

**Final  
Air National Guard  
F-15EX Eagle II & F-35A Lightning II  
Operational Beddowns  
Environmental Impact Statement  
Appendices**



**November 2024**

This page intentionally left blank.



**TABLE OF CONTENTS**

**APPENDIX A AGENCY CORRESPONDENCE**

**APPENDIX B NOISE MODELING, METHODOLOGY, AND EFFECTS**

**APPENDIX C CONSTRUCTION TABLES**

**APPENDIX D AIR QUALITY**

This page intentionally left blank.



## Appendices

This page intentionally left blank.



**A1**

**Agency Correspondence**



This page intentionally left blank.



**DEPARTMENT OF THE AIR FORCE**

WASHINGTON, DC 20330-1000

**OFFICE OF THE ASSISTANT SECRETARY**

SAF/IEI  
1665 Air Force Pentagon  
Washington, DC 20330-1665

Deputy Assistant Secretary of the Navy (EI&E)  
1000 Navy Pentagon, Room 4A674  
Washington DC, 20350

Dear Mr. Ohannessian:

The Department of the Air Force (DAF) as Lead Agency (40 C.F.R. § 1501.7)) requests the Department of the Navy's (DON) participation as a Cooperating Agency (CA) in preparation of an Environmental Impact Statement (EIS) for the F-35A and F-15 EX beddown and recapitalization of existing F-15 C/D aircraft at three Air National Guard (ANG) alternative locations. The DAF anticipates the DON having National Environmental Policy Act (NEPA) responsibilities as well, which could lead to a joint Record of Decision (40 C.F.R. § 1505.2).

Alternative locations include Naval Air Station Joint Reserve Base New Orleans, LA, Naval Air Station Lemoore, CA, Westfield-Barnes Regional Airport - Barnes, MA, and Fresno Yosemite International Airport - Fresno, CA. Of these, one location will be selected for basing the F-35A, and two locations will be selected for the F-15 EX.

This CA arrangement is established pursuant to 40 CFR § 1501.8, Cooperating Agencies. As the lead, the DAF requests the DON CA support by:

- Making staff available to enhance interdisciplinary capabilities;
- Participating in the scoping process;
- Assuming responsibility for developing information and preparing analyses on issues for which the DON has special expertise, upon request of the DAF;
- Using the DON funds for routine activities (40 CFR § 1503.3), while the DAF will fund major activities pursuant to its EIS contract;
- Consulting with the DAF in developing the milestone schedule, meeting the schedule and elevating issues that may affect any ability to meet the schedule (40 C.F.R. § 1501.7(i)); and
- Responding, in writing, to this request.

The DAF will act as the Lead Agency for purposes of compliance with §7, Endangered Species Act (16 USC §1536); §106, National Historic Preservation Act (16 USC §470f); and similar regulatory consultation or coordination requirements, to include coordination with the DON. The DAF is amenable to development of a Memorandum of Understanding/Agreement, the content of which would be established between the CAs subsequent to this request.

Should you or your staff have further questions regarding this letter, our points of contact at Headquarters Air Force: Mr. Jack Bush, at (703) 614-0237 (jack.bush@us.af.mil), Headquarters National

Guard Bureau: Maj Jason Askins, (240) 612-8492 (jason.askins@us.af.mil) and Mr. Will Strickland, (240) 612-7042, (william.strickland.7@us.af.mil).

MORIARTY.ROBE  
RT.E.1013267584

Digitally signed by  
MORIARTY.ROBERT.E.1013267  
584  
Date: 2022.03.04 15:30:23 -0500

ROBERT E. MORIARTY, P.E., SES  
Deputy Assistant Secretary of the Air Force  
(Installations)

cc:  
SAF/GCN  
AF/A4C  
OPNAV N45  
NGB/A4A/A8/JA  
AFLOA/JOAE



**DEPARTMENT OF THE AIR FORCE**

WASHINGTON, DC 20330-1000

**OFFICE OF THE ASSISTANT SECRETARY**

SAF/IEI  
1665 Air Force Pentagon  
Washington, DC 20330-1665

Mr. Bob Craven, Director  
Office of Airport Planning and Programming (APP)  
Federal Aviation Administration  
800 Independence Avenue, S.W.  
Washington, DC 20591

Dear Mr. Craven:

The Department of the Air Force (DAF) as Lead Agency (40 C.F.R. § 1501.7)) requests the FAA participation as a Cooperating Agency (CA) in preparation of an Environmental Impact Statement (EIS) for the F-35A and F-15 EX beddown and recapitalization of existing F-15 C/D aircraft at three Air National Guard (ANG) alternative locations. The DAF anticipates the FAA having National Environmental Policy Act (NEPA) responsibilities as well, which could lead to a joint Record of Decision (40 C.F.R. § 1505.2).

Alternative locations include Naval Air Station Joint Reserve Base New Orleans, LA, Naval Air Station Lemoore, CA, Westfield-Barnes Regional Airport - Barnes, MA, and Fresno Yosemite International Airport - Fresno, CA. Of these, one location will be selected for basing the F-35A, and two locations will be selected for the F-15 EX.

This CA arrangement is established pursuant to 40 CFR § 1501.8, Cooperating Agencies. As the lead, the DAF requests the FAA CA support by:

- Making staff available to enhance interdisciplinary capabilities;
- Participating in the scoping process;
- Assuming responsibility, upon request by the DAF, for developing information and preparing analyses on issues for which the FAA has special expertise;
- Making staff support available to enhance interdisciplinary review capability and provide specific comments (40 CFR §1503.3);
- Provide review and comments within the timelines prescribed in the program milestone schedule; and
- Responding, in writing, to this request.

The DAF will act as the Lead Agency for purposes of compliance with §7, Endangered Species Act (16 USC §1536); §106, National Historic Preservation Act (16 USC §470f); and similar regulatory consultation or coordination requirements, to include coordination with the FAA. The DAF is amenable to development of a Memorandum of Understanding/Agreement, the content of which will be established between the Cooperating Agencies subsequent to this request.

Should you or your staff have further questions regarding this letter, our points of contact at Headquarters Air Force: Mr. Jack Bush, at (703) 614-0237 (jack.bush@us.af.mil), Headquarters National Guard Bureau: Maj Jason Askins, (240) 612-8492 (jason.asks@us.af.mil) and Mr. Will Strickland, (240) 612-7042, (william.strickland.7@us.af.mil).

MORIARTY.ROBE  
RT.E.1013267584

Digitally signed by  
MORIARTY.ROBERT.E.1013267  
584  
Date: 2022.03.09 07:20:29 -0500

ROBERT E. MORIARTY, P.E., SES  
Deputy Assistant Secretary of the Air Force  
(Installations)

cc:  
SAF/GCN  
AF/A4C  
NGB/A4A/GC  
AFLOA/JAOE





U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Office of Airport Planning and Programming

800 Independence Ave, SW.  
Washington, DC 20591

21 April 2022

Mr. Robert E. Moriarty  
Deputy Assistant Secretary of the Air Force (Installations)  
1665 Air Force Pentagon  
Washington, DC 20330

Dear Mr. Moriarty:

Thank you for your 9 March letter requesting FAA participation as a cooperating agency to the Air Force's preparation of an Environmental Impact Statement (EIS) for proposed F-35A and F-15EX basing. We understand the alternative locations include 1-Naval Air Station Joint Reserve Base New Orleans, LA; 2-Naval Air Station Lemoore, CA; 3-Westfield-Barnes Regional Airport - Westfield, MA; and 4-Fresno Yosemite International Airport, Fresno, CA.

The FAA's Office of Airports (ARP) supports the Air Force's decision to prepare an EIS for this proposal and agrees to be a Cooperating Agency pursuant to 40 CFR §1501.8 for this EIS. As a Cooperating Agency, we agree to assign staff with the goal to help develop a single, comprehensive EIS and joint Record of Decision (ROD)<sup>1</sup> to meet each agency's distinct obligations under the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. §§ 4321 - 4374) to support the decision making of both agencies. In addition, FAA's ARP will:

- Participate in the scoping process.
- Participate in public meetings (as needed or appropriate).
- Upon the Air Force's request, to the extent practical, support the development of information and analyses, including portions of the EIS concerning issues for which ARP has special expertise, with the following exceptions:
  - During document reviews, ARP can develop descriptions specific to our action and role as a cooperating agency and make recommendations to the Air Force to correct missing information or deficiencies in the analysis associated with ARP's jurisdiction by law and special expertise.
  - ARP is relying on the Air Force, as lead agency, to fund major activities or analyses it requests from ARP pursuant to 40 CFR 1501.8(b)(3). Specifically, the modeling and analysis of military and civil aircraft noise impacts for each civil airport location.

---

<sup>1</sup> A determination to prepare a joint ROD is dependent on the DAF selected alternative once the Final EIS is completed. For example, if DAF selects an alternative that does not involve a civil airport location, a joint ROD may not be necessary.

- To the extent practicable, support the Air Force’s interdisciplinary review capability pursuant to 40 CFR §1501.8 (b)(4).
- Consult with the Air Force in development of a schedule, meet the schedule, and elevate, as appropriate, to the senior Air Force official, any issues relating to purpose and need, alternatives, or other issues that may affect ARP’s ability to meet the Air Force’s schedule.
- Review and provide comments regarding matters for which ARP has jurisdiction by law and special expertise consistent with 40 CFR §1503.2 and specific comments pursuant to 40 CFR §1503.3, as well as ensuring the EIS is legally sufficient for the purposes of relying on this EIS pursuant to 40 CFR §1506.3 associated with ARP’s separate but connected action.

We also support your offer to, and request that the Air Force develop a Memorandum of Understanding or Agreement with FAA’s ARP, subsequent to receiving this response.

For the civil airports associated with the Air Force’s proposed action, please note where FAA’s ARP has jurisdiction by law, ARP will be an “action agency” on behalf of the FAA. Under the Airport and Airway Improvement Act of 1982 (49 U.S.C. 47101) and relevant implementing regulations, ARP must approve of any changes to an airport sponsor’s Airport Layout Plan (ALP). This approval, consistent with provisions under 49 U.S.C 47101 and Section 163 of the 2018 FAA Reauthorization Act, is a major federal action requiring compliance with NEPA. ARP’s action, however, is not substantially the same as the Air Force’s action. Therefore, and in addition to being a Cooperating Agency, FAA’s ARP needs to ensure the Air Force, as the lead agency, prepares an EIS that is sufficient for our independent obligation to comply with NEPA. This includes ensuring that the EIS meets statutory requirements pursuant to NEPA, regulatory requirements pursuant to 40 CFR Parts 1500-1508, and FAA Order 1050.1F “Environmental Impacts: Policies and Procedures for administering NEPA” so ARP may rely on the final EIS and sign a joint ROD.

We support and emphasize the importance of the development of joint environmental documents pursuant to 40 CFR §1501.7(g) and §1501.8(b)(8). If FAA’s ARP is unable to make a determination the EIS is not sufficient for the purposes of our compliance with NEPA, this could cause a considerable delay in our environmental review process, which would ultimately delay the Air Force/NGB. This is because the Air Force/NGB proposals are not eligible for federal financial assistance from the FAA to the airport sponsor via the FAA’s Airport Improvement Program, so the Air Force/NGB would have to fund development of a new analysis or the Airport Sponsor would have to fund it.

Since the Air Force’s proposed action involves multiple locations nation-wide, the ARP Planning and Environmental Division (Headquarters) will be lead office within the FAA for the development of the EIS. However, we understand that in addition to, and in conjunction with the development of this EIS, the NGB is preparing two Environmental Assessments (EAs) for proposed F-15EX basing at two alternative locations, Kingsley Field Air National Guard Base (ANGB) in Klamath Falls, Oregon and Portland ANGB in Portland, Oregon. Since this NGB proposal involves two civilian airports, Klamath Regional Airport and Portland International Airport, within a single state, the local Airports District Office will be

the lead within the FAA for the development of the two EAs. However, we will ensure our participation in the NEPA processes for the EIS and the two EAs for these aircraft basing actions is consistent and we will coordinate internally, as appropriate.

I trust this is responsive to your request and we look forward to working with your team to develop an achievable schedule and support the Air Force throughout the NEPA process. If you or your staff have any questions or concerns, the headquarters point of contact is Ms. Susan Staehle at [susan.staehle@faa.gov](mailto:susan.staehle@faa.gov).

Sincerely,

**Robert John Craven**

Digitally signed by Robert John  
Craven  
Date: 2022.04.21 15:23:45 -04'00'

Robert J. Craven  
Director, Office of Airport Planning and Programming

Cc:

Ms. Heather Fernuik, Director, Airports Division, Northwest Mountain Region  
Ms. Ilon Logan, Environmental Protection Specialist, Airports Division, Northwest Mountain Region  
Mr. Richard Doucette, Environmental Protection Specialist, Airports Division, New England Region  
Mr. Dave Kessler, Environmental Protection Specialist, Airports Division, Western Pacific Region

The sample scoping letter following was distributed to the list below:

**104<sup>th</sup> Fighter Wing, Barnes Air National Guard Base, MA**

U.S. Fish and Wildlife Service, Northeast Regional Office, 300 Westgate Center Dr, Hadley, MA 01035  
U.S. Environmental Protection Agency, Region 1, 5 Post Office Square, Ste 100, Boston, MA 02109-3912  
U.S. Army Corps of Engineers, 696 Virginia Rd, Concord, MA 01742-2751  
U.S. Department of Agriculture, Natural Resources Conservation Service, 451 West St, #1, Amherst, MA 01002-2995  
Massachusetts Environmental Policy Act Office, 100 Cambridge St, Ste 900, Boston, MA 02114  
Natural Heritage and Endangered Species Program, Massachusetts Division of Fisheries and Wildlife, 1 Rabbit Hill Rd, Westborough, MA 01581  
Commissioner Ronald Amidon, Department of Fish and Game, 251 Causeway St, Ste 400, Boston, MA 02114  
Mr. Andrew Madden, District Supervisor, Massachusetts Division of Fisheries and Wildlife, Western Wildlife District, 88 Old Windsor Rd, Dalton, MA 01226  
Massachusetts Department of Transportation, 10 Park Plaza, Ste 4160, Boston MA, 02116  
Massachusetts Division of Wildlife, Massachusetts Department of Conservation and Recreation, Division of Planning and Engineering, 251 Causeway St, 9<sup>th</sup> Fl, Boston, MA 02114  
Massachusetts Department of Public Health, 250 Washington St, Boston, MA 02108  
Pioneer Valley Planning Commission, 60 Congress St, Springfield, MA 01104  
City of Westfield Planning Department, City Hall – Room 300, 59 Court St, Westfield, MA 01085  
The Honorable Michael McCabe, Mayor of Westfield, City Hall – Room 202, 59 Court St, Westfield, MA 01085  
Mr. Peter Miller, Director, City of Westfield, Community Development Department, City Hall – Room 300, 59 Court St, Westfield, MA 01085  
Ms. Colleen D'Alessandro, Regional Administrator, Federal Aviation Administration, New England Region, 1200 District Ave, Burlington, MA 01803-5299  
The Honorable Edward Markey, United States Senate, 255 Dirksen Senate Office Building, Washington, DC 20510  
The Honorable Elizabeth Warren, United States Senate, 309 Hart Senate Office Building, Washington, DC 20510  
The Honorable Richard Neal, U.S. House of Representatives, 372 Cannon House Office Building, Washington, DC 20515  
The Honorable Kelly Pease, Commonwealth of Massachusetts, 24 Beacon St, Boston, MA 02133  
The Honorable John Velis, Commonwealth of Massachusetts, 24 Beacon St, Room 70, Boston, MA 02133  
The Honorable Charlie Baker, Governor, Massachusetts State House, 24 Beacon St, Office of the Governor, Room 280, Boston, MA 02133  
Northeast States for Coordinated Air Use Management, 89 South St, Ste 602, Boston, MA 02111  
Zoning Board of Appeals, City of Westfield, 59 Court St, Westfield, MA 01085  
Westfield Public Schools, 94 N Elm St, Westfield, MA 01085  
Mr. John Peters, Jr., Executive Director, Massachusetts Commission on Indian Affairs, 100 Cambridge St, Ste 300, Boston, MA 02114  
City of Westfield Water Department, 28 Sackett St, Westfield, MA, 01085

**144<sup>th</sup> Fighter Wing, Fresno Air National Guard Base, CA**

The Honorable Jim Costa, U.S. House of Representatives, 2081 Rayburn HOB, Washington, DC 20515  
The Honorable Diane Feinstein, U.S. Senate, 331 Hart Senate Office Building, Washington, DC 20510

The Honorable Alex Padilla, U.S. Senate, 112 Hart Senate Office Building, Washington, DC 20510  
The Honorable Andreas Borgeas, California State Senate, 567 W Shaw Ave, Ste A-3, Fresno, CA 93704  
The Honorable Joaquin Arambula, California State Assembly, 2550 Mariposa Mall, Room 5031, Fresno, CA 93721  
USEPA Environmental Review Office, 75 Hawthorne St, San Francisco, CA 94105  
U.S. Fish and Wildlife Service, San Joaquin Valley Branch Service, 2800 Cottage Way, Sacramento, CA 95825  
U.S. Army Corps of Engineers, Sacramento District Planning Division, 1325 J St, Sacramento, CA 95814  
Mr. Scott, Morgan, State of California Clearinghouse, Governor's Office, 1400 Tenth St, Room 100, Sacramento, CA 95814  
San Joaquin Valley Air Pollution Control District, 1990 E Gettysburg Ave, Fresno, CA 93726  
Fresno County Public Works and Planning Department, 2220 Tulare St, 6<sup>th</sup> Fl, Fresno, CA 93721  
Council of Fresno County Governments, 2035 Tulare St, Ste 201, Fresno, CA 93721  
City of Fresno, Economic Development Department, 2600 Fresno St, Room 2075, Fresno, CA 93721  
Ms. Jennifer Clark, City of Fresno Planning Department, 2600 Fresno St, Room 3043, Fresno, CA 93721-3604  
Mr. Mark Davis, Fresno Yosemite International Airport, Airport Administration, 4995 E Clinton Way, Fresno, CA 93727  
Mr. Barry Franklin, Federal Aviation Administration, San Francisco Airports District Office, 1000 Marina Blvd, Ste 115, Brisbane, CA 94005-1863  
Ms. Amy Dutschke, Regional Director, Bureau of Indian Affairs, Central California Agency, 650 Capitol Mall, Ste 8-500, Sacramento, CA 95814  
Westlands Water District, 3130 N Fresno St, Fresno, CA, 93703

#### **144<sup>th</sup> Fighter Wing, Naval Air Station Lemoore, CA**

The Honorable Jim Costa, U.S. House of Representatives, 2081 Rayburn HOB, Washington, DC 20515  
The Honorable Diane Feinstein, U.S. Senate, 331 Hart Senate Office Building, Washington, DC 20510  
The Honorable Alex Padilla, U.S. Senate, 112 Hart Senate Office Building, Washington, DC 20510  
The Honorable Melissa Hurtado, California State Senate, 1021 O St, Room 7310, Sacramento, CA 95814  
Mr. The Honorable Rudy Salas, Jr., California State Assembly, PO Box 942849, Sacramento, CA 94249-0032  
USEPA Environmental Review Office, 75 Hawthorne St, San Francisco, CA 94105  
U.S. Fish and Wildlife Service, Pacific Southwest Region Headquarters, 2800 Cottage Way, Sacramento, CA 95825  
U.S. Army Corps of Engineers, Sacramento District Planning Division, 1325 J St, Sacramento, CA 95814  
Mr. Scott Morgan, State of California Clearinghouse, Governor's Office, 1400 Tenth St, Room 100, Sacramento, CA 95814  
San Joaquin Valley Air Pollution Control District, 1990 E Gettysburg Ave, Fresno, CA 93726  
Lemoore Public Works Department, 711 W Cinnamon Dr, #B, Lemoore, CA 93245  
City of Lemoore, Community Development, 711 W Cinnamon Dr, Lemoore, CA 93245  
Fresno Yosemite International Airport, Airport Administration, 4995 E Clinton Way, Fresno, CA 93727  
Mr. Barry Franklin, Federal Aviation Administration, San Francisco Airports District Office, 1000 Marina Blvd, Ste 115, Brisbane, CA 94005-1863  
Kings County Economic Development Corporation, 120 N Irwin St, Hanford, CA 93230  
Ms. Amy Dutschke, Regional Director, Bureau of Indian Affairs, Central California Agency, 650 Capitol Mall, Ste 8-500, Sacramento, CA 95814  
Ms. Christina Snider, Executive Secretary, California Native American Heritage Commission, 1550 Harbor Blvd, Ste 100, West Sacramento, CA 95691  
Westlands Water District, 3130 N Fresno St, Fresno, CA, 93703



**159<sup>th</sup> Fighter Wing, Naval Air Station Joint Reserve Base New Orleans, Belle Chasse, LA**

The Honorable Bill, Cassidy, M.D., U.S. Senate, 520 Hart Senate Office Building, Washington, DC 20510

The Honorable John Kennedy, U.S. Senate, 416 Russell Senate Building, Washington, DC 20510

The Honorable Steve Scalise, U.S. House of Representatives, 2049 Rayburn HOB, Washington, DC 20515

The Honorable Mack Cormier, Louisiana House of Representatives, 8857 Highway 23, Belle Chasse, LA 70037

The Honorable Gary Carter, Jr., Louisiana State Senate, 2401 Westbend Parkway, Ste 3071, New Orleans, LA 70114

U.S. Environmental Protection Agency, Region 6, 1201 Elm St, Ste 500, Dallas, TX 75270

Mr. Jeff Roesel, New Orleans Regional Planning Commission, 10 Veterans Blvd, New Orleans, LA 70124

The Honorable John Bel Edwards, Governor of Louisiana, PO Box 94004, Baton Rouge, LA 70804

Mr. Keith Lovell, State of Louisiana, Department of Natural Resources, Office of Coastal Management, PO Box 94396, Baton Rouge, LA 70804-9396

State of Louisiana, Department of Wildlife and Fisheries, PO Box 98000, Baton Rouge, LA 70898

Mr. Tony Robinson, FEMA Region VI, Federal Regional Center, 800 North Loop 288, Denton, TX 76209

Mr. Chad Kacir, USDA NRCS, 3737 Government St, Alexandria, LA 71302

Louisiana Department of Transportation & Development, 1201 Capitol Access Rd, Baton Rouge, LA 70802

U.S. Fish and Wildlife Service, Louisiana Ecological Services, 200 Dulles Dr, Lafayette, LA 70506

Gulf Intracoastal Canal Association, PO Box 2698, Covington, LA 70434

U.S. Army Corps of Engineers, 7400 Leake Ave, #3651, New Orleans, LA 70118

Plaquemines Parish Economic Development, 333 F. Edward Hebert Blvd, Bldg 100, Belle Chasse, LA 70037

Mr. Kirk Lepine, Parish President, Plaquemines Parish, 333 F. Edward Hebert Blvd, Bldg 100, Belle Chasse, LA 70037

Ms. Ametra Rose, Plaquemines Parish, 333 F. Edward Hebert Blvd, Bldg 300, Belle Chasse, LA 70037

Plaquemines Parish Association of Business and Industry, 8207 LA-23, Belle Chasse, LA 70037

Mr. Benedict Rousselle, Plaquemines Parish Council, 333 F. Edward Hebert Blvd., Building 203, Room C107, Belle Chasse, LA 70037

Bureau of Indian Affairs, Eastern Regional Office, 545 Marriott Dr, Ste 700, Nashville, TN 37214

Plaquemines Parish Water Department, 333 F. Edward Hebert Blvd, Belle Chasse, LA 70037



**Sample Agency Letter**

**NATIONAL GUARD BUREAU**  
3501 FETCHET AVENUE JOINT BASE ANDREWS 20762-5157

**JUL 22 2022**

NGB/A4AM

The Honorable Melissa Hurtado  
California State Senate  
1021 O St, Room 7310  
Sacramento CA 95814

Dear Ms. Hurtado

The National Guard Bureau (NGB) pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 United States [U.S.] Code 4321 et seq.), is preparing an Environmental Impact Statement (EIS) for the beddown of one squadron of 21 F-15EX aircraft at two of three alternative locations and one squadron of 21 F-35A aircraft at one of four alternative locations. The beddowns would include associated construction projects and a minor increase of personnel (approximately 80–100) in support of each of the aircraft beddowns. These beddowns would replace the existing F-15C/D aircraft that currently operate at each of the locations. Those existing aircraft would be retired from the inventory due to their age and resulting maintenance costs.

The alternative locations include:

- Westfield-Barnes Regional Airport, Massachusetts where the Air National Guard's (ANG's) 104<sup>th</sup> Fighter Wing resides;
- Fresno Yosemite International Airport, California, where the Air National Guard's 144<sup>th</sup> Fighter Wing resides;
- Naval Air Station (NAS) Joint Reserve Base (JRB) New Orleans, Belle Chasse, Louisiana; where the Air National Guard's 159<sup>th</sup> Fighter Wing resides; and
- NAS Lemoore, California.

Each of these locations is a candidate for either the F-15EX or the F-35A aircraft, with the exception of NAS Lemoore, which is a candidate for the F-35A only. Additionally, should the decision-maker decide to not beddown either of these aircraft at one or more of these locations, it is feasible that any of these locations could continue operating with their existing legacy F-15C/D model aircraft for a limited time, in which case, construction associated with operating those legacy aircraft into the future is also being analyzed.

The purpose of the undertaking is to maintain combat capability and mission readiness in the full spectrum of Department of the Air Force (DAF) aircraft as the ANG faces deployments for conflicts abroad, while also providing for homeland defense. The proposed beddown and operation of the F-15EX and the F-35A would represent a significant step toward meeting the DAF's goals. The beddown action and follow-on training would ensure availability of combat-ready pilots utilizing the most advanced fighter aircraft in the world. The action is needed to replace aging F-15C/D aircraft, which would be retired from service due to the age of the aircraft and the resulting maintenance costs.

The DAF and the NGB are the lead agencies for the Proposed Action. The Federal Aviation Administration (FAA) and Department of the Navy (Navy) are cooperating agencies because two of the alternative locations are on joint-use airfields where the FAA may have a federal action in approving changes to the Airport Layout Plan, and two of the alternative locations are on Navy installations where the Navy has special expertise and may have a connected federal action.

The NGB invites you to attend a public scoping meeting at one of the times and locations listed below. We will be holding both virtual and in-person meetings for each location. For your convenience, the NGB is providing an in-person session for agency staff at each location during the workday (2:00–4:00 p.m.), though we welcome your attendance during the later time, which is open for the public (5:00–7:00 p.m.), and/or during the virtual meetings. The dates, times, and addresses for the public scoping meetings are:

<p><b>Fresno ANGB</b>  <b>In-person meeting</b>  August 9, 2022  2:00 to 4:00 p.m. and 5:00 to 7:00 p.m.  Piccadilly Inn Airport  5115 E McKinley Ave  Fresno, CA 93727  <b>Virtual meeting</b>  August 25, 2022  5:30 to 6:30 p.m.  <a href="http://www.ANGF15EX-F35A-EIS.com">www.ANGF15EX-F35A-EIS.com</a></p>	<p><b>NAS Lemoore</b>  <b>In-person meeting</b>  August 10, 2022  2:00 to 4:00 p.m. and 5:00 to 7:00 p.m.  L.T.A. Portuguese Hall  470 Champion St  Lemoore, CA 93245  <b>Virtual meeting</b>  August 25, 2022  5:30 to 6:30 p.m.  <a href="http://www.ANGF15EX-F35A-EIS.com">www.ANGF15EX-F35A-EIS.com</a></p>
<p><b>NAS JRB New Orleans</b>  <b>In-person meeting</b>  August 16, 2022  2:00 to 4:00 p.m. and 5:00 to 7:00 p.m.  Belle Chasse Auditorium  8398 LA-23  Belle Chasse, LA 70037  <b>Virtual meeting</b>  August 23, 2022  5:30 to 6:30 p.m.  <a href="http://www.ANGF15EX-F35A-EIS.com">www.ANGF15EX-F35A-EIS.com</a></p>	<p><b>Barnes ANGB</b>  <b>In-person meeting</b>  August 18, 2022  2:00 to 4:00 p.m. and 5:00 to 7:00 p.m.  Westfield Intermediate School  350 Southampton Rd  Westfield, MA 01085  <b>Virtual meeting</b>  August 24, 2022  5:30 to 6:30 p.m.  <a href="http://www.ANGF15EX-F35A-EIS.com">www.ANGF15EX-F35A-EIS.com</a></p>

Further, the NGB requests information or agency-specific preliminary comments that would alleviate or highlight areas of concerns preceding this EIS. Areas of concern may include potential effects to: physical, ecological, social, cultural, and archaeological resources. The NGB also requests any information that your agency may have regarding other proposed, ongoing, or recently completed projects that could create or exacerbate impacts resulting from the Proposed Action.

Please respond within thirty (30) days of receipt of this letter to Will Strickland, ATTN: F-15EX, F-35A EIS, 3501 Fetchet Avenue, Joint Base Andrews, MD 20762-5157 or by email at [NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil](mailto:NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil) with the subject titled as ATTN: F-15EX, F-35A EIS. Thank you for your assistance.

Sincerely,



Will Strickland, NGB/A4AM  
Environmental Planning Lead



JOE NEVES – DISTRICT 1  
LEMOORE & STRATFORD  
RICHARD VALLE – DISTRICT 2  
AVENAL, CORCORAN, HOME GARDEN  
& KETTLEMAN CITY  
DOUG VERBOON – DISTRICT 3  
NORTH HANFORD, ISLAND DISTRICT  
& NORTH LEMOORE  
CRAIG PEDERSEN – DISTRICT 4  
ARMONA & HANFORD  
RICHARD FAGUNDES – DISTRICT 5  
HANFORD & BURRIS PARK

## **COUNTY OF KINGS BOARD OF SUPERVISORS**

MAILING ADDRESS: KINGS COUNTY GOVERNMENT CENTER, HANFORD, CA 93230  
OFFICES AT: 1400 W. LACEY BLVD., ADMINISTRATION BUILDING # 1, HANFORD  
(559) 852-2362, FAX: (559) 585-8047  
Web Site: <http://www.countyofkings.com>

August 2, 2022

EIS Project Manager  
National Guard Bureau NGB/A4AM  
Sheppard Hall, 3501 Fetchet Ave.  
Joint Base Andrews MD 20762-5157

### **RE: Support for the F-35A Lightning II Operational Beddown at Naval Air Station Lemoore**

To Whom It May Concern:

On behalf of the Kings County Board of Supervisors, we are writing to express our support for the F-35A Lightning II Operational Beddown at Naval Air Station (NAS) Lemoore. We are extremely pleased that the Department of the Air Force and the National Guard Bureau are considering Lemoore as one of the preferred locations for beddowns of these aircraft. Kings County has enjoyed a mutually beneficial relationship with NAS Lemoore since 1961 when the naval air station was first commissioned, and we fully support its continuing operation.

The Board of Supervisors wishes to formally communicate the views of its constituents, the residents of Kings County, as favoring the Department of the Air Force and National Guard Bureau's decision to consider NAS Lemoore as the location of the F-35A Lightning II.

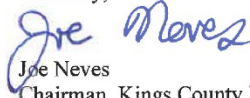
NAS Lemoore is highly respected and considered a vital community in our county. We recognize the importance of the military in our great nation and applaud the families that commit their lives to defending our freedom. Many military families, based at NAS Lemoore, call Kings County home, and are integral to this county.

NAS Lemoore is a major economic driver for our local economy. According to the 2020 Economic Impact Assessment, NAS Lemoore contributed more than \$947 million to local economies in Kings and Fresno counties. With an excess of 11,800 jobs attributed to the base, and a payroll exceeding \$475 million, NAS Lemoore represents the single largest employer in Kings County. The continued success of NAS Lemoore is critical to our local economy.



We stand firm in our commitment to the support of NAS Lemoore – the nation’s premier Naval master jet base. Please know that the County of Kings and the Kings County Board of Supervisors highly support the Department of the Air Force and National Guard Bureau’s decision to consider locating the F-35A Lightning II at NAS Lemoore.

Sincerely,



Joe Neves

Chairman, Kings County Board of Supervisors

cc: Rear Admiral Bradley N. Rosen, Commander, Navy Region Southwest  
Captain Douglas Petersen, Commanding Officer, NAS Lemoore  
Senator Diane Feinstein  
Senator Alex Padilla  
Representative David G. Valadao  
Lance Lippincott, Kings County EDC

**From:** [Meng Heu](#)  
**To:** [NGB A4/A4A NEPA COMMENTS Org](#)  
**Subject:** [Non-DoD Source] EIS for the beddown of 21 F-15Ex and 21 F-35A  
**Date:** Monday, August 8, 2022 2:35:07 PM

---

Hello,

Has this document already been filed with SCH? If not, this can be done at  
<https://ceqasubmit.opr.ca.gov/>

Thank you.

*Meng Heu*

Office of Planning and Research (OPR)  
State Clearing House

**\*\*Note:** No reply, response, or information provided constitutes legal advice.

***Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Final – November 2024***

---

**From:** [Mouton, Mitchell - NRCS, ALEXANDRIA, LA](#)  
**To:** [NGB A4/A4A NEPA COMMENTS Org](#)  
**Cc:** [McDuffie, Windsor - NRCS, Alexandria, LA](#); [Mendoza, Susana - FPAC-NRCS, ALEXANDRIA, LA](#)  
**Subject:** [Non-DoD Source] ATTN: F-15EX, F-35A EIS  
**Date:** Wednesday, August 10, 2022 10:26:01 AM  
**Attachments:** [Response Letter - F-15EX & F-35A Operation Beddowns - NAS JRB New Orleans - Belle Chasse, LA.pdf](#)

---

Attached is an NRCS response letter and AD-1006 for this project.

Please let me know if you have any questions!

Best Regards,

**Mitchell Mouton**

Louisiana State Soil Scientist  
USDA-NRCS Soils Section  
3737 Government Street  
Alexandria, LA 71302  
Work (318) 473-7789  
Cell (318) 955-6118  
Email: [mitchell.mouton@la.usda.gov](mailto:mitchell.mouton@la.usda.gov)



United States Department of Agriculture

---

August 10, 2022

Will Strickland, NGB/A4AM, Environmental Planning Lead  
Attn: F-15EX, F-35A EIS  
3501 Fetchet Avenue  
Joint Base Andrews, MD

RE: F-15EX, F-35A EIS  
NAS JRB New Orleans, Belle Chasse, Louisiana

Dear Will:

I have reviewed the above referenced project for potential requirements of the Farmland Protection Policy Act (FPPA) and potential impact to Natural Resources Conservation Service projects in the immediate vicinity.

Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.

The project map and narrative submitted with your request indicates that the proposed construction areas for either the F-15EX or F-35A at NAS JRB New Orleans, Belle Chasse, Louisiana will not impact prime farmland and therefore is exempt from the rules and regulations of the Farmland Protection Policy Act (FPPA)—Subtitle I of Title XV, Section 1539-1549. Furthermore, we do not predict impacts to NRCS work in the vicinity.

For specific information about the soils found in the project area, please visit our Web Soil Survey at the following location: <http://websoilsurvey.nrcs.usda.gov/>

Please direct all future correspondence to me at the address shown below.

Respectfully,

A handwritten signature in black ink, appearing to read "Mitchell J. Mouton".

Mitchell J. Mouton  
State Soil Scientist

Attachment



Natural Resources Conservation Service  
State Office  
3737 Government Street  
Alexandria, Louisiana 71302  
Voice: (318) 473-7751 Fax: (844) 325-6947

*Helping People Help the Land*

USDA is an Equal Opportunity Provider, Employer, and Lender

U.S. Department of Agriculture									
FARMLAND CONVERSION IMPACT RATING									
<b>PART I</b> (To be completed by Federal Agency)					Date Of Land Evaluation Request 7/22/22				
Name Of Project F-15EX, F-35A EIS - NAS JRB New Orleans					Federal Agency Involved DAF/NGB				
Proposed Land Use Aircraft Beddown Locations					County And State Plaquemines Parish, LA				
<b>PART II</b> (To be completed by NRCS)					Date Request Received By NRCS 7/26/22				
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply -- do not complete additional parts of this form).					Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Acres Irrigated		Average Farm Size
Major Crop(s)		Farmable Land In Govt. Jurisdiction Acres: %		Amount Of Farmland As Defined in FPPA Acres: %					
Name Of Land Evaluation System Used		Name Of Local Site Assessment System		Date Land Evaluation Returned By NRCS 8/10/22					
<b>PART III</b> (To be completed by Federal Agency)					Alternative Site Rating				
					Site A	Site B	Site C	Site D	
A. Total Acres To Be Converted Directly									
B. Total Acres To Be Converted Indirectly									
C. Total Acres In Site					0.0	0.0	0.0	0.0	
<b>PART IV</b> (To be completed by NRCS) Land Evaluation Information									
A. Total Acres Prime And Unique Farmland									
B. Total Acres Statewide And Local Important Farmland									
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted									
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value									
<b>PART V</b> (To be completed by NRCS) Land Evaluation Criterion									
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)					0	0	0	0	
<b>PART VI</b> (To be completed by Federal Agency)					Maximum Points				
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))									
1. Area In Nonurban Use									
2. Perimeter In Nonurban Use									
3. Percent Of Site Being Farmed									
4. Protection Provided By State And Local Government									
5. Distance From Urban Builtup Area									
6. Distance To Urban Support Services									
7. Size Of Present Farm Unit Compared To Average									
8. Creation Of Nonfarmable Farmland									
9. Availability Of Farm Support Services									
10. On-Farm Investments									
11. Effects Of Conversion On Farm Support Services									
12. Compatibility With Existing Agricultural Use									
TOTAL SITE ASSESSMENT POINTS					160	0	0	0	0
<b>PART VII</b> (To be completed by Federal Agency)									
Relative Value Of Farmland (From Part V)					100	0	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)					160	0	0	0	0
TOTAL POINTS (Total of above 2 lines)					260	0	0	0	0
Site Selected:					Date Of Selection				
Reason For Selection:					Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input type="checkbox"/>				

(See Instructions on reverse side)

This form was electronically produced by National Production Services Staff

Clear Form

Form AD-1006 (10-83)

***Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Final – November 2024***

---

**From:** [Rhonda Braud](#)  
**To:** [NGB A4/A4A NEPA COMMENTS Org](#)  
**Cc:** [Ennis Johnson](#)  
**Subject:** [Non-DoD Source] ATTN: F-15EX, F-35A EIS  
**Date:** Friday, August 12, 2022 11:35:09 AM  
**Attachments:** [Letter 22iv22.pdf](#)

---

Dear Will Strickland,

I have received notification in the mail regarding the project noted above. (Team #3915 for my reference)

If the beddown is located in Louisiana, the applicant may be responsible for the following:

- 1) Obtaining a levee (408) permit/or letter of no objection from the United States Army Corps of Engineers, the Coastal Protection & Restoration Authority, and the local Louisiana Levee District
- 2) Obtaining a permit from the Louisiana Department of Transportation and Development if the project occurs within Louisiana DOTD right-of-way (eg crosses the road or discharges into a state-owned ditch)
- 3) Coordinating with the State Historic Preservation Office
- 4) Coordinating with the Parish Floodplain Coordinator
- 5) Obtaining a wetlands (404) permit from United States Army Corps of Engineers
- 6) Coordinating with the United States Fisheries and Wildlife Service, the National Oceanic and Atmospheric Administration, and/or the Louisiana Department of Wildlife and Fisheries regarding Endangered/Threatened Species/Habitat affected
- 7) Obtaining a permit from the Louisiana Department of Natural Resources if the project is within the Coastal Zone

The applicant is responsible for any additional local, state, or federal permits. Please contact the District Permit Specialist Ennis Johnson at (504) 437-3103 for more information.

Sincerely,

*Rhonda F. Braud, P.E.*

Environmental Engineer  
LADOTD, Section 28  
(225) 242-4532

1

***Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Final – November 2024***

---

**From:** [Williams, Loukisha](#)  
**To:** [NGB A4/A4A NEPA COMMENTS Org](#)  
**Cc:** [jlandry@nola.gov](mailto:jlandry@nola.gov)  
**Subject:** [Non-DoD Source] Attn: F-15EX, F-35A EIS  
**Date:** Monday, August 15, 2022 3:21:21 PM  
**Attachments:** [image001.jpg](#)  
[Belle Chase LA.pdf](#)  
[Environmental Review Belle Chase LA.docx](#)

---

**Will Strickland**  
Environmental Planning Lead  
NGB/A4AM  
3501 Fetchet Avenue  
Joint Base Andrews, MD 20762

Mr. Strickland,

Thank you for contacting FEMA for information in reference to your questions pertaining to Request for comments for the beddown of one of your squadron of 21F-15EX aircraft construction project request for information. Please review our attached response.

**Loukisha Williams**  
Program Support Assistant  
Floodplain Management & Insurance  
Mitigation-Region 6  
O: 940-383-7228      Mobile: (202) 258-3794  
[Loukisha.Williams@fema.dhs.gov](mailto:Loukisha.Williams@fema.dhs.gov)



U. S. Department of Homeland Security  
FEMA Region 6  
800 North Loop 288  
Denton, TX 76209-3698



**FEMA**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
REGION 6  
MITIGATION DIVISION

RE: Request for information: Attn: F-15EX, F-35A EIS

NOTICE REVIEW/ENVIRONMENTAL CONSULTATION

---

☐ We have no comments to offer. ☒ We offer the following comments:

**WE WOULD REQUEST THAT THE COMMUNITY FLOODPLAIN ADMINISTRATOR BE  
CONTACTED FOR THE REVIEW AND POSSIBLE PERMIT REQUIREMENTS FOR THIS  
PROJECT. IF FEDERALLY FUNDED, WE WOULD REQUEST PROJECT TO BE IN  
COMPLIANCE WITH EO11988 & EO 11990.**

**New Orleans, LA**  
Jerome Landry  
Floodplain Manager  
Dept. of Safety and Permits  
1300 Perdido Street, 7th FL  
New Orleans, LA 70112  
[jlandry@nola.gov](mailto:jlandry@nola.gov)  
(504) 658 – 7127

---

REVIEWER:

*Loukisha Williams*  
Floodplain Management and Insurance Branch  
Mitigation Division  
(940) 383-7228

DATE: 08/15/2021



***Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Final – November 2024***

---

**From:** [Meng Heu](#)  
**To:** [NGB A4/A4A NEPA COMMENTS Org](#)  
**Subject:** [Non-DoD Source] RE: EIS for the beddown of 21 F-15Ex and 21 F-35A  
**Date:** Tuesday, August 16, 2022 11:30:23 AM

---

Good Morning,

I am following up on my last email.

Has this document already been filed with SCH? If not, this can be done at  
<https://ceqasubmit.opr.ca.gov/>

Thank you.

---

**From:** Meng Heu  
**Sent:** Monday, August 8, 2022 1:35 PM  
**To:** [ngb.a4.a4a.nepa.comments.org@us.af.mil](mailto:ngb.a4.a4a.nepa.comments.org@us.af.mil)  
**Subject:** EIS for the beddown of 21 F-15Ex and 21 F-35A

Hello,

Has this document already been filed with SCH? If not, this can be done at  
<https://ceqasubmit.opr.ca.gov/>

Thank you.

*Meng Heu*

Office of Planning and Research (OPR)  
State Clearing House

**\*\*Note:** No reply, response, or information provided constitutes legal advice.



**DIVISION OF  
FISHERIES & WILDLIFE**

1 Rabbit Hill Road, Westborough, MA 01581  
p: (508) 389-6300 | f: (508) 389-7890  
**MASS.GOV/MASSWILDLIFE**

August 30, 2022

Mr. Will Strickland  
ATTN: F-15EX, F35A EIS  
3501 Fetchet Avenue  
Joint Base Andrews, MD 02762-5157

*Project Name:* Westfield-Barnes Regional Airport, Air National Guard (ANG) 104<sup>th</sup> Fighter Wing  
*Candidate Location for Aircraft Replacement and/or Facility Modifications*  
*Proponent:* National Guard Bureau (NGB) and Department of the Air Force (DAF)  
*Location:* Barnes ANG Base & Westfield-Barnes Regional Airport, Westfield MA  
*Project Description:* Beddown of one squadron of 21 F-15EX or F-35A aircraft with construction improvements (or retain existing F-15C/D aircraft with facility modifications)  
*NHESP Tracking No.:* 10-28624  
*Document Reviewed:* NGB coordination letter noticing the preparation of an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA)

Dear Mr. Strickland:

The Massachusetts Division of Fisheries and Wildlife's (MassWildlife) Natural Heritage & Endangered Species Program received a letter prepared by the NGB providing notice of the preparation of an EIS for the proposed beddown of one squadron of 21 F-15EX or 21 F-35A aircraft with construction improvements (or retain existing F-15C/D aircraft with facility modifications) at Barnes ANGB and Westfield-Barnes Regional Airport, Westfield, MA.

MassWildlife is the agency responsible for the protection and management of the inland fish and wildlife resources of the Commonwealth. The mission of MassWildlife also includes conserving and protecting endangered, threatened and species of special concern pursuant to the Massachusetts Endangered Species Act (MESA; M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00) through the Natural Heritage & Endangered Species Program.

The purpose of MESA is to conserve and protect state-listed rare species and their habitats. The MESA prohibits the unauthorized Take of any state-listed species, which is defined "in reference to animals, to harass, harm, pursue, hunt, shoot, hound, kill, trap, capture, collect, process, disrupt the nesting, breeding, feeding or migratory activity or attempt to engage in any such conduct, or to assist such conduct, and in reference to plants, to collect, pick, kill, transplant, cut or process or attempt to engage or to assist in any such conduct" (M.G.L. c. 131A § 1). The MESA regulations further provide that "the disruption of nesting, feeding or migratory activity may result from, but is not limited to, the modification, degradation or destruction of habitat" (321 CMR 10.02).

**MASSWILDLIFE**

Barnes ANGB and Westfield-Barnes Regional Airport are mapped as Priority Habitat for state-listed species as delineated in the Massachusetts Natural Heritage Atlas. The following species have been documented at the site.

Scientific Name	Common Name	Taxonomic Group	MESA Status
<i>Ammodramus savannarum</i>	Grasshopper Sparrow	Vertebrate Animal	Threatened
<i>Pooecetes gramineus</i>	Vesper Sparrow	Vertebrate Animal	Threatened
<i>Bartramia longicauda</i>	Upland Sandpiper	Vertebrate Animal	Endangered
<i>Sturnella magna</i>	Eastern Meadowlark	Vertebrate Animal	Special Concern
<i>Speranza exonerata</i>	Pine Barrens Speranza	Invertebrate Animal	Special Concern
<i>Zanclognatha martha</i>	Pine Barrens Zanclognatha	Invertebrate Animal	Special Concern
<i>Callophrys irus</i>	Frosted Elfin	Invertebrate Animal	Special Concern
<i>Apodrepanulatrix liberaria</i>	New Jersey Tea Inchworm	Invertebrate Animal	Endangered
<i>Ambystoma opacum</i>	Marbled Salamander	Vertebrate Animal	Threatened
<i>Terrapene carolina</i>	Eastern Box Turtle	Vertebrate Animal	Special Concern
<i>Liatris scariosa</i> var. <i>novae-angliae</i>	New England Blazing Star	Vascular Plant	Special Concern

Based on the preliminary information available, there are several potential projects that may result in the loss of habitat for state-listed species. MassWildlife requests that the EIS provide detailed information on the natural community classifications for areas that may be impacted by anticipated construction projects as well as a calculation of the anticipated temporary and permanent impacts to the natural communities. MassWildlife recommends using Swain, 2016 (Classification of the Natural Communities of Massachusetts. Version 2.0. NHESP. (<https://www.mass.gov/service-details/classification-of-natural-communities>)) as the classification scheme for the habitat and natural community assessment.

In addition to conceptual site plans or figures for the construction projects, MassWildlife recommends that the EIS include an assessment of potential project alternatives or a strategy for avoiding, minimizing, or mitigating potential impacts to state-listed species and their habitats, to the extent practicable.

We appreciate the opportunity to provide preliminary comments. MassWildlife looks forward to receipt of the EIS containing information to evaluate projects and any feasible alternatives or components that facilitate preservation of the state-listed species and their habitats. MassWildlife is available to the EIS project team to provide feedback relative to state-listed species, their habitats, and natural community classifications.

If you have any questions about this letter, please contact Amy Hoenig, Endangered Species Review Biologist, at (508) 389-6364 or [Amy.Hoenig@mass.gov](mailto:Amy.Hoenig@mass.gov).

Sincerely,



Everose Schlüter, Ph.D.  
Assistant Director

**MASSWILDLIFE**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

September 2, 2022

Will Strickland  
National Guard Bureau  
NGB/A4AM  
Shepperd Hall  
3501 Fetchet Avenue  
Joint Base Andrews, MD 20762-5157

**Subject:** Scoping Comments for the Air National Guard F-15EX Eagle II and F-35A Lightning II Beddowns, Barnes Air National Guard Base, Westfield-Barnes Regional Airport, Westfield, Massachusetts; Fresno Yosemite International Airport, Fresno, California; Naval Air Station Lemoore, Lemoore, California; and Naval Air Station Joint Reserve Base New Orleans, Belle Chasse, Louisiana

Dear Mr. Strickland:

The Environmental Protection Agency has reviewed the Notice of Intent (NOI) published on July 19, 2022 regarding the Department of the Air Force, National Guard Bureau's (NGB) decision to prepare an Environmental Impact Statement for the subject project. Our comments are provided pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508) and our NEPA review authority under Section 309 of the Clean Air Act.

The NGB, in cooperation with the Navy and Federal Aviation Administration, proposes to replace the legacy F-15C/D aircraft, which are reaching the end of their service life, with F-15EX and F-35A aircraft. The NGB proposes to beddown one squadron of F-15EX aircraft at two of three alternative locations and one squadron of F-35A aircraft at one of four alternative locations. The proposed basing alternatives include the 104th Fighter Wing at Barnes Air National Guard Base, Westfield-Barnes Regional Airport, Westfield, Massachusetts; the 144th Fighter Wing at Fresno Yosemite International Airport, Fresno, California; the 144th Fighter Wing at Naval Air Station Lemoore, Lemoore, California; and the 159th Fighter Wing at Naval Air Station Joint Reserve Base New Orleans, Belle Chasse, Louisiana. The proposed action also includes personnel needed to operate and maintain the F-15EX and F-35A (100 and 80 personnel respectively), and construction of new and/or modification of existing facilities on the installations supporting the beddowns.

We have the following suggestions for your consideration when preparing the Draft Environmental Impact Statement (DEIS):

**Noise Impacts**

The NGB acknowledges in the NOI the potential for significant impacts from noise. During the virtual public scoping meeting on August 23, 2022, the NGB stated that they did not yet have the noise characteristics for the F-15EX and are committed to doing the studies to obtain that information this year, but expects that noise levels from the F-15EX to be slightly higher than the F-15s they would



replace. The NGB stated that F-35s are "quite a bit louder" than F-15s although the specific flight procedures regarding takeoff and landing could affect noise exposures. According to the NGB, this information would be documented in the DEIS.

Noise is an important impact area that is of interest to the public; therefore, the noise impact assessment should be comprehensive. We recommend the following noise issue areas be addressed in the DEIS:

***Impact Assessment Methodology – Significance Thresholds***

The Federal agencies participating in the Federal Interagency Committee on Urban Noise (FICUN), which included the EPA, Department of Defense, and the U.S. Department of Transportation, including the Federal Aviation Administration, agreed to the use of the A-weighted 65 decibel (dB) Day-Night Average Sound Level (DNL) significance criterion as a metric for noise impact assessments along with the consolidated Federal agency land use compatibility guidelines which indicate that noise levels below 65 dB DNL were generally compatible with residential and public/recreational land use. EPA agrees with the use of this metric and the 65 dB significance criterion as a predictor of annoyance - the primary effect of noise on residential populations; however, it should not be the sole indicator, since, as an averaging metric, it is not always meaningful for the public.<sup>1</sup> This is primarily because a cumulative, 24-hour time-weighted average level is an abstract concept that cannot be directly experienced. Therefore, we recommend the change in noise level over the existing condition also be clearly disclosed in the DEIS for the replacement aircraft. Interpret this change in level for the reader, such as indicating that a 3 dB increase in noise is characterized as "a large change" in the level of noise exposure when the existing condition is below 65 dB, and that this increase can be perceived by people as a degradation of their noise environment. Also disclose that because decibels are on a logarithmic scale, an increase of 10 dBs is experienced as a subjective doubling of loudness.<sup>2</sup> Incorporate recent information regarding annoyance levels obtained from [FAA's Neighborhood Environmental Survey](#). If the noise impact assessment predicts levels at 80 DNL or above, assess the potential for hearing loss, consistent with DoD policy.

If flying procedures to reduce noise are incorporated into noise modeling, clearly disclose this and indicate how much noise reduction in the output is a result of these adjustments. When supplying updated noise contours that would occur under the project, include the number of individuals that would experience each noise contour area, and not just the acreage that would experience the change.

***Special Use Airspace/Impacts from Training***

The project website indicates that the ANG would use the same special use airspace (SUA) that it currently uses for the F-15C/D models, and that noise impacts will be evaluated at the airfield and in the training airspace. For changes in noise in SUAs such as military operation areas and military training routes, the DNL metric is less appropriate since this flight activity is highly sporadic and typically different from that associated with airfield operations for which the 65 DNL significance threshold was intended. As opposed to patterned or continuous noise environments associated with airfields, overflights within these areas can be highly variable in occurrence and location. We recommend the DEIS indicate the change in noise level that would occur for a given area or landmark, and identify the maximum noise levels from training overflights (Lmax) and/or the Sound Exposure Level (SEL) which would capture all the acoustic energy of an individual noise event. Even small noise increases could

---

<sup>1</sup> The Government Accountability Office found that providing information on potential noise impacts grounded in DNL was not clear enough for communities to understand planned changes. <https://www.gao.gov/assets/gao-22-105844.pdf>

<sup>2</sup> Federal Interagency Committee on Noise (FICUN), August 1992. *Federal Agency Review of Selected Airport Noise Analysis Issues*. p. 3-5. Available: [https://fican1.files.wordpress.com/2015/10/reports\\_noise\\_analysis.pdf](https://fican1.files.wordpress.com/2015/10/reports_noise_analysis.pdf)

cause a moderate impact on small communities and isolated homes under SUA where training occurs. Low human population density does not itself equate with low noise sensitivity.

The NGB indicated, in the first virtual public scoping meeting, that none of the SUA associated with the project locations include low flight floors such as 100 or 500-feet above ground level. The DEIS should identify the floor elevations in use in the airspace affected by the project, and indicate whether the Air Force is contemplating lowering the floors or otherwise changing the airspace in the future. We are aware that designated SUA becomes antiquated when aircraft are upgraded and frequently needs to be modified after such upgrades. We have seen aircraft replacement projects and changes in training occurring in separate environmental impact assessments for the same base. We recommend the ANG disclose in the DEIS whether the particular airspace for each of the alternative locations would require future modifications to accommodate the F-35s or F-15EXs. In an attempt to avoid segmenting impacts, efforts should be made to include impacts from any changes to training that the aircraft upgrades would induce.

***Need for Use of Supplemental Metrics, especially Sleep Interference***

Communicating noise impacts using supplemental noise metrics such as speech interference and sleep disturbance improves public understanding of noise exposure and decision makers' ability to make better informed decisions (DoD Technical Bulletin *Using Supplemental Noise Metrics and Analysis Tools*, 2009). Noise-induced sleep disturbance is considered the most deleterious non-auditory effect of environmental noise exposure.<sup>3</sup> We recommend the DEIS include these supplemental metrics.

***Noise Impacts on Communities with Environmental Justice Concerns***

Consistent with Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 16, 1994), Executive Order 13985 - *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* (January 20, 2021) and others, the DEIS should identify minority and low-income census block groups among the population that would experience increased noise impacts and indicate whether these would disproportionately affect low income or minority populations. See the general comment below for more of our recommendations regarding the environmental justice analysis in the DEIS.

***Noise Impacts to Children's Learning***

The DEIS should acknowledge Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks* and disclose that children are vulnerable populations that may suffer more disproportionately from environmental health and safety risks than adults. Short-term exposure of elevated environmental noise can interfere with classroom learning due to increased difficulty in speech intelligibility, and long-term exposure has been correlated to decreased reading comprehension and reduced learning motivation. According to the National Academy of Sciences and the Transportation Research Board, reading, motivation, language and speech, and memory are affected by elevated noise.<sup>4</sup> These represent acoustical barriers to learning, especially for young children since they are more susceptible than adults to the effects of background noise on spoken communication.

Noise impacts may pose a disproportionate health and safety risk to children. The DEIS should identify all schools and daycare centers that could be impacted by noise increases and identify the noise levels from the proposed action and alternatives predicted to classroom interiors, which considers the most

---

<sup>3</sup> Aviation Noise Impacts: State of the Science. Available:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5437751/?report=printable>

<sup>4</sup> [http://onlinepubs.trb.org/onlinepubs/acrp/acrp\\_webdoc\\_034EducatorsHandbook.pdf](http://onlinepubs.trb.org/onlinepubs/acrp/acrp_webdoc_034EducatorsHandbook.pdf)



common building construction materials for sound level attenuation, and modeled to estimate interior noise levels with windows open and closed. Discuss these predicted noise levels in the context of the American National Standards Institute (ANSI) standard (ANSI S12.60-2002, *Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools*). The guidelines are keyed to the acoustical qualities needed to achieve a high degree of speech intelligibility in learning spaces. The standard recommends that core learning spaces having enclosed volumes not greater than 20,000 cubic feet not be exposed to greater than 40 dB of A-weighted unsteady background noise from transportation noise sources for more than 10% of the noisiest hour; for core learning spaces having enclosed volumes greater than 20,000 cubic feet, this level of exposure should not exceed 45 dB for more than 10% of the noisiest hour.

Discuss potential mitigation for schools and daycare centers, including no fly zones over schools. All reasonable mitigation measures should be identified, including a discussion of retrofitting impacted schools with appropriate measures such as adding insulation, adding a second windowpane or replacing windows with better sound attenuation, sealing gaps or leaks in windows and doors, installing baffles in vents and improving the exterior roofing, consistent with radon safety. Identify possible funding sources for this mitigation, even if DoD cannot fund such projects on non-DoD land. Identify the locations that are eligible to receive Airport Improvement Program funding from the FAA and discuss how the ANG can assist in helping schools access these funds as a mitigation measure.

#### ***Non-auditory Health Impacts from Noise, Including to Children***

While there is uncertainty in studies on non-auditory health impacts from noise, there is increasing evidence for a link between exposure to high levels of environmental noise and ill-health, especially regarding cardio-vascular and endocrine health, immune function, sleep loss, and mental health. A 2017 literature review by the International Civil Aviation Organization titled *Aviation Noise: State of the Science* concluded that there is a “good biological plausibility by which noise may affect health in terms of impacts on the autonomic system, annoyance and sleep disturbance,” and that “studies are suggestive of impacts on cardiovascular health especially hypertension.”

For children, Goines and Hagler, in their 2007 review article<sup>5</sup> that summarized several studies from the National Library of Medicine database on the adverse health effects of noise, concluded that children are particularly vulnerable to the effects from noise interference with spoken communication. The inability to comprehend normal speech may lead to a number of personal disabilities, handicaps, and behavioral changes. Children who live in noisy environments have been found to have heightened sympathetic arousal indicated by increased levels of stress-related hormones and elevated resting blood pressure. Noise is assumed to accelerate and intensify the development of latent mental disorders and children may be particularly vulnerable to these effects because they may lack adequate coping mechanisms. The review article concludes that because children are particularly vulnerable to noise-induced abnormalities, they need special protection. We recommend the DEIS identify the health vulnerabilities from noise that are particular to children, and how the ANG would ensure children are protected to the maximum extent under the proposed action.

#### ***Supersonic Noise Impacts***

The ANG indicated in the August 23, 2022 virtual scoping meeting that there would be no supersonic noise impacts. If it is determined otherwise, such as when discussing impacts from training in SUA,

---

<sup>5</sup> Goines, Lisa RN and Hagler, Louis MD. 2007. "Noise Pollution: A Modern Plague", *Southern Medical Journal*: Volume 100 - Issue 3 - pp 287-294. Available: <https://pubmed.ncbi.nlm.nih.gov/17396733/>

identify predicted sonic boom overpressures under the proposed action and alternatives and their associated impacts to structures and historic resources.

**Environmental Justice Analysis**

In addition to noise impacts, assess impacts to all relevant resource areas on communities with environmental justice concerns. Identify the specific outreach that was conducted for these populations, including efforts to address non-English speaking residents and efforts to accommodate the public and address barriers to participation.

***EJScreen***

The ANG may want to utilize the information in the EPA tool [EJ Screen](#). EJScreen is EPA's nationally consistent environmental justice screening and mapping tool that offers a variety of powerful data and mapping capabilities that enable users to understand details about the population of an area and its environmental conditions. The tool provides information on environmental and socioeconomic indicators as well as pollution sources, health disparities, critical service gaps, and climate change data. The data is displayed in color-coded maps and standard data reports which feature how a selected location compares to the rest of the nation and state.

Accessing EJScreen information is a useful first step in understanding or highlighting locations that may be candidates for further review and outreach. For purposes of NEPA review, a project is considered to be in an area of potential EJ concern when an EJScreen analysis for the impacted area shows one or more of the twelve EJ Indexes at or above the 80th percentile in the nation and/or state. An area may also warrant additional review if other information suggests the potential for EJ concerns. An EJScreen analysis which does not reveal the potential for EJ concerns should not be interpreted to mean that there are definitively no EJ concerns present.

At a minimum, it is recommended to consider EJScreen information for the block groups which contain the proposed action and a one-mile radius around that area. However, it is important to consider all areas which may be impacted by the proposed action. Areas of impact can be very focused and contained within a single block group or be broader, spanning across several block groups and communities. When assessing large geographic areas, it is recommended to consider the individual block groups within the project area in addition to an area wide assessment. This can help identify individual areas within the overall project area that may warrant further consideration, analysis or outreach. EJScreen also provides information on linguistic isolation and languages spoken, which can help inform community outreach and engagement. EPA is available to provide a training to ANG staff on the use of EJScreen.

***Promising Practices for EJ Methodologies in NEPA Reviews***

Additionally, we recommend consulting the guidance document [Promising Practices for EJ Methodologies in NEPA Reviews](#) by the Environmental Justice Interagency Working Group. This document provides ways to both consider environmental justice concerns during environmental analyses and encourage effective participation by communities with environmental justice concerns. The Promising Practices Report is a compilation of methodologies gleaned from current agency practices concerning the interface of environmental justice considerations through NEPA processes. For example, the Promising Practices Report suggests initiating meaningful engagement with communities early and often; providing potentially affected communities with an agency-designated point of contact; and convening project-specific community advisory committees, as appropriate. The outreach the NGB



conducts for these communities should be documented in the DEIS. Identify the concerns raised by these populations and how the ANG could address them.

***Outreach and Stakeholder Involvement***

A critical part of achieving environmental justice is ensuring appropriate, timely and meaningful stakeholder involvement into decisions affecting communities with environmental justice concerns. We encourage the ANG to use the tools identified above to fully analyze environmental justice issues and develop focused outreach efforts to ensure that affected communities are informed and provided opportunities to meaningfully engage in decision making regarding the project. This would include community outreach materials written in plain language and translation and interpretive services for any linguistically isolated populations. We recommend the DEIS include an inventory of outreach efforts to date and develop a forward-looking outreach plan.

**Air Quality**

The DEIS should include a detailed discussion of ambient air conditions (i.e., baseline or existing conditions), the area's attainment or nonattainment status for all National Ambient Air Quality Standards (NAAQS), and potential air quality impacts (including cumulative and indirect impacts) from the construction and operation of the project for each alternative location.

Describe and estimate air emissions from potential construction and operations for the new facilities at the basing locations, as well as the changes in emissions from replacing the legacy aircraft.

***General Conformity***

The DEIS should discuss whether conformity requirements of the Clean Air Act Section 176(c) would be applicable to the project locations. General conformity regulations can be found in 40 CFR Part 93.150-165. The general conformity rule applies to Federal actions in areas designated as nonattainment or maintenance for NAAQS. Federal agencies need to ensure that their actions, including construction emissions subject to state jurisdiction, conform to an approved implementation plan. Mitigation may be available to reduce the project's air emissions.

Westfield-Barnes Municipal Airport is located in the Springfield (W. Mass) area, which is classified as "Moderate" nonattainment for the 1997 ozone NAAQS. Naval Air Station Lemoore, Lemoore, California, and Fresno Yosemite International Airport are both located in areas designated as nonattainment for ozone and particulate matter less than 2.5 microns (PM<sub>2.5</sub>) and in a maintenance area for PM<sub>10</sub>. Fresno Yosemite International Airport is also in a maintenance area for Carbon Monoxide (CO), therefore while this area is no longer in nonattainment for CO and PM<sub>10</sub>, general conformity still applies because of its maintenance designation. Because of these air basins' nonattainment status for several NAAQS, it is important to reduce emissions of ozone precursors and particulate matter from this project as much as possible if these locations are selected. Emissions authorized by a CAA permit issued by the State or the local air pollution control district would not be assessed under general conformity but through the permitting process.

***Construction Emissions Mitigation***

The DEIS should include an analysis of impacts from the construction of the proposed project alternatives, including emission estimates for criteria pollutants. EPA also recommends that the DEIS disclose the available information about the health risks associated with vehicle emissions and mobile source air toxics (see <https://www.epa.gov/mobile-source-pollution/how-mobile-source-pollution-affects-your-health>). Mitigation measures should be considered to reduce impacts associated with

emissions of ozone precursors, particulate matter and other toxics from construction-related activities, especially for the alternatives in California. We recommend:

- Locating diesel engines, motors, and equipment staging areas as far as possible from residential areas and sensitive receptors (schools, daycare centers, and hospitals). It is well documented that children are more susceptible to many environmental factors, including exposure to mobile source air pollution, particulate matter from construction and diesel emissions, and lead and other heavy metals present in construction and demolition debris.
- Reducing construction-related trips of workers and equipment, including trucks. Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.
- Leasing or buying newer, cleaner equipment using a minimum of 75 percent of the equipment's total horsepower.
- Using lower-emitting engines and fuels, including electric, liquified gas, hydrogen fuel cells, and/or alternative diesel formulations.
- Implementing Fugitive Dust Controls

#### **Greenhouse Gases / Climate Change**

The DEIS should include estimates of GHG emissions for the proposed action and alternatives and provide a context to help decision makers and the public understand these emissions and climate change effects. This can include monetization of GHGs, and/or a discussion of how the net GHG emissions would help meet or detract from relevant climate action goals and commitments. The Council on Environmental Quality (CEQ) is currently updating its guidance on the consideration of GHGs in NEPA reviews but has stated that in the interim, agencies should consider all available tools and resources in assessing GHG emissions and climate change effects of their proposed actions, including, as appropriate and relevant, CEQ's 2016 GHG Guidance. We note the 2016 GHG Guidance discourages statements in NEPA documents that the emissions from a particular proposed action represent only a small fraction of local, national, or international emissions, as not helpful to the decision-maker or public.

While aviation, in general, represents a small percentage of fossil fuel use, it is important to discuss the unique impacts aviation emissions contribute due to their release at altitude. Most aircraft emissions occur high in the atmosphere and the impact of burning fossil fuels at altitude is approximately double that of burning the same fuels at ground level.<sup>6</sup> In addition to Carbon Dioxide (CO<sub>2</sub>) emissions, other factors<sup>7</sup> increase the climate change impacts of aviation, and the Intergovernmental Panel on Climate Change estimated aviation's total climate change impact could be from two to four times that of its CO<sub>2</sub> emissions alone.<sup>8</sup>

Mitigation of GHGs during construction projects should be discussed and implemented, as such measures are likely to have the co-benefits of also reducing criteria pollutants.

---

<sup>6</sup> Military Aviation and the Environment: Historical Trends and Comparison to Civil Aviation. Available:

[http://web.mit.edu/aeroastro/sites/waitz/publications/Mil\\_paper.pdf](http://web.mit.edu/aeroastro/sites/waitz/publications/Mil_paper.pdf)

<sup>7</sup> <https://research.noaa.gov/article/ArtMID/587/ArticleID/2667/Aviation-is-responsible-for-35-percent-of-climate-change-study-finds>

<sup>8</sup> Congressional Research Service, 2020. *Aviation and Climate Change*. Available:

<https://ersreports.congress.gov/product/pdf/IF/IF11696/2>

### **Water Resources**

#### ***Clean Water Act Section 404***

The DEIS should identify whether the project would involve the discharge of dredged or fill material into jurisdictional wetlands and waterways, which would require a Clean Water Act Section 404 permit. There are a number of water features at Naval Air Station Joint Reserve Base New Orleans, and according to the National Wetlands Inventory, the location identified for new construction of facilities on the project fact sheet appears to contain Freshwater Forested/Shrub Wetland. We recommend maximum avoidance of these features and that the DEIS identify practicable alternatives for any discharges of dredged or fill material. If avoidance is not practicable, we recommend consulting early with the U.S. Army Corps of Engineers. If a 404 permit is required, EPA will review the project for compliance with Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA (“404(b)(1) Guidelines”). Pursuant to 40 CFR 230, any permitted discharge into waters of the U.S. must be the least environmentally damaging practicable alternative (LEDPA) available to achieve the project purpose. The DEIS should include, and craft NEPA alternatives consistent with, evaluating project alternatives in this context, in order to demonstrate the project’s compliance with the 404(b)(1) Guidelines.

#### ***Clean Water Act Section 303(d)***

The DEIS should identify any impaired waterways or bodies that would receive new discharges from the proposed action. For the Naval Air Station Joint Reserve Base New Orleans, the Intracoastal Waterway-From Bayou Villars to Mississippi River (Estuarine) does not meet water quality standards and is on the CWA Section 303(d) list for turbidity. Indicate what actions the ANG would take to ensure it does not contribute to this impairment.

#### ***Water Supply***

The DEIS should estimate the quantity of water the project will require, identify the source of the water, and discuss potential effects of this water use on other water users and natural resources in the project’s area of influence. The Fresno Yosemite International Airport alternative is located over the Fresno County Sole Source Aquifer (SSA), designated by EPA under section 1424(e) of the Safe Drinking Water Act of 1974. SSA’s supply at least 50 percent of the drinking water consumed in the area overlying the aquifer. Fresno has supplemented its drinking water supply with surface water sources in recent years; however, the area is in [exceptional drought](#), the highest drought designation. Naval Air Station Lemoore, Lemoore, California is also in exceptional drought and is experiencing land subsidence. For these alternatives, ensure water- conserving fixtures, such as those certified with the EPA’s [WaterSense](#) label are included in facility designs. Identify other water conservation measures for these locations.

### **Hazardous Substances**

The DEIS should identify hazardous contaminants that are associated with the development areas on each base and indicate if and how the proposed construction could interface with any cleanup actions. The DEIS should indicate whether the physical development of the proposed action could expose construction and maintenance workers, visitors, occupants, or ecological systems to potential hazards associated with contaminants.

Discuss existing contamination by Polyfluoroalkyl substances (PFAS), the continued use of firefighting foams and other products containing PFAS, and how discharges or waste would be managed to protect surface and groundwater resources.

For new facilities that would be constructed, briefly identify solid and hazardous waste generation and handling/disposal from construction and operation of the proposed project, and the applicability of state and federal hazardous waste requirements.

**Tribal Consultation**

The DEIS should identify any affected Tribes near the basing alternatives or SUA that could be impacted by the proposed actions and consult, pursuant to Executive Order 13175 regarding government-to-government consultation, as appropriate.

EPA appreciates the opportunity to comment on preparation of the DEIS. Once the DEIS is released for public review, please send one electronic copy to me at [vitulano.karen@epa.gov](mailto:vitulano.karen@epa.gov). If you have any questions, please contact me by email or at 415-947-4178.

Sincerely -

KAREN  
VITULANO

Digitally signed by  
KAREN VITULANO  
Date: 2022.09.02  
11:33:47 -07'00'

Karen Vitulano  
Environmental Review Branch





September 2, 2022

Will Strickland  
F-15EX, F-35A EIS  
3501 Fetchet Avenue  
Joint Base Andrews MD 20762-5157  
City, State, Zip

**Project: Air National Guard F-15EX Eagle II & F-35A Lightning II Operational  
Beddowns -15EX, F-35A EIS**

**District CEQA Reference No: 20221025**

Dear Mr. Strickland:

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Notice to Prepare an Environmental Impact Statement (EIS) from the National Guard Bureau (NGB) for the F-15EX and F-35 Operational Beddowns. Per the Notice to Prepare an EIS, the project is for the beddown of one squadron (21 jets) of F-15EX aircraft at two of three alternative locations and one squadron (21 jets) of F-35A aircraft at one of four alternative locations (Project). These beddowns would replace the F-15C/D aircraft where they are currently based. Those existing 15C/D aircraft would be retired from the inventory due to their age and resulting maintenance costs. The Project also includes personnel needed to operate and maintain the F-15EX and F-35A, and construction of new and/or modification of existing facilities supporting the beddowns. The alternative locations for the Project could be one or more of the following naval stations:

- Barnes Air National Guard Base at Westfield-Barnes Regional Airport, Westfield, Massachusetts
- Fresno National Air Guard Base at Fresno Yosemite International Airport, Fresno, California
- Naval Air Station (NAS) Lemoore, Lemoore, California
- NAS Joint Reserve Base New Orleans, Belle Chasse, Louisiana

**Samir Sheikh**  
Executive Director/Air Pollution Control Officer

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95358-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org) [www.healthyliving.com](http://www.healthyliving.com)

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: (661) 392-5500 FAX: (661) 392-5585

Printed on recycled paper.

San Joaquin Valley Air Pollution Control District  
District Reference No: 20221025  
September 2, 2022

Page 2 of 10

The District offers the following comments regarding the Project if the alternative location chosen is in the San Joaquin Valley:

**1) Project Related Emissions**

At the federal level under the National Ambient Air Quality Standards (NAAQS), the District is designated as extreme nonattainment for the 8-hour ozone standards and serious nonattainment for the particulate matter less than 2.5 microns in size (PM<sub>2.5</sub>) standards. At the state level under California Ambient Air Quality Standards (CAAQS), the District is designated as nonattainment for the 8-hour ozone, PM<sub>10</sub>, PM<sub>2.5</sub> standards.

The documents submitted to the District does not provide sufficient information to allow the District to assess the Project's potential impact on air quality. As such, the EIS should include a Project summary detailing, at a minimum, estimated construction related emissions for the required modification and new construction at the existing facility, estimates of potential mobile and stationary emission sources, proximity to sensitive receptors and existing emission sources. The District recommends that a more detailed preliminary review of the Project be conducted for the Project's construction and operational emissions.

**1a) Construction Emissions**

The District recommends, to reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment, including the latest tier equipment.

**1b) Operational Emissions**

Operational (ongoing) air emissions from mobile sources and stationary sources should be analyzed separately. For reference, the District's significance thresholds are identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts:  
<https://www.valleyair.org/transportation/GAMAQI.pdf>.

*Recommended Mitigation Measure:* At a minimum, project related impacts on air quality should be reduced to levels of significance through incorporation of design elements such as the use of cleaner Heavy Heavy-Duty (HHD) trucks and vehicles, measures that reduce Vehicle Miles Traveled (VMTs), and measures that increase energy efficiency. More information on transportation mitigation measures can be found at:  
<http://www.valleyair.org/transportation/Mitigation-Measures.pdf>.

### **1c) Recommended Model for Quantifying Air Emissions**

Project-related criteria pollutant emissions from construction and operational sources should be identified and quantified. Emissions analysis should be performed using the California Emission Estimator Model (CalEEMod), which uses the most recent CARB-approved version of relevant emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: [www.caleemod.com](http://www.caleemod.com).

### **2) Health Risk Screening/Assessment**

The NGB should evaluate the risk associated with the Project for sensitive receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) in the area and mitigate any potentially significant risk to help limit exposure of sensitive receptors to emissions.

To determine potential health impacts on surrounding receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) a Prioritization and/or a Health Risk Assessment (HRA) should be performed for the Project. These health risk determinations should quantify and characterize potential Toxic Air Contaminants (TACs) identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) that pose a present or potential hazard to human health.

Health risk analyses should include all potential air emissions from the project, which include emissions from construction of the project, including multi-year construction, as well as ongoing operational activities of the project. Note, two common sources of TACs can be attributed to diesel exhaust emitted from heavy-duty off-road earth moving equipment during construction, and from ongoing operation of heavy-duty on-road trucks.

#### **Prioritization (Screening Health Risk Assessment):**

A "Prioritization" is the recommended method for a conservative screening-level health risk assessment. The Prioritization should be performed using the California Air Pollution Control Officers Association's (CAPCOA) methodology.

The District recommends that a more refined analysis, in the form of an HRA, be performed for any project resulting in a Prioritization score of 10 or greater. This is because the prioritization results are a conservative health risk representation, while the detailed HRA provides a more accurate health risk evaluation.

To assist land use agencies and project proponents with Prioritization analyses, the District has created a prioritization calculator based on the aforementioned CAPCOA guidelines, which can be found here:  
[http://www.valleyair.org/busind/pto/emission\\_factors/Criteria/Toxics/Utilities/PRIORITIZATION-CALCULATOR.xls](http://www.valleyair.org/busind/pto/emission_factors/Criteria/Toxics/Utilities/PRIORITIZATION-CALCULATOR.xls)

**Health Risk Assessment:**

Prior to performing an HRA, it is strongly recommended that land use agencies/ project proponents develop and submit for District review a health risk modeling protocol that outlines the sources and methodologies that will be used to perform the HRA. This step will ensure all components are addressed when performing the HRA.

A development project would be considered to have a potentially significant health risk if the HRA demonstrates that the project-related health impacts would exceed the District's significance threshold of 20 in a million for carcinogenic risk, or 1.0 for either the Acute or Chronic Hazard Indices.

A project with a significant health risk would trigger all feasible mitigation measures. The District strongly recommends that development projects that result in a significant health risk not be approved by the land use agency.

The District is available to review HRA protocols and analyses. For HRA submittals please provide the following information electronically to the District for review:

- HRA (AERMOD) modeling files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodologies.

For assistance, please contact the District's Technical Services Department by:

- E-Mailing inquiries to: [hramodeler@valleyair.org](mailto:hramodeler@valleyair.org)
- Calling (559) 230-5900

***Recommended Measure:*** Development projects resulting in TAC emissions should be located an adequate distance from residential areas and other sensitive receptors in accordance to CARB's Air Quality and Land Use Handbook: A Community Health Perspective located at <https://ww3.arb.ca.gov/ch/handbook.pdf>.

**3) Ambient Air Quality Analysis**

An Ambient Air Quality Analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of State or



San Joaquin Valley Air Pollution Control District  
District Reference No: 20221025  
September 2, 2022

Page 5 of 10

National Ambient Air Quality Standards. The District recommends an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

An acceptable analysis would include emissions from both project-specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis.

Specific information for assessing significance, including screening tools and modeling guidance, is available online at the District's website:  
[www.valleyair.org/ceqa](http://www.valleyair.org/ceqa).

#### **4) Voluntary Emission Reduction Agreement**

Criteria pollutant emissions may result in emissions exceeding the District's significance thresholds, potentially resulting in a significant impact on air quality. When a project is expected to have a significant impact, the District recommends the EIS also include a discussion on the feasibility of implementing a Voluntary Emission Reduction Agreement (VERA) for this Project.

A VERA is a mitigation measure by which the project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emission reduction projects, with the District serving a role of administrator of the emissions reduction projects and verifier of the successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate project specific emissions by providing funds for the District's incentives programs. The funds are disbursed by the District in the form of grants for projects that achieve emission reductions. Thus, project-related impacts on air quality can be mitigated. Types of emission reduction projects that have been funded in the past include electrification of stationary internal combustion engines (such as agricultural irrigation pumps), replacing old heavy-duty trucks with new, cleaner, more efficient heavy-duty trucks, and replacement of old farm tractors.

In implementing a VERA, the District verifies the actual emission reductions that have been achieved as a result of completed grant contracts, monitors the emission reduction projects, and ensures the enforceability of achieved reductions. After the project is mitigated, the District certifies to the Lead Agency that the mitigation is completed, providing the Lead Agency with an enforceable mitigation measure demonstrating that project-related emissions have been mitigated. To assist the Lead Agency and project proponent in ensuring that the environmental document is compliant with CEQA, the District recommends the environmental document includes an assessment of the feasibility of implementing a VERA.

**5) Electric On-Site Off-Road and On-Road Equipment**

Since the Project includes the beddown of two squadrons of aircrafts, the Project may have the potential to result in increased use of off-road equipment (e.g., forklifts) and on-road equipment (e.g., mobile yard trucks with the ability to move materials). The District recommends that the EIS include requirements for project proponents to utilize electric or zero emission off-road and on-road equipment.

**6) Vegetative Barriers and Urban Greening**

There are residential units located south and east in both of the possible alternative locations in the San Joaquin Valley for the Project. The District suggests the NGB consider the feasibility of incorporating vegetative barriers and urban greening as a measure to further reduce air pollution exposure on sensitive receptors (e.g., residential units).

While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, vegetative barriers have been shown to be an additional measure to potentially reduce a population's exposure to air pollution through the interception of airborne particles and the uptake of gaseous pollutants. Examples of vegetative barriers include, but are not limited to the following: trees, bushes, shrubs, or a mix of these. Generally, a higher and thicker vegetative barrier with full coverage will result in greater reductions in downwind pollutant concentrations. In the same manner, urban greening is also a way to help improve air quality and public health in addition to enhancing the overall beautification of a community with drought tolerant, low-maintenance greenery.

**7) Nuisance Odors**

While offensive odors rarely cause any physical harm, they can be unpleasant, leading to considerable distress among the public and often resulting in citizen complaints.

The NGB should consider all available pertinent information to determine if the Project could have a significant impact related to nuisance odors. Nuisance odors may be assessed qualitatively taking into consideration the proposed business or industry type and its potential to create odors, as well as proximity to off-site receptors that potentially would be exposed to objectionable odors. The intensity of an odor source's operations and its proximity to receptors influences the potential significance of malodorous emissions. Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact.

According to the District Guidance for Assessing and Mitigating air Quality Impacts (GAMAQI), a significant odor impact is defined as more than one confirmed

complaint per year averaged over a three-year period, or three unconfirmed complaints per year averaged over a three-year period. An unconfirmed complaint means that either the odor or air contaminant release could not be detected, or the source of the odor could not be determined.

The District is available to assist the NGB with information regarding specific facilities and categories of facilities, and associated odor complaint records.

#### **8) District Rules and Regulations**

The District issues permits for many types of air pollution sources, and regulates some activities that do not require permits. A project subject to District rules and regulations would reduce its impacts on air quality through compliance with the District's regulatory framework. In general, a regulation is a collection of individual rules, each of which deals with a specific topic. As an example, Regulation II (Permits) includes District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits), and several other rules pertaining to District permitting requirements and processes.

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: [www.valleyair.org/rules/1ruleslist.htm](http://www.valleyair.org/rules/1ruleslist.htm). To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888.

#### **8a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources**

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT).

This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits. Prior to construction, the Project proponent should submit to the District an application for an ATC. For further information or assistance, the project proponent may contact the District's SBA Office at (559) 230-5888.

**8b) District Rule 9510 - Indirect Source Review (ISR)**

The purpose of District Rule 9510 is to reduce the growth in both NO<sub>x</sub> and PM emissions associated with development and transportation projects from mobile and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects.

At this time, there is not enough information for the District to determine the applicability of Rule 9510 to the Project. Please contact the District by phone at (559) 230-5900 or by email at [ISR@valleyair.org](mailto:ISR@valleyair.org) for assistance with determining if the Project will be subject to Rule 9510.

**8c) District Rule 9410 (Employer Based Trip Reduction)**

The Project may be subject to District Rule 9410 (Employer Based Trip Reduction) if the project would result in employment of 100 or more “eligible” employees. District Rule 9410 requires employers with 100 or more “eligible” employees at a worksite to establish an Employer Trip Reduction Implementation Plan (eTRIP) that encourages employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work commutes. Under an eTRIP plan, employers have the flexibility to select the options that work best for their worksites and their employees.

Information about District Rule 9410 can be found online at:  
[www.valleyair.org/tripreduction.htm](http://www.valleyair.org/tripreduction.htm).

For additional information, you can contact the District by phone at 559-230-6000 or by e-mail at [etrip@valleyair.org](mailto:etrip@valleyair.org)

**8d) District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants)**

In the event an existing building will be renovated, partially demolished or removed, the Project may be subject to District Rule 4002. This rule requires a thorough inspection for asbestos to be conducted before any regulated facility is demolished or renovated. Information on how to comply with District Rule 4002 can be found online at:

<http://www.valleyair.org/busind/comply/asbestosbultn.htm>.

**8e) District Rule 4601 (Architectural Coatings)**

The Project may be subject to District Rule 4601 since it may utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs. The purpose of this rule is to limit VOC emissions from architectural coatings.

San Joaquin Valley Air Pollution Control District  
District Reference No: 20221025  
September 2, 2022

Page 9 of 10

In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at:  
<http://www.valleyair.org/rules/currentrules/r4601.pdf>

**8f) District Regulation VIII (Fugitive PM10 Prohibitions)**

The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities*.

Should the project result in at least 1-acre in size, the project proponent shall provide written notification to the District at least 48 hours prior to the project proponents intent to commence any earthmoving activities pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). Also, should the project result in the disturbance of 5-acres or more, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials, the project proponent shall submit to the District a Dust Control Plan pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). For additional information regarding the written notification or Dust Control Plan requirements, please contact District Compliance staff at (559) 230-5950.

The application for both the Construction Notification and Dust Control Plan can be found online at:  
<https://www.valleyair.org/busind/comply/PM10/forms/DCP-Form.docx>

Information about District Regulation VIII can be found online at:  
[http://www.valleyair.org/busind/comply/pm10/compliance\\_pm10.htm](http://www.valleyair.org/busind/comply/pm10/compliance_pm10.htm)

**8g) Other District Rules and Regulations**

The Project may also be subject to the following District rules: Rule 4102 (Nuisance) and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

*San Joaquin Valley Air Pollution Control District  
District Reference No: 20221025  
September 2, 2022*

*Page 10 of 10*

If you have any questions or require further information, please contact Michael Corder by e-mail at [Michael.Corder@valleyair.org](mailto:Michael.Corder@valleyair.org) or by phone at (559) 230-5818.

Sincerely,

Brian Clements  
Director of Permit Services



For: Mark Montelongo  
Program Manager

U.S. Department of Homeland Security  
FEMA Region 6  
800 N. Loop 288  
Denton, TX 76209



**FEMA**

Mr. Sheppard Hall  
EIS Project Manager  
National Guard Bureau  
NGB/A4AM  
3501 Fetchet Ave.  
Joint Base Andrews, Maryland 20762-5157

RE: NGB-Environmental Impact Statement

Dear Mr. Hall,

We acknowledge receipt of your request for review/environmental consultation in reference to the NGB-Environmental Impact Statement.

☐ We have no comments to offer.

☒ We offer the following comments:

We would request that the community Floodplain Administrator be contacted for the review and possible permit requirements for this project. If federally funded, we would request the project maintain compliance with EO11988 & EO 11990.

The Community Floodplain Administrator for your project contact information is listed below:

City of New Orleans, LA  
Jerome Landry  
Floodplain Manager  
Dept. of Safety and Permits  
1300 Perdido Street, 7th FL  
New Orleans, Louisiana 70112  
[jlandry@nola.gov](mailto:jlandry@nola.gov)  
(504) 658- 71237

---

REVIEWER:

Loukisha Williams  
Floodplain Management and Insurance Branch  
Mitigation Division  
(940) 383-7228

DATE: 04/04/2023

[www.fema.gov](http://www.fema.gov)



**United States Department of the Interior**

**FISH AND WILDLIFE SERVICE**  
Louisiana Ecological Services Field Office  
200 Dulles Drive  
Lafayette, LA 70506  
Phone: (337) 291-3100 Fax: (337) 291-3139



In Reply Refer To:

October 13, 2023

Project code: 2024-0004495

Project Name: AIR NATIONAL GUARD F-15EX EAGLE II & F-35A LIGHTNING II  
OPERATIONAL BEDDOWNS

Subject: Consistency letter for the project named 'AIR NATIONAL GUARD F-15EX EAGLE II & F-35A LIGHTNING II OPERATIONAL BEDDOWNS' for specified threatened and endangered species that may occur in your proposed project location pursuant to the Louisiana Endangered Species Act project review and guidance for other federal trust resources determination key (Louisiana DKey).

Dear Matthew Martin:

The U.S. Fish and Wildlife Service (Service) received on October 13, 2023 your effects determination(s) for the 'AIR NATIONAL GUARD F-15EX EAGLE II & F-35A LIGHTNING II OPERATIONAL BEDDOWNS' (the Action) using the Louisiana DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers, and the assistance in the Service's Louisiana DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Eastern Black Rail ( <i>Laterallus jamaicensis</i> ssp. <i>jamaicensis</i> )	Threatened	NLAA
Pallid Sturgeon ( <i>Scaphirhynchus albus</i> )	Endangered	NLAA
West Indian Manatee ( <i>Trichechus manatus</i> )	Threatened	NLAA

**Consultation with the Service is not complete.** The "may affect - not likely to adversely affect" determination(s) becomes effective when the lead Federal action agency or designated non-federal representative uses it to ask the Service to rely on the Louisiana Endangered Species Act project review and guidance for other federal trust resources key to satisfy the agency's consultation requirements for this project.



**Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Final – November 2024**

10/19/2023

IPaC Record Locator: 950-133243900

2

Please sign below verifying your species determination(s) listed above and submit your project to the Louisiana Field Office for concurrence.

George R. King

10/26/2023

Project Representative

Date

Based on the information provided in this report, as well as any pertinent correspondence and documentation saved to the project file at our office (if applicable), the Service agrees with your determination(s) for the species listed above for the proposed Federal Action:

BRIGETTE FIRMIN

Digitally signed by BRIGETTE FIRMIN  
Date: 2023.11.15 11:36:12 -06'00'

Louisiana Ecological Services Office

Date

U.S. Fish and Wildlife Service

Consultation on the proposed action is concluded when you receive signature from this office.

The Service recommends that your agency contact the Louisiana Ecological Services Field Office or re-evaluate the project in IPaC if: 1) the scope or location of the proposed project is changed significantly; 2) new information reveals that the action may affect listed species or designated critical habitat; 3) the action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Louisiana Ecological Services Field Office should take place before project changes are final or resources committed.

This IPaC-generated letter only applies to the species in the above table and **does not** apply to the following ESA-protected species that also may occur in the Action Area:

- Alligator Snapping Turtle *Macrochelys temminckii* Proposed Threatened
- Monarch Butterfly *Danais plexippus* Candidate

**Please Note:** If the Federal Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) may be required. Please contact Uigonda Kirkpatrick (phone: 321/972-9089, e-mail: uigonda\_kirkpatrick@fws.gov) with any questions regarding potential impacts to bald or golden eagles.

10/13/2023

IPaC Record Location: 950-133243900

3

**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

AIR NATIONAL GUARD F-15EX EAGLE II & F-35A LIGHTNING II OPERATIONAL BEDDOWNS

**2. Description**

The following description was provided for the project 'AIR NATIONAL GUARD F-15EX EAGLE II & F-35A LIGHTNING II OPERATIONAL BEDDOWNS':

The United States (U.S.) Department of the Air Force (DAF) and National Guard Bureau (NGB) propose to maintain the combat capability of the Air National Guard (ANG) fighter wings currently flying the F-15C/D aircraft. These aircraft have reached the end of their lifespan and will be phased out due to safety and maintenance concerns. These fighter wings (that are not already undergoing similar evaluation) include the 104th Fighter Wing (104 FW) at Westfield-Barnes Regional Airport (BAF) in Westfield, Massachusetts; the 144th Fighter Wing (144 FW) at Fresno Yosemite International Airport (FAT) in Fresno, California; and the 159th Fighter Wing (159 FW) at Naval Air Station (NAS) Joint Reserve Base (JRB) New Orleans, in Belle Chasse, Louisiana. The proposal is the beddown, operation, and associated infrastructure construction of one squadron of F-15EX Eagle II (F-15EX) aircraft at two of these fighter wings and one squadron of F-35A Lightning II (F-35A) aircraft at one of these fighter wings. These aircraft would replace the aging F-15C/D fighter aircraft at the selected wings. It is also conceivable that one or more of these fighter wings would retain the legacy F-15C/D aircraft for the foreseeable future and construction associated with that alternative would be implemented to support the current legacy aircraft. The Proposed Action also includes additional personnel needed to operate and maintain the F-15EX or F-35A, and construction of new and/or modification of existing facilities on the installations supporting the beddowns. Pilots operating the aircraft would conduct training from the installation and in existing Special Use Airspace (SUA) associated with each proposed location. No new SUA or reconfiguration of existing SUA is proposed to support the ANG beddowns for any of these fighter wings; however, there would likely be an increase in operations within the SUA.

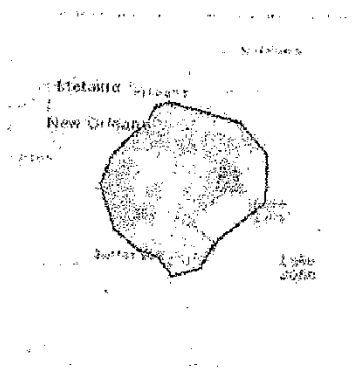
An Environmental Impact Statement (EIS) is being prepared to evaluate the environmental impacts associated with the Proposed Action at the three fighter wings. However, this Biological Assessment is specific to the 159 FW at NAS JRB New Orleans; therefore, only those portions of the Proposed Action specific to the 159 FW are discussed herein and carried forward for analysis of effects on federally listed species.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@29.81880165,-90.00618262605039,14z>

10/19/2023

IPAC Record Location: 960-133243900.

4



10/13/2023

IPaC Record Locator: 950-133243900

5

## **QUALIFICATION INTERVIEW**

1. Is the action authorized, funded, or being carried out by a Federal agency?  
*Yes*
2. Is the action authorized, funded, or being carried out by the:  
*d. Other*
3. Please identify your agency or organization type:  
*a. Federal agency*
4. Have you determined that the project will have "no effect" on federally listed species? (If unsure select "No")  
*No*
5. [Hidden Semantic] Does the project intersect the eastern black rail AOI?  
*Automatically answered  
Yes*
6. Will the proposed project involve human disturbance or ground disturbance (such as foot traffic, vehicles, tracked equipment, excavating, grading, placing fill material, etc.)?  
*No*
7. [Hidden Semantic] Does the project intersect the west indian manatee AOI?  
*Automatically answered  
Yes*
8. (Semantic) Is the project located within the manatee consultation zone, excluding the Mississippi River?  
*Automatically answered  
Yes*
9. Is the project footprint entirely on land?  
*No*
10. Is the water depth within the project greater than 2 feet (at mean high tide)?  
*No*
11. [Hidden Semantic] Does the project intersect the pink mucket mussel AOI ?  
*Automatically answered  
No*
12. [Hidden Semantic] Does the project intersect the pallid sturgeon AOI?  
*Automatically answered  
Yes*
13. Will the project result in riverine pathway obstruction (such as construction of dams, hydropower plants, etc.)?  
*No*

10/13/2023

(PaC Record Locator: 950-133243900)

6

14. Will the project include the addition of or modification to water intake structures?  
*No*

15. Will the project involve modifications to existing or construction of new diversion structure or turbines?  
*No*

16. Will the project involve dredging activities?  
*No*

17. (Semantic) Does the project intersect the Louisiana black bear Range?  
Automatically answered  
*No*

10/13/2023

IPAC Record Locator: 850-433243900

7

**IPAC USER CONTACT INFORMATION**

Agency: Navy  
Name: Matthew Martin  
Address: PO BOX 102 NAS AIR STATION  
City: JACKSONVILLE  
State: FL  
Zip: 32212  
Email: matthew.spencer.martin@gmail.com  
Phone: 9045421414

**LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Navy



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Louisiana Ecological Services Field Office  
200 Dulles Drive  
Lafayette, LA 70506  
Phone: (337) 291-3100 Fax: (337) 291-3139



In Reply Refer To:

October 13, 2023

Project Code: 2024-0004495

Project Name: AIR NATIONAL GUARD F-15EX EAGLE II & F-35A LIGHTNING II  
OPERATIONAL BEDDOWNS

Subject: List of threatened and endangered species that may occur in your proposed project  
location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and candidate species, as well as designated and proposed critical habitat that may occur within the boundary of your proposed project and may be affected by your proposed project. The Fish and Wildlife Service (Service) is providing this list under section 7 (c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Changes in this species list may occur due to new information from updated surveys, changes in species habitat, new listed species and other factors. Because of these possible changes, feel free to contact our office (337-291-3109) for more information or assistance regarding impacts to federally listed species. The Service recommends visiting the IPaC site or the Louisiana Ecological Services Field Office website (<https://www.fws.gov/southeast/lafayette>) at regular intervals during project planning and implementation for updated species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the habitats upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of Federal trust resources and to determine whether projects may affect Federally listed species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)).

Bald eagles have recovered and were removed from the List of Endangered and Threatened Species as of August 8, 2007. Although no longer listed, please be aware that bald eagles are



10/13/2023

2

protected under the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668 et seq.). The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance", which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at: <https://www.fws.gov/migratorybirds/pdf/management/nationalbaldeaglenanagementguidelines.pdf>

Those guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. Onsite personnel should be informed of the possible presence of nesting bald eagles within the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest occurs or is discovered within or adjacent to the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: <https://www.fws.gov/southeast/our-services/eagle-technical-assistance/>. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary. The Division of Migratory Birds for the Southeast Region of the Service (phone: 404/679-7051, e-mail: [SEmigratorybirds@fws.gov](mailto:SEmigratorybirds@fws.gov)) has the lead role in conducting any necessary consultation.

Activities that involve State-designated scenic streams and/or wetlands are regulated by the Louisiana Department of Wildlife and Fisheries and the U.S. Army Corps of Engineers, respectively. We, therefore, recommend that you contact those agencies to determine their interest in proposed projects in these areas.

Activities that would be located within a National Wildlife Refuge are regulated by the refuge staff. We, therefore, recommend that you contact them to determine their interest in proposed projects in these areas.

Additional information on Federal trust species in Louisiana can be obtained from the Louisiana Ecological Services website at: <https://www.fws.gov/southeast/lafayette>

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

10/13/2023

3

- Marine Mammals

## **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Louisiana Ecological Services Field Office**  
200 Dulles Drive  
Lafayette, LA 70506  
(337) 291-3100

10/13/2023

4

## **PROJECT SUMMARY**

Project Code: 2024-0004495

Project Name: AIR NATIONAL GUARD F-15EX EAGLE II & F-35A LIGHTNING II  
OPERATIONAL BEDDOWNS

Project Type: Military Operations

Project Description: The United States (U.S.) Department of the Air Force (DAF) and National Guard Bureau (NGB) propose to maintain the combat capability of the Air National Guard (ANG) fighter wings currently flying the F 15C/D aircraft. These aircraft have reached the end of their lifespan and will be phased out due to safety and maintenance concerns. These fighter wings (that are not already undergoing similar evaluation) include the 104th Fighter Wing (104 FW) at Westfield-Barnes Regional Airport (BAF) in Westfield, Massachusetts; the 144th Fighter Wing (144 FW) at Fresno Yosemite International Airport (FAT) in Fresno, California; and the 159th Fighter Wing (159 FW) at Naval Air Station (NAS) Joint Reserve Base (JRB) New Orleans, in Belle Chasse, Louisiana. The proposal is the beddown, operation, and associated infrastructure construction of one squadron of F-15EX Eagle II (F-15EX) aircraft at two of these fighter wings and one squadron of F-35A Lightning II (F-35A) aircraft at one of these fighter wings. These aircraft would replace the aging F-15C/D fighter aircraft at the selected wings. It is also conceivable that one or more of these fighter wings would retain the legacy F-15C/D aircraft for the foreseeable future and construction associated with that alternative would be implemented to support the current legacy aircraft. The Proposed Action also includes additional personnel needed to operate and maintain the F-15EX or F 35A, and construction of new and/or modification of existing facilities on the installations supporting the beddowns. Pilots operating the aircraft would conduct training from the installation and in existing Special Use Airspace (SUA) associated with each proposed location. No new SUA or reconfiguration of existing SUA is proposed to support the ANG beddowns for any of these fighter wings; however, there would likely be an increase in operations within the SUA. An Environmental Impact Statement (EIS) is being prepared to evaluate the environmental impacts associated with the Proposed Action at the three fighter wings. However, this Biological Assessment is specific to the 159 FW at NAS JRB New Orleans; therefore, only those portions of the Proposed Action specific to the 159 FW are discussed herein and carried forward for analysis of effects on federally listed species.

Project Location:

The approximate location of the project can be viewed in Google Maps: [https://  
www.google.com/maps/@29.81880165,-90.00618262605039,14z](https://www.google.com/maps/@29.81880165,-90.00618262605039,14z)

10/13/2023

5



Counties: Louisiana

10/13/2023

6

## ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
West Indian Manatee <i>Trichechus manatus</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <b><i>This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.</i></b> Species profile: <a href="https://ecos.fws.gov/ecp/species/4469">https://ecos.fws.gov/ecp/species/4469</a>	Threatened

## BIRDS

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10477">https://ecos.fws.gov/ecp/species/10477</a>	Threatened

## REPTILES

NAME	STATUS
Alligator Snapping Turtle <i>Macrochelys temminckii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4658">https://ecos.fws.gov/ecp/species/4658</a>	Proposed Threatened

10/13/2023

7

## **FISHES**

NAME	STATUS
Pallid Sturgeon <i>Scaphirhynchus albus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7162">https://ecos.fws.gov/ecp/species/7162</a>	Endangered

## **INSECTS**

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## **CRITICAL HABITATS**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## **USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES**

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

## **BALD & GOLDEN EAGLES**

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act<sup>1</sup> and the Migratory Bird Treaty Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats<sup>3</sup>, should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

- 
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
  2. The [Migratory Birds Treaty Act](#) of 1918.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**There are bald and/or golden eagles in your project area.**

---

10/13/2023

8

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Sep 1 to Jul 31

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

### Breeding Season (■)

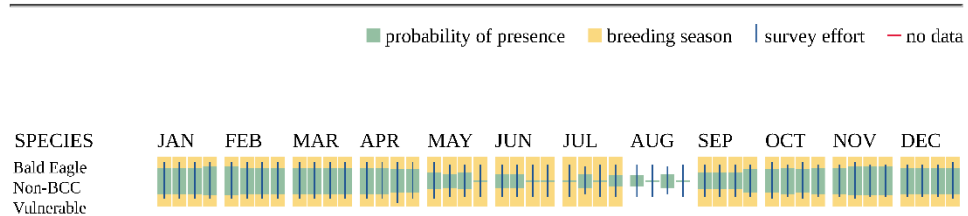
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

### Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

### No Data (—)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>



10/13/2023

9

- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats<sup>3</sup> should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<b>American Golden-plover <i>Pluvialis dominica</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/10561">https://ecos.fws.gov/ecp/species/10561</a>	Breeds elsewhere
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Sep 1 to Jul 31
<b>Black Skimmer <i>Rynchops niger</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/5234">https://ecos.fws.gov/ecp/species/5234</a>	Breeds May 20 to Sep 15

10/13/2023

10

NAME	BREEDING SEASON
<p>Cerulean Warbler <i>Dendroica cerulea</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/2974">https://ecos.fws.gov/ecp/species/2974</a></p>	Breeds Apr 25 to Jul 20
<p>Chimney Swift <i>Chaetura pelagica</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9406">https://ecos.fws.gov/ecp/species/9406</a></p>	Breeds Mar 15 to Aug 25
<p>Dickcissel <i>Spiza americana</i>  This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/9453">https://ecos.fws.gov/ecp/species/9453</a></p>	Breeds May 5 to Aug 31
<p>Eastern Whip-poor-will <i>Antrostomus vociferus</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/10678">https://ecos.fws.gov/ecp/species/10678</a></p>	Breeds May 1 to Aug 20
<p>Gull-billed Tern <i>Gelochelidon nilotica</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9501">https://ecos.fws.gov/ecp/species/9501</a></p>	Breeds May 1 to Jul 31
<p>Kentucky Warbler <i>Oporornis formosus</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9443">https://ecos.fws.gov/ecp/species/9443</a></p>	Breeds Apr 20 to Aug 20
<p>King Rail <i>Rallus elegans</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/8936">https://ecos.fws.gov/ecp/species/8936</a></p>	Breeds May 1 to Sep 5
<p>Lesser Yellowlegs <i>Tringa flavipes</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a></p>	Breeds elsewhere
<p>Little Blue Heron <i>Egretta caerulea</i>  This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/9477">https://ecos.fws.gov/ecp/species/9477</a></p>	Breeds Mar 10 to Oct 15
<p>Painted Bunting <i>Passerina ciris</i>  This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/9511">https://ecos.fws.gov/ecp/species/9511</a></p>	Breeds Apr 25 to Aug 15

10/13/2023

11

NAME	BREEDING SEASON
<b>Pectoral Sandpiper <i>Calidris melanotos</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9561">https://ecos.fws.gov/ecp/species/9561</a>	Breeds elsewhere
<b>Prairie Warbler <i>Dendroica discolor</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9513">https://ecos.fws.gov/ecp/species/9513</a>	Breeds May 1 to Jul 31
<b>Prothonotary Warbler <i>Protonotaria citrea</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9439">https://ecos.fws.gov/ecp/species/9439</a>	Breeds Apr 1 to Jul 31
<b>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9398">https://ecos.fws.gov/ecp/species/9398</a>	Breeds May 10 to Sep 10
<b>Reddish Egret <i>Egretta rufescens</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/7617">https://ecos.fws.gov/ecp/species/7617</a>	Breeds Mar 1 to Sep 15
<b>Ruddy Turnstone <i>Arenaria interpres morinella</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/10633">https://ecos.fws.gov/ecp/species/10633</a>	Breeds elsewhere
<b>Rusty Blackbird <i>Euphagus carolinus</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9478">https://ecos.fws.gov/ecp/species/9478</a>	Breeds elsewhere
<b>Sandwich Tern <i>Thalasseus sandvicensis</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9731">https://ecos.fws.gov/ecp/species/9731</a>	Breeds Apr 25 to Aug 31
<b>Short-billed Dowitcher <i>Limnodromus griseus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a>	Breeds elsewhere
<b>Swallow-tailed Kite <i>Elanoides forficatus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8938">https://ecos.fws.gov/ecp/species/8938</a>	Breeds Mar 10 to Jun 30

10/13/2023

12

NAME	BREEDING SEASON
Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/10669">https://ecos.fws.gov/ecp/species/10669</a>	Breeds Apr 20 to Aug 5
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9431">https://ecos.fws.gov/ecp/species/9431</a>	Breeds May 10 to Aug 31

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

### Breeding Season (■)

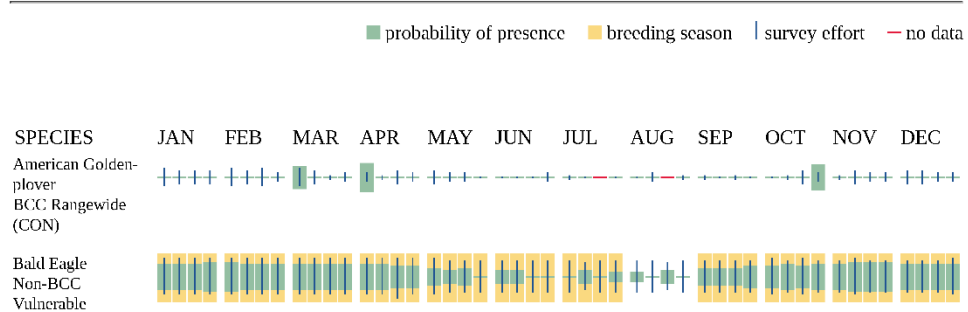
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

### Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

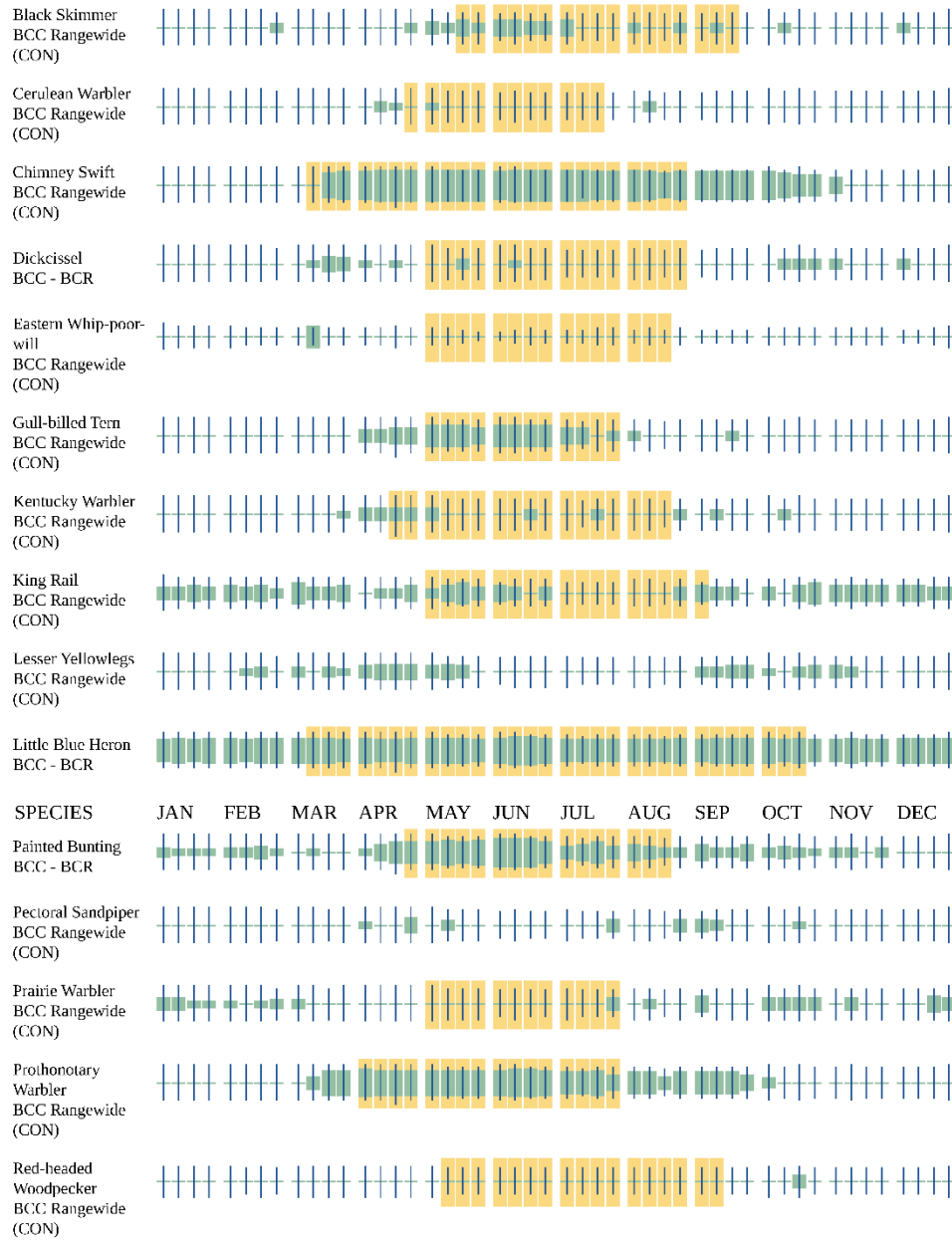
### No Data (—)

A week is marked as having no data if there were no survey events for that week.



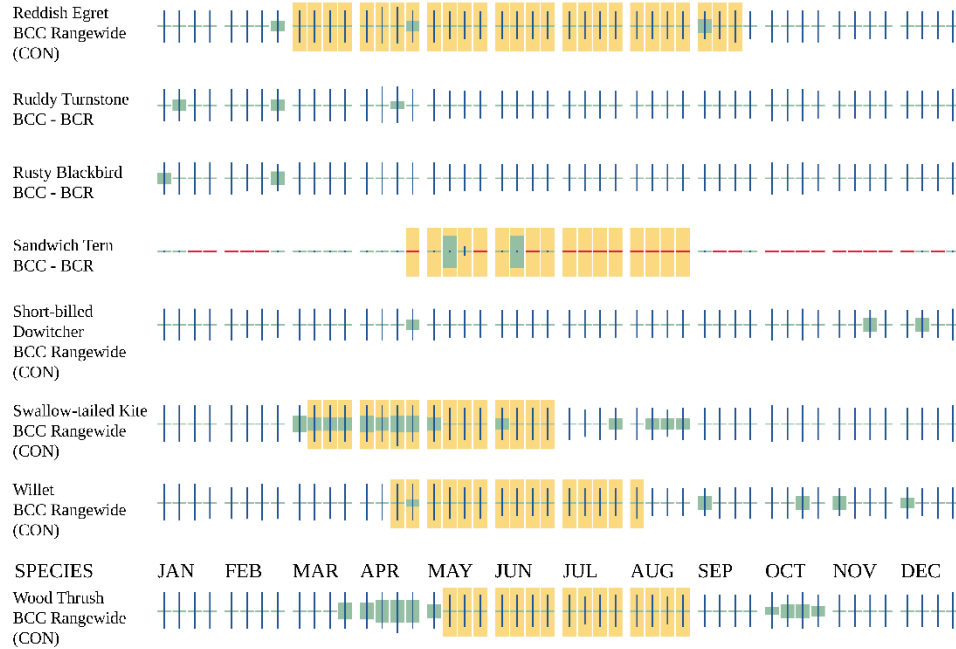
10/13/2023

13



10/13/2023

14



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## MARINE MAMMALS

Marine mammals are protected under the [Marine Mammal Protection Act](#). Some are also protected under the Endangered Species Act<sup>1</sup> and the Convention on International Trade in Endangered Species of Wild Fauna and Flora<sup>2</sup>.

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries<sup>3</sup> [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on

10/13/2023

15

this list; for additional information on those species please visit the [Marine Mammals](#) page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

- 
1. The [Endangered Species Act](#) (ESA) of 1973.
  2. The [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
  3. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NAME

West Indian Manatee *Trichechus manatus*

Species profile: <https://ecos.fws.gov/ecp/species/4469>



10/13/2023

16

### **IPAC USER CONTACT INFORMATION**

Agency: Navy  
Name: Matthew Martin  
Address: PO BOX 102 NAS AIR STATION  
City: JACKSONVILLE  
State: FL  
Zip: 32212  
Email: matthew.spencer.martin@gmail.com  
Phone: 9045421414

### **LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Navy

***Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Final – November 2024***

---



**DEPARTMENT OF THE NAVY**  
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST  
JACKSONVILLE, FL 32212-0030

5090  
Ser EV21/00639  
November 9, 2023

Mr. James Bondy  
Louisiana Department of Natural Resources  
P. O. Box 44487  
Baton Rouge, LA 70808-4487

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT

The United States Department of the Air Force (DAF) and Air National Guard Bureau (NGB), both serving as co-leading agencies is preparing an Environmental Impact Statement for the proposed beddown, operation and associated infrastructure construction of one squadron of F-15EX Eagle II (F-15EX) or one squadron of F-35A Lightning II (F-35A) or construction associated with the retention of the current F-15C/D at Naval Air Station (NAS) Joint Reserve Base (JRB) New Orleans, located in Belle Chasse, Plaquemines Parish, Louisiana. The United States Department of the Navy (DON), as landowner is serving as a cooperating agency. In accordance with the Coastal Zone Management Act, 16 United States Code 1456(c) and 15 Code of Federal Regulations Part 930, the DON has prepared a Coastal Consistency Determination and is requesting coordination with the Louisiana Coastal Resources Program (LCRP) concerning the potential effects to coastal resources.

The Proposed Action includes training, construction of new and/or modification of existing facilities and additional personnel. The purpose of the Proposed Action is to maintain combat capability and mission readiness for the NGB 159<sup>th</sup> fighter wing. The Proposed Action is needed because the current aircraft, the F-15C/D is no longer being manufactured, reaching the end of its service life and aircraft use is not expected beyond fiscal year 2026. If the 159<sup>th</sup> fighter wing is not selected to receive the F-15EX or the F-35A aircraft, then the 159<sup>th</sup> could still implement construction and modification to support and extend their F-15C/D aircraft and mission.

Based on a consistency review of the approved LCRP, the DON has determined that the project will not have an effect on the coastal use or resources of Louisiana's coastal zone and is consistent to the maximum extent practicable with the federally enforceable policies of the enclosed LCRP and requests concurrence with this determination. Please provide your response within 60 days of receipt of this correspondence.

Point of contact for this matter is Mrs. Adonna Clayton who may be reached at [adonna.n.clayton.civ@us.navy.mil](mailto:adonna.n.clayton.civ@us.navy.mil) or (904) 763-5974. Letter correspondence can be addressed to: NAVFAC SE EV, Attn: Mrs. Adonna Clayton (EV21), PO Box 30A, Bldg. 903, Jacksonville, FL 32212-0030.

Sincerely,

A handwritten signature in black ink, appearing to read "M. B. Oxendine", is written over a horizontal line.

M. B. OXENDINE, PE  
Environmental Director  
By direction of the  
Commanding Officer

Enclosure

Copy to: Ms. Emilie Rogers, NAS JRB New Orleans  
Mr. William Strickland, NGB

*Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Coastal Consistency Determination*

**Project Description and  
Louisiana Coastal Resources Program Consistency Review**

**Introduction**

This document provides the State of Louisiana with the United States (U.S.) Department of the Air Force (DAF), National Guard Bureau (NGB), and Department of the Navy (as a cooperating agency) Consistency Determination under Coastal Zone Management Act (CZMA) 16 United States Code (U.S.C.) § 1456 Section 307 (c) and 15 Code of Federal Regulations (CFR) § 930 (c), for the Air National Guard (ANG) F-15EX Eagle II & F-35A Lightning II Operational Beddowns Environmental Impact Statement. The information in this Consistency Review is provided pursuant to 15 CFR § 930.39 and the requirements of the Louisiana Coastal Resources Program.

**Project Location**

The project location is the 159th Fighter Wing (159 FW) installation located entirely within the boundaries of Naval Air Station Joint Reserve Base (NAS JRB) New Orleans, which is a military installation. The 159 FW installation location within Plaquemines Parish is shown in *Figure 1*. The individual construction project areas are shown in *Figure 2* through *Figure 4*.

**Description of the Proposed Action**

The DAF and NGB propose to maintain the combat capability of the ANG fighter wings currently flying the F-15C/D aircraft. These aircraft have reached the end of their lifespan and will be retired due to safety and maintenance concerns. One of the fighter wings being considered for the Proposed Action is the 159 FW at NAS JRB New Orleans, in Belle Chasse, Louisiana (LA). The proposal for the 159 FW and the focus of this Consistency Determination is the beddown, operation, and associated infrastructure construction for one squadron of F-15EX Eagle II (F-15EX) aircraft, or one squadron of F-35A Lightning II (F-35A) aircraft, or construction associated with the retention of the current F-15C/D at NAS JRB New Orleans.

To support the proposed operations, additional infrastructure and facilities would be required at the 159 FW installation. These construction and modification projects would vary depending on the proposed aircraft selected but would primarily include the construction of new facilities on currently paved areas or actively managed (i.e., mowed and landscaped) areas and/or the renovation of existing facilities. Under the Proposed Action alternatives at NAS JRB New Orleans, proposed construction and modification activities would result in up to 100,800 square feet (SF) of new impervious surfaces. Construction and operations under Proposed Action alternatives would take place within the coastal zone; however, none of the areas designated for proposed construction projects would occur within proximity of wetlands. In addition, site-specific Stormwater Pollution Prevention Plans (SWPPPs) would be prepared for each construction project to ensure that runoff would be contained on-site. Predevelopment hydrology would be maintained through compliance with low impact development (LID) and Section 438 of the Energy Independence and Security Act of 2007 (EISA). Best management

*Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Coastal Consistency Determination*

practices (BMPs) would continue to be implemented to minimize impacts to both surface water and groundwater. Some of the proposed construction or modification projects would be located within the 100-year floodplain; however, impacts to floodplains would not be significant and would be in compliance with Executive Order (EO) 11988, and with preparation of a Finding of No Practicable Alternative. Impacts to water resources as a result of the proposed beddown of the F-15EX, F-35A, or retention of the F-15C/D aircraft at NAS JRB New Orleans would not be significant.

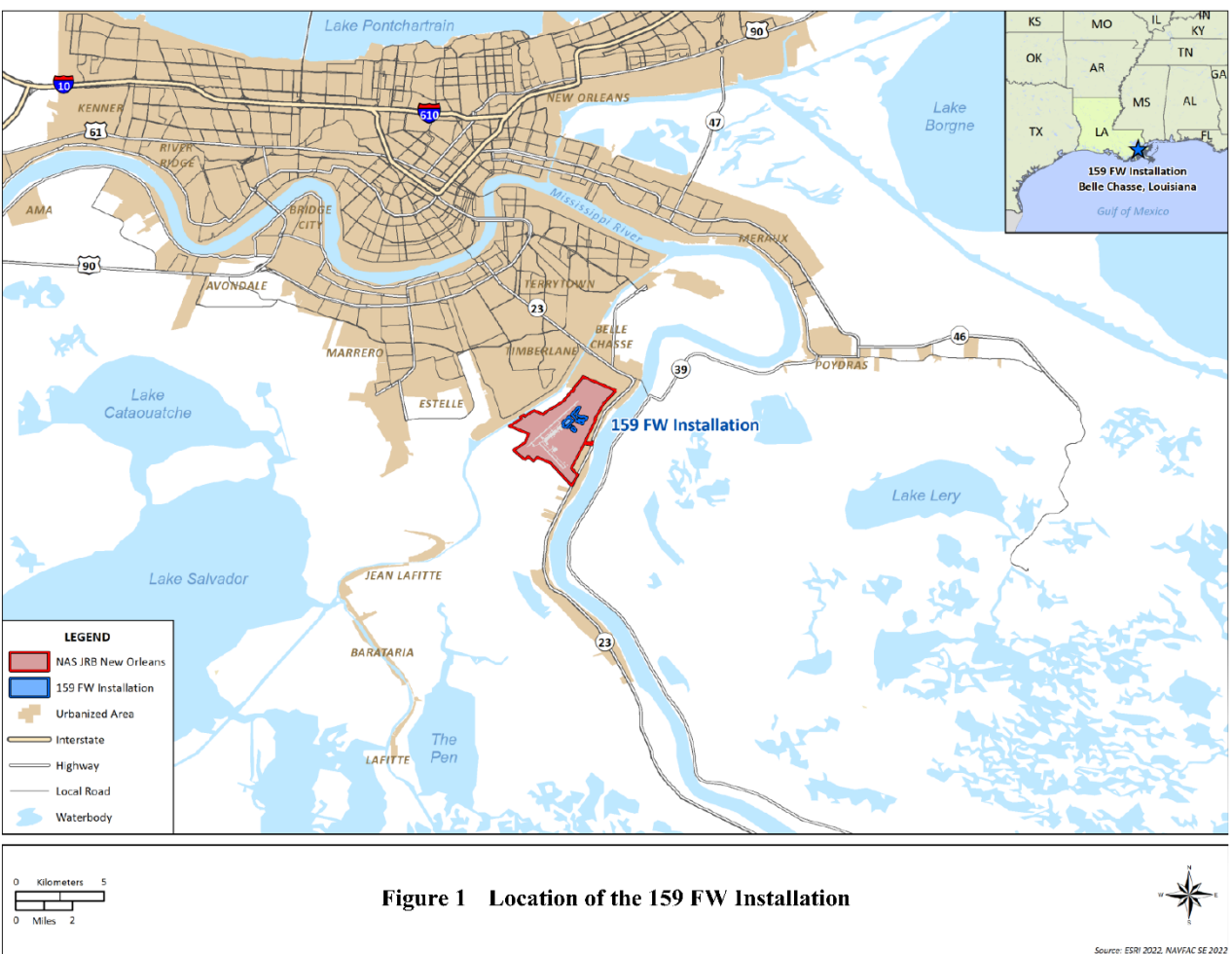
**Federal Consistency Review**

Louisiana Coastal Resources Program is composed of state statutes, which constitute the enforceable policies of the Coastal Resources Program. Statutes addressed as part of the Louisiana Coastal Resources Program consistency review and considered in the analysis of the Proposed Action are discussed in Table 1.

**Conclusion**

The Navy (a cooperating agency on the EIS and the owner of NAS JRB New Orleans) has reviewed the Louisiana Coastal Resources Program and reviewed its Proposed Action for how and to what degree the activities could affect Louisiana's coastal zone uses and resources. The Navy has determined that the Proposed Action will not have an effect on a coastal use or resources of Louisiana's coastal zone and is consistent to the maximum extent practicable with the applicable enforceable policies of the Louisiana Coastal Resources Program.

*Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Coastal Consistency Determination*



**Figure 1 Location of the 159 FW Installation**



Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Coastal Consistency Determination

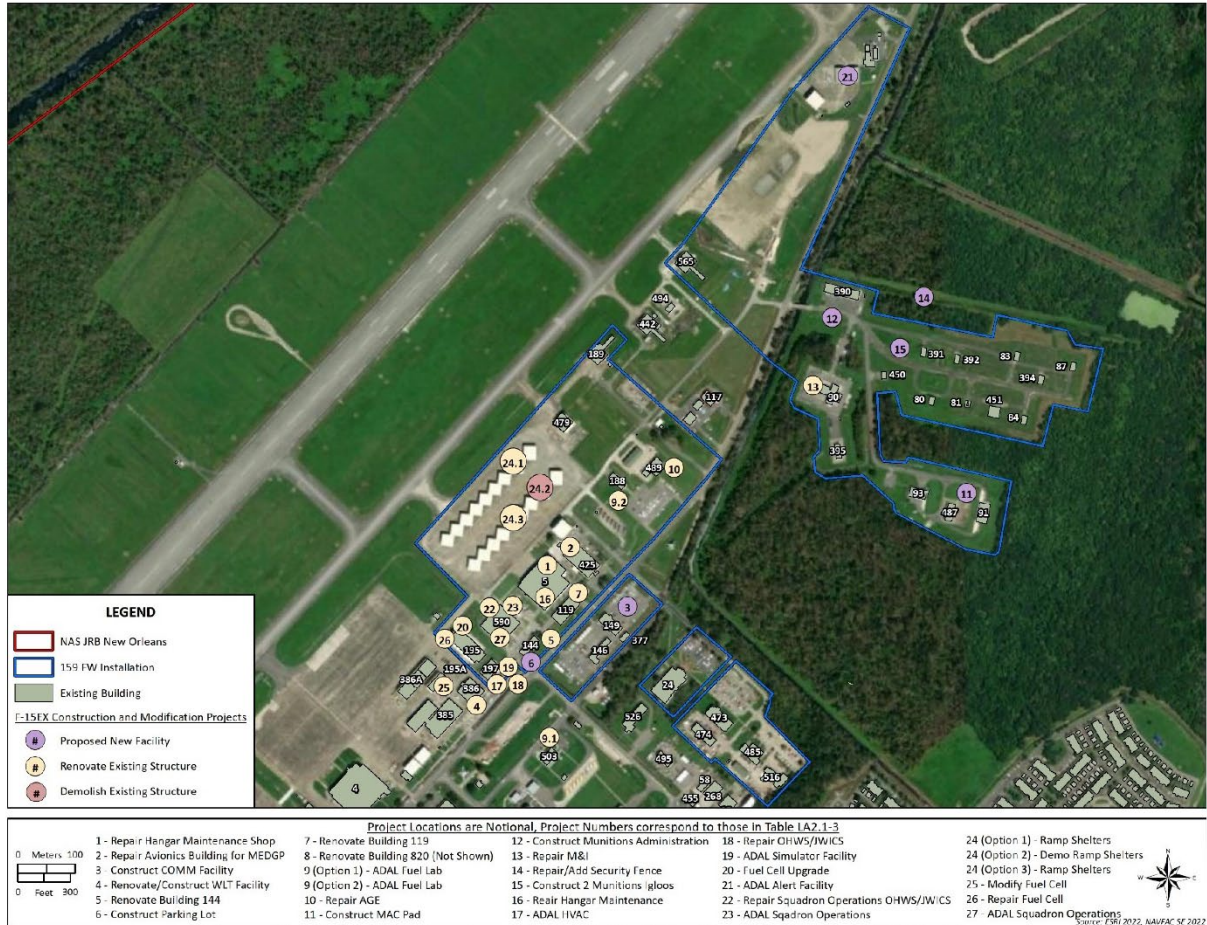


Figure 2 Proposed Construction and Modification for the F-15EX Beddown  
at the 159 FW Installation

Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Coastal Consistency Determination

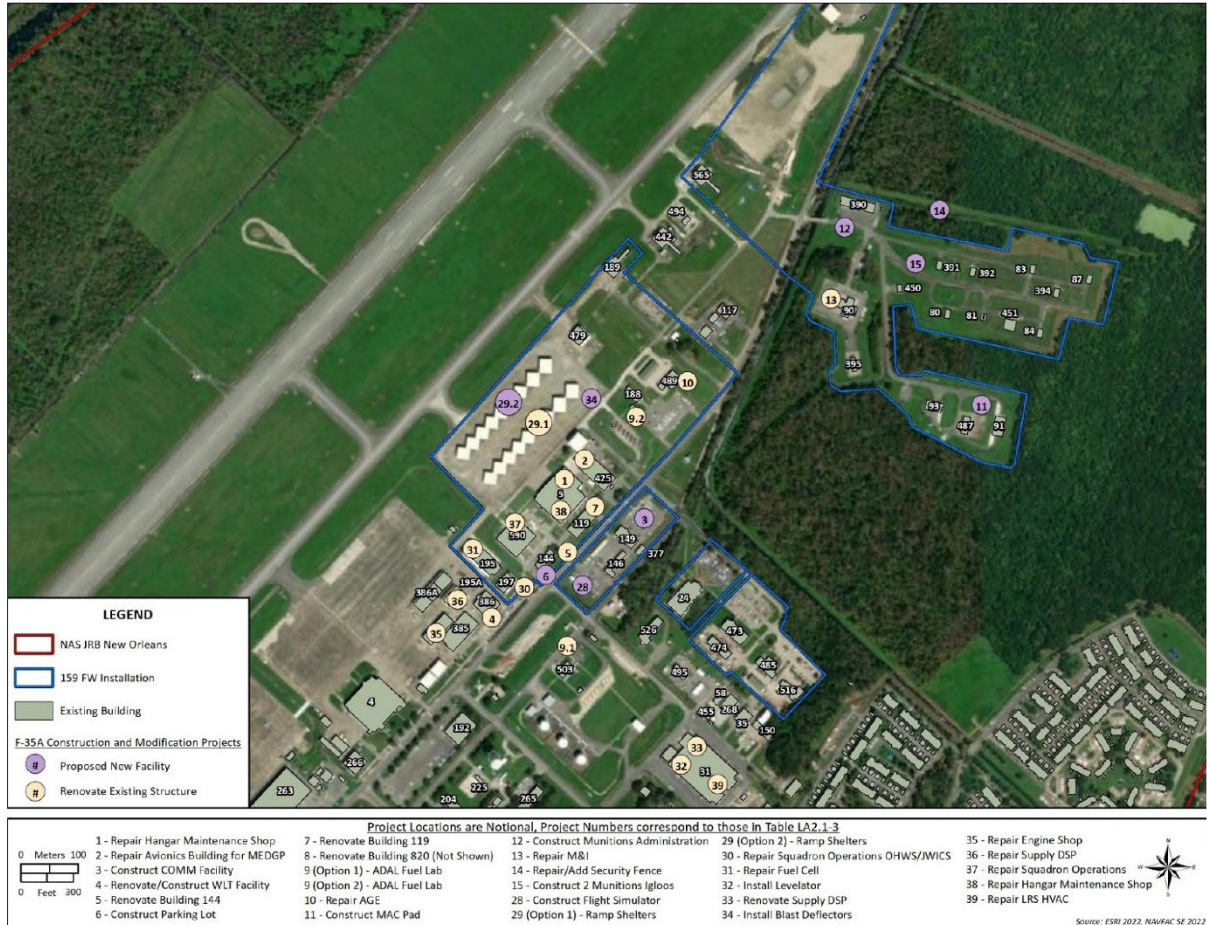
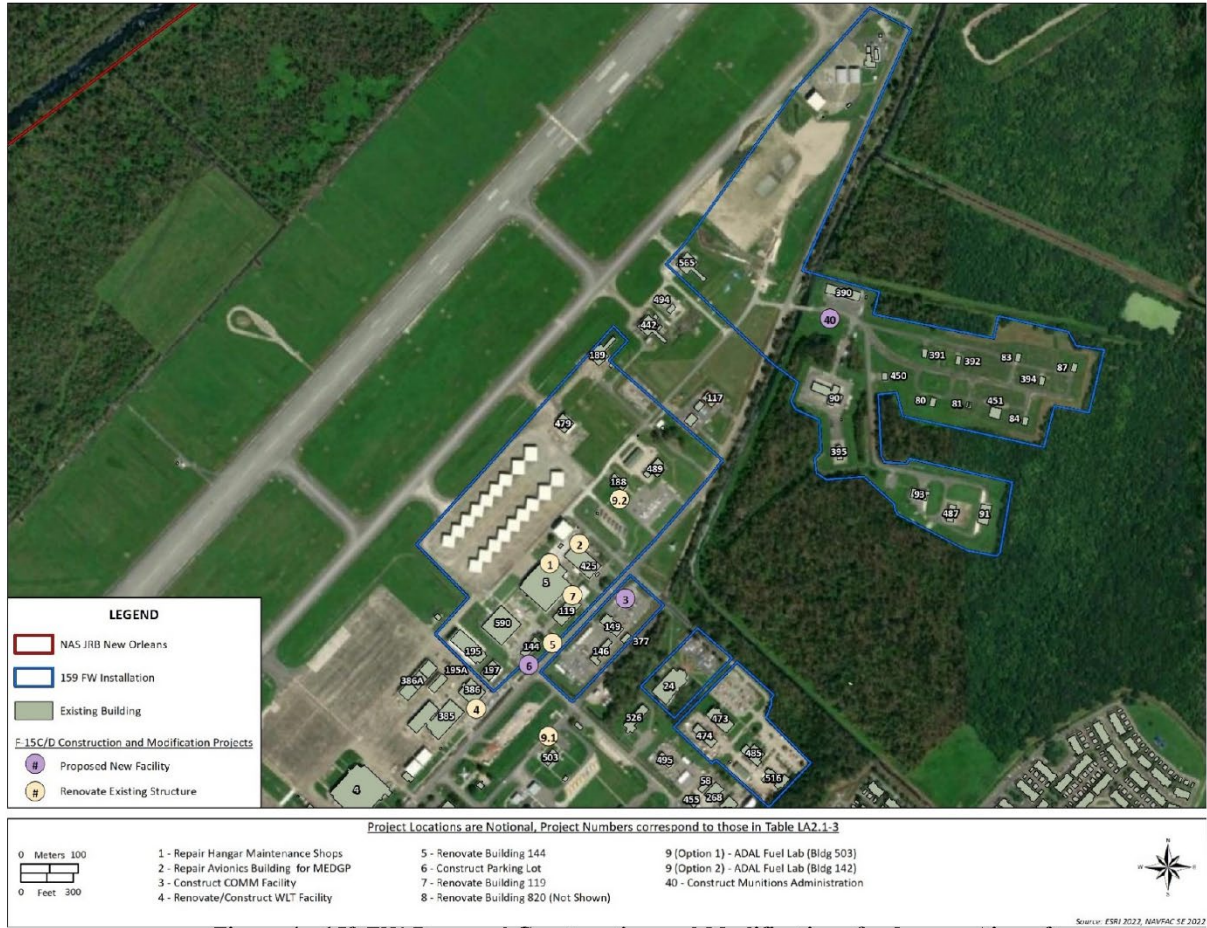


Figure 3 159 FW Proposed Construction and Modifications for F-35A Beddown



*Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Coastal Consistency Determination*



**Figure 4 159 FW Proposed Construction and Modifications for Legacy Aircraft**

**Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns**  
**Environmental Impact Statement**  
**Final – November 2024**

*Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns*  
*Environmental Impact Statement*  
*Coastal Consistency Determination*

**Table 1 Louisiana Enforceable Statutes and Federal Consistency Review**

Louisiana Administrative Code, Title 43 Part I	Legal Scope	Consistency Evaluation
Section 701 (G). Guidelines Applicable to All Uses	<p>It is the policy of the coastal resources program to avoid the following adverse impacts. To this end, all uses and activities shall be planned, sited, designed, constructed, operated, and maintained to avoid to the maximum extent practicable significant:</p> <p><b>Part 1:</b> reductions in the natural supply of sediment and nutrients to the coastal system by alterations of freshwater flow;  <b>Part 2:</b> adverse economic impacts on the locality of the use and affected governmental bodies;  <b>Part 3:</b> detrimental discharges of inorganic nutrient compounds into coastal waters;  <b>Part 4:</b> alterations in the natural concentration of oxygen in coastal waters;  <b>Part 5:</b> destruction or adverse alterations of streams, wetland, tidal passes, inshore waters and water bottoms, beaches, dunes, barrier islands, and other natural biologically valuable areas or protective coastal features;  <b>Part 6:</b> adverse disruption of existing social patterns;  <b>Part 7:</b> alterations of the natural temperature regime of coastal waters;  <b>Part 8:</b> detrimental changes in existing salinity regimes;  <b>Part 9:</b> detrimental changes in littoral and sediment transport processes;</p>	<p><b>Part 1:</b> The Proposed Action does not include alterations of freshwater flow in the coastal zone. The Proposed Action does not include any changes to the existing drainage ditches or canals on the military installation.  <b>Part 2:</b> The Proposed Action does not include impacts to the locality of the use and affected governmental bodies.  <b>Part 3:</b> The Proposed Action does not include discharges of inorganic nutrient compounds.  <b>Part 4:</b> The Proposed Action does not include alterations to oxygen concentrations in coastal waters.  <b>Part 5:</b> The Proposed Action does not include destruction or adverse alterations of streams, wetlands, tidal passes, inshore waters and water bottoms, beaches, dunes, barrier islands, and other natural biologically valuable areas or protective coastal features of the coastal zone.  <b>Part 6:</b> The Proposed Action does not include disruptions of existing social patterns.  <b>Part 7:</b> The Proposed Action does not include alterations of coastal waters natural temperature regime.  <b>Part 8:</b> The Proposed Action does not include alterations in existing salinity regimes.  <b>Part 9:</b> The Proposed Action does not include changes in littoral and sediment transport processes.</p>
Section 701 (G). Guidelines Applicable to All Uses (continued)	<p><b>Part 10:</b> adverse effects of cumulative impacts;  <b>Part 11:</b> detrimental discharges of suspended solids into coastal waters, including turbidity resulting from dredging;  <b>Part 12:</b> reductions or blockage of water flow or natural</p>	<p><b>Part 10:</b> Analysis in the Draft EIS concluded that the incremental contribution of the Proposed Action to cumulative impacts on noise, airspace, air quality/climate change, socioeconomics/environmental justice, land use/noise compatible land use, Department of Transportation Act Section 4(f), water resources/floodplains/wild and scenic rivers, geological resources/soils/farmland, cultural resources, safety,</p>

***Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Final – November 2024***

*Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Coastal Consistency Determination*

Louisiana Administrative Code, Title 43 Part I	Legal Scope	Consistency Evaluation
	<p>circulation patterns within or into an estuarine system or a wetland forest;  <b>Part 13:</b> discharges of pathogens or toxic substances into coastal waters;  <b>Part 14:</b> adverse alteration or destruction of archaeological, historical, or other cultural resources;</p>	<p>hazardous materials/waste, biological resources/coastal resources, visual impacts, and infrastructure/utilities/natural resources and energy supply/transportation/public transportation would not be significant. The Navy would further minimize cumulative impacts to coastal zone uses and resources to the greatest extent practicable through adherence to land disturbance best management practices.  <b>Part 11:</b> The Proposed Action does not involve dredging.  <b>Part 12:</b> The Proposed Action does not include reductions or blockage of water flow or natural circulation patterns within or into an estuarine system.  <b>Part 13:</b> The Proposed Action does not include discharges of pathogens or toxic substances. All land use controls for environmental restoration sites would be observed.  <b>Part 14:</b> The Proposed Action would not affect archaeological, historical, or other cultural resources of the State of Louisiana. No known sites have been identified within any of the proposed construction footprints. Should any cultural resources be discovered during project activities, the activity would cease and the discovery would be immediately reported to the State Historic Preservation Officer. Consultation with the Louisiana State Historic Preservation Officer is ongoing.</p>
<p>Section 701 (G). Guidelines Applicable to All Uses (continued)</p>	<p><b>Part 15:</b> fostering of detrimental secondary impacts in undisturbed or biologically highly productive wetland areas;  <b>Part 16:</b> adverse alteration or destruction of unique or valuable habitats, critical habitat for endangered species, important wildlife or fishery breeding or nursery areas, designated wildlife management or sanctuary areas, or forestlands;  <b>Part 17:</b> adverse alteration or destruction of public parks, shoreline access points, public works, designated recreation areas, scenic rivers, or other areas of public use and concern;  <b>Part 18:</b> adverse disruptions of coastal wildlife and fishery migratory patterns;  <b>Part 19:</b> land loss, erosion, and subsidence;</p>	<p><b>Part 15:</b> The Proposed Action does not include detrimental secondary impacts in undisturbed or biologically highly productive wetland areas.  <b>Part 16:</b> The Navy is submitting a Biological Assessment to USFWS for potential impacts to threatened and endangered species as a result of the Proposed Action. The Navy has concluded that the Proposed Action “may affect, but not likely to adversely affect” the Eastern Black Rail, Pallid Sturgeon, and West Indian Manatee, due to the noise associated with aircrafts.  <b>Part 17:</b> The Proposed Action does not include adverse alteration of areas of public use and concern.  <b>Part 18:</b> The Proposed Action does not include disruptions of coastal wildlife and fishery migratory patterns.  <b>Part 19:</b> The Proposed Action does not include land loss, erosion, and subsidence.  <b>Part 20:</b> The Proposed Action does not include increases in the potential for flood, hurricane, or other storm damage. Under the F-15EX alternative, a maximum increase of 85,300 SF (1.96 acres) of impervious surfaces would be added. Under the F-35A alternative, a maximum increase of 100,800 SF (2.31 acres) of impervious surfaces would be added. Under the F-15C/D</p>

***Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Final – November 2024***

*Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns  
Environmental Impact Statement  
Coastal Consistency Determination*

<b>Louisiana Administrative Code, Title 43 Part I</b>	<b>Legal Scope</b>	<b>Consistency Evaluation</b>
	<p><b>Part 20:</b> increases in the potential for flood, hurricane, and other storm damage, or increases in the likelihood that damage will occur from such hazards.</p> <p><b>Part 21:</b> reduction in the long term biological productivity of the coastal ecosystem.</p>	<p>legacy aircraft alternative, a maximum increase of 62,500 SF (1.43 acres) of impervious surfaces would be added.</p> <p><b>Part 21:</b> The Proposed Action would not reduce the long-term biological productivity of the coastal ecosystem.</p>
Section 703	Guidelines for Levees	The Proposed Action does not include construction of levees.
Section 705	Guidelines for Linear Facilities	The Proposed Action does not include development of linear facilities.
Section 707	Guidelines for Dredged Spoil Deposition	The Proposed Action does not include dredged spoil deposition.
Section 709	Guidelines for Shoreline Modification	The Proposed Action does not include shoreline modification.
Section 711	Guidelines for Surface Alterations	The Proposed Action does not include surface alterations in Louisiana's Coastal Zone ( <i>all alterations are on federal property outside of the state's coastal zone boundaries</i> ). The surface alterations proposed on the 159 FW installation property within NAS JRB New Orleans would not have an effect on land use, water use, or the natural resources of Louisiana's coastal zone. Any approved project will be designed and constructed using best practical techniques to minimize present and future property damage and adverse environmental impacts. Areas modified by surface alteration activities will be revegetated.
Section 713	Guidelines for Hydrologic and Sediment Transport Modifications	The Proposed Action would not result in hydrologic or sediment transport modifications through such means as controlled diversions, deposition systems, siphons, controlled conduits, water control structures, impoundments, or surface/groundwater withdrawals.
Section 715	Guidelines for Disposal of Wastes	The Proposed Action does not include the location or operation of waste storage, treatment and disposal facilities in the Louisiana coastal zone. Temporary minor use of hazardous materials and generation of hazardous wastes during project construction activities, and maintenance and operational use of hazardous materials and generation of hazardous waste would be managed under existing laws, ANG and Navy regulations, and management practices. Waste disposal will be at approved disposal sites.
Section 717	Guidelines for Uses that Result in the Alteration of Waters Draining into Coastal Waters	The Proposed Action does not include activities that would result in alteration of waters draining into coastal waters. No changes are expected to the quantity, quality, and rate of flow off the installation.
Section 719	Guidelines for Oil, Gas, and Other Mineral Activities	The Proposed Action does not include oil, gas, or other mineral activities.





**DEPARTMENT OF THE NAVY**  
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST  
JACKSONVILLE, FL 32212-0030

5090  
Ser EV22/00961  
November 9, 2023

Seth Bordelon  
U.S. Fish and Wildlife Service, Southeast Region  
Louisiana Ecological Services Office  
200 Dulles Drive, Lafayette, LA 70506

**SUBJECT: ENDANGERED SPECIES ACT SECTION 7 INFORMAL CONSULTATION**

In accordance with Section 7 of the Endangered Species Act (ESA), the U.S. Navy (DON) is initiating an informal consultation for the beddown, operation and associated infrastructure construction of one squadron of F-15EX Eagle II aircraft at two of these fighter wings and one squadron of F-35A Lightning II aircraft at the 159th Fighter Wing at Naval Air Station (NAS) Joint Reserve Base (JRB) New Orleans. ESA listed species under consideration in this document enclosed, are the Eastern Black Rail (*Laterallus jamaicensis ssp. jamaicensis*), Pallid Sturgeon (*Scaphirhynchus albus*) and West Indian Manatee (*Trichechus manatus*).

The DON determined that the proposed action may affect, but is not likely to adversely affect, the species listed above, and seeks U. S. Fish and Wildlife Service (US FWS) concurrence with this determination. The DON and the US FWS have a history of effective partnering and we look forward to continuing that relationship with this project that is vital to sustaining NAS JRB New Orleans' training and operations. The DON requests that this Section 7 consultation be completed no later than 30 November 2023.

Point of contact for this project is Mr. Matt Martin who may be reached at (305) 928-4027 or matthew.s.martin54.civ@us.navy.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "M. B. Oxendine", is written over a horizontal line.

M. B. OXENDINE, PE  
Environmental Director  
By direction of the  
Commanding Officer

Enclosure

Copy to:  
Daniel Riggs, NAS JRB New Orleans

**From:** Velazquez, Dana <[dana.velazquez@fema.dhs.gov](mailto:dana.velazquez@fema.dhs.gov)>

**Sent:** Wednesday, February 21, 2024 4:02 PM

**To:** NGB CC/A4A NEPA COMMENTS Org <[NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil](mailto:NGB.A4.A4A.NEPA.COMMENTS.Org@us.af.mil)>

**Cc:** Dracoulis, Danielle <[danielle.dracoulis@fema.dhs.gov](mailto:danielle.dracoulis@fema.dhs.gov)>

**Subject:** [Non-DoD Source] IMS112081 Air National Guard F-15EX Eagle II & F-35A Lightning II  
Operational Beddowns Draft Environmental Impact Statement

Good Day Mr. Strickland,

Please ensure that you are working with the local floodplain administrator and obtaining floodplain permits and any other federal/state or local permits that were required with the planned project.

Best Regards,

Dana M. Velazquez

*HM Support Specialist*

4586P-TX

Hazard Mitigation Division Branch

W: 202-341-8673 P: 850-321-1803

[dana.velazquez@fema.dhs.gov](mailto:dana.velazquez@fema.dhs.gov)



**FEMA**



**United States Department of the Interior**

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
5 Post Office Square, Suite 18011  
Boston, MA 02109

March 28, 2024

4111

IN REPLY REFER TO:  
ER 24/0063

William Strickland  
EIS Project Manager  
National Guard Bureau, NGB/A4AM  
Shepperd Hall  
3501 Fetchet Avenue  
Joint Base Andrews, MD 207620-5157

**Subject: Air National Guard F-15EX Eagle II and F-35A Lightning II Operational  
Beddowns  
Draft Environmental Impact Statement**

Dear William Strickland:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) prepared by the Air National Guard for the F-15EX Eagle II and F-35A Lightning II Operational Beddowns Project located at the 104<sup>th</sup> Fighter Wing (104 FW), Westfield-Barnes Regional Airport in Westfield, Massachusetts, the 144<sup>th</sup> Fighter Wing (144 FW), Fresno Yosemite International Airport in Fresno, California, and the 159<sup>th</sup> Fighter Wing (159 FW), Naval Air Station (NAS) Joint Reserve Base (JRB) New Orleans, in Belle Chasse, Louisiana. The proposed project is the beddown, operation, and associated infrastructure construction of one squadron of F-15EX Eagle II (F-15EX) aircraft at two of these fighter wings and one squadron of F-35A Lightning II (F-35A) aircraft at either the 104 FW or the 159 FW. These aircraft would replace the aging F-15C/D fighter aircraft at the selected wings. The following comments on NAS JRB New Orleans are offered in coordination with the Department's National Park Service (NPS). We have no comments on the proposed Massachusetts and California locations.

Under the National Park Service Organic Act of 1916, the NPS is mandated to protect national parks' natural soundscapes and dark night skies as critical natural and cultural resources. NPS management policies further detail the agency's responsibilities, including "to prevent or minimize all noise that through frequency, magnitude, or duration adversely affects the natural soundscape or other park resources or values" and to "work constructively and cooperatively with those responsible for inappropriate sources of noise in parks." The following recommendations pertain to the potential impacts to natural soundscapes, wildlife, and visitor experience at Jean Lafitte National Historic Park and Preserve (JELA) associated with the proposed changes in operations at the 159 FW at NAS JRB New Orleans.

TRANSMITTED ELECTRONICALLY – NO HARDCOPY TO FOLLOW



1. The noise study for the 159 FW does a thorough job modeling noise impacts on census tracts, healthcare facilities, residential areas, and schools considered Points of Interest (POI) in the vicinity of NAS JRB New Orleans, but entirely overlooks the presence of JELA. The Barataria Preserve, with portions located less than 4 miles southwest of the runway, protects wetland ecosystems and wildlife, and the Chalmette Battlefield, located northeast about 6 miles, preserves the site of the 1815 Battle of New Orleans as well as 14,000 graves from the War of 1812 through the Vietnam War. An increase in noise associated with the proposed introduction of F-15EX or F-35A aircraft is likely to affect the natural and cultural acoustic environments of both units. The NPS recommends extending the noise analyses to include units of JELA as additional Points of Interest.

2. In the noise study for the 159 FW, which includes the following figures: Figures 3-2 [map of existing Day-Night Average Sound Level (DNL) contours/noise gradients], 4-1 (F-15EX percent afterburner scenario), 4-3 (F-15EX 90 percent afterburner), 4-5 (F-35A 5 percent afterburner), 4-6 (F-35A 5 Percent afterburner comparison to existing), 4-7 (F-35A 50 percent afterburner), 4-8 (F-35A 50 Percent afterburner comparison to existing), 4-9 (F-35A 95 percent afterburner), and 4-11 (Comparison of 65 dB DNL contours), all fail to include the borders of JELA and important features such as the Chalmette Battlefield and National Cemetery, and the interpretive centers in New Orleans' old quarter/French Quarter. The NPS recommends including all units of federal land in project area maps.

3. The noise exposure analysis for DNL contours and POI levels uses the Department of Defense (DoD) threshold for land use recommendations for noise sensitive land uses of 65 dB DNL, and the classroom learning interference analysis screens for a threshold of 60 dB Leq, 8hr. However, these metrics do not account for, and are not compatible with NPS mandates and management policies.

4. Staff at JELA currently report already having to pause conversations, including Interpretive Rangers talking with visitors on the trail system, at the Barataria Preserve when fighter jets fly overhead. Even in close proximity, human speech cannot be heard during these times, indicating that the noise exposure exceeds 60 dB LAeq,1s – the level for speech interruption for normal conversation. Above this sound level, raised-voice communication at 4 m, such as an audience and interpreter 4 m apart, would result in 95% sentence intelligibility. That means the visitor will miss 5% of what an interpreter is saying, even if the interpreter is speaking loudly. Keep in mind that normal conversation starts to be affected at 52 dB, and this metric is used as a cutoff because that's the point at which the activity begins to be interrupted and worsens as a noise gets louder. Since the interpretive programming at JELA is already being interrupted by fighter jets, they're likely already experiencing events that are 65 dB and above.

Given that the introduction of F-15EX or F-35A aircraft might increase the Lmax and/or frequency of such interruptions, negatively impacting the visitor experience and impeding the NPS's ability to carry out its mandate, NPS recommends that the noise analysis includes either Number of Events Above (NA) or Time Above (TA) noise level threshold (Lmax) 60 dB for an average 24-hour day in Barataria Preserve.

5. Wildlife respond to daily average noise levels as low as 40 dB LAeq, 24hr [20–10,000 Hz] and the NPS considers 35 dB LAeq, 24hr [50–10,000 Hz] to be an important indicator of quality for the acoustic environment in NPS units. As the current noise exposure analysis doesn't allow full understanding of potential impacts to resources and the overall acoustic environment in JELA, NPS recommends that the contour analysis for JELA be modeled down to at least 40 LAeq, 24hr.

6. Given a likely increase in noise at JELA resulting from proposed operations of F-15EX or F-35A aircraft at NAS JRB New Orleans, the NPS would like the DEIS to include also include proposals for mitigation measures, such as:

- Reducing flights over Barataria Preserve during the morning bird song chorus (5 a.m. - 10 a.m.) during the spring and early summer breeding season (March-June).
- Pausing flights over the Chalmette Battlefield during special programming, (i.e., living history demonstrations, musket and cannon-firing demonstrations, and a kid's camp scheduled for the annual Battle of New Orleans Commemoration).
- Provide the NPS with a Point of Contact at the NAS JRB to coordinate key programming events, and to contact with noise-related issues for assistance with their resolution.

We appreciate the opportunity to review and provide comments on this project. Please contact Mark Eberle at the National Park Service, Region 1 Office at 267-315-1631 or via email at [mark\\_eberle@nps.gov](mailto:mark_eberle@nps.gov) if you have any questions on these comments. Please contact me at [andrew\\_raddant@ios.doi.gov](mailto:andrew_raddant@ios.doi.gov) or 617-223-8565 if I can be of further assistance.

Sincerely,

**ANDREW  
RADDANT**  Digitally signed by  
ANDREW RADDANT  
Date: 2024.03.28  
18:13:58 -04'00'

Andrew L. Raddant  
Regional Environmental Officer

Electronic distribution: [NGB.A4.A4A.NEPA.COMMENTS.org@us.af.mil](https://NGB.A4.A4A.NEPA.COMMENTS.org@us.af.mil)

cc: Julie Whitback, JELA, [julie\\_whitbeck@nps.gov](mailto:julie_whitbeck@nps.gov)  
Guy Hughes, JELA, [guy\\_hughes@nps.gov](mailto:guy_hughes@nps.gov)  
Charles Hunt, JELA, [charles\\_hunt@nps.gov](mailto:charles_hunt@nps.gov)



**REGION 9**  
SAN FRANCISCO, CA 94105

April 2, 2024

Mr. Will Strickland  
National Guard Bureau  
3501 Fetchet Avenue  
Joint Base Andrews Maryland 20762-5157

Subject: Air National Guard F-15EX Eagle II and F-35A Lightning II Operational Beddowns Draft  
Environmental Impact Statement (CEQ/EIS No. 20240025)

Dear Will Strickland:

The U.S. Environmental Protection Agency has reviewed the above-referenced document pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. The CAA Section 309 role is unique to EPA. It requires EPA to review and comment on the environmental impact of any proposed federal action subject to NEPA's environmental impact statement requirements and to make its comments public.

The Department of the Air Force proposes to replace the aging F-15C/D fleet at the Air National Guard (ANG) Fighter Wings that continue to fly these aircraft. The proposed action also involves substantial increases in training operations, and additional facilities and infrastructure. The DEIS identifies the 144th Fighter Wing (144 FW) at Fresno Yosemite International Airport (FAT) in Fresno, California, and the 159th Fighter Wing (159 FW) at Naval Air Station Joint Reserve Base (NAS JRB) New Orleans in Belle Chasse, Louisiana, as the preferred alternative for the F-15EX, and the 104th Fighter Wing (104 FW) at Westfield-Barnes Regional Airport (BAF) in Westfield, Massachusetts as the preferred alternative for the F-35A beddown.

#### Review Summary

The EPA identified public health, welfare, or environmental quality concerns in the analysis that EPA recommends be addressed in the Final EIS. Specifically, the DEIS identifies significant noise impacts to communities surrounding BAF and significant *disproportionate* noise impacts to communities with environmental justice concerns at FAT. Noise impacts at both locations disproportionately affect children's learning in classrooms and substantially degrade the noise environment at playgrounds and outdoor recreation areas. It does not appear that meaningful engagement with these communities has occurred, consistent with Executive Order 14096, Section 3, (ix)(C). We have concerns regarding these

impacts, especially those that fall disproportionately on low-income and minority communities and children.

The proposed actions evaluate the maximum annual flying hours per aircraft, and it is not clear whether an alternative that maintains the current operational tempo with the new aircraft, or one with smaller increases in operations, could meet the purpose and need. Establishing boundaries to safeguard the public health and welfare of our most vulnerable populations is appropriate.

Additionally, all potential noise mitigation has not been identified in the EIS, consistent with Council on Environmental Quality guidance. We urge the Air Force/ANG to ensure all efforts to reduce these impacts are fully explored and disclosed. We have suggestions regarding noise impacts relative to impact assessment methodology, environmental justice, children's learning, and mitigation. We also have comments and recommendations regarding construction in PFAS-contaminated areas, floodplain development and other climate resilience considerations, and air quality. Please see our attached detailed comments.

The EPA appreciates the opportunity to review the DEIS for the ANG F-15EX Eagle II and F-35A Lightning II Operational Beddowns. Should you have any questions regarding this letter, please contact me at (213) 244-1834 or contact Karen Vitulano, the lead reviewer for this project, at (415) 947-4178 or vitulano.karen@epa.gov.

Sincerely,

**FRANCISCO  
DONEZ**

Digitally signed by  
FRANCISCO DONEZ  
Date: 2024.04.02 14:42:53  
-07'00'

Francisco Dóñez  
Acting Manager  
Environmental Review Section 2

Enclosure: EPA's Detailed Comments

cc: Chad Neptune, SF Bay Regional Water Quality Control Board  
Patia Siong, San Joaquin Air Pollution Control District



**EPA'S DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE AIR NATIONAL GUARD F-15EX EAGLE II and F-35A LIGHTNING II OPERATIONAL BEDDOWNS – APRIL 2, 2024**

**Noise Impacts**

Increases in noise are substantial, with the project adding just under 5,600 individuals into noise conditions not suitable for residential land use around the Fresno-Yosemite International airport (FAT) and just under 800 individuals at Westfield-Barnes Regional Airport (BAF). We appreciate that the DEIS identifies these impacts as significant at these locations. While the DEIS discloses the numerical values from its modeling, the results are not translated in a way such that the public can clearly understand how these changes would affect their daily lives. We have suggestions for improving the methodology to better communicate the significant noise impacts to the public. See *Noise Assessment Methodology* subheading below.

We appreciate the disclosure that at FAT these impacts will be borne by a population with environmental justice concerns. Based on the Scoping Report in Appendix A4, the outreach that occurred for this DEIS was typical and did not include additional and focused efforts to consult and inform the affected community with environmental justice concerns pursuant to Executive Order (EO) 14096. We have suggestions for addressing this requirement. See *Environmental Justice* subheading below.

The DEIS also discloses that impacts at BAF and FAT will be disproportionately borne by our most vulnerable population, our children. Please see our comments below under the *Schools and Impacts to Children's Learning* subheading.

The DEIS states that mitigation has been integrated into flight operations and further noise mitigation would not be practicable either due to the cost or the impact to training. While NEPA does not mandate that mitigation occur, even for significant impacts, it does require that all available mitigation be discussed in case other parties could implement it. Additionally, the Federal Aviation Administration's (FAA) Part 150 program was raised and discussed at the public meetings but its application and limitations are not discussed in the DEIS. See our comments under the *Mitigation for Noise* subheading below.

Finally, we request full consideration of possible alternatives that could reduce harm from high noise levels on vulnerable communities and children. See *Purpose and Need and Alternatives* subheading below.

***Noise Assessment Methodology***

The DEIS does not discuss noise modeling results in terms of community annoyance. The DEIS identifies annoyance as a metric on pages 3-6, stating that "studies of community annoyance show that DNL (Day-Night Average Level) correlates well with impact assessments; there is a consistent relationship between DNL and the level of annoyance". It also acknowledges that DNL and Community Noise Equivalent Level for California (CNEL) metrics are used by all federal agencies for predicting human annoyance and other potential noise effects on humans (p. 3-17). However, annoyance as a metric is only discussed generically in the Noise appendix and is not applied to the numeric modeling results included in the noise impact assessment for the project.

The Department of Defense (DoD) Technical Bulletin *Community Annoyance Caused by Noise from Military Aircraft Operations* (December 2009)<sup>1</sup> states that the concept of “community annoyance” was developed to provide one comprehensive term to describe the overall community response to noise, including both degradation of outdoor activities and interference with indoor activities. The cover of the DoD Technical Bulletin states:

“Long term community annoyance from aircraft noise is typically the greatest adverse effect of low altitude, subsonic overflights of residential populations. Understanding annoyance is essential to successful public relations in the vicinity of air installations and operating areas, and to informed decisions on changes to the military operations.”

We agree that understanding annoyance is essential for sufficient disclosure and strongly recommend its inclusion in the FEIS for all locations. Community annoyance is especially important because it helps translate noise values that are expressed in DNL, which is an averaging metric that does not represent the noise level people experience. Indeed, the Government Accountability Office found that providing information on potential noise impacts grounded in DNL was not clear enough for communities to understand planned changes.<sup>2</sup>

As the DoD Technical Bulletin indicates, assessing community annoyance from noise uses various concepts, including the “Schultz Curve,” developed from extensive studies where DNL is shown on the X axis and the percent highly annoyed on the Y axis, and is generally part of Air Force noise disclosures.<sup>3</sup> This curve has been updated over the years; the most recent update by the FAA using their recent Neighborhood Environmental Survey found a substantial increase in the percentage of people who are highly annoyed by aircraft noise over the entire range of aircraft noise levels considered, including at lower noise levels.<sup>4</sup>

In addition to annoyance, there are other ways the data can be presented in understandable terms for the public, as we recommended in our scoping comments. Noise impacts in a general sense are discussed most effectively in the Noise appendix, and much of this information is appropriate for the body of the EIS where more readers will encounter the information.

**Recommendations:** Include the community annoyance supplemental metric in the FEIS and in outreach materials. Disclose information from the updated FAA curve for this metric in relation to the project and interpret the numerical data generated from modeling to better convey its effects on the lived experience of residents. This can include describing how noise is likely to be experienced (i.e., how much louder in simple terms, how speech interference events could interrupt daily living, and incorporating additional descriptive information from the appendix).

**Additional Methodology Recommendations**

- **Include population in POIs:** Treating entire census groups as one point of interest (POI) does not sufficiently communicate the impact. For example, the DEIS states that the number of speech-interfering events with windows open ranges from one to five events per hour at 52 POIs, with

---

<sup>1</sup> Available: [https://www.denix.osd.mil/dodnoise/denix-files/sites/99/2024/01/community\\_annoyance.pdf](https://www.denix.osd.mil/dodnoise/denix-files/sites/99/2024/01/community_annoyance.pdf)

<sup>2</sup> See <https://www.gao.gov/assets/gao-22-105844.pdf>

<sup>3</sup> <https://www.113wg.af.mil/Portals/12/Aircraft%20Noise%20An%20enviro%20Perspective.pdf>

<sup>4</sup> See [https://www.faa.gov/regulations\\_policies/policy\\_guidance/noise/survey](https://www.faa.gov/regulations_policies/policy_guidance/noise/survey)

the greatest occurring at CAFr-C-08 Census Tract 31.04 centroid point (p. CA-25). We recommend adding a column to the tables where POIs are listed (e.g., Table CA3.1-11, Table MA3.1-11, Table LA3.1-11, etc.) enumerating the population within each census tract POI, and referencing the population number in the text where the POIs are discussed.

- **Sleep disturbance:** The potential for awakenings (PA) conveys the percentage of the population that would be awakened at least once per night under the noise conditions. Multiple events can be combined to determine the PA for all events during a single night (FAT Noise Report, p. 24). This does not capture the impact of additional awakenings if the population already experiences at least one awakening. For example, Table CA3.1-15 identifies Census Tract 31.04, the one closest to the FAT airfield, as having 30% of the population currently experiencing at least one awakening per night, and the project causing a 0% change (p. CA-44); however, additional awakenings to this same 30% of the population are not captured in the metric. There is a big difference between one awakening and three awakenings. We recommend communicating in the FEIS the number of households that would experience *additional* awakenings and how many, or otherwise conveying the information without multiple events being combined so that additional awakenings are obscured.
- **Errors in tables:** The numbers in Table CA3.1-10 for households in the 80-85 dB contour don't match the text directly above the table. In Table 4-9 of the FAT Noise Study *Classroom Speech Interfering Events per School Day Hour in the Vicinity of FAT* it appears that the change from existing conditions in parentheses is not accurately represented. We recommend checking all associated tables for accuracy.

#### ***Environmental Justice***

The DEIS acknowledges disproportionate effects to low-income and minority populations, stating that for FAT, 26% of the individuals in the area under the noise contours are low-income and 80% are minority. The EPA provided a training on the use of EJScreen to the Air Force/ANG and contractor staff working on this project on October 24, 2022, but it does not appear this tool was used since our approximation of the population under the noise contours at FAT indicates approximately 52% are low-income.<sup>5</sup> Nevertheless, we appreciate the acknowledgement in the DEIS of disproportionate impacts to communities with environmental justice concerns and note the possibility that impacts to low-income households may be higher. The DEIS also acknowledges disproportionate impacts to children and the elderly around BAF (p. MA-86).

EO 14096 *Revitalizing Our Nation's Commitment to Environmental Justice for All* (4/25/23) states that "advancing environmental justice can successfully occur *only through meaningful engagement and collaboration* with underserved and overburdened communities to address the adverse conditions they experience and ensure they do not face additional disproportionate burdens or underinvestment" (emphasis ours). The outreach that occurred for the project, as documented in the Scoping Report (Appendix A4), describes standard outreach that might occur for a typical project but does not represent an effort that could be characterized as meaningful engagement in the context of significant disproportionate impacts. Because of the significance of noise impacts that may be unmitigable, especially for homes already sound-insulated, it is vital that the Air Force/ANG ensure the local

---

<sup>5</sup> A more accurate estimate could be obtained by importing shapefiles into EJScreen.



community is made aware of the proposed action and its impacts and to solicit the knowledge gained from those already experiencing elevated noise impacts.

Meaningful public involvement is a process that proactively seeks full representation from the community, considers public comments and feedback, and incorporates that feedback into a project when possible. It improves a community's knowledge of the project, increases trust between the agency and community to build strong relationships, and increases the likelihood that plans will be accepted. Most importantly, it provides first-hand information about community-specific issues and concerns that might otherwise be unknown. In the case of noise, community engagement itself can be somewhat mitigating in that, as DoD notes,<sup>6</sup> advance notification of significant noise events to the public seems to lessen annoyance.<sup>7</sup> This is consistent with the information in Table B-3: *Non-Acoustic Variables Influencing Aircraft Noise Annoyance* which include various emotional variables that affect annoyance.

**Recommendations:** We strongly recommend the Air Force/ANG engage in focused and enhanced outreach to the neighboring community before the FEIS is published, consistent with E.O. 14096.<sup>8</sup> Consider discussions with key community leaders and stakeholder representatives,<sup>9</sup> parent's organizations, and existing ongoing groups and committees by providing project briefings, information on the City of Fresno's Sound Mitigation Acoustic Remedy Treatment Program and the DoD Community Noise Mitigation program, and to distribute information on remedies that homeowners themselves can pursue.<sup>10</sup> Indicate whether renters, which comprise roughly half the low-income and minority population south of BAF, are less likely to receive benefit from available noise mitigation funding opportunities for sound insulation. Document the process for meaningful community engagement in the FEIS, including feedback received and how it was incorporated.

#### ***Schools and Impacts to Children's Learning***

We appreciate that the DEIS discloses that noise impacts would fall disproportionately on children at BAF and FAT. The evidence for noise impacting children's learning is robust and well documented. While the associated noise study states that "a noisy environment *can* adversely affect and interfere with classroom learning" (emphasis ours), it downplays this serious impact on our most vulnerable population.

The most useful information regarding noise impacts to children's learning is in the Noise Appendix, Section B.2.8, but is generic and not applied to the data generated in the noise modeling to present the specific predicted effects from the project. The appendix states that there is a "potential link between aircraft noise and both reading comprehension and learning motivation" (p. B-32) and describes such effects as "small". The studies discussed subsequently describe lower reading scores, lower ability to

---

<sup>6</sup> <https://www.denix.osd.mil/dodnoise/denix-files/sites/99/2024/01/noise.pdf>

<sup>7</sup> From *Aviation Noise Impacts: State of the Science* (Noise Health 2017 Mar-Apr; 19(87): 41–50), "the observed influence on annoyance of several non-acoustical factors such as fear, perceived control, and trust in authorities suggests that communication strategies addressing these issues could strongly contribute to the reduction of annoyance, alongside or even in the absence of a noise reduction."

<sup>8</sup> EPA's public participation guide may be useful: <https://www.epa.gov/international-cooperation/public-participation-guide>

<sup>9</sup> EPA can assist in identifying environmental justice-related community organizations if needed.

<sup>10</sup> For example, this Navy brochure: [https://www.wbdg.org/files/pdfs/Sound\\_Insulation\\_Brochure\\_2018.pdf](https://www.wbdg.org/files/pdfs/Sound_Insulation_Brochure_2018.pdf)



solve difficult puzzles and more likely to give up trying, and impaired reading comprehension and recognition memory. Parents may not perceive these effects (e.g., “below average reading scores”) as small.

The DEIS predicts the number of schools that will have increased speech interference events per hour and the number of minutes where speech would be obscured. We appreciate the use of the metrics Time Above (TA) and Number Above (NA) in an attempt to better convey impacts than DNL alone; however, the results do not effectively translate these numbers to real-world effects that would be useful to parents and school administrators. For example, how would children’s learning be affected for a classroom that currently has one speech interfering event per hour but would have five speech interfering events per hour under the F-15EX proposal at FAT?<sup>11</sup> How much is the existing noise affecting the school day at nearby schools, such that doubling interference events from one to two per hour, which would occur at many schools around FAT and BAF, could substantially affect learning?

The Summary of Impacts section on p. CA-48 states that “existing F-15C and civil jet operations at FAT already create interfering events at many of these schools, so replacing the F-15C with the F-15EX that generates greater noise levels would not significantly change the amount of time of disruption during the school day, but instead would cause each military jet interfering event to be louder by several decibels”; however, much of the predicted noise is due to the 81% increase in operations at FAT. During the FAT virtual public meeting, the Air Force/ANG indicated that there would be additional operations occurring in the afternoon as well as the existing morning operations; as such, the summary statement above should be revisited. It is important that information on the effects from noise on day-to-day living be discussed in the EIS proper, as many reviewers may not read the appendices and supplemental noise reports.

**Recommendations:** Present additional information in the FEIS proper and executive summary that uses plain language to convey impacts on children’s learning, as suggested above. Because of the significant impacts on children’s learning, consultation with school administrators is warranted to obtain information that could better characterize school learning impacts, to provide mitigation resources to the schools, and to explore strategies that could potentially alleviate the noise effects. Information obtained from consulting school administrators and educators could include which schools are already fully noise-insulated versus those that could be eligible for new or additional noise insulation, and information on whether schools have air conditioners so that windows are likely to be closed in hot weather, which could present a possible mitigation strategy. Consultation with schools could also explore whether coordination of schedules to avoid having children outdoors during the highest noise levels is possible. Because of the importance of protecting children, we recommend this consultation occur prior to the FEIS so that the FEIS can document feedback received and if/how it was incorporated, as applicable.

---

<sup>11</sup> Thomas Elementary and Irwin O. Addicott Elementary and Scandinavian Middle schools, FAT Noise Report p. 61

#### **Mitigation for Noise**

It is important to fully explore all possible mitigation since so many additional individuals would experience significant noise impacts considered incompatible with residential land use (almost 5,600 people at FAT and 780 at BAF). The DEIS states that mitigation measures are built or designed into the actions, the existing FAA-required best practices to reduce noise would continue to the best extent possible, and further noise mitigation would not be practicable. Thus, no specific mitigation measures have been identified beyond the best practices mentioned; but following publication of the Record of Decision (ROD), a mitigation plan will be prepared in accordance with 32 CFR 989.22(d) that will address any specific mitigations identified and agreed to during this environmental process (p. 2-46).

We have concerns that mitigation would not be identified until after the ROD is published. It is important to discuss mitigation in the impact assessment, as “a reasonably complete discussion of possible mitigation measures is an important ingredient of an EIS” and mitigation should be “discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated.”<sup>12</sup> Guidance from the Council on Environmental Quality (CEQ) states that the EIS should identify the full spectrum of mitigation, regardless of whether it is implemented by the lead agency.<sup>13</sup>

FAT airport representatives participated in the public meetings to discuss the FAA Part 150 sound insulation program, but the DEIS does not discuss this mitigation. The most information provided is a reference to the City of Fresno’s Sound Mitigation Acoustic Remedy Treatment Program (p. CA-76) which manages noise mitigation measures (such as sound insulation and land acquisition of residential properties). Thus, the DEIS does not provide information to residents on whether new or additional sound-insulation mitigation funding might be available for them to reduce the negative effects of high noise levels to protect their families. We note that the 2022 Noise Exposure Map for FAT identifies many properties that are already insulated.<sup>14</sup> As mentioned, renters may not have the same sound insulation opportunities. We are aware of the new DoD Community Noise Mitigation program<sup>15</sup> through the Office of Local Defense Community Cooperation to fund off-base improvements that support the military mission, but there is no mention of this program and it is unclear whether the City of Fresno or another entity could apply for its funding for noise insulation. There may be other mitigation suggestions from those individuals that currently experience the most noise impacts. Options for scheduling, advanced notifications, monitoring, and noise complaint procedures are also relevant.

**Recommendations:** Provide a complete list of potential noise mitigations, gathered in consultation with the most affected communities, in the FEIS. Work with the FAT and City of Fresno to provide information, in the FEIS and in outreach materials, on how the public can navigate the City’s Sound Mitigation Acoustic Remedy Treatment Program process, and the

---

<sup>12</sup> Methow Valley Citizens Council, 490 U.S. at 352

<sup>13</sup> CEQ’s Forty Most Asked Questions, 19(b). “All relevant, reasonable mitigation measures that could improve the project are to be identified, even if they are outside the jurisdiction of the lead agency or the cooperating agencies, and thus would not be committed as part of the RODs of these agencies. This will serve to alert agencies or officials who can implement these extra measures, and will encourage them to do so. Because the EIS is the most comprehensive environmental document, it is an ideal vehicle in which to lay out not only the full range of environmental impacts but also the full spectrum of appropriate mitigation.”

<sup>14</sup> [https://flyfresno.com/wp-content/uploads/2018/03/2022-NEM\\_Contour.pdf](https://flyfresno.com/wp-content/uploads/2018/03/2022-NEM_Contour.pdf)

<sup>15</sup> <https://oldcc.gov/our-programs/community-noise-mitigation>

likelihood that noise-proofing or residential land acquisitions could occur.<sup>16</sup> Specifically address remedies for the four households near FAT that would experience 75 to 80 dB CNEL (p. CA-35) which is a level that is not recommended for residential land use even with noise level reduction from sound-insulation (Table 3.6-1). Discuss DoD's new noise mitigation program and its applicability to the project. Identify other potential mitigation that was suggested by the public in additional targeted outreach. Ensure all relevant, reasonable mitigation measures, including those built into the projects at FAT, BAF and Naval Air Station Joint Reserve Base (NAS JRB) New Orleans, are identified so that this compilation can be referenced in the ROD per 1505.2(a)(3), which requires the Air Force/ANG to state whether all practicable means to avoid or minimize environmental harm from the selected alternative have been adopted, and per the Air Force's mitigation requirements at 32 CFR 989.22.

***Purpose and Need and Alternatives***

The DEIS does not appear to include all elements of the project in the purpose and need statement. For example, the proposed action includes three additional aircraft for each site (e.g., increasing from 18 F-15C to 21 F-15EX or F-35A) and states that these additional aircraft are to support the homeland security mission (p. 2-2) which is not explained. It also does not explain the much higher annual flying hour program that is proposed (BAF: 67% increase; FAT: 81% increase; NAS JRB: 107% increase) in relation to the purpose and need. The DEIS states only that the analysis would use the maximum annual flying hours of 250 per aircraft.

It is largely the increase in operations that is driving the high noise levels predicted. We understand the analysis in the DEIS is a worst-case scenario and flying time may not reach these levels; however, establishing boundaries for the protection of vulnerable communities and children is appropriate and should be fully explored. We note that the DEIS evaluated the Legacy Aircraft Alternative indicating that reduced operations could meet the purpose and need under certain conditions. We understand that pilots flying the F-15EX and F-35A would use ground-based flight simulators extensively (p. 2-2) and that new and modified simulator facilities are proposed for the locations.

***Recommendations:*** Provide additional information in the purpose and need regarding the increased number of aircraft and necessity of including the maximum flying hours in the proposed actions to meet training needs. Discuss whether an additional alternative with smaller increases in flying hours could meet the purpose and need and if so, we recommend evaluating this alternative in the FEIS. Indicate whether further increases in simulation could decrease flying hours for BAF and FAT, where children and vulnerable populations will bear the burden of noise impacts.

**PFAS-Contamination**

Most of the proposed facilities at BAF are located in an area of existing/potential per- and polyfluoroalkyl substances (PFAS) release (Figure MA3.11-6), and 13 of the construction and modification projects overlap with the large PFAS groundwater plume underlying the majority of the 104th Fighter Wing installation (Figures MA3.11-2 and MA3.11-6). At FAT, several proposed facilities

---

<sup>16</sup> CEQ Guidance also directs agencies to discuss the likelihood that mitigation would occur, see CEQ's Forty Most Asked Questions, 19(b)



under both locational scenarios 1 and 2 overlap areas identified as being potential sources of PFAS. These sites have not been fully characterized, but PFAS contamination has been identified in soil and groundwater. At NAS JRB, several building renovations are in PFAS-contaminated areas (Figure LA3.11-4).

The DEIS states that if contaminated soil or groundwater are encountered during site preparation (e.g., clearing, grading) or site development (e.g., excavation or potential construction dewatering for installation of building footers) for proposed construction activities, “work would cease until [104 FW, 144 FW or 159 FW] Program Managers establish an appropriate course of action, to ensure that federal and state agency notification requirements are met, and to arrange for agency consultation as necessary” (p. CA-146, MA-166, LA-140). It is not clear how PFAS contamination would be identified in the field, since its presence is not apparent to the senses, and techniques for rapid on-site detection of PFAS in the environment, such as through particle-induced gamma emission, are not widespread. Additionally, since encountering PFAS contamination for these areas appears highly likely based on the information in the DEIS, a more developed plan than to simply stop work and then determine what to do, appears to be needed.

**Recommendations:** Prior to any earth movement, conduct testing in all PFAS source areas where construction is planned. Knowledge of PFAS presence is needed if materials will be moved, as the receiving location could become a new source. Indicate whether any material will be reused on site. Discuss in the FEIS where and how PFAS-contaminated materials will be identified, managed and disposed. If off-site disposal is possible, we recommend exploring availability of disposal sites. While some facilities do take PFAS-contaminated material, they may have restrictions. Discuss how contaminated groundwater encountered during construction would be managed, treated and disposed. Construction and demolition contractors would be responsible for ensuring their workers follow appropriate health and safety requirements (p. CA-146, MA-166, LA-140). Since inhalation is an exposure pathway for PFAS in soils, we recommend the Air Force/ANG consider dust monitoring and requiring contractors to establish worker health protections for dust inhalation.

#### **Water Resources**

##### ***Floodplains, Hydrology, and Low Impact Development***

Maintaining floodplains are of increasing importance. The U.S. is experiencing increased flooding and flood risk from climate change through more extreme rainfall events caused by a warmer atmosphere holding more water vapor, changes in regional precipitation patterns, and from sea-level rise.

The DEIS identifies EO 13690 and states that “the floodplain (elevation) would be established using one of the following approaches outlined in EO 13690: climate-informed science approach; freeboard value approach; 0.2-percent-annual-chance flood approach; or any other method identified in an update to the Federal Flood Risk Management Standard” (p. 3-39). We appreciate the DEIS referencing the FFRMS, which aims to increase the resilience of projects by incorporating anticipated changes in future flood risk to ensure that those projects last as long as intended.

The DEIS does not indicate how the development of new facilities will comply with the FFRMS. This is especially important for NAS JRB New Orleans, where several of the proposed construction and

modification projects, as described in Table LA2.1-3, are within the 100-year floodplain (p. LA-102). The DEIS states that in compliance with the current building codes in the State of Louisiana, all new construction or substantially improved buildings within the 100-year floodplain would have the lowest floor elevated at least 1-foot above the 100-year flood elevation; however the FFRMS specifies a freeboard approach that, if used, would need to add an additional 2 feet to the base flood elevation for non-critical actions and an additional 3 feet to the base flood elevation for critical actions.<sup>17</sup> We note that the Federal Emergency Management Agency's preferred approach is the climate informed science approach (CISA); for areas vulnerable to coastal flood hazards, the CISA includes consideration of the regional sea-level rise variability and lifecycle of the federal action.

For FAT, there is at least one new facility in the 500-year floodplain (p. CA-97) and the DEIS does not indicate how the Air Force/ANG will meet the FFRMS. Where floodplain development would occur, identify impacts from this development. The DEIS states that because a Finding of No Practicable Alternative to floodplain development would be prepared, impacts to floodplains are less than significant; however, preparing a FONPA does not eliminate the need to identify impacts under NEPA. The DEIS did not demonstrate how floodplain impacts, such as loss of floodplain capacity would be prevented, nor identify consequences of floodplain development considering predicted precipitation extremes.

Regarding stormwater management, since all locations involve large increases in impervious surfaces, stormwater management systems must be sized to accommodate the increased precipitation frequency, intensity, and associated flooding being experienced under climate change. The DEIS commits to using Low Impact Development (LID) techniques to maintain the pre-development hydrology on the development sites. While the specific LID design may occur in a later phase, it is necessary to identify which specific LID concepts are likely to be used on the sites, especially for areas located in floodplains, so their effectiveness can be assessed. We note that site designs must allocate sufficient space for these LID features in site planning.

**Recommendations:** In the FEIS, indicate how the new developments would comply with the FFRMS. Discuss how floodplain development would impact floodwaters through loss of floodplain capacity, the consequences of floodplain development considering predicted precipitation extremes, and how development would accommodate LID features that the DEIS states would occur to maintain pre-development hydrology in the context of large increases in impervious surfaces. We recommend upsizing stormwater management systems to accommodate increased precipitation intensity. If Unified Facilities Criteria are referenced, indicate where stormwater and floodplain issues are specifically addressed and confirm they comport with the FFRMS. Discuss flood vulnerability and identify flood mitigation measures which are required for reporting pursuant to Air Force/ANG Instruction 32-1023, December 2020, p. 22.<sup>18</sup>

---

<sup>17</sup><https://www.fema.gov/floodplain-management/intergovernmental/federal-flood-risk-management-standard>

<sup>18</sup>[https://static.e-publishing.af.mil/production/1/af\\_a4/publication/afi32-1023/afi32-1023.pdf](https://static.e-publishing.af.mil/production/1/af_a4/publication/afi32-1023/afi32-1023.pdf)

***Construction-phase Stormwater NPDES Permitting***

The DEIS indicates construction activities for the three site locations would comply with the National Pollutant Discharge Elimination Systems (NPDES) Construction General Permit (CGP) and that site-specific Stormwater Pollution Prevention Plans would be prepared for each construction project to ensure that runoff would be contained on-site. We appreciate this commitment to ensuring the discharge of sediment, nutrients, and other stormwater pollutants to surface waters are minimized. This is especially important at NAS JRB where sediment has contributed to deterioration of the stormwater conveyance system (p. LA-98). We note that because the overall earth disturbance at the project sites is greater than 1-acre, smaller sites less than 1-acre, including off-site construction support areas (i.e., borrow pits, staging areas, material storage areas, temporary work areas, etc.) that are part of the larger, common plan of development would also require permit coverage.

The DEIS states that following construction, disturbed areas not covered with impervious surface *could* be reestablished with appropriate vegetation and native seed mixtures and managed to minimize future erosion potential (emphasis ours) (p. MA-118, CA-100, LA-101).

***Recommendations:*** Ensure all earth disturbance areas, including off-site areas less than 1-acre supporting project construction, are included in the CGP coverage and receive site protection best management practices. We recommend a commitment to restore disturbed areas with native seeds, as suggested could occur in the DEIS. Include a revegetation monitoring schedule to ensure the revegetated areas are successful over a growing season and to prevent growth of invasive species.

***Climate Change Resiliency***

We appreciate that the DEIS references CEQ's *National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change* and states that this interim guidance has been incorporated into this analysis (p. 3-28). The DEIS estimates the social cost of carbon as a way of providing context for a proposed action's GHG emissions and climate effects, consistent with the CEQ guidance; however Section V of the guidance also directs agencies to consider the effects of climate change on a proposed action and assess vulnerabilities and resilience to the effects of climate change such as increasing sea level, drought, high intensity precipitation events, increased fire risk, or ecological change. We identified the concern regarding floodplain development above for the NAS JRB site; this site will also experience sea level rise, rising groundwater levels, and storm surge from increased storms. All locations will experience more extreme heat days. Heat is a serious climate change effect that can be fatal.

***Recommendations:*** In the FEIS, discuss climate effects on the projects and how the Air Force/ANG would incorporate resilience into facility design.

In addition to avoiding floodplain development, we recommend heat mitigation strategies be integrated into site plans:

- Use cool surfaces and pavements that store less heat than traditional pavements. Heat islands, areas dominated by hard surfaces and lacking trees and green space, can be more than 20 degrees hotter than nearby areas with trees and grass.



- Provide a certain amount of shading through either trees or built shade structures. The use of vegetation cools surrounding areas through evapotranspiration.
- Orient buildings with local climate and geographic conditions in mind which can improve natural ventilation, avoid solar heat gain, decrease energy usage, and improve human thermal comfort. On building sides with high solar exposure, improvements such as shade screens, window glazing, and smaller windows on the east and west sides can help shade and keep the inside of buildings cooler.<sup>19</sup>

See also EPA's Adaptation Resource Center<sup>20</sup> for additional information on climate change resiliency and adaptation measures.

#### **Air Quality Impacts**

##### ***Discussion of Emissions at FAT***

Existing air quality in the FAT area currently does not meet the health-based National Ambient Air Quality Standard (NAAQS) for ozone (extreme nonattainment) and particulate matter greater than 2.5 microns (PM<sub>2.5</sub>) (serious nonattainment). For cumulative impacts, the DEIS states that emissions would exceed the de minimis threshold for oxides of nitrogen (NOx) during various years between 2026 and 2030 (p. CA-179) and that the Air Force/ANG will consult with the San Joaquin Air Pollution Control District to confirm these emissions would conform with the SIP. Elsewhere in the DEIS it states that emissions would not exceed the de minimis levels.

Regarding construction emissions, Tables 10 and 11 in Appendix D show that construction emissions approach the de minimis level of 10 tons per year (tpy) for NOx for 2026. It appears construction projects may have been scheduled to distribute emissions across years so that emissions would fall below de minimis levels. This is acceptable; however, according to the construction tables in Appendix C, the number of buildings at FAT listed for FY 2024 construction (which the DEIS states equates to calendar year 2025) is similar to those slated for FY 2025 (calendar year 2026) with much lower emissions for 2024 for locational scenario 1. Since the FEIS and ROD are scheduled for late 2024, a review of these timetables for accuracy is warranted. Also, it is not clear whether construction-phase mitigation measures for NOx were included in estimates; we were able to find reference to construction mitigation for dust control only. If mitigation for NOx was assumed in calculating emissions for general conformity purposes, it cannot be optional mitigation but must be incorporated into the project, generally by adding it to the project description or otherwise mandating the mitigation through enforceable provisions.

Regarding operational emissions, Appendix D Table 9 shows a net increase of 4.13 tpy of NOx for the F-15EX, which is a 13.5% increase over the F-15C NOx emissions, despite an increase of 3 additional aircraft and an 81% increase in operations (from 3,802 to 6,866 operations per year) with the F-15EX. While we would expect improved efficiency with newer aircraft, there is insufficient information in the DEIS to explain this difference.

**Recommendation:** Review the construction timetables and the associated emissions in Tables 10 and 11 for accuracy. Indicate whether mitigation measures for NOx were included in the

---

<sup>19</sup> See: [https://planning-org-uploaded-media.s3.amazonaws.com/publication/download\\_pdf/PAS-Report-600-r1.pdf](https://planning-org-uploaded-media.s3.amazonaws.com/publication/download_pdf/PAS-Report-600-r1.pdf)

<sup>20</sup> See <https://www.epa.gov/arc-x/planning-climate-change-adaptation>

emissions calculations and if so, identify them in the project description as mandatory and identify how the Air Force/ANG would ensure implementation. Provide information in the FEIS to explain the minimal changes in operational emissions despite increased numbers of aircraft and 81% increase in operations. Consider including detailed emissions estimate in an appendix.

***Construction-phase Mitigation***

As mentioned, the only construction-phase mitigation measures for air quality at FAT regard a dust control plan (PM<sub>10</sub>), despite the *extreme* and *serious* nonattainment designations for ozone and PM<sub>2.5</sub>, respectively.<sup>21</sup> Because the project would be contributing pollutants in an area with existing degraded air quality at FAT, enforceable construction phase mitigation measures are important, especially since the area northwest of the airfield is above the 80<sup>th</sup> percentile nationally for asthma prevalence. Since Census tract 8125 near BAF is also above the 80<sup>th</sup> percentile for asthma prevalence, we recommend mitigation to reduce ozone precursors and PM<sub>2.5</sub> be incorporated at that site as well, as feasible.<sup>22</sup>

***Recommendations:*** We recommend the following mitigation measures be incorporated into project specifications and contracts.

**Mobile and Stationary Source Controls**

- Minimize use, trips, and unnecessary idling of heavy equipment.<sup>23</sup>
- Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels, where applicable, and to perform at verified standards applicable to retrofit technologies. Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations.<sup>24</sup>
- Use grid-based electricity for construction activities, onsite renewable electricity generation, and/or hydrogen for construction activities rather than diesel and/or gasoline generators, to the extent possible.
- *Deploy Best Available Control Technology (BACT)* – Require BACT during construction and operation of projects, employing the cleanest alternatives available, including but not limited to:
  - a) Soliciting bids that include use of energy and fuel-efficient fleets.
  - b) Soliciting preference construction bids that use BACT, particularly those seeking to deploy zero-emission technologies.
  - c) Employing the use of electricity and/or hydrogen.
- In general, commit to the best available emissions control technologies for project equipment:
  - *On-Highway Vehicles* – On-highway vehicles servicing construction areas should meet or exceed the EPA exhaust emissions standards for model year 2017 and

---

<sup>21</sup> The DEIS references APCD rules for visible emissions related to stack emissions, and fuel burning emissions for furnaces and boilers (p. CA-60). It is not clear how these rules will apply to the construction phase.

<sup>22</sup> EJScreen, Health Disparities, Asthma. See <https://ejscreen.epa.gov/mapper/>

<sup>23</sup> <https://ww2.arb.ca.gov/capp-resource-center/heavy-duty-diesel-vehicle-idling-information>.

<sup>24</sup> <https://www.epa.gov/enforcement/epa-tampering-policy-epa-enforcement-policy-vehicle-and-engine-tampering-and>



newer light-duty vehicles and model year 2021 and newer heavy-duty vehicles (e.g., long-haul trucks, refuse haulers, shuttle buses, etc.).<sup>25, 26</sup>

- *Nonroad Vehicles and Equipment* – Nonroad vehicles and equipment servicing construction areas should meet or exceed the EPA Tier 4 exhaust emissions standards for heavy-duty nonroad compression-ignition engines (e.g., nonroad trucks, construction equipment, cargo handlers, etc.).<sup>27</sup>

#### Administrative Controls

- Reduce the number of commuter vehicles travelling to and from the project site. Include carpooling or transit subsidies.
- Plan construction scheduling to minimize vehicle trips and/or nonroad operational hours.
- Locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.
- Identify all commitments to reduce construction emissions, including responsible party and the enforcement instrument that will ensure implementation.

#### ***Errors in DEIS and Appendix D for BAF***

The DEIS and Appendix D contains some inaccuracies that need correction for the FEIS:

- Table 3-3 of Appendix D and page MA-63 of the DEIS refers to BAF as being in a “orphan” maintenance area for the 1997 ozone standard. EPA notes that this area is an “orphan” nonattainment area, as Massachusetts never formally requested to have the area redesignated. We recommend Appendix D be amended to indicate BAF’s status as an orphan nonattainment area.
- Table 3-3 of Appendix D uses an incorrect de minimus number for NOx at the BAF site. The de minimis tables at 40 CFR 93.153(b) state that the de minimus amount for NOx is 100 tpy, not 50 tpy as is indicated in the DEIS. We recommend Appendix D be amended to correct the NOx de minimis level applicable to BAF. EPA provides de minimis rates at <https://www.epa.gov/general-conformity/de-minimis-tables>.

#### **Impacts from Special Use Airspace (SUA)**

The DEIS states that while the legacy F-15C aircraft have strictly an air-to-air mission, it is likely that, with time, the replacement aircraft would operate with their full mission capability which also includes air-to-ground missions and the analysis in the DEIS assumes this (p. 2-2). It is not clear whether impacts from increased ground target use associated with SUA were evaluated or if these increases are within those evaluated in the airspace impact assessments.

***Recommendation:*** Since the DEIS assumes air-to-ground mission use of replacement aircraft, discuss impacts from additional munitions discharges to land-based targets in all SUAs.

---

<sup>25</sup> <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-control-air-pollution-motor-vehicles-tier-3>

<sup>26</sup> <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-phase-2-greenhouse-gas-emissions-standards>

<sup>27</sup> <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100OA05.pdf>