

Appendix I

References, Glossary, and Acronyms

I-1: References

I-2: Glossary of Terms

I-3: Acronyms List

I-1: References

APPENDIX I-1

References

1990 Clean Air Act Amendments, Public Law 101-549.

American Infrastructure Development Inc., Geotechnical Report for the Extension of Runway 14-32 at North Palm Beach County General Aviation Airport, 2021

Archaeological Resources Protection Act of 1979, 16 USC Ch. 1B.

Catalyzing America's Clean Energy Economy Through Federal Sustainability, Executive Order 14057.

CH2M, DRAFT North Palm Beach County General Aviation Airport Master Plan – Facility Requirements, February 2019.

City of Palm Beach Gardens, Planning & Zoning Department, Development Projects, 2022, <<https://www.pbgfl.com/637/Development-Projects>>. Accessed December 22, 2022.

Clean Air Act of 1970, 42 USC 7401.

Clean Water Act of 1972, 33 USC 1251.

Coastal Barrier Resources Act, 16 USC 3501.

Coastal Zone Management Act (CZMA), 16 USC 1451.

Comprehensive Environmental Response, Compensation, and Liability Act, Liability Act, 42 USC 9601.

Consistency for Federal Agency Activities, 15 CFR Part 930 Subpart C.

Consultation and Coordination with Indian Tribal Governments, Executive Order 13175.

Council on Environmental Quality, Memorandum for Heads of Federal Departments and Agencies, Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews, August 1, 2016.

Council on Environmental Quality, Revised Draft Guidance on Consideration of Greenhouse Gas Emissions and Climate Change in NEPA Reviews, Federal Register Vol. 79, No. 247, 77802, December 24, 2014.

Delineation of the Landward Extent of Wetlands and Surface Waters, Florida Administrative Code, Chapter 62-340, July 1994.

Department of Transportation Act of 1966, Section 4(f), 49 USC 303(c).

Determining Conformity of General Federal Actions to State or Federal Implementation Plans, 14 CFR Part 93, Subpart B.

Discretionary Fund, 49 USC 47115.

Emergency Planning and Community Right-to-Know Act. 42 USC 11001.

Endangered Species Act, 16 USC 1531.

Energy and Water Management Program for FAA Buildings and Facilities, Federal Aviation Administration Order 1053.1.

Energy Independence and Security Act, 42 USC 17001.

Energy Policy Act, 42 USC 15801.

Environmental Consequences, 40 CFR 1502.16.

Environmental Justice in Minority and Low Income Populations, Department of Transportation Order 5610.2.

Environmental Science Associates, Inc., Runway Extension Justification Study, EA for the Extension of Runway 14-32 at North Palm Beach County General Aviation Airport, 2018.

Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Executive Order 12898.

Federal Aviation Administration 1050.1F Desk Reference. Federal Aviation Administration, Office of Environment and Energy. Version 2. February 2020."

Federal Aviation Administration Order 1050.1F, Environmental Impacts: Policies and Procedures, July 16, 2015.

Federal Aviation Administration Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, April 28, 2006.

Federal Aviation Administration Order 5200.8, Runway Safety Area Program, October 1, 1999.

Federal Aviation Administration, Advisory Circular 150/5200-33C, Hazardous Wildlife Attractants on or near Airports, February 2020.

Federal Aviation Administration, Advisory Circular 150/5220-22B, Engineered Materials Arresting Systems (EMAS) for Aircraft Overruns, September 27, 2012.

Federal Aviation Administration, Advisory Circular 150/5300-13A, Airport Design, February 2014.

Federal Aviation Administration, National Plan of Integrated Airport Systems 2023-2027, September 30, 2022.

Federal Aviation Administration, Office of Environment and Energy, Aviation Emissions and Air Quality Handbook, Version 3/Update 1, January 2015.

Federal Aviation Administration, Reuse and Waste Reduction at Airports, April 24, 2013.

Federal Aviation Administration, Terminal Area Forecast – F45, February 2023.

Federal Aviation Administration, Continuous Lower Energy, Emissions, and Noise (CLEEN) Program, <https://www.faa.gov/about/office_org/headquarters_offices/apl/eee/technology_saf_operations/cleen>. Accessed April 12, 2023.

Federal Aviation Administration, Voluntary Airport Low Emissions Program (VALE), <<https://www.faa.gov/airports/environmental/vale>>. Accessed April 12, 2023.

Federal Aviation Administration, Airport Zero Emissions Vehicle and Infrastructure Pilot Program, <https://www.faa.gov/airports/environmental/zero_emissions_vehicles>. Accessed April 12, 2023.

Federal Emergency Management Administration, Flood Insurance Rate Map (FIRM) panels, 2023.

Federal Register Volume 72, Issue 145 (July 30, 2007).

Floodplain Management and Protection, Department of Transportation Order 5650.2.

Floodplain Management, Executive Order 11988.

Florida Coastal Management Act, 2021 Florida Statutes 380, Part II.

Florida Department of Agriculture and Consumer Services (FDACS), Endangered, Threatened and Commercially Exploited Plants of Florida, November 2018.

Florida Department of Environmental Protection, 2020. Aquatic Preserve Program, <<https://floridadep.gov/rcp/aquatic-preserve>>. Accessed July 2020.

Florida Department of Environmental Protection, Authorization to SFWMD to Administer, Enforce and Defend Part IV of Chapter 373, Florida Statutes (as Amended in 1989), December 1989.

Florida Department of Environmental Protection, Division of Water Resources Management, Critically Eroded Beaches in Florida, June 2019.

Florida Department of Environmental Protection, Florida Coastal Management Program Guide, 2019.

Florida Department of Environmental Protection, Florida Geographic Data Library - Contamination Locator, Map, <<http://prodenv.dep.state.fl.us/DepClnup/>>. Accessed November 3, 2022.

Florida Department of Environmental Protection, Office of Air Monitoring, Palm Beach County Air Monitoring, <<https://floridadep.gov/air/air-monitoring/content/palm-beach-county-air-monitoring>>. Accessed June 2023.

Florida Natural Areas Inventory, Biodiversity Matrix, 2020.

Florida Fish and Wildlife Conservation Commission, Florida's Endangered Species, Threatened Species and Species of Special Concern. Official Lists, May 2017.

Florida Department of Environmental Protection, Office of Resilience and Coastal Protection, Florida Coastal Management Program Guide, May 23, 2019.

Florida Department of Environmental Protection, Operating Agreement Concerning Regulation Under Part IV, Chapter 373, F.S., Between South Florida Water Management District and DEP, July 2007.

Florida Department of Transportation, 2018 FDOT D4 Level of Service Report, June 2019, <https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/systems/programs/sm/los/districts/district-4/2018_fdot_d4_los_report.pdf?sfvrsn=4f208763_2> Accessed January 2021.

Florida Department of Transportation, Florida Aviation Economic Impact Study – F45, 2022.

Florida Department of Transportation, Florida Land Use, Cover, and Forms Classification System (FLUCCS), 1999.

Florida Department of Transportation, Resiliency Policy, April 27, 2020, <https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/policy/resilience/resiliency_policy_000-525-053.pdf?sfvrsn=4dae64fd_2>. Accessed April 12, 2023.

Florida Department of Transportation, Statewide Airfield Pavement Management Program; Airport Pavement Evaluation Report, North Palm Beach County General Aviation Airport, Reliever Airport, District 4; November 2019.

Florida Department of Transportation, Statewide Aviation Economic Impact Study Technical Report, March 2019.

Florida Statute 379.411, Intentional killing or wounding of any species designated as endangered, threatened, or of special concern; penalties.

Golden Eagle Protection Act, 16 USC 668.

Hazardous and Solid Waste Amendments Act of 1984, Public Law 98-621, 98 Stat. 3221.

Jacobs, F45 Tower Siting Study: Preliminary Sites Selection for Palm Beach County Department of Airports, May 2020.

Jacobs, North Palm Beach County Airport (F45) Draft Master Plan Report, May 2020.

Land and Water Conservation Fund Act (LWCF), Section 6(f), 16 USC 4601.

Migratory Bird Treaty Act (MBTA), 16 USC 703.

National Emission Standards for Hazardous Air Pollutants for Source Categories, 40 CFR Part 63.

National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61.

National Environmental Policy Act of 1969 (NEPA), 42 USC 4321.

National Historic Preservation Act (NHPA), Public Law 89-665.

National Park Service, Nationwide Rivers Inventory, 2018.

National Park Service, Wild and Scenic River Database, 2018.

Native Graves Protection and Repatriation Act, 25 USC Chapter 32.

NEPA and Council on Environmental Quality (CEQ) Regulations, 40 CFR Parts 1500-1508.

Oil Pollution Act, 33 USC 2701.

Palm Beach County Department of Airports, Environmental Assessment for Wetland Modification for Wildlife Hazard Abatement at F45, February 2012.

Palm Beach County, Board of County Commissioners, Resolution R-90-294, March 1990.

Palm Beach County, Office of Resilience, <<https://discover.pbcgov.org/resilience/Pages/About-Us.aspx>>. Accessed November 9, 2022.

Palm Beach County, Palm Beach County Unified Land Development Code (ULDC), December 2021.

Palm Beach County, Planning Division, Palm Beach County Comprehensive Plan, Future Land Use Element, Revised February 2023.

Passenger Facility Charges, 49 USC 40117.

Pollution Prevention Act of 1990, 42 USC 13101.

Preparing the United States for the Impacts of Climate Change, Executive Order 13653.

Presidential Memorandum on Tribal Consultation, November 2009.

Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, Executive Order 13990.

Protection of Children from Environmental Health Risks and Safety Risk, Executive Order 13045.

Protection of Environment, 40 CFR Part 1508.

Protection of the Environment, 40 CFR.

Protection of Wetlands, Executive Order 11990.

REP Associates, Inc., Site Assessment Report, June 2007.

Resource Conservation and Recovery Act (RCRA), 42 USC 6901,

Rivers and Harbors Act of 1899, 33 USC 401 and 403.

Safe Drinking Water Act of 1972, 42 USC 300.

Seacoast Utility Authority, SUA Service Area Map, <<https://www.sua.com/engineering/gis/>>. Accessed: November 4, 2022.

Solid Waste Authority of Palm Beach County (SWA), Service Areas, <<https://swa.org/223/Service-Areas>>. Accessed April 15, 2020.

Solid Waste Authority of Palm Beach County, 2022 Landfill Depletion Model, <<https://swa.org/DocumentCenter/View/374/Landfill-Depletion-Model-PDF?bidId=>>. Accessed November 3, 2022.

Solid Waste Authority of Palm Beach County, List of Facilities, <<https://www.swa.org/Facilities/Facility/Details/Renewable-Energy-Facility-2-11>>. Accessed November 3, 2022.

Southeast Florida Regional Climate Change Compact, Regional Climate Action Plan, November 2022, <https://southeastfloridaclimatecompact.org/wp-content/uploads/2023/01/SEFL_RCAP3_Final.1.pdf###>. Accessed: April 12, 2023>

South Florida Water Management District Environmental Resource Permit Modification Number 50-02617-S issued October 17, 2011.

Superfund Amendments and Reauthorization Act of 1986 (SARA), Public Law 99-499.

Toxic Substances Control Act, 15 USC 2601.

Transportation Research Board, Airport Cooperative Research Program, Report 102, Guidance for Estimating Airport Construction Emissions, 2014.

U. S. Environmental Protection Agency, EJSCREEN, <<https://www.epa.gov/ejscreen>>. Accessed July and December 2021.

U. S. Environmental Protection Agency, Enforcement and Compliance History Online (ECHO), <<https://echo.epa.gov/>>. Accessed November 2, 2022.

U. S. Environmental Protection Agency, Florida Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants, <https://www3.epa.gov/airquality/greenbook/anayo_fl.html>. Accessed in June 2020.

U.S. Geologic Survey, National Hydrography Dataset, 2023.

U.S. Army Corps of Engineers, Corps of Engineers Wetlands Delineation Manual, January 1987 (Regional Supplement – November 2010).

U.S. Census Bureau, American Community Survey 5-Year Estimates, 2017-2021.

U.S. Census Bureau, American Community Survey Demographic and Housing Estimates 2021, <<http://data.census.gov>>. Accessed January 2023.

U.S. Environmental Protection Agency, Florida Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants, <https://www3.epa.gov/airquality/greenbook/anayo_fl.html>. Accessed June 2023.

U.S. Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2020, April 2022.

U.S. Environmental Protection Agency, Map of Sole Source Aquifer Locations, <<https://www.epa.gov/dwssa/map-sole-source-aquifer-locations>>. Accessed November 8, 2022.

U.S. Environmental Protection Agency, Sole Source Aquifers in the Southeast, <<https://archive.epa.gov/region4/water/groundwater/web/html/r4ssa.html#biscayne>>. Accessed November 8, 2022.

U.S. Fish and Wildlife Service, 2019 National Wetlands Inventory database

U.S. Fish and Wildlife Service, John H. Chafee Coastal Barrier Resources System, Blowing Rocks Unit FL-15, Jupiter Beach Unit FL-16P, and Carlin Unit FL-17P, <<https://www.fws.gov/CBRA/>>. Accessed July 2020.

U.S. Fish and Wildlife Service, Migratory Bird Treaty Act of 1918, <<https://www.fws.gov/law/migratory-bird-treaty-act-1918>>. Accessed April 2023.

U.S. Fish and Wildlife Service, ECOS, <<https://ecos.fws.gov/ecp/>>

U.S. Geologic Survey, Groundwater Atlas of the United States, Segment 6, Alabama, Florida, Georgia, South Carolina HA 730-G, 1990. <<https://pubs.usgs.gov/ha/730g/report.pdf>>.

Water Quality Act of 1987, 42 USC 300.

Wildlife Hazard Management, 14 CFR Part 139.

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I-2: Glossary of Terms

APPENDIX I-2

Glossary of Terms

Term	Definition
TITLE 14 CODE OF FEDERAL REGULATIONS (CFR) PART 36	This regulation, titled "Noise Standards: Aircraft Type and Airworthiness Certification," establishes noise standards for the civil aviation fleet. Certain extensions for compliance are included in the Aviation Safety and Noise Abatement Act of 1979.
14 CFR PART 77	This regulation, titled "Safe, Efficient Use and Preservation of the Navigable Airspace," establishes standards for determining obstructions and their potential effects on aircraft operations. Objects are considered to be obstructions to air navigation according to 14 CFR Part 77 if they exceed certain heights or penetrate certain imaginary surfaces established in relation to airport operations. Objects classified as obstructions are subject to an FAA aeronautical analysis to determine their potential effects on aircraft operations.
14 CFR PART 91	This regulation, titled "General Operating and Flight Rules," includes an amendment issued by the FAA on September 25, 1991 (to 14 CFR 91) in conformance with requirements of the Airport Noise and Capacity Act of 1990. The amendment to the aircraft operating rules required a phased transition to an all Stage 3 aircraft fleet operating in the 48 contiguous United States and the District of Columbia by December 31, 1999.
14 CFR PART 121	This regulation titled "Air Carrier Certification," establishes the process for safely implementing air carrier operations and ensuring compliance with applicable standards. The certification process determines an applicant's ability to conduct air carrier operations in a manner compliant with all regulation and safety standards.
14 CFR PART 139	This regulation titled "Certification of Airports," establishes the certification process for airports seeking to accommodate air carrier passenger operations. Specifically, the regulations requires the FAA to certify airports that serve scheduled and unscheduled air carrier aircraft with more than 30 seats; serve scheduled air carrier operations in aircraft with more than 9 seats but less than 31 seats; and are required to have a certificate by the FAA administrator.
14 CFR PART 150	This regulation, titled "Airport Noise Compatibility Planning," sets forth criteria for developing a 14 CFR Part 150 Noise Compatibility Program, an FAA-assisted program designed to increase the compatibility of land and land uses in the areas surrounding an airport that are most directly affected by operation of the airport. The specific purpose is to reduce the adverse effects of noise as much as possible by implementing both on-airport noise abatement measures and off-airport noise mitigation measures. The basic products of an 14 CFR Part 150 program typically include (1) noise exposure maps for the existing condition and for 5 years in the future; (2) workable on-airport noise abatement measures (preferential runway use programs, new or preferential flight tracks), (3) off-airport noise mitigation measures (land acquisition, soundproofing, or special zoning); (4) an analysis of the costs and the financial feasibility of the recommended measures; and (5) policies and procedures related to the implementation of on- and off-airport programs. Community involvement opportunities are provided throughout all phases of noise compatibility program development.

Term	Definition
A-WEIGHTED SOUND LEVEL (dBA)	The ear does not respond equally to different frequencies of sound. It is less efficient at low and high frequencies than it is at medium or speech-range frequencies. Thus, to obtain a single number representing the sound level of a noise having a wide range of frequencies in a manner representative of the ear's response, it is necessary to reduce the effects of the low and high frequencies with respect to the medium frequencies. The resultant sound level is said to be A-weighted, and the units are decibels (dB); hence, the abbreviation is dBA. The A-weighted sound level is also referred to as the noise level. Sound level meters have an A-weighting network for measuring noise in A-weighted decibels.
ACCEPTABLE	Relating to noise Day-Night Average Sound Level (DNL) not exceeding 65 decibels. Noise exposure may be of some concern, but common building construction will make the indoor environment acceptable, and the outdoor environment will be reasonably pleasant for recreation and play. As defined by 14 CFR Part 150, <i>Airport Noise Compatibility Planning</i> .
ACOUSTICS	(1) The science of sound, including the generation, transmission, and effects of audible and inaudible sound waves. (2) The physical qualities (such as size and shape) of a room or other enclosure that determine the audibility and perception of speech and music.
ADVISORY CIRCULAR (AC)	An external Federal Aviation Administration (FAA) publication consisting of non-regulatory material of a policy, guidance, or informational nature.
AIRCRAFT OPERATION	An aircraft arrival (landing) or an aircraft departure (takeoff) each represent one aircraft operation; therefore, an arrival and departure is counted as two operations. A low approach, below traffic pattern or a touch-and-go operation is counted as both a landing and a takeoff, i.e., two operations. The FAA records aircraft operations in four categories: air carrier, air taxi, general aviation, and military.
<i>AIR CARRIER</i>	Operations performed in revenue service by certificated route air carriers.
<i>AIR TAXI/COMMUTER</i>	Operations performed by operators of aircraft holding an air taxi certificate. This category includes commuter airline operations (excluding certificated commuter airlines), mail carriers under contract with the U.S. Postal Service, and operators of nonscheduled air taxi service.
<i>GENERAL AVIATION</i>	All civil aircraft operations not classified as air carrier or air taxi operations.
<i>MILITARY</i>	Operations performed by military groups, such as the Air National Guard, the U.S. Air Force, or the U.S. Marine Corps. Aircraft operations may also be described as local or itinerant:
<i>LOCAL</i>	Local operations are performed by aircraft that (1) operate in the local traffic pattern or within sight of the airport, (2) are known to be departing for, or arriving from, local practice areas within a 20-mile radius of the airport, or (3) execute simulated or practice instrument approaches or low passes at the airport. Touch-and-go operations are counted as two local operations.
<i>ITINERANT</i>	All aircraft operations other than local operations.
AIR NAVIGATION FACILITY (NAVAID)	A facility designed for use as an aid to air navigation, including landing aids, lights, any apparatus or equipment for disseminating weather information; for signaling for radio direction-finding or for radio or other electronic communication; and any other structure or mechanism having a similar purpose for guiding and controlling flight in the air or the landing or takeoff of aircraft.
AIRPORT ENVIRONS	The area surrounding an airport that is considered to be directly affected by the presence and operation of the airport.
AIRPORT IMPROVEMENT PROGRAM (AIP)	A program administered by the FAA to provide financial grants-in-aid for airport planning, airport development projects, and noise compatibility programs. The AIP was established through the Airport and Airway Improvement Act of 1982, which was incorporated as Title V of the Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248). Funds are appropriated by the U.S. Congress for the AIP annually.

Term	Definition
AIRPORT NOISE AND CAPACITY ACT OF 1990	Commonly referred to as the national noise policy; the Act was enacted on November 5, 1990 (Public Law 101-508). Two important provisions of the Act were the establishment of a national aviation noise policy (Sections 9308 and 9309) and the creation of a passenger facility charge (Sections 9110 and 9111), which enables airport sponsors to impose fees on the tickets issued to eligible enplaning passengers. An amendment to 14 CFR Part 91, "Transition to an All Stage 3 Fleet Operating in the 48 Contiguous United States and the District of Columbia," and new 14 CFR Part 161, "Notice and Approval of Airport Noise and Access Restrictions", implement the national noise policy. 14 CFR Part 158, "Passenger Facility Charges," implements that portion of the Act authorizing the imposition of such a charge.
AIRPORT SURVEILLANCE RADAR (ASR)	Radar providing aircraft position data in terms of azimuth and range. ASR does not provide altitude data. It is designed for range coverage up to 60 nautical miles and is used by terminal area air traffic control.
AIRPORT TRAFFIC CONTROL TOWER (ATCT)	A central operations facility in the terminal area air traffic control system, consisting of a tower cab structure and an associated instrument flight rule (IFR) room if radar equipped, using air/ground communications and/or radar, visual signaling, and other devices, to provide safe and expeditious movement of terminal area air traffic.
AIR ROUTE TRAFFIC CONTROL CENTER (ARTCC)	A facility established to provide air traffic control service to aircraft operating on an IFR flight plan within controlled airspace and principally during the en route phase of flight.
AIRSPACE	Space in the air above the surface of the earth or a particular portion of such space, usually defined by the boundaries of an area on the surface projected upward.
AIR TRAFFIC CONTROL (ATC)	A service operated by appropriate authority (the FAA) to promote the safe, orderly, and expeditious flow of air traffic.
ATTENUATION	Acoustical phenomenon whereby a reduction of sound energy is experienced between the noise source and the receiver. This energy loss can be attributed to atmospheric conditions, terrain, vegetation, man-made features, and natural features.
AVIATION ENVIRONMENTAL DESIGN TOOL (AEDT)	A computer model developed by the FAA and required by the FAA for use in 14 CFR Part 150 studies, environmental assessments, and environmental impact statements for developing existing and future aircraft noise exposure maps.
AVIATION SAFETY AND NOISE ABATEMENT ACT OF 1979	The purpose of the Act is to assist airport sponsors in preparing and carrying out noise compatibility programs and in assuring continued safety for aviation. The Act also contains provisions extending to January 1, 1988, the requirement for certain types of aircraft to comply with 14 CFR Part 36.
AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)	Continuous radio broadcast of recorded air traffic control information at selected high activity airports.
BUILDING CODE	A legal document that sets forth requirements to protect the public health, safety, and general welfare as they relate to the construction and occupancy of buildings and structures. The code establishes the minimum acceptable conditions for matters found to be in need of regulation. Topics generally covered are exits, fire protection, structural design, sanitary facilities, lighting, and ventilation. Sound insulation may also be included.
BUILDING PERMIT	A permit issued by a local political jurisdiction (village, town, city, or county) to erect or modify a structure.
CONTROLLED AIRSPACE	Airspace of defined dimensions within which air traffic control service is provided to IFR and to Visual Flight Rule (VFR) flights in accordance with the airspace classification.

Term	Definition
DAY-NIGHT AVERAGE SOUND LEVEL (DNL)	A measure used to predict, by a single number rating, cumulative aircraft noise that affects communities in airport environs. DNL represents decibels of noise as measured by an A-weighted sound-level meter. In the DNL procedure, the noise exposure from each aircraft takeoff or landing is calculated at ground level around an airport, and these noise exposure levels are accumulated for a typical 24-hour period. (The 24-hour period often used is the average day of the peak month for aircraft operations during the year being analyzed.) Daytime and nighttime noise exposure is considered separately. A weighting factor equivalent to a penalty of 10 decibels is applied to operations between 10:00 p.m. and 7:00 a.m. to account for the increased sensitivity of people to nighttime noise. DNLs can be expressed graphically on maps using either contours or grid cells.
DECIBEL (dB)	A unit for measuring the volume of a sound, equal to the logarithm of the ratio of the intensity of the sound to the intensity of an arbitrarily chosen standard sound.
DISTANCE MEASURING EQUIPMENT (DME)	Equipment (ground and airborne) used to measure and report to the pilot the slant range distance, in nautical miles, of an aircraft from the DME navigational aid.
DURATION	The length of time that a noise event, such as an aircraft flyover, is experienced (typically reported in seconds). "Duration" may also refer to the length of time that the noise event exceeds a specified threshold noise level.
ENVIRONMENTAL ASSESSMENT	CEQ states that an EA is a "concise document" that takes a "hard look" at expected environmental effects of a proposed action.
EQUIVALENT CONTINUOUS SOUND LEVEL (LEQ)	Leq is the sound level, expressed in dBA, of a steady sound which has the same A-weighted sound energy as the time-varying sound over the averaging period. Unlike Sound Exposure Level (SEL), Leq is the average sound level for a specified time period (e.g., 24 hours, 8 hours, 1 hour, etc.). Leq is calculated by integrating the sound energy from all noise events over a given time period and applying a factor for the number of events.
FEDERAL AVIATION ADMINISTRATION (FAA)	The FAA, an agency of the U.S. Department of Transportation, is charged with (1) regulating air commerce to promote its safety and development; (2) achieving the efficient use of navigable airspace of the United States; (3) promoting, encouraging, and developing civil aviation; (4) developing and operating a common system of air traffic control and air navigation for both civilian and military aircraft; and (5) promoting the development of a national system of airports.
FLIGHT TRACK	The average flight path flown by aircraft within specific corridors. Deviation from these tracks occurs because of weather, pilot technique, air traffic control, and aircraft weight. Individual flight tracks within a corridor are "averaged" for purposes of modeling noise exposure using the FAA's Integrated Noise Model.
GENERAL PLAN	An overall plan of a political jurisdiction setting forth the goals and objectives of the jurisdiction, policies for development and redevelopment, and maps showing the spatial arrangement of land uses, circulation routes, and community facilities. This is sometimes referred to as a comprehensive plan or community plan.
GLIDE PATH	A FAA navigational system that: (1) provides the vertical (or altitude) profile followed by an aircraft during the approach and landing; (2) is an electronic vertical guidance provided by airborne and ground instruments for instrument approaches using equipment such as an instrument landing system (ILS) as well as visual ground aids, such as a visual approach slope indicator (VASI), for a visual flight rule (VFR) approach or for the visual portion of an instrument approach and landing.
GLOBAL POSITIONING SYSTEM (GPS)	A navigational system that uses a series of satellites orbiting the earth to provide non-precision guidance in azimuth, elevation, and distance measurement.
GROUND EFFECT	The excess attenuation of sound associated with absorption or reflection of noise by manmade and physical features on the ground surface.
GROUND TRACK	The trajectory of an aircraft flight path projected onto the ground surface.
HELIPAD	A small area designated for takeoff, landing, or parking of helicopters.

Term	Definition
INCOMPATIBLE LAND USE	Residential, public, recreational, and certain other noise-sensitive land uses that are designated as unacceptable within specific ranges of cumulative (DNL) noise exposure as set forth in 14 CFR Part 150, Appendix A, Table 1.
INSTRUMENT APPROACH	An aircraft approach to an airport, with intent to land, by a pilot flying in accordance with an IFR flight plan, when the visibility is less than 3 miles and/or when the ceiling is at or below the minimum initial approach altitude.
INSTRUMENT APPROACH RUNWAY	A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved.
INSTRUMENT FLIGHT RULES (IFR)	Rules specified by the FAA for flight under weather conditions that do not meet the minimum requirements for VFR (see also). Under these conditions the pilot must rely on instruments to fly and navigate.
INSTRUMENT LANDING SYSTEM (ILS)	A system that provides, in the aircraft, the lateral and longitudinal (localizer), and vertical (guidance) electronic guidance necessary for an instrument landing.
INSTRUMENT OPERATION	An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility or air route traffic control center.
LAND USE COMPATIBILITY	The compatibility of land uses surrounding an airport with airport activities and particularly with the noise from aircraft operations.
LAND USE CONTROLS	Controls established by local or state governments to implement land use planning. The controls include zoning, subdivision regulations, land acquisition (in fee simple, lease-back, or easements), building codes, building permits, and capital improvement programs (to provide sewer, water, utilities, or other service facilities).
LAND USE PLANNING	Comprehensive planning carried out by units of local government, for all areas under their jurisdiction, to identify the optimum uses of land and to serve as a basis for the adoption of zoning or other land use controls.
LOCALIZER (LOC)	Navigational equipment that provides electronic course guidance. The ground-based equipment sends two signals, which, when received and receded by airborne equipment with equal intensity, indicate that the aircraft is on course. If the received and receded signals have unequal intensity, then the aircraft is off course. A localizer is the part of an ILS that provides lateral and longitudinal course guidance to the runway.
LOCALIZER-TYPE DIRECTIONAL AID (LDA)	A navigational aid used for non-precision instrument approaches with utility and accuracy comparable to a localizer; however, it is not part of a complete ILS and its signal is not typically aligned with the runway.
LOUDNESS	The judgment of the intensity of a sound by a person, loudness depends primarily on the sound pressure of the stimulus. Over much of the loudness range, it takes about a threefold increase in sound pressure (approximately 10 decibels) to produce a doubling of loudness.
MAXIMUM SOUND LEVEL (L_{max})	The maximum A-weighted sound level, in dBA, for a given noise event. The peak noise level reached by a single aircraft event.
NOISE	Noise is any sound that is considered to be undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying.
NOISE ABATEMENT PROCEDURES	Changes in runway use, flight approach and departure routes and procedures, and other air traffic procedures that are intended to shift adverse aviation effects away from noise-sensitive areas (such as residential neighborhoods).
NOISE CONTOURS	Lines drawn on a map that connect points of equivalent noise exposure levels. For aircraft noise analyses conducted using DNL, noise contours are usually drawn in 5-DNL intervals, such as connections of DNL 75 exposure, DNL 70 exposure, DNL 65 exposure, and so forth.

Term	Definition
NOISE-SENSITIVE LAND USE	A land use that can be adversely affected by high levels of aircraft noise. Residences, schools, hospitals, religious facilities, libraries, and other similar uses are typically considered to be noise-sensitive.
NONDIRECTIONAL RADIO BEACON (NDB)	A low/medium frequency radio beacon transmitting nondirectional signals whereby the pilot of an aircraft equipped with direction-finding equipment can determine the aircraft's bearing to or from the radio beacon and track to or from the station.
NON-PRECISION INSTRUMENT APPROACH PROCEDURE	A standard instrument approach procedure for which no glide slope guidance is provided. Typical non-precision instrument approach procedures include VOR (see <i>Very High Frequency Omnidirectional Range</i>), GPS (see <i>Global Positioning System</i>), NDB (see <i>Nondirectional Radio Beacon</i>), and LOC (see <i>Localizer</i>) approach procedures.
NORMALLY UNACCEPTABLE	DNL higher than 65 but not higher than 75 decibels (see <i>Unacceptable</i>) - the noise exposure is significantly more severe; barriers may be necessary between the site and prominent noise sources to make the outdoor environment acceptable; special building construction may be necessary to ensure that people indoors are sufficiently protected from outdoor noise.
PATTERN	The configuration or form of a flight path flown by an aircraft, or prescribed to be flown, as in making an approach for landing.
PRECISION APPROACH PATH INDICATOR (PAPI)	An airport lighting facility in the terminal area navigation system used under VFR conditions, through a single row of two to four lights, radiating high intensity red or white beams to indicate whether the aircraft is on, above, or below the required runway glide slope.
PRECISION INSTRUMENT APPROACH PROCEDURE	A standard instrument procedure for a pilot to approach an airport, in which both electronic course guidance and an electronic glide slope are provided. For example, an approach using an ILS is considered a precision instrument approach.
RETROFIT	The retroactive modification of existing jet aircraft engines for noise reduction purposes.
RUNWAY	A defined rectangular area on an airport for the purpose of landing and taking off of aircraft. Runways are numbered in relation to their magnetic direction, rounded to the nearest 10 degrees (i.e., Runway 14, Runway 32).
SINGLE EVENT	Noise generated by a single event, such as a single aircraft flyover.
SOUND EXPOSURE LEVEL (SEL)	SEL is a time-integrated measure, expressed in decibels, of the sound energy of a single noise event. The sound level is integrated over the period that the level exceeds a threshold (normally 65 dBA for aircraft noise events). Therefore, SEL accounts for the duration of the sound. SELs for aircraft noise events depend on the location of the aircraft, the type of operation (landing, takeoff, or overflight), and the type of aircraft.
SOUND LEVEL (NOISE LEVEL)	The weighted sound pressure level obtained by the use of a sound level meter having a standard frequency filter for attenuating part of the sound spectrum.
SOUND LEVEL METER	An instrument consisting of a microphone, an amplifier, an output meter, and frequency-weighting networks used to measure noise and sound levels in a specified manner.
STANDARD INSTRUMENT DEPARTURE (SID)	A preplanned and published instrument departure route.
STANDARD TERMINAL ARRIVAL ROUTE (STAR)	A preplanned and published instrument arrival route.
TERPS	Certain airspace needs to be cleared for aircraft operations. This airspace is determined by the application of operating rules and terminal instrument procedures (TERPS). Removing obstructions to air navigation, except those that an FAA aeronautical analysis determined need not be removed, satisfies these requirements. Subpart C of 14 CFR Part 77 defines obstructions to air navigation. (See FAA Handbook 8260.3B.)
TERMINAL AREA FORECAST (TAF)	The Terminal Area Forecast (TAF) is the official FAA forecast of aviation activity for U.S. airports. Forecasts are prepared for major users of the National Airspace System including air carrier, air taxi/commuter, general aviation, and military.

Term	Definition
TERMINAL RADAR APPROACH CONTROL (TRACON)	Radar approach facility generally serving more than one airport, providing separation; safety alerts; and sequencing of arrival, departure, and transitioning air traffic.
UNACCEPTABLE	DNL above 75 decibels-Noise exposure at the site is so severe that the construction cost to make the indoor noise environment acceptable may be prohibitive and the outdoor environment would still be unacceptable.
VERY HIGH FREQUENCY (VHF) OMNIDIRECTIONAL RANGE (VOR)	A radio transmitter facility in the navigation system radiating a VHF radio wave modulated by two signals, the relative phases of which are compared, resolved, and displayed by a compatible airborne receiver to give the pilot a direct indication of bearing relative to the facility.
VFR AIRPORT	An airport without an authorized or planned instrument approach procedure.
VISUAL APPROACH	An approach to an airport wherein an aircraft on an IFR flight plan, operating in VFR conditions under the control of a radar facility and having air traffic control authorization, may deviate from the prescribed instrument approach procedure and proceed to and land at the airport of destination, served by an operational ATCT, by visual reference to the surface.
VISUAL APPROACH SLOPE INDICATOR (VASI)	An airport lighting facility in the terminal area navigation system used primarily under VFR conditions. It provides vertical visual guidance to indicate whether the aircraft is on, above, or below the glide slope to the runway.
VISUAL FLIGHT RULES (VFR)	A set of regulations that a pilot may operate under when weather conditions meet certain minimum requirements. The requirements are designed to provide sufficient visibility so that other aircraft can be seen and avoided. Under VFR, the pilot generally controls the attitude of the aircraft by relying on what can be seen out the window, although this may be supplemented by referring to the instrument panel.
ZONING AND ZONING ORDINANCES	Ordinances that divide a community into zones or districts according to the current and potential use of properties for the purpose of controlling and directing the use and development of those properties. Zoning is concerned primarily with the use of land and buildings, the height and bulk of buildings, the proportion of a lot that buildings may cover, and the density of population of a given area. As an instrument for noise compatibility plan implementation, zoning deals principally with the use and development of privately owned land and buildings. The objectives of zoning are to establish regulations that provide locations for all essential uses of land and buildings and ensure that each use is located in the most appropriate place. In noise compatibility planning, zoning can be used to achieve two major aims: (1) to reinforce existing compatible land uses and promote the location of future compatible uses in vacant or underdeveloped land, and (2) to convert existing incompatible uses to compatible uses over time.

SOURCE: Environmental Science Associates, 2022.

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I-3: Acronyms List

APPENDIX I-3

Acronyms List

A	Agriculture
AA	Action Area
AARF	Aircraft Rescue and Firefighting
AB	Assembly Bill
AC	Advisory Circular
ACEIT	Airport Construction Emissions Inventory Tool
ACM	Airport Certification Manual
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
AEDT	Aviation Environmental Design Tool
AFE	Above Field Elevation
AIP	Airport Improvement Program
APE	Area of Potential Effects
APU	Auxiliary Power Unit
ASDA	Accelerate-Stop Distance Available
ATCT	Air Traffic Control Tower
BA	Biological Assessment
BFE	Base Floor Elevation
C	Commercial Use
CAA	Clean Air Act
CBRS	Coastal Barrier Resource System
CEQ	Council on Environmental Quality Regulations
CFA	Core Foraging Area
CFR	Code of Federal Regulations
CH₄	Methane
CLEEN	Continuous Lower Energy, Emissions, and Noise
CO	Carbon Monoxide
CO₂	Carbon Dioxide
CO_{2e}	Carbon Dioxide Equivalents
CR	County Road
CU	Conditional Use
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	Decibel
dBA	A-Weighted Decibel
DNL	Day/Night Average Sound Level
DME	Distance Measuring Equipment
DOA	Department of Aviation
DOT	Department of Transportation
EA	Environmental Assessment
ECOS	Environmental Conservation Online System
ECHO	Enforcement and Compliance History Online
EMAS	Engineered Material Arresting System
EO	Executive Order
ERM	Environmental Resource Management

ERP	Environmental Resource Permit
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FBO	Fixed-base Operator
FCT	FAA Contract Tower
FDACS	Florida Department of Agriculture and Consumer Services
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FLUCCS	Florida Land Use, Cover, and Forms Classification System
FMMP	Farmland Mapping and Monitoring Program
FNAI	Florida Natural Areas Inventory
FPL	Florida Power and Light
FWC	Florida Fish and Wildlife Conservation Commission
F45	North Palm Beach General Aviation Airport
GA	General Aviation
GHG	Green House Gas
GPS	Global Positioning System
GSA	General Study Area
GSE	Ground Support Equipment
GWP	Global Warming Potential
HAP	Hazardous Air Pollutant
HFC	Hydrofluorocarbons
HMMA	Hazardous Material Management Act
HSWA	Hazardous and Solid Waste Act
IPaC	Information, Planning, and Consultation
IPCC	Intergovernmental Panel on Climate Change
IRA	Initial Remedial Actions
kWh	Kilowatt Hours
LCLU	Land Cover Land Use
LDA	Landing Distance Available
LEED	Leadership in Energy and Environmental Design
LNA	Palm Beach County Park Airport
LOS	Level of Service
LWCF	Land and Water Conservation Fund Act
MBTA	Migratory Bird Treaty Act
MIRL	Medium Intensity Runway Lights
MOA	Military Operations Area
MS4	Municipal Separate Storm Sewer System
MT	Metric Tons
MXD	Mixed Use
NAAQS	National Ambient Air Quality Standards
NCDC	National Climatic Data Center
NEPA	National Environmental Policy Act
NFA	No Further Action
NHPA	National Historic Preservation Act
NPL	National Priorities List
NOAA	National Oceanic and Atmospheric Administration
NO₂	Nitrogen Dioxide
N₂O	Nitrous Oxide
NPDES	National Pollutant Discharge Elimination System
NPIAS	National Plan of Integrated Airport System
NPL	National Priorities List
NPS	National Park Service
NRCS	National Resources Conservation Service

NRHP	National Register of Historic Places
NRI	National Rivers Inventory
NWI	National Wetland Inventory
OFA	Object Free Area
OHV	Off Highway Vehicle
OOR	Office of Resilience
OPA	Otherwise Protected Area
OS-40	Open Space – 40 Acre Minimum
O₃	Ozone
PAPI	Precision Approach Path Indicator
P	Public
Pb	Lead
PBC	Palm Beach County
PBI	Palm Beach International Airport
PCD	Planned Community Development
PDA	Planned Development Area
PF	Public Service Facilities
PFC	Perfluorocarbons
PGA	Professional Golf Association
PHK	Palm Beach County Glades Airport
PM_{2.5}	Particulate Matter Less Than or Equal to 2.5 Microns in Diameter
PM₁₀	Particulate Matter Less Than or Equal to 10 Microns in Diameter
PO	Pubic Ownership
PPB	Parts Per Billion
PPM	Parts Per Millions
RCRA	Resources Conservation and Recovery Act
REF	Renewable Energy Facility
REIL	Runway End Identifier Lights
RNAV	Area Navigation
RNP	Required Navigation Performance
RPZ	Runway Protection Zone
RSA	Runway Safety Area
RTP	Regional Transportation Plan
RWY	Runway
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SFWMD	South Florida Water Management District
SWFWMD	Southwest Florida Water Management District
SWA	Solid Waste Authority
SF₆	Sulfar Hexafluoride
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
SR	State Route
SSA	Sole Source Aquifer
SUA	Witham Field/ Martin County Airport
TODA	Takeoff Distance Available
TORA	Takeoff Run Available
µg/m³	Micrograms Per Cubic Matter
ULDC	Unified Land Development Code
USACE	U.S. Army Corps of Engineers
US EPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Servic

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