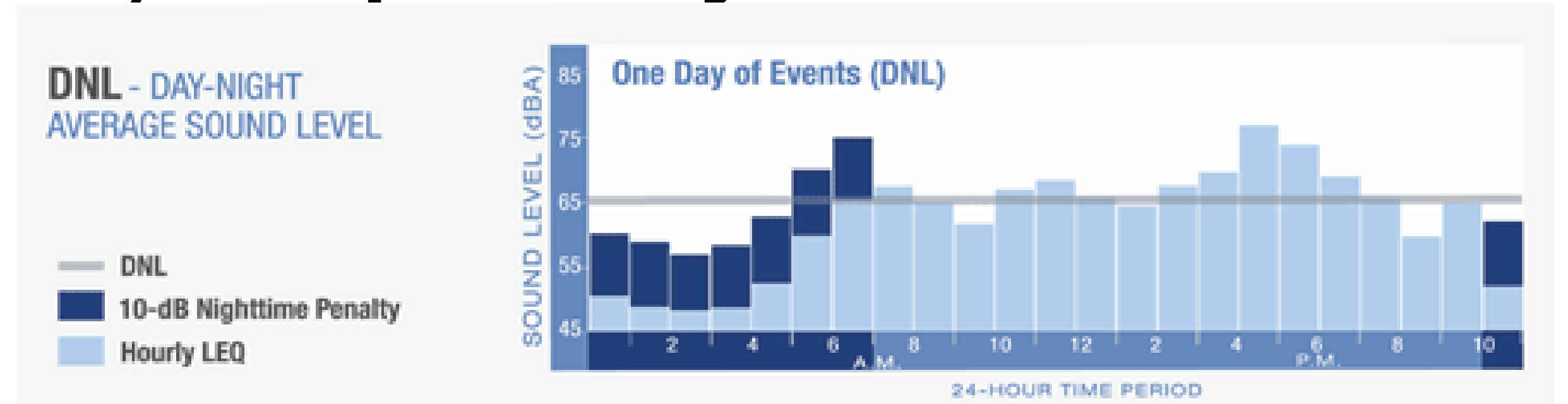


# Existing (2020) Baseline Noise Modeling Methodology

## ● Model and Noise Metric

- FAA's Aviation Environmental Design Tool (AEDT) Version 3b
- Day-Night Average Sound Level (DNL) - required by FAA and Part 150
- Reflects the cumulative exposure to sound over a 24-hour period
- Noise level for the average day of the year based on annual aircraft operations
- Nighttime (10 p.m. - 6:59 a.m.) operations have a 10x penalty

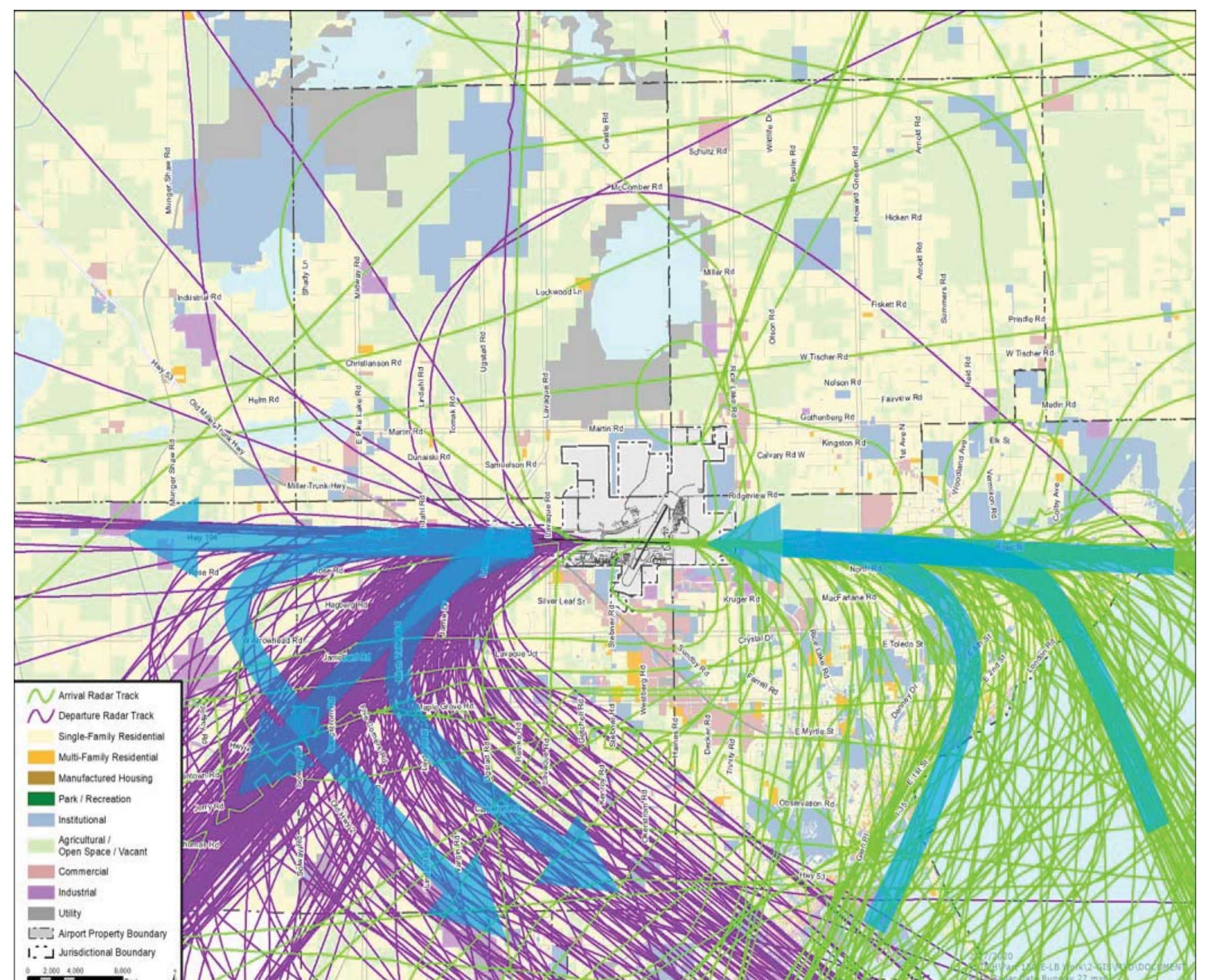


## ● Data Collection

- Began data collection October 2019
- Data represents previous 12 months (September 2018 - August 2019)
- NEMs are dated based on the year of submission and five (5) years from the date of submission per Part 150

## ● Flight Tracks

- FAA's National Offload Program (NOP) radar data (8 weeks)
- Flight Tracks are representative tracks based on flight corridors identified in the NOP data
- Coordination with MnANG 148th Fighter Wing to develop military arrival, departure and low approach flight tracks



## ● Fleet Mix and Average Annual Day (AAD) Operations

- FAA's Traffic Flow Management System (TFMS) - Fleet Mix
- FAA's Air Traffic Data System (ATADS) - Operations
- MnANG 148th Fighter Wing - 4,916 Annual Operations (24.7 Daily)