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MEMORANDUM

TO: Michael McKinney and Members of the Long-Range Planning Committee

FROM: Brea Grace, AICP, Senior Community Development Specialist
Laurie Miller, Senior Community Development Specialist

DATE: August 12, 2024

RE: Comprehensive Plan Amendment – Solar Energy
SEH No. YORKV 177582

TASK BACKGROUND

Both private property owners and solar energy companies have increasingly shown interest in using solar energy systems and developing solar farms in the Village of Yorkville and surrounding communities. After witnessing the impacts of this type of development in a neighboring community, the Village of Yorkville proactively adopted a solar energy systems ordinance to allow for mindful development of solar energy in the community.

The Village recognizes a need to update the Comprehensive Plan, and potentially amend the newly adopted solar energy systems ordinance, to better guide solar energy systems and the development of solar farm sites. The current Comprehensive Plan does not make recommendations for solar energy, nor a similar growing private utility industry, wind energy facilities. Village staff engaged the planning team at SEH to identify best practices for solar energy system siting in terms of future land uses / zoning districts, and strategies for incorporation of solar energy systems in the Comprehensive Plan, the Zoning Map and a potential future Solar Ordinance Amendment.

Since that moment, the following has occurred to address solar energy in Yorkville:

- March 11, 2024 the SEH team presented these findings summarized in a memo dated March 8, 2024.
- April 9, 2024, The SEH team presented SEH team three specific strategies for a Comprehensive Plan amendment for the Long-Range Planning Committee (LRPC) to consider in a memo dated April 4, 2024.
- May 14, 2024 LRPC Meeting – At the Village's request, John Holloway, Chairman of the Town of Paris, addressed the LRPC during the meeting, sharing the Town's experiences in addressing future solar energy uses. In addition, the SEH team led the LRPC through a discussion to fine tune the overall vision and goals for the Comprehensive Plan Amendment.
- June 11,2024 LRPC Meeting – The Village reviewed the draft language with the assistance of the City Attorney and provide some slight language modifications to be incorporated.

- July 9, 2024 LRPC Meeting – The Village review the draft language and agreed to make some minor modifications to the language.
- August 5, 2024 LRPC Meeting – The Village reviewed the final draft language and agreed to move forward with a public hearing which will occur on September 9, 2024.

Suggested Comprehensive Plan Amendments

Chapter 5: Utilities and Community Facilities Element

Renumber existing section 5.5: Goals, Objectives, and Policies to 5.6 and add new section 5.5: Emerging Technologies in Energy Sources

5.5 Emerging Technologies in Energy Sources
In recent years, there has been an increase in the use of solar and wind systems at both the consumer and utility-scale. Each scale of utility systems plays different roles in providing clean and renewable energy. Consumer-scale utility systems are an accessory to the primary use of the parcel on which it is located, and which is directly connected to, or designed to, serve the energy needs of the primary use. Utility-scale utility systems are a primary use whose primary purpose for creating wholesale or retail sales of generated electricity. While utility-scale solar facilities are often described as “temporary”, it is common for solar and wind system developers to enter into contracts that permit them to lease the land for this purpose for periods ranging from 25 to 50 years.

Regulating of systems is based on megawatt (MW) capacity. Systems up to 99 MW of capacity, may be regulated at the local level. Systems with a capacity of 100 MW or more require a Certificate of Public Convenience and Necessity (CPCN) from the Public Service Commission (PSC) and do not need local government approval.

In general, there are very little impacts created from the use of consumer-scale solar and wind energy facilities; however, utility-scale solar and wind facilities may impact a community in several ways. These include:

- Consume large quantities of agricultural lands, often prime farmland that have high-quality soils.
- Create significant lot coverage and changes to grading that impact stormwater and erosion issues.
- Fencing around solar and wind facilities often create barriers to the movement of wildlife.
- Removal of large swaths of forestlands.
- Construction of new solar and wind systems can often create financial impacts for a community such as wear and tear on roadways during construction, the need for new culverts for additional driveway access to facilities, and lost revenue payments to the school district due to tax incentives.
- Prevent future urban growth should solar farms be positioned or clustered adjacent to existing urban development.
- Decomissioning of wind and solar facilities can lead to a host of issues should the developer not remove equipment and interior roadways. In addition, some of the materials used in the making

of solar and wind facilities may contaminate the land preventing the property from returning to farmable land.

The Village of Yorkville has the following vision for Solar and Wind technology: Ensure the conservation of agricultural land in the Village of Yorkville, while promoting the adoption of solar and wind energy installations to enhance the community's access to renewable energy availability.

~~5.5~~ 5.6: Goals, Objectives, and Policies

Add the following goals, objectives, and policies.

Goals: Consider the use of solar and wind energy systems to increase access to renewable energy in the Village.

Objectives:

1. Allow for consumer-scale solar and wind energy facilities in all zoning districts.
2. Allow for utility-scale solar and wind energy facilities in areas zoned A-1, A-2, A-3, and M-1.
3. Encourage a positive working relationship between utility-scale solar and wind developers and the Village of Yorkville.
4. Protect utility-scale solar and wind facility investments.

Policies:

1. Utilize a Memorandum of Understanding between developers and the Village to create clarity in expectations for partnership roles and construction process.
2. Promote efficient and transparent permitting processes for both consumer-scale and utility-scale solar and wind facilities. Ensure permitting process meets WI Statutes §66.0401, §66.0403, and §196.491.
3. Require protective measures such as screening, buffering, and fencing to discourage unwanted access by pedestrians, recreational vehicles, and wildlife which may damage above ground equipment and required plantings.
4. Increase awareness of potential impacts to long-term access to direct sunlight or wind for energy production.

Goal: Protect agricultural and ecologically sensitive lands from negative impacts from solar and wind facility uses.

Objectives:

1. Protect agricultural lands from stormwater and erosion issues when used for solar and wind facilities.
2. Preserve environmental corridors, isolated natural areas, and critical species habitats as designated by Southeastern Wisconsin Regional Planning Commission.
3. Protect the Village from financial impacts caused by the construction process or utilization of utility-scale solar and wind facilities.
4. Ensure decommissioning of utility-scale solar and wind energy facilities results in land that can be returned to productive agricultural or industrial uses.
5. Strategically place utility-scale solar and wind energy systems in areas that will preserve utility-scale solar and wind facility investments, urban investments, and not cause negative impacts to the environment or cultural resources.

Policies:

1. Require stormwater, erosion, and sediment control plans to comply with federal and state environmental regulations.
2. Require utility-scale solar and wind facilities to be planted with pollinator plants and prairie grass to compensate for stormwater runoff.
3. Protect agricultural lands from soil compaction by requiring construction of utility-scale solar or wind facilities to occur only during appropriate conditions.
4. Require any land not under array be leased out and farmed instead of being used as green space.
5. Protect drain tiles from puncture. Require drain tiles to be identified in submitted site plans for utility-scale solar and wind facilities. Require damaged drain tiles to be repaired and any upstream impacts to be remedied.
6. Maintain wildlife corridor. An image located in Chapter 6.5 under “Natural Resource Goal: Protect important natural resources such as the Root River” shows how panel arrangements within a project site, along with fencing around solar panel bays, creates open areas through which animals can continue to travel along existing groves of trees, wetlands, and other vegetation.
7. Preserve woodlands. Including preserve existing trees when feasible and require the replacement of any removed trees for utility-scale solar and wind developments. The replacement of removed trees is encouraged on a 1:1 basis. Replacement trees shall be placed elsewhere on the site to serve as a buffer to adjacent land uses.
8. Negotiate mitigation of financial impacts caused by the development and use of utility-scale solar and wind facilities. This includes identifying hull routes and penalties for non-compliance with routes; cost of wear and tear of pavement on hull routes; cost of new culverts for any additional driveway accesses required due to the creation or use of utility-scale solar and wind facilities on a property; and lost revenue payments to the school district.
9. Require decommission actions at the end of utility-scale solar and wind system use including removal of any energy facility relate equipment, materials or fencing above ground and within 48 inches below the ground surface; removal of any interior roadways; removal of any broken glass or other materials that may create safety hazards on the property or prevent the land from returning to productive agricultural use; and prohibit the use of materials that may contaminate the land or groundwater preventing the land from returning to productive agricultural use.
10. Preserve land adjacent to urban development for future expansion of urban areas.
11. Guide utility-scale solar and wind facilities to be located away from the field of vision of existing subdivisions to preserve the view and character of the neighborhood.
12. Discouraging the development of large-scale solar facilities that might be visible from historical sites, recreational amenities or similar resources that could have negative consequences for those tourist attractions.
13. Ensure large-scale facility solar panels installed near the airport, which is primarily used for recreational purposes, are constructed of dark-colored materials and covered with anti-reflective coatings to protect pilots and skydivers from glare.

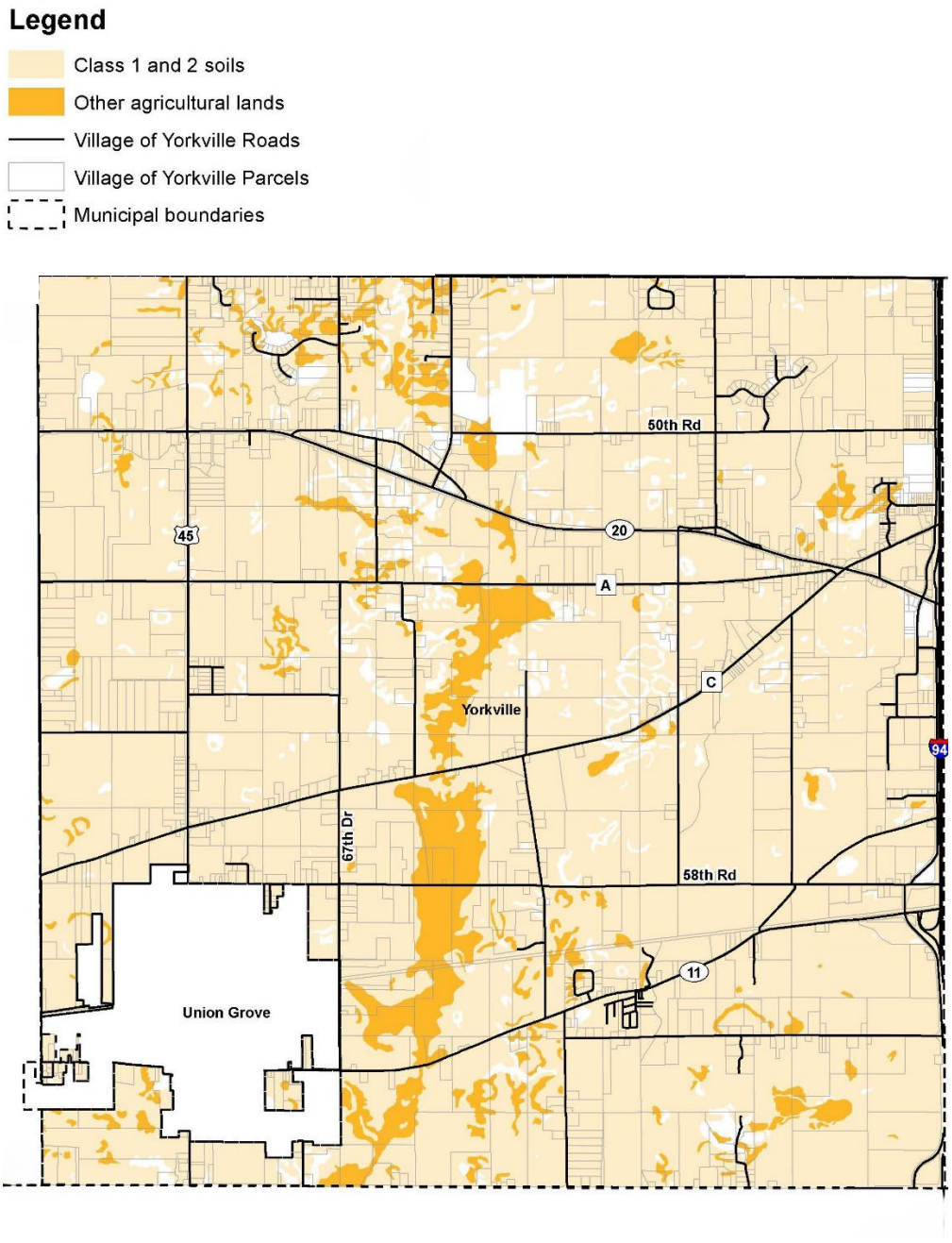
Chapter 6: Agricultural, Natural, and Cultural Resources Element

6.2 Background Data / Existing Conditions

Paragraph 4: In Yorkville, agriculture is the largest land use by acreage (See the Land Use Section). <u>As shown in Figure 23, Yorkville has a significant amount of prime farmland, classified</u>

by the U.S. Natural Resources Conservation Service (NRCS) as Class 1 and Class II which have the most productive soils for farming.

Figure 23 – Agricultural Lands



All figures following #23 will be renumbered accordingly.

6.4 Assessment of Future Needs

Paragraph 1: The agricultural economy in the Village of Yorkville is strong but continues to face challenges. Changing weather patterns and deterioration of the drainage tile system have negatively impacted the production yield. Increased land values, challenges with succession planning, and increased development pressures, particularly with the growing trend to use prime farmland for utility-scale solar and wind systems, will continue to erode the number of acres devoted to agricultural use in the Village.

6.5 Goals, Objectives, and Policies

Agricultural Goal: Preserve productive farmland for continued agricultural use.

Objectives: *(Add the following)*

6. Protect agricultural lands from negative impacts from solar and wind facility uses such as soil compaction, stormwater and erosion issues.

Policies: *(add the following)*

3. Protect agricultural lands from stormwater and erosion issues when used for solar and wind facilities. Require stormwater, erosion, and sediment control plans to comply with federal and state environmental regulations.
4. Require utility-scale solar and wind facilities to be planted with pollinator plants and prairie grass to compensate for stormwater runoff.
5. Protect agricultural lands from soil compaction by requiring construction of utility-scale solar or wind facilities to occur only during appropriate conditions.
6. Protect drain tiles from puncture. Require drain tiles to be identified in submitted site plans for utility-scale solar and wind facilities. Require damaged drain tiles to be repaired and any upstream impacts to be remedied.
7. Require any land not under array be leased out and farmed instead of being used as green space.

Natural Resource Goal: Protect important natural resources such as the Root River.

Objectives: *(Add the following)*

4. Protect ecologically sensitive lands from negative impacts from solar and wind facility uses such as soil compaction, stormwater and erosion issues.
5. Preserve environmental corridors, isolated natural areas, and critical species habitats as designated by Southeastern Wisconsin Regional Planning Commission.

Policies: *(Add the following)*

7. Protect ecologically sensitive lands from stormwater and erosion issues when positioned near solar and wind facilities. Require stormwater, erosion, and sediment control plans to comply with federal and state environmental regulations.

8. Maintain wildlife corridors. The example image on the next page shows a solar development and how panel arrangements within a project site, along with fencing around solar panel bays, creates open areas through which animals can continue to travel along existing groves of trees, wetlands, and other vegetation.

9. Preserve woodlands. Including preserve existing trees when feasible and require the replacement of any removed trees for any new developments. The replacement of removed trees is encouraged on a 1:1 basis. Replacement trees shall be placed elsewhere on the site to serve as a buffer to adjacent land uses.

Cultural Resources Goal: Promote and encourage identification, appreciation, and protection of historic and cultural resources.

Objectives: *(Add the following)*

3. Strategically place development and utility-scale wind and solar facilities in a manner that does not cause negative impacts to cultural resources.

Policies: *(Add the following)*

3. Discouraging the development of large-scale solar facilities that might be visible from historical sites, recreational amenities or similar resources that could have negative consequences for those tourist attractions.

Chapter 9: Land Use Element

9.9: Goals, Objectives, and Policies

Land Use Goal: Preserve productive farmland for continued agricultural use.

Objectives: *(Add the following)*

3. Protect agricultural lands from negative impacts from solar and wind facility uses such as soil compaction, stormwater and erosion issues.

Policies: *(Add the following)*

3. Protect agricultural lands from stormwater and erosion issues when used for solar and wind facilities. Require stormwater, erosion, and sediment control plans to comply with federal and state environmental regulations.
4. Require utility-scale solar and wind facilities to be planted with pollinator plants and prairie grass to compensate for stormwater runoff.
5. Protect agricultural lands from soil compaction by requiring construction of utility-scale solar or wind facilities to occur only during appropriate conditions.
6. Protect drain tiles from puncture. Require drain tiles to be identified in submitted site plans for utility-scale solar and wind facilities. Require damaged drain tiles to be repaired and any upstream impacts to be remedied.
7. Require any land not under array be leased out and farmed instead of being used as green space.

CONCLUSION

As required, The Village of Yorkville's is holding a public hearing to allow residents an opportunity to express their thoughts regarding a Comprehensive Plan amendment which will guide potential development of solar and wind energy systems in a manner that allows for renewable energy sources yet protects the Village from their negative impacts. Following the public hearing, the Village may recommend adoption to the Village Board.