

DATE: February 10, 2021
TO: Airport Master Plan Advisory Committee
FROM: Mark Opitz, City Planner
RE: Suggested changes to Chapter 4 – Environmental Setting

As the City's liaison for the airport master planning project and staff to AMPAC, I am recommending that AMPAC members vote at the Feb. 18 meeting to approve two changes to Chapter 4 – Environmental Setting.

Change #1: Addition of Air Quality section

There was a lot of discussion at the January 14 AMPAC meeting about whether the Environmental Settings chapter should include a discussion regarding air quality. While the committee didn't vote to expand the scope of the chapter, the Mead & Hunt project team informed me after the meeting that they had some language in mind that could be added. I endorsed this idea as did Chair Burck, so Mead & Hunt drafted the following:

Air Quality

Under the Clean Air Act, the U.S. Environmental Protection Agency (USEPA) sets National Ambient Air Quality Standards (NAAQS) for certain pollutants that in high enough concentrations affect air quality and can harm human health, affect crops and vegetation, and cause property damage. There are currently NAAQS for six air pollutants that are referred to as the "criteria" pollutants. The pollutants are:

Ozone (O₃)

Nitrogen dioxide (NO₂)

Carbon monoxide (CO)

Particulate matter (PM) – Less than or equal to 10 micrometers (coarse PM or PM₁₀) and less than or equal to 2.5 micrometers (fine PM or PM_{2.5})

Sulfur dioxide (SO₂)

Lead (Pb)

In accordance with the Clean Air Act, all areas within the U.S. are designated as attainment, nonattainment, maintenance, or unclassifiable in relation to the NAAQS. An area where the amount of a criteria pollutant is measured below the limits set by the NAAQS is designated attainment for that pollutant, while areas where a criteria pollutant does not meet the NAAQS are designated nonattainment. When a nonattainment area attains the NAAQS, it is redesignated as a maintenance area. Dane County is in attainment for all these pollutants except a part of the

County, which is in maintenance for SO₂, meaning it's been redesignated from nonattainment (which occurred in 1993).

The FAA and USEPA are working collaboratively on the topic of lead emissions from small, piston engine aircraft with the goal of further reducing or eliminating lead in Avgas. Under current air quality regulation, lead and other emissions associated with Avgas are not pollutants that would typically require analysis under the National Environmental Policy Act (NEPA). FAA is supporting research of alternate fuels working with aircraft and engine manufacturers, fuel producers, USEPA and industry associations to address this issue with the goal of developing and deploying new unleaded fuel.

Air quality is not typically addressed in an airport Master Plan; however, it is an area of interest to several community members and during the planning process, the consultant was provided a link to an USEPA website <https://echo.epa.gov/air-pollutant-report?fid=110037971772> that provides emission data for the Morey facility. It includes emissions data for select years, the most recent is 2017 reported data.

Air quality is one of several environmental resources that are typically not addressed in an airport Master Plan but must be addressed in an appropriate environmental document prior to project implementation. Before any specific project is built, a NEPA document would be required, which includes evaluation of air quality. That document would comply with the requirements of the NEPA and all applicable FAA and State environmental Orders and Regulations.

After receiving this language, I asked my colleague, Sustainability Coordinator Kelly Hilyard, to review it. Her comments are below, along with Mead & Hunt's responses in blue.

From: Kelly Hilyard <khilyard@cityofmiddleton.us>
Sent: Wednesday, January 27, 2021 10:32:11 AM
To: Mark Opitz <mopitz@cityofmiddleton.us>
Subject: Re: C29 Air Quality write-up (Draft)

Hi Mark,

This looks good to me- looks mostly about federal compliance. There are my questions, and not necessarily because this doc needs changed, but I am curious:

1. In final paragraph, doc references that although air quality is not typically addressed in MP, an "appropriate environmental document" would be produced before project implementation. What would this document be - a formal environmental assessment? Who would issue or provide this? State, feds, county, FAA?

Response: For a project to be implemented, it would have to follow the requirements of the National Environmental Policy Act (NEPA). The appropriate type of NEPA document would depend on the project and actions being proposed. Some smaller projects and certain actions can be categorically

excluded (CatEx), but there is still a process to follow and appropriate documentation that needs to be provided. Most of the improvements being considered and evaluated in the airport master plan would likely require an environmental assessment (EA). The development of the appropriate NEPA document would likely be administered by the Wisconsin Bureau of Aeronautics, acting as agent on behalf of the City of Middleton. The FAA would ultimately review the EA and issue a Finding of No Significant Impact or make a determination otherwise.

2. What jurisdiction/ability does city have to exceed required thresholds for emissions/air quality? I'm assuming it would be guidance only... or could we require zero-lead fuel at some point. Looking for the route City could take to factor Airport into our community energy goals, as well as emissions targets that may be written into our Sustainability Plan re-write.

Response: As a public-use airport that has accepted federal funds, the City cannot restrict operations to any specific user group or aircraft type. Currently, there are not any FAA-approved options for non-lead fuels that can be used by all gasoline-powered aircraft. However, the FAA is in collaboration with the aviation industry and fuel suppliers in the search for such fuel types and other lead-free propulsion technologies. The attached article provides some additional information regarding this, and provides a reference to a free TRB webinar on this subject to be held next week. I am planning to attend the webinar and will see what other information I can pick up and pass along.

Thanks for Mead and Hunt's work on this.

Kelly Hilyard
City of Middleton Sustainability Coordinator

I recommend that the Air Quality section be added as drafted by Mead & Hunt.

Change #2: Language pertaining to the Town of Middleton

In conjunction with the January 14, the Town of Middleton Chair requested a few changes to the following paragraph (I used the Track Changes feature to show the changes she requested):

Section 4.2.3. Dane County Zoning in the Town of Middleton

Some of the adjacent parcels on the north and west sides of C29 are ~~unincorporated lands~~ in the Town of Middleton ~~and~~ zoned by Dane County. In 2018, Dane County published a ~~rural~~-zoning map for this area. Most of the land adjacent to the airport is zoned ~~as Rural Mixed-Use and Transitional (AT-5)~~ ~~Agriculture Transition (AT-5)~~ and ~~Single-Family Residential (SFR-08), for residential use~~. The AT-5 zoned land north of the airport is used primarily as agricultural fields. There is ~~a small~~ ~~an existing~~ ~~47-acre~~ development zoned for single-family residential (SFR) on the northeast side of the airport beginning

approximately ~~1,300~~960 feet northeast of the Runway 28 end, and a larger SFR area to the west beginning approximately 1/3 mile southwest of the Runway 10 end, ~~buffered by~~adjacent to Ed Tallard Conservancy, Penni Klein Park, and Airport Road.

Based on my review of Chair Richson's input, I recommend that AMPAC ask Mead & Hunt to revise Section 4.2.3 as follows:

Some of the adjacent parcels on the north and west sides of C29 are unincorporated lands in the Town of Middleton and zoned by Dane County. In 2018, Dane County published a ~~rural~~ zoning map for this area. Most of the land adjacent to the airport is zoned ~~as Rural Mixed Use and Transitional (AT-5)~~Agriculture Transition (AT-5) and Single-Family Residential (SFR-08), for residential use. The AT-5 zoned land north of the airport is used primarily as agricultural fields. There is an existing small development consisting of 37 ~~zoned for~~ single-family ~~residential (SFR)~~residences on the northeast side of the airport beginning approximately ~~1,300 feet~~ 1/5 mile northeast of the Runway 28 end, and there are ~~a~~ larger SFR areas ~~to the west~~ beginning approximately 1/3 mile southwest ~~of the Runway 10 end and approximately one mile west of the Runway 10 end.~~ , buffered by Ed Tallard Conservancy, which is owned by the Town, and Penni Klein Park, which is owned by the City, are adjacent to the west end of Runway 10. ~~and Airport Road.~~

The "clean" version of this paragraph is as follows:

Some of the adjacent parcels on the north and west sides of C29 are unincorporated lands in the Town of Middleton and zoned by Dane County. In 2018, Dane County published a zoning map for this area. Most of the land adjacent to the airport is zoned Agriculture Transition (AT-5) and Single-Family Residential (SFR-08), for residential use. The AT-5 zoned land north of the airport is used primarily as agricultural fields. There is an existing development consisting of 37 single-family residences on the northeast side of the airport beginning approximately 1/5 mile northeast of the Runway 28 end, and there are larger SFR areas beginning approximately 1/3 mile southwest and approximately one mile west of the Runway 10 end. Ed Tallard Conservancy, which is owned by the Town, and Penni Klein Park, which is owned by the City, are adjacent to the west end of Runway 10.