Beaufort and the Community: The Road Ahead

I. Where MCAS Beaufort is Headed

A. Roll-Out of F-35B Joint Strike Fighter

In 2010, the Navy completed its decision process for basing the F-35B on the East Coast. Per, the ROD, as outlined in the preferred alternative of the 2010 *USMC East Coast F-35B Basing Final EIS*, MCAS Beaufort will host three F-35B squadrons and the PTC and MCAS Cherry Point will host eight squadrons. The F-35B will replace the F/A-18 and AV-8B aircraft currently in the Second MAW. This transition, which began in 2010, is expected to be completed in 2023.

In order to accommodate the F-35B, a transition plan was established in the F-35B Basing EIS, which includes several program elements. The transition includes the construction and/or renovation of airfield facilities and infrastructure; personnel changes associated with squadron staffing are required; and operational training in order to attain and maintain F-35B proficiency. As shown in Table 4-1, below, the construction of F-35B facilities began in 2011. In 2014, establishment of the PTC and replacement of the FA-18 squadrons began; they are expected to be completed in 2018 and 2023, respectively. Replacement of the AV-8B squadrons is expected to begin in 2019 and be completed by 2021.

Table 4-1: Transitional Timeline for the F-35B East Coast Basing

Description	Start Date	End Date
Construction	2011	N/A
Establishment of PTC	2014	2018
Replacement of FA-18 Squadrons	2014	2023
Replacement of AV-8B Squadrons	2019	2021

Source: *Final United States Marine Corps F-35B East Coast Basing Environmental Impact Statement (EIS)*, October 2010.

Active training operations for the F-35B are scheduled to begin at MCAS Beaufort in October 2014. The first F-35B pilot training course, F-35B Safe for Solo, is three months in duration and will be taken by two aviators with prior experience with either the FA-18 or AV-8B.ⁱ Training will be led by the VMFAT-501 and the PTC. Class sizes for F-35B training will increase over time. The maximum number of pilots per training class is estimated to be 20.ⁱⁱ

B. Future Missions



The MCAS Beaufort mission is to support the Second MAW attached II MEF units and MCRD Parris Island/Eastern Recruiting Region. Although the F-35B transition will not result in a change to the current mission, future missions for MCAS Beaufort may be identified by Marine Corps planning documents, such as the Marine Corps Aviation Plan. Future mission changes may result in new requirements for land area and facilities at the Air Station. They may also necessitate personnel and operational changes. All of these changes would have the potential to impact the local community. Ongoing efforts to achieve compatible land use must consider the potential impact of future missions at MCAS Beaufort.

An “Outlying Landing Field”

During the course of the Joint Land Use Study, a number of community and Policy Committee members expressed interest in understanding whether an “Outlying Landing Field” or “OLF” for MCAS Beaufort could be established to reduce air operations at the existing airfields and, if so, how such a field is generally approved, funded and acquired. The Policy Committee felt it important to reference the interest within the community for such an outcome in the JLUS and to make the JLUS Implementation Committee aware of it, as well as to allow the community and the Committee to better understand (1) what an OLF is; and (2) how generally one gets approved, funded, and acquired.

The terms used to describe outlying landing fields, or “OLFs,” vary. The Naval and Air Forces typically use one of the following terms to describe installations that provide additional aviation training opportunities that cannot be accomplished at the primary aviation airfields: Outlying Landing Field, Naval Outlying Landing Field, Marine Corps Outlying Field, Marine Corps Auxiliary Landing Field, and Air Force Auxiliary Airfield/Field. Generally, these installations have a runway, minimal staffing, limited services and facilities, and no units or aircraft permanently based aboard them. These installations cumulatively represent “OLFs” for the purpose of this discussion.

Although the process may be initiated at any level and by other parties, the current approval and funding steps for establishing an OLF generally are as follows:

1. Operational chain of command reviews operational requirements and identifies operational shortfalls that may prevent mission accomplishment.
2. The Service (typically at the installation or training command) then analyzes the shortfall and suggests potential solutions, and those recommendations are passed up to the Service level for review and modification, rejection or concurrence by the Service leadership – with the leadership needing to concur both in the



deficiency to meet requirements and a solution to eliminate the deficiency.

3. Once the Service leadership concurs in a way ahead, the Service presents its solution and project scope to the Office of the Secretary of Defense (OSD) for review and approval, to include securing any waiver to undertake large (above 1,000 acres) land acquisitions.
4. If approved by OSD, the Service then undertakes the necessary steps to perform any required environmental analysis, typically an EIS, in accordance with the National Environmental Protection Act (NEPA), which will examine alternatives to establishing an OLF as well as alternatives to operating it, all of which is subject to public comment.
5. Upon completion of the NEPA analysis, the Service Secretary (Secretary of the Navy for MCAS Beaufort) will publish a Record of Decision on the proposed project and establish the way ahead.
6. If the Secretary determines to pursue establishment of an OLF a program justification and budget is prepared and is submitted into the budget project for inclusion in the President's budget request to Congress for approval in the National Defense Authorization Act and the Military Construction Appropriation Act (land acquisition and construction) and Defense Appropriations Act (equipping and operating the new field).
7. If Congress authorizes and appropriates funds for the building of an OLF, the Service then proceeds to undertake the real estate actions necessary to acquire the necessary land for the OLF, and the construction necessary to establish the OLF, while simultaneously proceeding to establish staffing and equipping for the field.
8. Once constructed and equipped, the Service will then operate and maintain the OLF.

The process, of course, can be a long one and would be subject to changing military service requirements, budget constraints, and/or public concern regarding aviation, economic, or land use issues, among others. Finally, it should be noted that the most recent Environmental Impact Statement for MCAS Beaufort does not contain a finding that there exists an "operational shortfall" such that an OLF would be a requirement for MCAS Beaufort to carry out its current and future assigned missions.

II. Where the Community is Headed

A. Projected Population Growth

The MCAS Beaufort region is projected to experience strong population growth in the long term, through the year 2030. As shown in Table 4-2, Beaufort County is projected to increase



in population by over 30 percent for the time period 2010 to 2030, from 162,233 to 215,300. This projected rate of growth for the MCAS region outpaces that at the state level, which is projected to grow by nearly 18 percent, from 4.6 million to 5.5 million for the same time period.

Table 4-2: Projected Population Change, 2010-2030

Location	2010	2020	2025	2030	% Change 2010-2030
Beaufort County	162,233	185,220	199,780	215,300	32.7%
South Carolina	4,625,364	5,020,400	5,256,080	5,451,700	17.86%

Source: South Carolina Revenue and Fiscal Affairs Office, *South Carolina Community Profiles, Population Projections Based on 2010 Census Data*, http://www.sccommunityprofiles.org/census/proj_c2010_rfa.php

On-going coordination with the local community on compatible land use efforts will ensure the continued viability of the Air Station for operational training. Growth boundaries, such as those initiated within the *Northern Beaufort County South Carolina Regional Plan*, and other tools, can be used to guide growth in areas that minimize conflicts between the Air Station and the local community.

B. Economic Development

Industrial development, along with other economic growth opportunities, is being pursued by local governments and economic development agencies within the Beaufort area including the City of Beaufort, the Beaufort Redevelopment Commission, the Beaufort Regional Chamber of Commerce and, until recently, the Lowcountry Economic Development Alliance (LEA). The LEA board of directors voted to dissolve the organization in December 2014, during the course of the JLUS.

In 2012, the City of Beaufort purchased Beaufort Commerce Park, a 209-acre site, with 167 buildable acres.ⁱⁱⁱ The site is located across U.S. Highway 21 from MCAS Beaufort. It is currently vacant, with the economic development agencies and local government pursuing new tenants. The City of Beaufort seeks tenants for the commerce park and also to provide employment opportunities for former members of the military, and their families. Economic development, combined with compatible land use planning, supports both operational training at MCAS Beaufort and continued employment for military personnel who seek to remain in the Beaufort area.

C. Transportation Planning

Transportation planning is a key enabler to encroachment; it provides access to lands for future development and influences local development patterns. Transportation planning



also addresses traffic congestion and safety concerns within local communities. Within the current 2014 South Carolina Statewide Transportation Improvement Program (STIP), there are a few projects planned within the vicinity of MCAS Beaufort. As shown in Table 4-3, they include intersection improvements along U.S. Route 21 and S.C. Highway 802, and a green corridor project.

Table 4-3: South Carolina Statewide Transportation Improvement Program (STIP)

Project Name	Description
Beaufort Rail Trail	Green Corridor Project
U.S. 21 at Grays Hill	Intersection Improvement
SC 802 at S-112 Holly Hall/ S-72 Brickyard	Intersection Improvement
U.S. 21 at S-86 Shanklin	Intersection Improvement
U.S. 21 at U.S. 21 Business	Intersection Improvement

Source: South Carolina Statewide Transportation Improvement Program (STIP), Beaufort, August 21, 2014,
<http://www.dot.state.sc.us/inside/stip.aspx>

The green corridor project is known as the Spanish Moss Trail, or the Beaufort Rail Trail. The 12-foot wide paved pedestrian trail is available for recreational use by the public, including walkers, runners and bicyclists. It is also used for fishing and by nature enthusiasts. Following the historic Port Royal Railroad, the path currently totals 3.3 miles, with first two trail segments, from Ribaut Road in Port Royal and Depot Road in Beaufort, complete. Ultimately, the Spanish Moss Trail will be 13.6 miles long, with two segments, six and seven, located just west of MCAS Beaufort.^{iv} The trail provides a growing recreation and greenspace amenity to the local community that could draw additional residents to the area surrounding MCAS Beaufort.

The planned intersection improvements along U.S. Route 21 and S.C. Highway 802 are intended to improve traffic circulation and safety conditions. These improvements are not expected to drastically change development patterns surrounding MCAS Beaufort. Continued coordination between MCAS Beaufort and the planning agencies charged with transportation planning is needed to promote compatible development and prevent encroachment in the future.

D. Water/Wastewater Infrastructure Planning

Much like transportation planning, water and wastewater infrastructure planning have the potential to increase encroachment, as increased capacity within the systems allow for



increased development. In addition, water and wastewater planning may increase the density of new development, thereby exacerbating encroachment issues.

In recent years, wastewater and water systems in the Beaufort area have been improved, alleviating water quality concerns in the Beaufort River and Albergotti Creek. In 2008, the local water utility, the Beaufort Jasper Water and Sewer Authority (BJWSA), took over operation of water and wastewater infrastructure on MCAS Beaufort, MCRD Parris Island, Laurel Bay Housing, and the Naval Hospital Beaufort. The consolidation and merger with the BJWSA included closing water and wastewater treatment plants on the MCAS Beaufort and diverting wastewater flows to the Port Royal Island Water Reclamation Facility (PRIWRF). The Air Station's aging water and wastewater utilities were modernized with \$43 million in investments. The new wastewater treatment system for the Air Station meets more stringent discharge permit limits and improved water quality. It allowed for the closure of discharge areas along Albergotti Creek and the Beaufort River.

Excess water and wastewater capacity within the BJWSA system allows for additional growth within the service area. Currently, the BJWSA water treatment plants have a capacity to produce up to 39 million gallons of water per day.^v According to the BJWSA's 2013 Comprehensive Annual Financial Report, the average daily water usage is approximately 19.1 million gallons per day, or nearly half of the total capacity.^{vi} Residential water use, from approximately 180,000 residential customers, together with business and visitor use, amounts to approximately seven billion gallons annually.^{vii}

The BJWSA wastewater system consists of nine treatment plants, with a combined total capacity of nearly 19 million gallons per day (MGD).^{viii} The two largest plants are the Cherry Point Water Reclamation Facility and the PRIWRF which have a combined total capacity of 15 MGD, or the nearly 80 percent of the total wastewater capacity. Currently, these two plants treat more than seven million gallons of wastewater per day, about half of their total capacity.^{ix}

E. Future Land Use Development

Future land use in the Beaufort area is influenced by a variety of factors, including population growth and economics, with the military, tourism and second home industries, among the top industries. According to the Beaufort County Comprehensive Plan, southern Beaufort County has seen the highest level of growth, with second homes and tourism supporting new construction on Hilton Head Island and in the Bluffton area.^x Northern Beaufort County is experiencing strong growth as well, but at a lower rate than the southern portion of the county. New development has been concentrated on Port Royal Island and on Lady's Island.^{xi}

Future land use is also guided by the land use regulatory framework of local planning agencies in Beaufort County established in conjunction with MCAS Beaufort in order to



support compatible land use development in the area. In 2006, Beaufort County adopted an overlay district based upon the MCAS Beaufort AICUZ footprint, which is comprised of hazard areas and noise contours. The City of Beaufort and the Town of Port Royal also adopted the AICUZ overlay regulations. In 2007, the Northern Beaufort County Regional Plan established a regional growth management strategy to guide growth. A growth boundary was established to encompass currently developed areas and to continue development in these locations and to protect rural, undeveloped land outside the boundary. This regional growth area encompasses most of Port Royal Island (excluding areas in the MCAS Overlay and Lady's Island (excluding protected rural lands)).

The City of Beaufort has designated a two-mile area (with some exceptions, based on service delivery capabilities) as a City growth area, as well. However, as is discussed in Chapter 6, this area extends beyond the growth area evaluated in Chapter 3's land use compatibility assessment, as designated in the Northern Beaufort County Regional Plan. Therefore, the impact of expanding the AICUZ overlays to reflect the F-35B noise contours would be indicated by the analysis in Chapter 3.

The Town of Port Royal also has designated certain lands beyond its boundaries as potential areas for the delivery of public services, annexation, and growth. However, the Habersham planned unit development currently is the only Port Royal growth area (mainly within the "Coordinated Growth Sector") that falls within the 65 dB-70 dB DNL noise zone (Noise Zone 2a). Development rights for this area already are vested and, therefore, were the Overlays extended to reflect the F-35B noise contours; little impact on Port Royal's projected growth would be likely.

In 2011, in order to further implement protection of the AICUZ footprint from incompatible development, Beaufort County passed a Transfer of Development Rights (TDR) ordinance. The TDR program also has the support of the other JLUS jurisdictions. It involves the sending of development rights from the AICUZ overlay zones into areas within the growth boundary identified for additional density, called receiving areas. The TDR program is detailed in Chapter 5 and recommendations to augment TDR activity and land protection in the JLUS Focus Area are set forth in Chapter 6 of the JLUS.

The Future Land Use Plan element of the Beaufort County Comprehensive Plan is designed to be consistent with the regional growth strategy and AICUZ planning outlined above.^{xii} As discussed in Chapter 3, future land use in the AICUZ area generally projected to be compatible, including light industrial, commercial, and agricultural land uses. The AICUZ Overlay areas notwithstanding, the future land use plan calls for urban mixed-use development, at a density of 2-4 units per acre, to occur in already developed, municipal areas within Beaufort, Port Royal, the Shell Point area, Lady's Island, Burton and Bluffton. Future large-scale commercial development is designated in the core commercial areas of



downtown Beaufort, Bluffton, and Port Royal. With regard to rural areas, existing low-density land use patterns, of one dwelling unit per three acres, are expected to continue in the Sheldon area, St. Helena Island, and along the SC 170 corridor between McGarvey's Corner and the Broad River Bridge. A new area of industrial land use is designated across from the Air Station, north of Shanklin Road on the west side of US 21.

However, all future land use will be consistent with the AICUZ Overlay zoning, which currently affects lands in Beaufort County and the City of Beaufort (although Port Royal also has adopted the overlay). Residential and assembly uses, such as churches and schools, are limited within the accident potential zones, clear zones, and Noise Zone 3 in these areas of the City and the County. The specific provisions within the overlays of each JLUS Jurisdiction are detailed in Chapter 5 and included, in full, at Appendix C.

On-going collaboration between MCAS Beaufort and the JLUS jurisdictions is needed to continue the effective utilization of the land use planning tools currently in place. Updates to these planning tools are needed to ensure that they reflect the current AICUZ footprint and any other relevant factors. For more detailed land use analysis and impacts, see Chapter 5.

F. Conservation Planning

The conservation of rural lands, and other important undeveloped areas, such as scenic vistas, and environmentally sensitive areas, such as wetlands, is an important component to the land use planning in the region and for each of the JLUS Jurisdictions. As is discussed in Chapter 2, these conservation efforts have included partnerships with the Marine Corps Air Station and it is anticipated that those partnerships will continue. In fact, on November 4, 2014, the voters in Beaufort County approved a referendum extending the Rural and Critical Lands Preservation Program and to raise an additional \$20 million to buy lands and conservation easements in the County. With this additional funding, the program will have raised over \$130 million in the fifteen years prior to the Joint Land Use Study. The program is managed by the Beaufort County Open Land Trust.

In addition, the TDR ongoing program is another tool that may achieve compatible land use by the transfer of residential development rights out of the AICUZ overlay areas. Chapter 6 includes recommendations for full implementation of the TDR program, which currently is in effect only within Beaufort County.

ⁱ "First Fightertown F-35B Training Course Takes Off", October 3, 2014, <http://www.marines.mil/News/NewsDisplay/tabid/3258/Article/503259/first-fightertown-f-35b-training-course-takes-off.aspx>, accessed October 23, 2014

ⁱⁱ Ibid.



iii “One year out, Beaufort Commerce Park yet to announce new tenant”, The Island Packet, April 6, 2013
http://www.islandpacket.com/2013/04/06/2452504_one-year-out-beaufort-commerce.html?rh=1, accessed, October 29, 2014

iv Spanish Moss Trail Website, <http://www.spanishmosstrail.com/overview/mission/>, accessed, October 24, 2014

v BJWSA Website, “Treating Your Water With Care”, <http://www.bjwsa.org/water-treatment/>, accessed, October 24, 2014

vi *2013 Comprehensive Annual Financial Report, Fiscal Year July 1, 2012–June 30, 2013*, Beaufort-Jasper Water Sewer Authority, Okatie, South Carolina

vii Ibid.

viii Ibid.

ix BJWSA Website, “Wastewater Isn’t Just Treated – It’s Reclaimed”, <http://www.bjwsa.org/treatment/>, accessed, October 24, 2014

x *Beaufort County Comprehensive Plan, 2010*

xi Ibid.

xii Ibid.



Chapter 5: Existing Policies and Available Tools



Chapter 5 will familiarize the reader with:

- the statewide military planning statutory framework
- local authorities to implement military-oriented land use regulations and planning policies
- existing local regulations and planning policies related to MCAS Beaufort

I. Overview

Over the last two decades, a number of strategies to avoid incompatibilities between civilian and military land uses have been put into place in communities around the country. Successful long-term programs involve the cooperation of military, civilian, and local government stakeholders. In particular, it is the local governments which must evaluate not only the appropriateness and potential effectiveness of these strategies, but also their own authority to implement them.

Indeed, Beaufort County, the City of Beaufort, and the Town of Port Royal already have tools in place to encourage military compatibility. These tools were implemented after a Joint Land Use Study was completed for Marine Corps Air Station Beaufort in 2004. However, other tools and amendments to existing tools are discussed here for the consideration of the community, should it wish to further ensure that future land uses in the JLUS Focus Areas and the region are compatible with the military's mission at the Marine Corps Air Station.



This chapter summarizes the existing planning and legal framework that gives these stakeholders the authority to act in support of compatibility efforts, explains the current planning and land use regulations that the local governments use, and details the additional joint land use strategies available to the community to maintain compatible land uses around the Air Station.

II. The South Carolina Planning and Land Use Framework

South Carolina has a long history of supporting its military bases, a tradition that often manifests itself in helping military communities avoid encroachment issues. This section will summarize state requirements and policies, such as the Federal Defense Facilities Utilization Integrity Protection Act and other existing laws, proposed legislation for the 2015-16 session of the General Assembly, and the South Carolina Military Base Task Force, recently reconstituted by Governor Nikki Haley to support military installations in the state. It also will examine planning and land use regulations that are available to local communities, such as the adoption of a comprehensive plan, zoning ordinances, and land use regulations. Finally, it will briefly describe the state's Building Code framework, including the manner in which a jurisdiction may appeal to the state Building Codes Council to modify a building code provision, which has relevancy here as a possible way for the JLUS Jurisdictions to address issues related to noise attenuation.

A. State Requirements and Policies

Military-related issues are addressed in numerous places in the South Carolina Code of Laws. This section will first describe the primary Act that deals with issues related to land use around military installations—the Federal Defense Facilities Utilization Integrity Protection Act—as well as Title 25: Military, Civil Defense, and Veterans Affairs, the more general chapter, which covers most other topics related to the military as well as various provisions that are found elsewhere in the Code but that relate to the military. Secondly, this section will discuss proposed legislation for the upcoming legislative session that could greatly affect military communities, highlighting in particular the Military Preparedness and Enhancement Act and the Military Family Quality of Life Enhancement Act. Finally, this section will summarize the role of the South Carolina Military Base Task Force in helping military communities with encroachment and other issues.

1. ***Federal Defense Facilities Utilization Integrity Protection Act.*** As part of the 1994 Local Government Comprehensive Planning Enabling Act, South Carolina regulates some aspects of military land use through the “Federal Defense Facilities Utilization Integrity Protection Act.” The Act applies to



federal military installations in the state, including the Marine Corps Air Station Beaufort and the Recruit Depot Parris Island.

The Act recognizes that “uncoordinated development in areas contiguous to federal military installations ... can undermine the integrity and utility of land and airspace currently used for mission readiness and training.”¹ It provides a formal process for receiving the input of federal military interests before certain local planning and zoning decisions are made that could affect the installation. Specifically, local governments must request a written recommendation from the base commander at least 30 days before considering any “land use or zoning decision” involving land that is located within the associated military overlay district, or, if no overlay district exists, within 3,000 feet of the installation or within the 3,000-foot Clear Zone and Accident Potential Zones of the installation.²

If the commander responds with a recommendation, it must be made part of the public record, and the local government must investigate and make findings on the following (in addition to other findings required by different sections of the Code of Laws relating generally to land use proposals):

- (1) whether the proposal will permit a use that is suitable relative to its closeness to the installation;
- (2) whether the proposal will adversely affect the existing use or usability of nearby property;
- (3) whether the property to be affected by the land use plan or zoning proposal has a reasonable economic use as currently zoned;
- (4) whether the proposal results in a use that causes or may cause a safety concern with respect to streets, transportation facilities, utilities, or schools;
- (5) if the local government has an adopted land use plan, whether the proposal is in conformity with the policy and intent of the land use plan given its relative closeness to the installation; and
- (6) whether there are other existing or changing conditions affecting the use of the nearby property, such as the installation, that give supporting grounds for either approval or disapproval of the proposal.³



If the base commander does not submit a recommendation by the date of the public hearing, there is a presumption that the proposal does not involve any adverse effect relative to these required findings.⁴

The Act also requires that, where practical, local governments must incorporate identified boundaries, easements, and restrictions for military installations into their official maps.⁵

2. ***Other existing laws.*** Additionally, many other state laws have been passed in support of military personnel—both retired and active duty—and their families.

- a. **Title 25—Military, Civil Defense, and Veterans Affairs**

Title 25 of the Code of Laws—Military, Civil Defense, and Veterans Affairs—is the primary source of military-related state law. It includes the following chapters:

- Chapter 1: Military Code
- Chapter 3: South Carolina State Guard
- Chapter 7: Treason; Sabotage
- Chapter 9: Emergency Measures
- Chapter 11: Division of Veterans Affairs
- Chapter 12: Veterans Unclaimed Cremated Remains
- Chapter 13: Confederate Pensions
- Chapter 15: Other Provisions for Benefit of Veterans
- Chapter 17: South Carolina Military Museum
- Chapter 19: Prisoners of War Commission
- Chapter 21: Veterans Trust Fund⁶

Additional areas of the state statutes that relate to military matters and military personnel include:

- Employment protections in public sector jobs for five years after the date of entering into the armed forces.⁷
- 15 days of paid leave for reserve training and 30 days of paid leave for serving in the reserves during a time of emergency.⁸



USE STUDY

- Exemption for continuing education requirements during military service for certain licensed professions; the issuance of temporary professional licenses to spouses of military personnel; and the consideration of military education, training, and experience in licensure qualification evaluations.⁹
- Participation in the Interstate Compact on Educational Opportunity for Military Children, which helps the children of service members with school enrollment issues.¹⁰
- Protection of parental rights during times of military service.¹¹
- The granting of in-state tuition rates to active military members and their dependents, as well as to inactive members who live in the state for at least 12 months prior to their discharge from service; also, the automatic granting of free tuition to dependents in special cases, such as when a service member is killed in action or receives a Purple Heart.¹²
- Permission for charter schools located on military installations to give enrollment priority to children of military personnel.¹³
- Property tax exemption for housing on military bases.¹⁴

Although South Carolina already has numerous laws in place that support military communities, the 2013-14 session of the South Carolina General Assembly produced a number of bills intended to enhance military support. Two of these are mentioned above, in the charter school enrollment section and the property tax exemption section. The others will be carried over to the 2015-16 session and are discussed below.

3. **Proposed legislation.** Two key bills to be carried into the 2015-16 legislative session include the Military Preparedness and Enhancement Act, which creates a commission charged with providing the support needed to protect military bases from realignment, closure, and mission changes to the extent practical, and the Military Family Quality of Life Enhancement Act, which covers multiple topics that are seen as affecting military family quality of life.

- a. **Military Preparedness and Enhancement Act**

The Military Preparedness and Enhancement Act is of particular relevancy to the JLUS and its objective of maintaining compatibility between civilian and military land uses.¹⁵ The Act's stated objective is



to convey the state’s “intent to create a business climate that is favorable to defense installations and activities through legislation that assists in reducing base operating cost while enhancing military value.”

The Act would authorize the formation of an 11-member Military Preparedness and Enhancement Commission, consisting of House and Senate members and appointees, the Secretary of Commerce, and gubernatorial appointees. The Commission would primarily be charged with providing information to and advising the governor and legislature on military issues, assisting communities with programs that foster strong relationships with military installations and defense-related businesses, encouraging the recruitment and retention of defense-related industries in the state, and providing assistance to communities that have experienced a defense-related closure or realignment.

Notably, the Act would require that if a community determines that a proposed “ordinance, rule, or plan” could impact a military installation, the community must obtain and consider comments and analysis from the installation concerning the compatibility of the proposal with the installation’s operations prior to making a final decision on the proposal. It is also proposed that the Commission have the authority to provide financial loans to defense communities for projects that “will enhance the military value” of a military facility. One such project could be the preparation of a “comprehensive defense installation and community strategic impact plan” to evaluate land use compatibility issues with the surrounding community, strategies for reducing operating costs while enhancing the military value of the installation, and possible shared services and property between the military and the community.

b. Military Family Quality of Life Enhancement Act

While the Military Preparedness and Enhancement Act is noteworthy for its impacts on land use issues, House Bill 4859—known as the “Military Family Quality of Life Enhancement Act”—would also address key military-related issues. The bill is designed to protect South Carolina—to the greatest extent possible—from experiencing any base closures after the national review of bases that is expected to take place in 2017.¹⁶ The bill includes several unrelated components, the overall effect of which is to support military retirees, active duty service personnel, and their families.



USE STUDY

Particular sections include:

- Prohibitions against predatory lending;
- Creation of a veterans' treatment court that enables non-violent ex-military to be diverted into treatment programs rather than facing civilian courts;
- An easier path for residency status for military and their families when seeking in-state tuition, by excluding the requirement of one year of physical presence in the state;
- Allowing families to carry Medicaid enrollment if they are stationed outside of South Carolina;
- Creation of a military-connected children's welfare task force; and
- Greater ease in using absentee ballots.¹⁷

c. **Bills supporting certain military interests**

While the Military Family Quality of Life Enhancement Act and the Military Preparedness and Enhancement Act would have the most widespread impacts on military communities if adopted, several other bills were discussed during the 2014 session that would greatly impact particular segments of military communities across the state.

- S-771: creating a Military Connected Children's Welfare Task Force.
- H-3014: creating a Veterans Treatment Court Program in each judicial circuit of the state.
- S-756: allowing military families to enroll in a Medicaid waiver program in South Carolina if the state is their state of legal residence, and allowing them to maintain enrollment if the family is stationed outside of the state.
- H-3341 and H-4361: suspending the millage rate cap local governments can impose on undeveloped land, or on the residential development rights over undeveloped land near a military installation, in cases where the land is suitable for residential development but where developing it in such a way would constitute undesirable encroachment on the installation.



USE STUDY

- H-3110 and S-941: reducing the income tax burden on military personnel.
- S-787: reducing in-state tuition rates for military personnel and their dependents.
- H-4284: extending the section of code that allows the issuance of high school diplomas to returning military personnel to allow issuance to veterans of the Vietnam War
- H-3979: supporting the creation of a National Medal of Honor Museum in Mt. Pleasant.
- S-965: creating a Medal of Honor Monument Commission.
- Several different bills recognize individual service members as well as specific groups, such as those suffering from post-traumatic stress disorder, those receiving a Purple Heart, and those serving in certain wars.

While state legislation plays a key role in supporting military communities in South Carolina, the current and past governors have also taken steps to show their support of military installations. One way in which they have done this is to create a military base task force.

4. ***South Carolina Military Base Task Force.*** In March 2013, Governor Nikki Haley signed Executive Order 2013-04 to reconstitute the South Carolina Military Base Task Force “for the purpose of enhancing the value of military installations and facilities and the quality of life for military personnel located in this State.”¹⁸ The Task Force consists of a number of representatives: representatives from the state Adjutant General’s office, the state Department of Commerce, the Governor’s Office of Veterans Affairs, and the state Chamber of Commerce; representatives from the Beaufort, Charleston Metro, Columbia, and Sumter chambers of commerce; County Council representatives from Beaufort, Berkeley, Dorchester, Charleston, Richland, and Sumter; the mayors of Beaufort, Charleston, Columbia, North Charleston, Port Royal, and Sumter; members from the state legislature appointed by the Governor; and five at-large members appointed by the Governor.¹⁹

The Task Force is assigned to address various incentives for military personnel, to coordinate the efforts of military communities with the public and private sectors in an effort “to maintain a significant military presence in the state,” and to advise the Governor and General Assembly



on any issues and strategies related to military base closures, realignments, and mission changes.²⁰

Prior to its reconstitution in 2013, the Task Force was also charged with distributing funds, allocated for military base preservation initiatives by the General Assembly, to each of the four regions in the state with military communities (Beaufort, Charleston, Columbia, and Sumter).²¹ These funds were to be used to help local communities undertake planning efforts in order “to prevent further encroachment around the perimeters of existing bases.”²²

In 2009, regional representatives from the Beaufort area requested and received \$250,000 from the Task Force to serve as seed money for establishing a Transfer of Development Rights Bank to mitigate encroachment around the Marine Corps Air Station Beaufort. The state required the local communities to match these funds. The Lowcountry Council of Governments was assigned the responsibility of serving as fiduciary agent for the funds.²³

In addition to this slate of state policies and requirements related to South Carolina’s military presence, local governments have exercised their local powers to address military-civilian compatibility. In fact, the local governments participating in the JLUS have likely been more active in doing so than any other community in the state. The following section describes the scope of municipal and county land use powers in South Carolina, in order to identify the implementation tools available to Beaufort County, Port Royal, and the City of Beaufort, should they elect, after the JLUS is completed, to augment existing regulations related to military-civilian land use compatibility.

B. Local Regulations

Although local communities in South Carolina now exercise broad (although not unlimited) powers, including many in the areas of planning and land use, this has not always been the case.²⁴ Until recent decades in South Carolina, planning and land use functions were the purview of the General Assembly, carried out by local legislative delegates. A major legislative reform effort in the 1970s changed that, however, when voters opted to vest powers directly in the local communities instead. The state’s Home Rule Act followed in 1975, and today the South Carolina General Assembly gives local governments the authority to develop land use plans and to adopt zoning ordinances through the 1994 Local Government Comprehensive Planning Enabling Act.

In order to undertake planning, the enabling act requires local governments to



first create a planning commission. Several types are allowed; a single-jurisdiction planning commission for either a municipality or a county is most commonly used, although a few jurisdictions in the state, including the City of Beaufort and the Town of Port Royal, have formed a joint planning commission. Local planning commissions have “a duty to engage in a continuing planning program for the physical, social and economic growth, development and redevelopment of the area within its authority.”²⁵ The enabling statutes give planning commissions the authority to prepare comprehensive plans and to implement them through land use regulations and other tools.²⁶

Most but not all jurisdictions in the state have adopted comprehensive plans as well as zoning ordinances and land use regulations. The following sections detail the extent and nature of these authorities.

1. ***The Comprehensive Plan.*** Local governments in South Carolina are not required to prepare or adopt a comprehensive plan unless they intend to adopt zoning and land development regulations.²⁷ The comprehensive plan sets forth a community’s land-use policy; it helps the community examine its existing conditions and create a vision for what it wants to become. Successful plans reflect public deliberation and the input of community stakeholders, who will affect and be affected by land use policy.²⁸

The enabling statute requires comprehensive plans to contain nine discrete planning “elements,” although communities are authorized to include additional elements if they wish. The nine required elements are: population; economic development; natural resources; cultural resources; community facilities; housing; land use; transportation; and priority investment (planning for public facilities such as roads, water, sewers, and schools).²⁹

The statute requires that the plan be updated every 10 years and re-evaluated to a lesser extent every five.³⁰

Beaufort County, the City of Beaufort, and the Town of Port Royal all have comprehensive plans.

2. ***Plan Implementation, Zoning, and Land Development Regulations.*** After adopting a comprehensive plan, communities in South Carolina may implement it through any number of different tools, such as: the adoption of a zoning map along with a traditional zoning ordinance or a form-based code; land development regulations, such as subdivision regulations; a unified development ordinance, which contains both zoning and land



development regulations; a capital improvement program; and land use policies and procedures relating to topics such as annexation and the dedication of streets and drainage easements.³¹ In other words, where the comprehensive plan is a statement of policy, implementation tools represent *requirements* that must be met, consistent with comprehensive plan policies, when land is developed.

Most jurisdictions in South Carolina have adopted zoning. In South Carolina, zoning can be adopted only after a community adopts the land use element of a comprehensive plan, and all zoning regulations must “be made in accordance with” the comprehensive plan.³² Zoning involves separating land into different districts based on existing or projected land use on a land use map, and then creating regulations that specify allowed uses within each district, as well as associated requirements for each use.

The enabling statute explicitly authorizes several different specialized zoning techniques, including overlay zones. It is an authority used currently by the Beaufort County, Port Royal, and the City of Beaufort. Additionally, however, the enabling statute also allows local governments to tailor their own implementation tools to meet their own individual needs, so long as the tool is not otherwise prohibited by state law.³³ This expansive view of local government power in South Carolina leaves its communities well-equipped to respond to their land use challenges as locally appropriate. These powers, of course, include ones related to military-civilian land use compatibility.

In South Carolina, in order to implement land development regulations, including subdivision laws, a local government must have adopted the community facilities, housing element, and priority investment elements of a comprehensive plan.³⁴ Land development regulations are also commonly used in the state. They guide property divisions and improvements, such as roads and sidewalks, and they may act in conjunction with, in lieu of, or independently of zoning regulations.

Beaufort County, the City of Beaufort, and the Town of Port Royal have all adopted zoning. The Town of Port Royal and Beaufort County recently adopted form-based codes, with the City of Beaufort also having had a form-based code under consideration during the preparation of the JLUS.

In addition to local zoning ordinances and land use regulations, another way that local jurisdictions in South Carolina place regulations on development is through the adoption of building codes. The state legislature has given local governments in South



Carolina the authority to adopt building codes to ensure that buildings are built to certain safety standards. A discussion of local authority relative to building codes is informative here because of the limitations placed on the local communities by the state. If a local jurisdiction adopts a code, the state requires that it adopt the whole code; modifications to particular code sections (such as to adopt special noise attenuation standards) are only allowed if approved by the state Building Codes Council as discussed below.

C. Building Codes

Most jurisdictions in the state, including Beaufort County, the City of Beaufort, and the Town of Port Royal, have adopted building codes. If a local jurisdiction adopts building codes, the South Carolina Building Codes Council, which is part of the South Carolina Department of Labor, Licensing, and Regulation, requires that the following codes be used:

- 2015 Edition of the International Building Code;
- 2015 Edition of the International Residential Code;
- 2015 Edition of the International Fire Code;
- 2015 Edition of the International Plumbing Code;
- 2015 Edition of the International Mechanical Code;
- 2015 Edition of the International Fuel Gas Code;
- 2014 Edition of the National Electrical Code.

Additionally, the Council allows jurisdictions to adopt any of the following codes if desired:

- 2015 Edition of the International Property Maintenance Code;
- 2015 Edition of the International Existing Building Code;
- 2015 Edition of the International Swimming Pool and Spa Code
- 2015 Edition of the International Performance Code for Buildings and Facilities.

The state provides two processes by which local jurisdictions may request modifications to the building codes.³⁵ First, any local jurisdiction may request that the Building Codes Council allow it to amend a code section. The request must be based on either a local physical or climatological condition.³⁶ If approved, the amended code section is only approved for the requesting jurisdiction. Through the second process, the state also allows professional organizations and local



jurisdictions to request statewide modifications to the building codes. This request does not need to be based on a physical or climatological condition. If approved, the amended section is approved for all jurisdictions in the state.

III. Existing Planning and Land Use Regulations in JLUS Jurisdictions

This section summarizes the land use planning and land use regulations for each JLUS Jurisdiction, as of the date of the 2015 JLUS. All of the jurisdictions have adopted land use plans, zoning ordinances, and building codes. Additionally, a regional plan helps coordinate land uses between the jurisdictions.

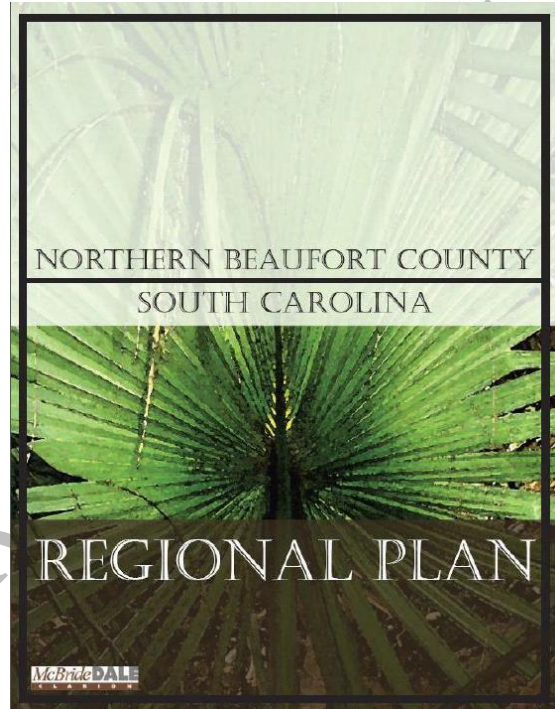
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A. Northern Beaufort County Regional Plan³⁷

Faced with dramatic growth projections and a land use patterns that would impact the entire region, in the mid-00's Beaufort County, the City of Beaufort, the Town of Port Royal and the Town of Yemassee reached an agreement about how the region would develop, by adopting the Northern Beaufort County Regional Plan. The key components of the plan are outlined here.

1. **Common goals.** The jurisdictions agreed on several common goals to guide the plan:
 - The coordination of growth, especially around the current and future edges of the communities.
 - The provision of regional infrastructure and public facilities in a fair and equitable manner.
 - The support of an economic development program that strives to achieve a vibrant and healthy economy.
 - The development of a system to fund regional capital infrastructure, operating and maintenance costs in a fiscally sustainable manner.
 - The protection of natural resources through the adoption of baseline standards.
 - The encouragement of compact urban development, surrounded by rural development, to reinforce the sense of unique and high-quality places in the region.
 - The creation and permanent preservation of a regional open space system.





- The encouragement of integrated socioeconomic and ethnic diversity in the region.
 - The development of affordable and workforce housing opportunities.
 - Regional support for infill and redevelopment within the communities.
 - The promotion of the broad public interest while being mindful of private property interests.
 - Collaboration with military facility planners, in particular with respect to the AICUZ contours.
2. **Plan Elements.** The plan, which serves as a starting point for ongoing regional coordination of planning efforts, examines the following elements:
- a. **Land use**

The plan establishes a preferred future growth pattern for all categories of uses (e.g., industrial, commercial, residential, and rural), broadly suggesting which category best fits in each land area. The land use plan is intentionally designed on a regional scale so that each jurisdiction may refine it according to particular community needs.
 - b. **Transportation and other public facilities**

Recognizing that transportation congestion is often the first outward negative sign of development, the plan creates a strategy for addressing transportation and other public facilities.
 - c. **Fiscal impact of growth**

The plan “puts a price tag” on future growth. Projecting that current funding sources will not keep up with the cost of providing public facilities, the plan encourages the jurisdictions to work together to identify new funding sources, such as updated impact fees and a capital sales tax, to address the deficit.
 - d. **Baseline environmental and corridor standards**

The plan suggests the implementation of existing environmental baseline standards, such as storm water management best practices and setback lines from critical buffers, as well as the development of new ones for shared scenic and travel corridors and the use of transfer of development rights to preserve open space in the region.



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3. *Key strategies*

a. The establishment of urban growth boundaries

With the above-described goals in mind, the jurisdictions agreed through the plan to establish urban growth boundaries in order to preserve approximately 60% of the land area as rural. Land inside the growth boundary is expected to be developed with commercial, light industrial, urban residential, or neighborhood residential uses and be annexed into a municipality, while land outside the growth boundary is expected to remain rural in character with no more than one unit per three acres of density.

A key exception to this policy was made for the Marine Corps Air Station and the Marine Corps Recruit Depot, both of which are located within the growth boundary area. The land around the Marine Corps Air Station is designated primarily as low-density residential, and the land surrounding the Marine Corps Recruit Depot is designated as rural. As the jurisdictions implement this regional plan, care is to be taken to further refine future land use plans around the military installations, according to uses that are appropriate within noise contours and other impact zones.

b. Agreement to establish annexation policies

The jurisdictions agreed to develop annexation policies to help evaluate the effects of proposed annexations on each other and their relationship to the established growth boundaries. The jurisdictions also agreed to develop policies to govern decisions about the development of land near but not contiguous to a municipality, and land that is surrounded by municipal territory (enclave areas)—key issues relative to annexation in many jurisdictions across the state.

c. Agreement on future implementation

The jurisdictions also agreed to use this plan as a base, relative to growth patterns and regional issues in their Comprehensive Plans. They acknowledged that a regional planning effort will require future intergovernmental coordination to implement the strategies in this regional plan.

While the Regional Plan helps the JLUS Jurisdictions coordinate on regional issues, each of the JLUS Jurisdictions has adopted land use plans of its own to



deal with specific local issues. These plans are summarized in the following section. Also discussed next are the local ordinances and regulations that each jurisdiction has adopted.

B. Beaufort County

Beaufort County has adopted a comprehensive plan, a form-based zoning and land development code that includes a military overlay district, and building codes. The following section gives an overview of these tools as used by Beaufort County relative to the Air Station. For example, the County has adopted a zoning overlay district for the Air Station, which is summarized here and in the chart in Appendix C and is included, in full, in Appendix C1.

4

Beaufort County Comprehensive Plan
Future Land Use



1. ***Comprehensive plan.***³⁸ Beaufort County last updated its comprehensive plan in 2010. The Plan is organized around seven guiding principles:

- Preserve the natural beauty of Beaufort County;
- Create new industries and jobs to keep our economy strong;
- Build better roads and encourage two-wheeled and two-footed travel;
- Preserve our rich cultural heritage;
- Permit development while maintaining Beaufort County's sense of peace;
- Create parks and preserve open spaces; and
- Provide public services without breaking the bank.

The Comp Plan references the military in several sections: Land Use, Cultural Resources; Economic Development; Affordable Housing; and Community Facilities.



a. Land Use³⁹

The military owns about 12,700 acres in Beaufort County—or 5.4 percent of the land countywide.⁴⁰ The Plan attributes much of the County’s growth since the mid 1950s in the northern end of the County to the presence of its military installations.⁴¹

The Plan also recognizes that growth pressures are increasing in this northern area, and lists as one of the 11 primary land use goals “continued collaboration with military facility planners, and in particular with respect to the AICUZ contours.” One specific recommendation is that the County codify a requirement for the military to review and comment on major development proposals and annexations.

b. Cultural Resources⁴²

The Plan recognizes that the County has a military history of nearly 500 years, beginning with the arrival of Spanish and French settlers in 1526 and 1562, respectively. The County, with forts built in the early 1700s to protect the City of Beaufort and the Town of Port Royal, saw major action in both the Revolutionary and Civil wars, and continues to serve an important role through both the Marine Corps Air Station and the Marine Corps Recruit Depot.

The Plan states that “Beaufort County should recognize that the presence of the military is a vital component to the County’s history, culture, and economy.” It makes several recommendations for the County to use when carrying out this objective, mostly relative to the Air Station. A more general objective, however, is to support the Greater Beaufort Chamber of Commerce’s Military Affairs Committee’s efforts to promote and lobby for the retention and expansion of the military installations in Beaufort County.

c. Economic Development⁴³

Importantly, the Plan recognizes the economic contributions of the military bases to the County. It noted that, as of 2010, “[t]he Department of Defense is one of the largest employers in the County,” supporting 17,500 jobs and more than \$600 million in personal income each year.⁴⁴ The Plan states that “it is important to foster a continued



military presence by creating a supportive environment and by attracting advanced military technology and ancillary businesses.”⁴⁵

d. Affordable Housing

The Plan notes that the military installations employ more than 12% of the County’s workforce. However, the combination of 1,718 units of military housing and existing civilian housing stock largely fill the housing needs of service members and their families. The Plan makes two recommendations with respect to ensuring the existence of affordable housing for the military:

- Ensure that the military be represented on the Affordable Housing Consortium Governing Council; and
- Include rental housing in the mix of affordable developments, and include the military in the employer-based initiative where rental units are leased in blocks.

e. Community Facilities

The Plan notes that the Beaufort County Department of Parks and Leisure Services has an existing contract with the Marine Corps community to utilize fields and facilities when the military is involved with County leagues and programs. It suggests that the County form a similar relationship with the school district.

2. ***Community Development Code.***⁴⁶ As explained above, South Carolina’s Comprehensive Planning and Enabling Act gives counties the authority to enact zoning ordinances after they have adopted the land use element of a comprehensive plan, and land development regulations after they have adopted the community facilities, housing, and priority investment elements. Beaufort County adopted a Community Development Code on December 8, 2014. This Code includes components of both zoning and land development regulations. It was designed as “a reflection of the community vision for implementing the intent of the Comprehensive Plan to preserve Beaufort County’s character and create walkable places.”



Transitioning to form-based zoning codes

In 2014, the Town of Port Royal and Beaufort County adopted a form-based code, with the City of Beaufort actively working towards doing so as well. The attempt to use form-based codes has been a regional effort among the JLUS Jurisdictions.

According to the City of Beaufort, form-based codes “foster predictable built results and a high-quality public realm” by placing a primary emphasis on building type, dimensions, parking, location, and façade features rather than on the separation of uses. The City of Beaufort’s would be similar to its current regulations for Bladen Street and Boundary Street.

This JLUS summarizes the unified development ordinance for the City of Beaufort since it remains in effect at the time of the JLUS and includes military overlays zones for the Air Station. The current draft of the City of Beaufort’s form-based code recognizes the military airport overlay zone and associated regulations that the City uses to ensure compatibility around MCAS.



a. Organization

Community Development Code is organized around transect zones that focus on mixed-use, walkable areas of the County, conventional zones that focus on more automobile-dependent areas of the County, and overlay zones that serve various specialized functions. The transect zones, which fall on a continuum from rural areas to urban core areas, include: T1 Natural Preserve; T2 Rural, Rural Neighborhood, and Rural Center; T3 Edge, Hamlet, and Neighborhood; and T4 Hamlet Center and Neighborhood Center. Conventional zones include Neighborhood Mixed Use (C3), Community Center Mixed Use (C4), Regional Center Mixed Use (C4) and Industrial (SI). In addition to these transect zones and conventional zones, the code has several overlay zones including a MCAS Airport Overlay Zone (MCAS-AO), which is summarized below and in Appendix C.



b. MCAS Airport Overlay (MCAS-AO)

Beaufort County's form-based code retained an airport overlay district for the Air Station, which is briefly summarized here and included in Appendix C.

- **Area regulated:** The Marine Corps Air Station's airport overlay district includes all lands falling within noise zones 2 and 3 and the accident potential zones as designated in the AICUZ.
- **Prohibited uses:** The regulations limit certain uses in the district, particularly those that bring large numbers of people together or that are noise-sensitive.
- **Residential density:** Residential density is prohibited at more than 1 unit per 3 acres in the APZs and Noise Zone 3; more than 1 unit per acre in Noise Zone 2b; and more than 2 units per acre in Noise Zone 2a. Family compounds are exempt from these density limitations.
- **Prohibited impacts:** The ordinance also places some minimal restrictions on certain additional elements of uses. It is prohibited to: "arrange or operate" lighting in a manner that could mislead an aircraft operator; produce any smoke, glare, or visual hazards within three miles of a runway; produce any electronic interference with navigation signals or radio communication between the airport and aircraft; or have a land use that encourages large concentration of water fowl or birds within the vicinity of an airport.
- **Noise attenuation:** The MCAS airport overlay district ordinance requires noise attenuation for all new buildings. These range from a mandatory reduction of 35 decibels in the loudest areas to 25 decibels in areas that are not as noisy.
- **Mandatory real estate disclosures:** The ordinance requires that all subdivision plats, planned unit development plats, townhouse plats, and condominium documents for property within the overlay area contain a note stating that the property is in the overlay and what the decibel levels in the applicable noise zone are projected to be, based currently on the 2003 Air Installations Compatible Use Zones Study for the Air Station,



which was the basis for the 2004 Joint Land Use Study. The ordinance also requires all sellers and lessors of property within the airport hazard area to make buyers and lessees aware of these noise impacts.

- **Nonconformities:** The overlay district specifies certain requirements related to nonconformities, such as a requirement to replace a nonconforming building with a conforming one if it is damaged more than 50%, and a prohibition against the expansion of a nonconformity. Similarly, a nonconforming use or structure that is vacant or not used for 90 days is considered abandoned and can only be replaced with a conforming structure. Exceptions to these standards exist for churches. Another key requirement is that if a nonconforming use or residential structure is improved by more than 50% in terms of market value over a five-year period, it must meet noise attenuation standards.
- **Variances:** The Zoning Board of Appeals must seek an opinion from MCAS-Beaufort prior to granting variances in the Airport Overlay district.

3. **Transfer of Development Rights program.** In addition to the Airport Overlay District, Beaufort County has a Transfer of Development Rights program for the Air Station, which is summarized briefly here.

The purpose of the TDR program, which was adopted by the County in 2011, is to “support county efforts to reduce development potential near the Marine Corps Air Station Beaufort and to redirect development potential to locations further from the air station, consistent with the Beaufort County Comprehensive Plan.”

The voluntary program establishes “sending” and “receiving” areas. Sending areas are those that are located within the airport overlay district and the Air Station’s AICUZ buffer, which are zoned for generally low-intensity





land uses. Receiving areas currently include all lands within the boundaries of Port Royal Island that are outside of the airport overlay district and the AICUZ buffer. (The ordinance would also allow the City of Beaufort and the Town of Port Royal to participate in the TDR program if they desired to do so by designating TDR receiving areas, adopting a complimentary ordinance, and entering coordination agreements with Beaufort County.)

In order to participate in the program, owners of sending area properties may elect to record an easement that reduces the density allowed for future development on the land. They then receive a TDR certificate, which may be “transferred” to and used in a receiving area in order to exceed otherwise allowed maximum residential density or commercial square footage requirements there. (Alternatively, a receiving area developer may pay a fee-in-lieu of buying a certificate, which the County would apply back to the TDR program to purchase additional easements and to administer the program.)

4. **Building Codes.** Beaufort County has adopted the International Residential Code, the International Mechanical Code, the International Energy Conservation Code, the International Plumbing Code, the International Fuel Gas Code, the International Fire Code as amended by the South Carolina Building Codes Council, as well as the National Electrical Code.⁴⁷ Additionally, Beaufort County participates in the National Flood Insurance Program as part of its unified development ordinance. The Building Code does not currently include specific noise attenuation standards, although the County’s overlay ordinance requires noise reduction in Noise Zones 2a, 2b, and 3. Instead, the County Building Department simply requires that applicants have an engineer certify that the noise level reduction standards have been complied with.

5. **Summary – Beaufort County**

To guide development throughout its jurisdiction, Beaufort County has adopted a Comprehensive Plan, a community development code that includes zoning and land development regulations, and building codes. The plans reference the importance of the military to the community, and some military-specific land use regulations were adopted in an effort to maintain compatibility around the Air Station.

C. City of Beaufort



The City of Beaufort shares a planning commission with the Town of Port Royal and Beaufort County—the Metropolitan Planning Commission.⁴⁸ Two members of the Commission are appointed by Beaufort County, two by the City of Beaufort, and two by the Town of Port Royal.⁴⁹ The Metropolitan Planning Commission reviews the Comprehensive Plans, makes recommendations to the City Councils with respect to zoning map and ordinance changes, and reviews and approves development site plans.⁵⁰

1. ***Comprehensive plan.***

The City of Beaufort adopted “Vision Beaufort, its Comprehensive Plan,” in 2009. The Comprehensive Plan describes the City as “largely a military community.”⁵¹ The plan recognizes the importance of the Marine Corps Air Station to the City in several key areas, such as economic development, housing, and transit.

a. Economic development

The Plan explains that “much of Beaufort’s economy is dependent upon its area military installations.” This is due to both the high number of people who are employed by and in support of the military in the City and to tourism that is generated by frequent military graduations.⁵² A few of the Plan’s recommendations are to:

- support the expansion of the current economic base—higher education, medical services, and the military”⁵³;
- take a leadership role in institutional development, including with respect to the military⁵⁴; and to
- seek ways to expand tourism, including military-related tourism.⁵⁵

b. Housing

The Plan recognizes that the presence of military personnel in the community affects its housing stock. It attributes, for example, a recent increase in multi-family housing units to the military.

“A strong, vibrant, and healthy economy will be achieved through a successful economic development program in order to ensure the long term success and viability of the City of Beaufort. We must support the continuation and expansion of our primary economic engines - tourism, **the military**, health care, and education ...”

-- City of Beaufort
Comprehensive Plan



c. Transit

The Plan recommends increasing transit options, in part due to the presence of the military in the community. It notes that the Greyhound bus terminal is used by service members regularly, and it encourages the exploration of additional options to meet the community's transit needs.

2. Civic Master Plan.

In addition to the Comprehensive Plan, the City of Beaufort, in 2013, adopted a Civic Master Plan. The purpose of the plan is "to identify and prioritize the allocation for public investment" in the City's infrastructure.⁵⁶ This infrastructure includes: the utility, public service, and transportation systems; institutional buildings such as museums and schools; and recreational areas such as plazas, parks, and greenways.⁵⁷

Chapter 7—A City of Grand Institutions—includes a section on the military. Section 7.7 describes the military's presence in Beaufort as a "strong and stabilizing element to the area's economy" and its expected future impact, with the addition of the F-35B squadrons, as likely "to attract hundreds of high-skilled jobs to the area through additional civilian staff and off-base support industries."⁵⁸

The Civic Master Plan explains the function of the AICUZ in addressing impacts of the military training on the surrounding communities, and it takes that analysis, plus the associated local government regulations, into account when developing its recommendations regarding land uses.⁵⁹

3. Unified Development Ordinance.

The City of Beaufort has a unified development ordinance that contains both zoning and land development regulations, but is in the process of developing a form-based code.

a. Zoning generally

The ordinance lists the following zoning districts: Transitional Residential (TR); Residential Estate (RE); Low-Density Single-Family Residential (R-1); Medium Density Single-Family Residential (R-2); Medium-High Density Single-Family Residential (R-3); High-Density Single-Family Residential (R-4); General Residential (GR); Traditional Beaufort Residential (TBR); Manufactured Home Park (MHP); Neighborhood Commercial (NC); Office Commercial (OC); Core Commercial (CC); General Commercial (GC); Highway Commercial (HC); Limited Industrial (LI); and Industrial Park (IP).



b. Military Reservation District

In addition to these 16 general zoning districts, the ordinance also creates four special-purpose districts, one of which is the Military Reservation District (MR). Like Beaufort County's military district, the City's Military Reservation District includes all land owned by the federal government that is used by the military. The district is "designed to support and protect federal military facilities"

c. Air Installation Compatibility Use Zone (AICUZ)

Similar to Beaufort County, the City uses an overlay zone "to provide for the compatible development of land surrounding and affected by operations of the Marine Corps Air Station (MCAS) Beaufort." The overlay district limits land uses, restricts the height of structures, requires noise mitigation, and requires real estate disclosures with respect to potential impacts experienced by properties in the zone. The district applies to all lands within noise zones that are 65 DNL and above and within Accident Potential Zones, as defined by the AICUZ Study in place in 2012.

d. Land development regulations

The City's unified development ordinance also includes land development regulations that guide development in several areas, such as streets, parking and loading, storm water, and subdivisions of land.

4. *Building Codes.*

The City of Beaufort has adopted the following building codes: the 2012 International Building Code; the Residential Code; the Fire Code; the Plumbing Code; the Mechanical Code; the Energy Conservation Code; the Fuel Gas Code; the Electrical Code; the 2006 International Existing Building Code; and the Property Maintenance Code.

5. *Summary—City of Beaufort*

The City of Beaufort recognizes the positive impact that the military has in both its Comprehensive Plan and Civic Master Plan. Both plans recommend that the City continue to support the military operations by striving to avoid encroachment-related issues. Additionally, the City's Unified Development Ordinance and draft Form-Based Code implement this mission through a Military Reservation District and an Air Installation Compatibility Use Zone overlay for the Air Station.

D. Town of Port Royal



USE STUDY

The Town of Port Royal does not have any land that is located within the 2003 or 2013 AICUZ footprints at the Air Station. However, given the town's history of coordinating on land use issues with neighboring jurisdictions (for example, the Town participates in the Metropolitan Planning Commission along with the City of Beaufort and Beaufort County), the Port Royal's land use plans and regulations are summarized here.



1. ***Comprehensive plan.***

The Town of Port Royal's Comprehensive Plan, which was adopted in 2009, is organized around the following principles:

- A quality public realm;
- A place for people on the streets (not just automobiles);
- A commitment to quality development;
- Regulations that focus on fundamental design issues;
- A connection to the natural environment;
- A welcoming, authentic community;
- Sustainable community and resources (focusing on "the three e's: environment, economy, and equity"); and
- Regional cooperation.

The Plan briefly references the military under a section that summarizes the Northern Beaufort County Regional Plan (2007). It explains that one of the regional goals is the continued collaboration with military facility planners, in particular with respect to the AICUZ contours at the Air Station.⁶⁰

2. ***Master Plan.***



In addition to its Comprehensive Plan, the Town of Port Royal has a Master Plan, completed by Dover-Kohl Partners in 1995, which “is a visualization of what the Town should physically become as it grows and changes.”⁶¹ The Plan developed six concepts to guide future development to mimic those of the Comprehensive Plan:

- Using a traditional neighborhood structure;
- Allowing the mix of land use to be market-driven, yet clustered within walking distance of residences;
- Facilitating the use of streets by people, not just automobiles;
- Encouraging a range of household incomes and housing options;
- Rejoining the two sides of the town, currently divided by Ribault Road; and
- Connecting to the natural environment.⁶²

The Plan does not otherwise reference military operations, but a discussion of land uses is not the Plan’s purpose. Instead, the Plan was designed to set the stage for how the Town wants its built environment to look as future development occurs, not as a discussion of land uses nor of standards related to those uses, such as noise and lighting. Although it was written almost 20 years ago, it serves as an early foundation for the Town’s new form-based zoning code, adopted in 2014.

3. ***Form-Based Code.***

The Town of Port Royal adopted a Form-Based Code in 2014. Like Beaufort County’s form-based code, the Port Royal code generally focuses on the form that development takes instead of on the separation of uses. This form-based code replaced the Town’s traditional zoning and land development regulations. The Code includes two military-related overlay zones that recognize the special circumstances of property near the installation.

a. Military Overlay Zone

The Military Overlay Zone applies to Department of Defense lands and allows for military facilities and all supporting activities such as housing, offices, and services.⁶³

b. MCAS Airport Overlay Zone



The MCAS Airport overlay regulates land uses and noise attenuation and requires real estate disclosures for lands near the Air Station.

4. ***Building Codes.***

By reference, the Town of Port Royal has adopted these building codes: International Building Code, 2012 edition; International Plumbing Code, 2012 edition; International Mechanical Code, 2012 edition; International Fire Code, 2012 edition; International Energy Efficiency Code, 2009 edition; International Fuel Gas Code, 2012 edition; International Residential Code, 2012 edition; National Electrical Code, 2011 edition; and ICC A117.1- 2009 Accessible and Usable Building and Facilities Code.⁶⁴

5. ***Summary—Town of Port Royal***

The Town of Port Royal has adopted a Comprehensive Plan and a Civic Master Plan. Both reference the nearby military installations, but neither addresses issues of compatible land uses in the areas surrounding the installations in much detail.

Port Royal was the first of the three JLUS Jurisdictions to adopt a Form-Based Code. While generally the Code now emphasizes the form of development rather than allowed uses, it includes two military-specific overlay districts that supplement this general framework. These districts limit allowed uses, require real estate disclosures, and require noise attenuation around the Air Station.

E. Beaufort-Jasper Water & Sewer Authority

The Beaufort-Jasper Water & Sewer Authority provides drinking water and wastewater services to the JLUS Focus Area. A public, nonprofit organization created by the state legislature, the authority:

- delivers about 20 million gallons of drinking water each day to its retail customers;
- serves about 100,000 additional customers with drinking water through a wholesale service; and
- collects, treats, and recycles 7 million gallons of treated wastewater every day.⁶⁵

It has owned and operated the water and wastewater systems at the Marine Corps Recruit Depot at Parris Island (but not at the Air Station) since 2008.



USE STUDY

Since then, it has upgraded the systems to a large extent. Some of these upgrades have included:

- the elimination of the military wastewater treatment plants at the Recruit Depot (and the Air Station), since the authority can serve them at its Port Royal facility;
- the replacement of several sewer pump stations with gravity sewer pipes on both Marine Corps installations;
- the installation of a 2.5 million gallon equalization tank at Parris Island; and
- the installation of the pipeline from Parris Island under Archer's Creek.⁶⁶



Endnotes

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¹ Federal Defense Facilities Utilization Integrity Protection Act, S.C. Code Ann. § 6-29-1610 *et seq.* (2004).

² *Id.* The act's requirements generally apply to any "land use or zoning decision" in the specified area; specifically enumerated under the requirements of subsection 6-29-1630 (A)(1) are notice prior to the consideration of comprehensive plans and actions taken by zoning boards of appeals (e.g., variances and special exceptions).

³ *Id.*

⁴ *Id.*

⁵ *Id.*

⁶ Military Code, S.C. Code Ann. § 25-1-10 *et seq.* (1976).

⁷ *Id.* at § 8-7-10 *et seq.* (1962).

⁸ *Id.* at § 8-7-90 (2008).

⁹ *Id.* at § 40-1-610 *et seq.* (2013).

¹⁰ Interstate Compact on Educational Opportunity for Military Children, *Id.* at § 59-46-10 *et seq.* (2010).

¹¹ Military Parent Equal Protection Act, *Id.* at § 63-5-900 *et seq.* (2009).

¹² *Id.* at § 59-112-50 and § 59-111-20 (1978).

¹³ *Id.* at § 59-40-50.

¹⁴ *Id.* at § 3-1-40.

¹⁵ House Bill 3263. South Carolina General Assembly 120th Session, 2013-14.

¹⁶ "Keeps S.C. in play," Post and Courier, Schuyler Kropf, March 6, 2014.

¹⁷ *Id.*

¹⁸ Exec. Order No. 2013-04 (March 7, 2013), *available at* scpalmettopartners.com.

¹⁹ *Id.*

²⁰ *Id.*

²¹ Letter from Task Force Chairman Richard Eckstrom, Office of the Comptroller General, to Chris Bickley, Executive Director, Low Country Council of Governments, and Sherry G. Smith, Finance Director, Low Country Council of Governments (February 3, 2009).

²² *Id.*

²³ *Id.*

²⁴ A HANDBOOK FOR COUNTY GOVERNMENT IN SOUTH CAROLINA (2005), *available at* <http://www.sccounties.org/Data/Sites/1/media/publications/sccountieshndbk2012.pdf>.

²⁵ South Carolina Local Government Comprehensive Planning Enabling Act, S.C. Code Ann. at § 6-29-340 (1994), hereinafter "Enabling Act."

²⁶ *Id.*

²⁷ MASTERING LAND USE AND PLANNING PROCESSES (2008), *available through the National Business Institute*.

²⁸ *Id.*

²⁹ Enabling Act at § 6-29-510 (amended 2007).

³⁰ *Id.*

³¹ MASTERING LAND USE AND PLANNING PROCESSES (2008), *available through the National Business Institute*.

³² Enabling Act at § 6-29-720 (amended 2007).

³³ *Id.*

³⁴ *Id.* at § 6-29-1130 (amended 2007).



³⁵ South Carolina Building Codes Council Building Codes Modification Information, available at http://www.llr.state.sc.us/pol/bcc/index.asp?file=MODIFICATION_Process.htm (last visited October 8, 2014).

³⁶ *Id.* Physical condition must relate to particularized “topography, geography, geology, water table or seismic activity.” Climatological condition is defined as “the susceptibility of specific unusual reoccurring weather or atmospheric conditions for a local jurisdiction, including hurricanes, tornadoes, damaging wind, lightning, or floods due to rainfall.”

³⁷ NORTHERN BEAUFORT COUNTY SOUTH CAROLINA REGIONAL PLAN, available at www.bcgov.net/archives/county-government/planning-department/comprehensive-regional-plans/index.php.

³⁸ BEAUFORT COUNTY COMPREHENSIVE PLAN, (2010), available at <http://www.bcgov.net/departments/administrative/beaufort-county-council/comprehensive-plan/2010executive-summary.pdf>, at Executive Summary.

³⁹ *Id.* at Chapter 4, Land Use, generally.

⁴⁰ *Id.* at 4-6.

⁴¹ *Id.* at 3-4.

⁴² *Id.* at Chapter 6, Cultural Resources, generally.

⁴³ *Id.* at Chapter 7, Economic Development, generally.

⁴⁴ *Id.* at 7-9 and 6-15.

⁴⁵ *Id.* at 7-9.

⁴⁶ Beaufort County Code of Ordinances, available at https://www.municode.com/library/sc/beaufort_county/codes/code_of_ordinances?nodeId=10400.

⁴⁷ *Id.* at 74-64 and 74-65.

⁴⁸ Metropolitan Planning Commission, available at <http://www.cityofbeaufort.org/metropolitan-planning-commission.aspx> (last visited June 10, 2014).

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ VISION BEAUFORT: 2009 COMPREHENSIVE PLAN, available at <http://www.cityofbeaufort.org/2009-comprehensive-plan.aspx>, at 114.

⁵² *Id.* at 264.

⁵³ *Id.* at 248.

⁵⁴ *Id.* at 177.

⁵⁵ *Id.* at 178.

⁵⁶ CITY OF BEAUFORT CIVIC MASTER PLAN at 4.

⁵⁷ *Id.*

⁵⁸ *Id.* at 153.

⁵⁹ *Id.*

⁶⁰ TOWN OF PORT ROYAL COMPREHENSIVE PLAN (2009), available at http://www.portroyal.org/rfp/Port%20Royal%20Comprehensive%20Plan_final_2009_reduced.pdf.

⁶¹ PORT ROYAL MASTER PLAN (2014), available at <http://www.portroyal.org/rfp/Dover%20Kohl%20Master%20Plan.pdf> at 2.

⁶² *Id.* at 3.

⁶³ The Port Royal Code (2014), available at <http://portroyal.org/portroyalcode.html>, at 3-33.

⁶⁴ *Id.* at 4-1.

⁶⁵ What We Do, Beaufort-Jasper Water & Sewer Authority, available at <http://www.bjwsa.org/what-we-do/> (last visited June 10, 2014).



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⁶⁶ Latest News, Beaufort-Jasper Water & Sewer Authority, available at <http://www.bjwsa.org/military/> (last visited June 10, 2014.)

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Chapter 6: JLUS Implementation Plan

DRAFT – STAFF REVIEW – FEB 16 2015



Chapter 6:

- identifies the key land use factors affecting land use compatibility between MCAS Beaufort and the community surrounding it
- sets forth the recommendations of the JLUS Policy Committee to enhance ongoing land use compatibility, the Marine Corps mission, and community quality of life

I. Introduction

Chapter 6 summarizes the key factors affecting land use in the JLUS Focus Area and at the Air Station, and includes an Implementation Matrix of specific actions to ensure continued land use compatibility in the future. These key factors represent a distillation of the background and land use analyses in Chapters 2-5 of the Joint Land Use Study. While many important issues have been raised during the JLUS process, the recommendations below focus on land use issues, both on- and off-base, which either *threaten* compatibility – and therefore the MCAS mission and civilian quality of life – or *enhance* it.

Notably, compatibility can be enhanced by those steps taken by civilian *and* military stakeholders. A number of these steps already were taken following the prior Joint Land Use Study, which was completed for MCAS in 2004.

II. Key Factors affecting Land Use in the JLUS Focus Area

A. Existing Land Use around and on the Air Station



The Air Station consists of almost 7,000 acres within the City of Beaufort, in addition to the Laurel Bay Family Housing Area, which is not part of the Joint Land Use Study. Within the JLUS Focus Area, there are three primary categories of existing land use: commercial corridors along Highway U.S. 21; suburban residential development southwest and east of the Air Station; and, finally, lands that are *generally* rural in nature, which encompass the remaining portion of the Focus Area. However, these rural lands do include industrial clusters and, in some cases, residential densities akin to suburban and urban residential areas, including a number of manufactured homes and manufactured home parks. Figure 3-8 inventories existing land uses by category.

Chapter 3 of the Study details the impacts of training operations occurring at the Air Station, based on the 2013 Air Installations Compatible Use Zones (AICUZ) Study issued by the Marine Corps soon after the JLUS process was begun in the Spring of 2014. The most significant impacts are those associated with aircraft training and operations at MCAS, which are detailed in Chapter 2. Specifically, these safety and noise impacts have been represented on maps which indicated lands near the Air Station that are most susceptible to aircraft accidents and noise impacts. This study limited its scope to the noise zones at the 65 dB DNL noise level, even though the 2013 AICUZ Study included a 60 dB DNL noise contour for informational purposes.

Significantly, the community in the vicinity of the Air Station was, at the time of the JLUS, preparing for the locating of three F-35B Joint Strike Fighter (JSF) operational squadrons and a Pilot Training Center (PTC) at MCAS. The F-35B is intended to replace the legacy F/A-18A/C/D (F/A-18) Hornet and AV-8B Harrier aircraft in the Second Marine Aircraft Wing (MAW) currently located at the base and MCAS Cherry Point, North Carolina. The full transition to F-35B operations is expected to be completed by 2023.

Throughout the study, the community frequently compared the noise contours associated with the F-18 aircrafts and those associated with the F-35B. These comparisons are illustrated and discussed extensively in Chapter 3. The *accident potential* zones associated with the two aircraft remained unchanged. Figure 3-__ illustrates the existing and anticipated *noise* zones, as well as the accident potential zones.

The 2004 Joint Land Use Study for the Air Station was followed by the implementation of a number of tools and action steps for promoting compatibility between the base and the community. These are highlighted in Figure 2-5, in Chapter 2. Perhaps the most significant action taken was the adoption by Beaufort County, the City of Beaufort, and the Town of Port Royal, of regulatory overlay zones, which, among other things, limit the extent to which incompatible land uses and densities could thereafter encroach upon the Air Station. These details, as well as a description of the other areas regulated by the overlay zones, are set out in Chapter 5. The lands covered by the overlay zones, of course, were based upon the noise and accident potential contours in the last AICUZ Study, which was completed in 2003 and reflected F-18 air operations. Appendix B gives an overview of the nature and extent of the overlay regulations adopted by each of the JLUS Jurisdictions.



In addition to the overlay zones and, in part, due to the introduction of the F-35B aircraft, the Air Station and each of the JLUS Jurisdictions have coordinated extensively on land use matters historically; both on civilian land uses that could impact the base, as well as, base activities that could impact the community.

Finally, as is detailed in Chapter 5, the County adopted a transfer of development rights (TDR) program in 2011, which allows property owners inside of the AICUZ contours to transfer development rights out of the AICUZ contours for increased density allowances within designated receiving areas in the northern Beaufort County Growth area. At the time of this JLUS study the program had not been active. As part of the JLUS process, however, the Project Team developed a series of forms, applications, and supplemental materials to aid in the implementation of the TDR program. In addition, the JLUS Team recommended certain steps be taken in the short-term to jump start program activity, which are included in the Implementation Matrix below. In addition, the JLUS Team recommended a number of “policy concepts” that the elected officials in the County, City, and Town might consider, in order to increase TDR participation. These are set out in Appendix F.

B. Future Land Use anticipated in the JLUS Focus Area

Although growth projections indicate that southern Beaufort County will grow faster than the northern parts of the County near the Air Station, the JLUS Focus Area falls squarely within the growth area designated about ten years prior to this JLUS in the Northern Beaufort County Regional Plan (NBCRP). In addition, the JLUS Focus Area includes the City of Beaufort’s and the Town of Port Royal’s service delivery and growth areas. The Policy Committee established the NBCRP regional growth area as the basis of for the JLUS compatibility analyses, which are described in Chapter 3. This regional growth area encompasses most of Port Royal Island (excluding areas in the AICUZ overlay zones) and Lady’s Island (excluding certain protected rural lands). As is noted below, the Technical Committee recommended that these growth areas be evaluated based on most recent data and growth projections.

Under current zoning, growth in the vicinity of the Air Station is subject to military compatibility standards; including land use restrictions, noise level reduction, real estate disclosures, and height and intrusion requirements.

On-going collaboration between MCAS, the JLUS jurisdictions, and other local economic development interests, consistent with state statutory requirements, will continue to be critical to ongoing community compatibility as F-35B operations are put into place.

C. Recommendations

As is noted above, as recommended in the last JLUS at the Air Station, this community successfully implemented many programs to encourage land use compatibility in the vicinity of the Air Station and within the existing AICUZ zones. Taking just the overlay



zone, which all three JLUS Jurisdictions have adopted, and the County's TDR ordinance alone, the potential for incompatible civilian encroachment has been significantly reduced. In addition, real estate disclosures also are required within the AICUZ zones and some height and intrusion regulations also are in place (*e.g.*, prohibiting land uses that would allow smoke, glare, wildlife, and other visual or physical hazards into the airspace, beyond the AICUZ zones).

Nonetheless, the Policy Committee recommended (1) augmenting certain outreach efforts, (2) continuing to monitor aircraft and other operational impacts, and (3) amending the existing Overlay ordinances and the County's TDR program to ensure ongoing land use compatibility in the vicinity of the Air Station.

These three overarching areas of implementation have been addressed through the following categories of tools and tasks:

1. Community-wide Coordination
2. Military Outreach
3. Land Use Planning and Environmental Resources
4. Military-Local Government Coordination
5. Amendments to Existing Overlay Ordinances
6. Transferable Development Rights.

Community-wide Coordination

First, the Policy Committee recommends implementing the Joint Land Use Study by continuing the involvement that policymakers, technical experts, and local citizens have contributed throughout JLUS process itself. Therefore, under "JLUS Implementation and Committee Support," in the Implementation Matrix, each of these three areas is once again highlighted. The process of implementing the recommendations in this study would, once again, be

directed by a policy committee with the direct technical support of local staff and non-profit agencies. In addition, citizen input would be facilitated through the existing Metropolitan Planning Commission. It is anticipated at this point, that the Northern Beaufort County Regional Plan Implementation Committee would continue to serve as the policy committee during implementation.

The JLUS Implementation Committees will continue to monitor the impacts of the emerging F-35B operations and make recommendations for additional JLUS studies or other planning efforts, as appropriate.

It is critical that the JLUS implementation process include not only continued policy and technical input, but extensive citizen participation, as well.

Military Outreach & Military-Local Government Coordination

Second, the Policy Committee felt it important that the Marine Corps, not only continue its existing outreach efforts to the community, but to augment outreach



efforts during the transition to the new F-35B squadrons. These efforts should include reevaluating existing communication practices to ensure that the public is kept up to date based on the technology and media outlets it is most accustomed to using, including, increasingly, social media, but also traditional forums like open houses and websites.

Furthermore, given the changing operational environment, the Policy Committee felt it important to monitor off-base impacts and to evaluate the need to update the Joint Land Use Study, were additional relevant data to be provided as to those impacts; these in addition, of course, to other land use, economic, demographic, and environmental impacts. These recommendations also are covered in both the community and local government coordination categories of the matrix.

Land Use Planning and Environmental Resources

Third, on the planning front, the Policy Committee recommended that each of the JLUS Jurisdictions include the JLUS process and recommendations in their next round of comprehensive plan amendments, in order to further integrate “military planning” with the community’s overarching planning efforts. The Policy and Technical Committees also felt it beneficial to evaluate the existing growth areas in northern Beaufort County to ensure they reflect actual anticipated demand, given recent trends in growth and industry.

Amendments to Existing Overlay Ordinances

Existing Overlay boundaries should be amended to reflect the 2013 AICUZ Study for F-35B impacts and education and enforcement of existing real estate disclosure requirements should be pursued.

Fourth, the Policy Committee recommended several changes to the existing overlay ordinances that each of the jurisdictions adopted following the last JLUS. These include considering updating the existing regulatory contours to reflect the revised 2013 AICUZ Study noise zones, considering height and intrusion regulations in all jurisdictions outside of the AICUZ zones, and evaluating the impact of the ongoing family compound exemption on land use compatibility. After extensive discussions, the Policy Committee did not believe that the land use policies within the existing noise and

accident potential zones need to be revisited at this time, in part, due to the fact that the 2008 changes to the Department of the Navy’s *AICUZ Programs Procedures and Guidelines* did not substantially impact the existing regulatory approach locally (see OPNAVIST 11010.36C).

However, it was raised by many during the Study that use of the required real estate disclosures has been inconsistent in practice. Therefore, the Committee recommended increasing educational and enforcement efforts with respect to real estate disclosures. In addition, the Committee felt that, once the new 2013 AICUZ noise contours are adopted into local ordinances, real estate disclosures should continue to be provided within the areas covered by the 2003 AICUZ Study, as well as the 2013 AICUZ Study. This would



ensure that persons purchasing or leasing property impacted by *either current* air operations (reflecting the F-18 as the primary aircraft) *or future* air operations (reflecting the F-35B) would be on notice of those impacts before deciding to purchase or rent in those areas.

Transferable Development Rights

Finally, the Policy Committee identified several “critical path” steps that need to be taken to “jump start” participation in the County’s TDR program. The JLUS Project Team advised the Committees on their options and shared with them that it is not uncommon for communities to make adjustments to recently-adopted TDR programs in order to stimulate activity in a program that still is new to the community.

The community should take immediate steps to implement the TDR program, including voluntary development rights purchases using the S.C. Military Base Task Force grant.

This particular community, however, is uniquely positioned to cultivate an active program for many reasons, including a recent grant by the South Carolina Military Base Task Force to fund program implementation and development rights purchases of prioritized properties. This prioritization process was begun several years prior to the JLUS, so the Policy and Technical Committees worked with the Project Team to identify means of effectively moving forward with the TDR concept.

In addition, the Project team prepared a series of TDR administrative forms, applications, FAQs, flow charts, and a sample TDR easement for use by Beaufort County to make the TDR program more transparent and accessible to the public. The JLUS Technical Committee recommended that, if the TDR program is administered in-house at Beaufort County, that it be administered at the County Administrator level, since it involves several departments, including planning, finance, and legal. These and other recommendations are detailed in Appendix F, which includes critical next steps and recommends a formal County resolution to set these steps in motion.

III. Implementation Matrix

A. The “Strengths, Weaknesses, Opportunities, and Threats” Analysis

The recommendations of the JLUS Policy Committee are set forth in the matrix below. Those recommendations were the result of the input the JLUS Project Team received from the public, Technical committee members, and stakeholders throughout the project. The recommendations resulted initially from a “SWOT” – or “Strengths, Weaknesses, Opportunities, and Threats” – analysis that allowed the Policy Committee to identify on-base and off-base needs with respect to land use compatibility. The Policy Committee evaluated the issues identified in the SWOT analysis, leading to the development of the recommendations in the Implementation Matrix. Other issues were included in other parts



of the JLUS to the extent they addressed background matters or matters not directly related to land use compatibility. The SWOT Analysis is included in Appendix C to the JLUS Report.

B. How the Implementation Matrix Works

The JLUS Implementation Matrix prioritizes the Policy Committee's recommended tools for implementing the recommendations in the Joint Land Use Study. While ultimate implementation is not necessarily limited to the specifics here, the tools identified in the matrix represent those the Policy Committee felt to be most important at this time. The matrix is intended to guide implementation and to help the community assess the scope of the implementation effort. It was recognized throughout the JLUS process that, since new operations at the Air Station will be occurring over the next 5 to 8 years, as additional data or experience warrants, revisions to this Study or to additional planning efforts will be considered.

For each tool listed, the agencies or parties affected by or responsible for implementing the development of each tool is indicated. Once implementation begins, the JLUS Implementation committee may engage stakeholders in addition to those listed at this time. Also, the estimated costs and timeframes for implementing each tool are given.

The range of estimated costs for each tool is indicated as follows:

- \$ = less than \$5,000
- \$\$ = between \$5,000 and \$25,000
- \$\$\$ = greater than \$25,000

Anticipated timeframes for consideration similarly are indicated as follows:

- S = Short-term, within the first 2 years following completion of the 2015 Joint Land Use Study
- M = Medium-term, between 2 years and 5 years following completion of the 2015 Joint Land Use Study
- L = Long-term, greater than 5 years following completion of the 2015 Joint Land Use Study

The Policy Committee recognized that each of the tools listed in the matrix is important, therefore, the overall priority given to a particular tool, is relative to the urgency of the issue to be addressed, overall costs, and, in particular, whether immediate safety and quality of life concerns are at stake. The Policy Committee prioritized the tools as follows:

- L = Low Priority
- M = Medium Priority
- H = High Priority



It is important to note that the Policy Committee recommended timeframes, priorities, and costs, based on the information available at the conclusion of the Study. As noted previously, however, with a new operational footprint emerging, it will be important to adjust these priorities as the situation and current information and experience requires.

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Estimated Cost		\$ = < \$5,000; \$\$ = \$5,000 to \$25,000; \$\$\$ = greater than \$25,000					
Planning Term		\$ (Short) = first two years; M (Middle) = between 2 and 5 years; L (Long) = greater than 5 years (post-JLUS)					
Level of Priority		L = Low; M = Medium; H = High (indicating relative priority)					
Category	Subcategory	Implementation Tool or Activity	Description	Affected Agencies/Parties	Estimated Cost	Anticipated Timeframe	Level of Priority
Community-wide Coordination	Joint Land Use Study Implementation Committee & Support	Policy Level	Establish or designate an existing policy level committee to oversee implementation of the recommendations in the 2015 JLUS.	MCAS MCRD County, City, Town (Elected Officials) Business Community Education Community Other Affected Stakeholders	\$	S	H
		Technical Level	Support and provide technical and logistical expertise to the JLUS Implementation Committee.	MCAS MCRD County, City, Town (Staff Officials) Lowcountry Council of Governments Business Community Education Community Other Affected Stakeholders	\$	S	H
		Citizen Input	Maintain coordination channels between the JLUS Implementation Committee and citizens in the community through the Metropolitan Planning Commission, created since the 2004 JLUS. The JLUS Implementation Committee would be chaired by the current chair of the MPC.	JLUS Implementation Committee Metropolitan Planning Commission	\$	S	H
	Community Outreach	Online	Maintain a user-friendly and regularly updated website with information about the 2013 AICUZ and 2015 JLUS and the their implementation; link site to County, City, and Town websites. A Facebook page and other social media outlets may be appropriate, as well.	Lowcountry Council of Governments	\$	S	M
		Community Updates	Evaluate need for supplementing existing outlets for community updates related to public information, mission training, and land planning within the JLUS Focus Areas.	MCAS MCRD Beaufort County Town of Port Royal City of Beaufort SCANA Lowcountry Council of Governments	\$	S	M



Community-wide Coordination	Evaluation, Monitoring, and Research	Monitor Impacts	The JLUS Implementation Committee will monitor any anticipated Marine Corps mission changes and proposed civilian developments that could impact or be impacted by base missions, and will engage the community and Metropolitan Planning Commission, as appropriate.	JLUS Implementation Committee	\$	S/M/L	M
		Evaluate Needs	JLUS Implementation Committee to evaluate need to formalize coordination between base and utility providers. Committees also should monitor the need for updating the JLUS report or supplementing its findings over time; particularly as the F-35B mission at MCAS reaches full operation or in the event new impact data is available.	JLUS Implementation Committee MCAS Beaufort Jasper Water & Sewer Authority	\$	S/M/L	M
		Research Key Land Use Issues	The JLUS Implementation Committee may evaluate or research specific issues such as human noise effects, environmental impacts, and economic impacts of Marine Corps missions or mission changes.	JLUS Implementation Committee	\$/\$\$	S/M/L	M
Military Outreach	Military-Community Communication	Open House and other Community Dialogue Opportunities	Use techniques such as workshops, open houses, appearing at JLUS Jurisdiction meetings, participating on the MPC, with updates on changes at the installation and receiving community input. Remain engaged on key issues including, F-35B mission and updates; flight patterns; outlying landing fields; land acquisitions; mitigation techniques; noise experience; and community involvement and stewardship. Evaluate opportunities to	MCAS Beaufort County Town of Port Royal City of Beaufort JLUS Implementation Committee Metropolitan Planning Commission	\$	S/M/L	H
	Off-Base Impacts	Noise Inquiries	supplement existing MCAS "Noise Inquiry and Complaint Program," and to improve user-friendliness of existing "Aircraft Noise Complaint Report" form.	MCAS JLUS Implementation Committee	\$	S	M
		Schools	Monitor impacts of the installation on local schools.	MCAS JLUS Implementation Committee	\$	S/M	M
		Flight Patterns	Continue to keep the community informed of the nature of MCAS's representative flight patterns and of atypical patterns when they can be anticipated	MCAS JLUS Implementation Committee	\$	S/M/L	H



Military Outreach	Military-Civilian Business Relationships	Small Business Coordination	Inform local firms of opportunities to do business with the Marine Corps and engage the business community through a Small Business Representative; including raising awareness of existing federal notices for bid opportunities.	MCAS Lowcountry Economic Development Alliance Beaufort Regional Chamber of Commerce	\$	S/M/L	M
		Economic Development	Maintain coordination efforts with economic development agencies to align sought-after industry with MCAS missions.	MCAS Lowcountry Economic Development Alliance Beaufort Regional Chamber of Commerce	\$	S/M/L	M
Land Use Planning & Environmental Resources	Environmental	Military and Community Monitoring	Continue to monitor the impacts of the installation on the natural environment.	MCAS JLUS Implementation Committee	\$/\$\$	S/M/L	H
	Local Government Planning	Comprehensive Plans	Update JLUS Jurisdictions' Comprehensive Plans to include the 2015 JLUS process and recommendation; objectives and policies for implementing applicable recommendations; and any needed changes to land use maps based on F-35B flight operations represented in the 2013 AICUZ Study.	Beaufort County Town of Port Royal City of Beaufort	\$	S/M	M
		Growth & Annexation Policies	Update and confirm extent of anticipated municipal growth and annexation over next ten years; based on projected population, growth patterns, economic development policies, and service delivery capabilities and operational needs.	Beaufort County Town of Port Royal City of Beaufort MCAS Northern Beaufort County Regional Plan Implementation Committee	\$\$	M	M
Military-Local Government Coordination		Amend Overlay Ordinances to codify requirements of state law	Formalize existing protocol by codifying local government coordination with the Marine Corps prior to land use planning and zoning actions (see s. 6-29-1610, et seq., SC Code Ann.)	Beaufort County Town of Port Royal City of Beaufort MCAS	\$	S	H



Amendments to Existing Overlay Ordinances	Land Use Compatibility	New Contours	Consider updating AICUZ Overlays with 2013 AICUZ Study noise zones for MCAS (out to 65dB DNL); consider a phased approach.	Beaufort County Town of Port Royal City of Beaufort MCAS JLUS Implementation Committee	\$	S	H
		Transitional Surface Regulations	Evaluate appropriateness applying in the City and Town the County's regulations regarding bird/wildlife interference, smoke/glare/other visual hazards, electromagnetic interference with military navigation/communications, and lights that are misleading/dangerous to aircraft, beyond the APZs, CZs, and Noise Zones (See County Code of Ordinances, Chap. 106, App. A, sec. 4.17.6; in App. C1 to the JLUS).	Town of Port Royal City of Beaufort	\$	S	H
		Family Compound Exemption	Evaluate the impact of the County exemption of "family compounds" from the land use requirements in Noise Zone 3, the APZs, and CZs. (See Beaufort County Code of Ordinances, Chap. 106, Appendix A1, sec. 5; Section 106-2105 ("family compound" defined); see also Northern Beaufort County Regional Plan; p. 25 (regarding retention of policy)).	JLUS Implementation Committee Beaufort County	\$	S	M
	Real Estate Disclosures	Public Outreach	Educate developers about using authorized forms only and real estate and business groups to increase awareness of disclosure and notice requirements; work with realtors to ensure MLS-listings indicate properties located in an AICUZ zone; provide brochures to purchasers/lessees with disclosure explaining the AICUZ contours; conduct an education program about AICUZ for real estate industry.	Beaufort County Town of Port Royal City of Beaufort Real Estate and Business Groups Developers Lowcountry Council of Governments	\$	S	H
		Transitional Interim Disclosure Areas	Maintain disclosure for properties within the 65 dB DNL contour representing the F-18 mission during the period of the F-18's continued use; in addition to the 65 dB DNL contour representing the F-35B mission.	JLUS Jurisdictions Real Estate and Business Groups Developers JLUS Implementation Committee	\$	S/M/L	H



Amendments to Existing Overlay Ordinances	Real Estate Disclosures	Enforcement	Confirm local building departments are complying with existing disclosure regulations (including use of adopted disclosure form as written & that sellers of after-market mobile homes and those receiving a moving permit are complying); consider applying disclosure requirements to specific parties in the closing process (e.g., seller, selling agent, closing attorney); evaluate lawful alternatives for enforcement.	Beaufort County Town of Port Royal City of Beaufort JLUS Implementation Committee	\$/\$\$	\$	H
		Manufactured Homes Dealers	Evaluate potential of requiring disclosure/notice by manufactured home dealers to purchasers of manufactured homes within the JLUS Jurisdictions.	JLUS Implementation Committee Beaufort County Town of Port Royal City of Beaufort	\$	\$	M
Transferable Development Rights (TDRs)	Full Implementation of TDR Program	Implementation Agency	It is critical that an agency be identified and funded, as soon as possible, to administer the TDR program and to process TDR applications and inquiries; including legal matters and conservation easement preparation; the Implementation Agency could be in-house or the County or Lowcountry COG could enter into a partnership with another entity for the purpose of implementing the TDR program.	Beaufort County Northern Beaufort County Regional Plan Implementation Committee Lowcountry COG	\$/\$\$	\$	H
		Use funds from 2009 Military Task Force Grant	It is equally as urgent that County, or other TDR Implementation Agency, in partnership with the Lowcountry Council of Governments, direct funds immediately from the 2009 Military Base Task Force grant to eligible implementation activities (see also, "Purchase of TDRs," below).	Beaufort County Northern Beaufort County Regional Plan Implementation Committee Lowcountry COG	\$	\$	H
		Establish TDR Bank	County or other TDR Implementation Agency to establish a TDR Bank in accordance with applicable TDR ordinances.	Beaufort County Northern Beaufort County Regional Plan Implementation Committee Lowcountry COG	\$/\$\$	\$	H
		Identify and Publicize Point of Contact for TDR Program	Identify and publicize a point of contact at the TDR Implementation Agency	Beaufort County Northern Beaufort County Regional Plan Implementation Committee Lowcountry COG	\$	\$	H
		Make Forms, Applications, and Implementation Materials Publicly Available	Make TDR Implementation Forms, Applications, and implementation materials available by posting on County (and/or other TDR Implementation Agency) website and making hard copies available at the Beaufort County Department of Planning and Development (and/or at other TDR Implementation Agency).	Beaufort County Northern Beaufort County Regional Plan Implementation Committee Lowcountry COG	\$	\$	H