Appendix A

Intergovernmental Agreement Between PIIC and the City of Pine Island

Document No. **A1597600**
OFFICE OF THE COUNTY RECORDER
OLMSTED COUNTY, MN
I hereby certify that this document was filed
in this office on 12-13-2023 at 12:31 PM
MARY BLAIR-HOEFT - DIR. PROPERTY RECORDS/LICENSING
Fee Amount: $46.00 by deputy: ms

INTERGOVERNMENTAL AGREEMENT BETWEEN THE PRAIRIE ISLAND INDIAN COMMUNITY AND THE CITY OF PINE ISLAND

This Intergovernmental Agreement (***"Agreement"***) is made and entered into on November 29, 2023 (the "***Effective Date***"), between the Prairie Island Indian Community of Minnesota ("***Tribe***"), and the City of Pine Island ("***City***"), and collectively as the "***Parties***."

Recitals

A. The Tribe is a federally recognized Indian tribe that provides governmental services to its members and exercises governmental jurisdiction over certain of the lands it owns.

B. The City is a Minnesota municipal corporation that provides municipal services and public infrastructure, that exercises governmental jurisdiction within its City limits, including the provision of public safety and water/ wastewater services, and the regulation of zoning/land uses, land subdivisions, and land development.

C. The Tribe owns real property located in Olmsted County, some of which is located within City limits, as described on **Exhibit A** (the "Elk Run Property").

D. The Tribe wishes to purchase certain land owned by the City that is adjacent to the Elk Run Property, including approximately 40 acres that is subject to a separate agreement between the City and the Minnesota Department of Transportation ("Interchange Land"), and the City wishes to sell the Interchange Land to the Tribe.

E. The Tribe has submitted an application to the United States Department of the Interior to have a portion of the Elk Run Property placed into trust by the United States for the benefit of the Tribe and added to its Reservation to serve as a safe, permanent homeland for the Tribe; the Tribe likely also will submit one or more additional applications to place additional portions of the Elk Run Property and/or the Interchange Land into trust.

F. If and when portions of the Elk Run Property and/or the Interchange Land are placed into trust the Tribe will have governmental jurisdiction over these lands despite their location partially within City limits.

G. The City supports the Tribe's efforts to have the Elk Run Property and Interchange Land placed into trust and to develop these lands.

H. The City believes that the Tribe's development of these lands will produce economic and other benefits to the City, creating new opportunities for employment and new sources of income for the surrounding community.

I. The Tribe and the City have established a cooperative and mutually respectful government-to-government relationship and they acknowledge that development of the Elk Run Property and Interchange Land will impact the City. The Tribe desires to address mechanisms to mitigate potential impacts from such development through this Agreement and other agreements contemplated herein.

J. The Tribe's plans for development of the Elk Run Property and Interchange Land are ongoing, but likely will include a mix of residential, and economic development and are expected to include, ultimately, tribal governmental activities.

K. The Tribe may utilize certain municipal and related services rather than duplicate such services on the Elk Run Property and/or the Interchange Land. The Tribe desires to pay or reimburse the City for such services, and the City desires to provide such services on mutually beneficial terms which may include a payment-in-lieu of taxes arrangement.

L. The Tribe and the City agree that this Agreement will advance their mutually respectful and beneficial relationship, and that they will amend or otherwise supplement this Agreement as needed as the Tribe's plans for the Elk Run Property are further developed.

M. The Tribe and the City mutually represent that they have the authority to enter into this Agreement.

Now therefore, in consideration of the promises, covenants, agreements and obligations contained herein, the receipt and sufficiency of which are hereby acknowledged, the Parties enter into this Agreement and agree as follows:

1. **Infrastructure for the Elk Run Property.**

The Tribe and the City agree to cooperatively discuss the public and private infrastructure needed to serve the Tribe's development plans for the Elk Run Property, and to amend or otherwise supplement this Agreement regarding infrastructure as may be mutually agreed.

2. **Sale of Interchange Property.**

The Tribe and the City agree to negotiate in good faith a purchase agreement for the sale of the Interchange Land with the goal of completing the closing/conveyance of such on or before April 1, 2024. Additional terms of such transaction shall be set forth in the separately negotiated and approved purchase agreement. The Tribe and the City agree to cooperatively discuss the public and private infrastructure that may be needed to serve the Interchange Land consistent with paragraph 1.

3. **Governmental and Other Services for the Property.**

Until such time as the Elk Run Property or the Interchange Land is held in trust by the United States for the benefit of the Tribe, the City shall continue to exercise governmental jurisdiction, respectively, over such land and provide governmental services to the Tribe as the owner thereof. Once the Elk Run Property is held in trust for the Tribe, the parties agree as follows:

A. Governmental Services Provided by the Tribe. The Tribe will be responsible for planning, zoning, subdivision, and land development authority, and for providing (directly or through agreements with other public or private providers, including, if applicable, the City) all necessary and customary governmental services concerning the Property, including, but not limited to, public safety (police and traffic control), fire protection, and emergency medical services.

B. Emergency or Other Services. The Tribe and the City will work cooperatively to avoid conflicts or gaps in their provision of public safety, fire protection, emergency medical, or other services within their respective jurisdictions, may execute joint powers agreements under 2022 Minn. Stat. 471.59 or other authorities as may be necessary and appropriate, and may conduct joint public safety training exercises.

C. Utility Services. The Tribe will provide or acquire electrical, potable water and wastewater services for the Elk Run Property, and the parties will cooperatively discuss the City's provision of such services on mutually agreeable terms.

D. Future Agreements. Any of these services acquired from the City will be the subject of a written agreement between the Tribe and the City, whether as an amendment to this Agreement or pursuant to a separate agreement.

4. Gaming-Related Development.

While the Tribe has no immediate economic development plans for the Property, the Tribe and the City acknowledge that it is possible that in the future the Tribe may use the portion of the Elk Run Property identified in **Exhibit A**, some of which is located within City limits ("Emergency Gaming Parcel") to conduct Class II or Class III gaming (as defined by the Indian Gaming Regulatory Act, 25 U.S.C. § 2701 *et seq.*). The Tribe and the City agree that such potential future gaming would be subject to the following conditions:

A. Limited Forbearance. The Tribe agrees that it will forbear conducting gaming for a minimum of six (6) years from the date on which the Emergency Gaming Parcel is accepted in trust ("Forbearance Period"); provided, that in the event that the Tribe closes operations at its existing gaming facility located on its Reservation at Prairie Island due to impacts from a flooding or nuclear event, the Tribe may, in its discretion, conduct gaming on the Emergency Gaming Parcel sooner than expiration of the Forbearance Period.

B. Infrastructure and Services. In the event the Tribe conducts gaming on the Emergency Gaming Parcel consistent with subsection A, the Tribe and the City will negotiate in good faith concerning the provision of any additional infrastructure and services as may reasonably be necessary to accommodate such development consistent with Sections 1 and 2 herein, and for additional compensation to the City for such services as may be appropriate.

5. Good Faith and Fair Dealing.

The Parties to this Agreement agree that they have a duty of good faith and fair dealing under this Agreement.

6. Notices.

Any notices regarding this Agreement will be sent by certified mail, return receipt requested, or by a nationally recognized overnight delivery service to:

For the Tribe:	For the City:
Prairie Island Indian Community Tribal Administration Offices 5636 Sturgeon Lake Road Welch, MN 55089	City of Pine Island PO Box 280 Pine Island, MN 55963

With a required copy to:

Jessie Stomski Seim, General Counsel
Prairie Island Indian Community
5636 Sturgeon Lake Road
Welch, MN 55089

With a required copy to:

Robert J.V. Vose
Kennedy & Graven
Fifth Street Towers
150 South 5th Street, Suite 700
Minneapolis, MN 55402

7. Entire Agreement.

This Agreement contains the entire agreement of the City and the Tribe with respect to the subject matter of this Agreement, and there are no other understandings between the Parties, written or verbal, relating to the subject matter of this Agreement. Any amendments to this Agreement or separate understandings or agreements between the parties shall be in writing and approved and executed by each party.

8. Drafting.

This Agreement was reached through the mutual negotiations of the Parties and no rule of law requiring the Agreement to be construed in favor of or against a party because of drafting will apply.

9. Severability.

If, for any reason, any provision of this Agreement is held to be invalid, unenforceable, illegal, or inoperable by a court, tribunal, or administrative agency of competent jurisdiction, the provision will be deemed omitted from this Agreement and its omission will not affect the validity and effect of the other provisions of this Agreement.

10. No Encumbrance of Real Property.

A. The City expressly disclaims any right under this Agreement to have or to exercise any proprietary control over, or to attach a claim, lien, charge, right of entry, or liability to, any real property held by the United States in trust for the Tribe. This Agreement shall not be construed as giving the City any such right.

B. The Tribe represents to the City that this Agreement does not give the City the right to have or to exercise any proprietary control over, or to attach a claim,

lien, charge, right of entry, or liability to, any real property held by the United States in trust for the Tribe.

11. Limited Waiver of Sovereign Immunity for Dispute Resolution.

The Tribe waives sovereign immunity in favor of the City for the limited purpose of resolving any disputes that may arise out of this Agreement as follows:

The Parties agree that they shall attempt to resolve any disputes through a meet and confer process. The Parties will agree on the particulars of that process should a dispute arise. If the Parties cannot resolve the dispute through the meet and confer process, the waiver hereby provided shall permit Minnesota state courts, including specifically the Olmstead County District Court, to hear and decide the parties' dispute provided, that nothing in this Agreement may be construed or interpreted to effect a waiver of the Tribe's sovereign immunity in any other jurisdiction or court proceeding whatsoever. This Agreement may be used as a basis for the dismissal of any action beyond the limits of this Section 10.

12. No Third-Party Beneficiaries.

This Agreement does not create, and shall not be construed as creating, any right enforceable by any person not a party to this Agreement. Any covenant or agreement contained in this Agreement shall be only for the benefit of the Parties and their respective successors and permitted assigns.

13. Term.

The term of this Agreement shall commence upon the Effective Date of this Agreement and shall continue until November 27, 2030, or until such other date as agreed to in writing by the Parties by mutual agreement.

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IN WITNESS WHEREOF, this Agreement has been executed and approved by the Parties and persons whose signatures appear below:

Johnny Johnson
Community Council President
Prairie Island Indian Community

David Friese
Mayor
City of Pine Island

Elizabeth Howard
City Administrator
City of Pine Island

State of Minnesota
County of Ramsey

Being duly commissioned under the laws of the State of Minnesota, I certify that the foregoing and annexed document entitled Intergovernmental Agreement between the Prairie Island Indian Community and the City of Pine Island and containing 10 pages is a true and correct copy of an electronic document bearing three electronic signatures as of this day, November 29, 2023.

Notary Public

My commission expires January 31, 2029

SARAH ELIZABETH PHEMISTER
NOTARY PUBLIC
MINNESOTA
My Commission Expires Jan. 31, 2029

This instrument was drafted by:
Paul S. Moe
Faegre Drinker Biddle & Reath LLP
2200 Wells Fargo Center
90 South Seventh Street
Minneapolis, MN 55402

EXHIBIT A

PARCEL 1:

The Northwest Quarter of the Northeast Quarter of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota.

The Northeast Quarter of the Northeast Quarter of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota.

That part of the Southwest Quarter of the Northwest Quarter, Southeast Quarter of the Northwest Quarter, Northeast Quarter of the Southwest Quarter, West Half of the Southeast Quarter and the Southeast Quarter of the Southeast Quarter, of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, lying northerly and easterly of the following described line:

Commencing at the northwest corner of said Section 1; thence on an assumed bearing of South 00 degrees 54 minutes 41 seconds East along the west line of said Section 1 a distance of 778.98 feet; thence South 44 degrees 55 minutes 49 seconds East 764.84 feet to the north line of said Southwest Quarter of the Northwest Quarter to the point of beginning of the line to be described; thence South 44 degrees 55 minutes 49 seconds East 5121.99 feet; thence southeasterly 389.04 feet to the south line of said Section 1 along a tangential curve concave to the southwest having a radius of 1083.65 feet and a central angle of 20 degrees 34 minutes 11 seconds and there terminating.

That part of the West Half of the Northwest Quarter, Southeast Quarter of the Northwest Quarter, Northeast Quarter of the Southwest Quarter, West Half of the Southeast Quarter, and Southeast Quarter of the Southeast Quarter, of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, lying southerly and westerly of the following described line:

Commencing at the northwest corner of said West Half of the Northwest Quarter; thence on an assumed bearing of South 00 degrees 54 minutes 41 seconds East along the west line of said West Half of the Northwest Quarter 778.98 feet to the point of beginning of the line to be described; thence South 44 degrees 55 minutes 49 seconds East 5886.83 feet; thence southeasterly 389.04 feet to the south line of said Section 1 along a tangential curve concave to the southwest having a radius of 1083.65 feet and a central angle of 20 degrees 34 minutes 11 seconds and there terminating.

That part of the Northwest Quarter of the Southwest Quarter, Southwest Quarter of the Southwest Quarter, and Southeast Quarter of the Southwest Quarter of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, which lies northerly of the north right-of-way line of State Highway 52.

The North one-half of the Northwest Quarter (N½ NW¼) of Section 1, Township 108 North, Range 15 West, except that part of the Northwest Quarter of the Northwest Quarter (NW¼ NW¼) lying southwesterly of the center of Township Road running south to north in a generally northwesterly direction.

The Southwest Quarter of the Northeast Quarter of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota.

The Southeast Quarter of the Northeast Quarter of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota.

The Northeast Quarter of the Southeast Quarter of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota.

The Southwest Quarter of the Southwest Quarter of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, which lies southwesterly of the southwesterly right-of-way line of State Highway 52, EXCEPT Minnesota Department of Transportation Right of Way Plat No. 55-99.

The Northwest Quarter of the Northeast Quarter and the South Half of the Northeast Quarter of Section 2, Township 108 North, Range 15 West, Olmsted County, Minnesota, EXCEPT that part which lies southerly of Trunk Highway Number 52 and also excepting Parcel 303 as shown on Minnesota Department of Transportation Right of Way Plat No. 55-30 recorded on February 2, 1990, in Book E-5 on Page 401, EXCEPT:

That part of the West Half of the Northeast Quarter of Section 2, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Beginning at the northwest corner of said West Half of the Northeast Quarter; thence on an assumed bearing of South 00°50'18" East along the west line of said West Half of the Northeast Quarter 1914.70 feet to the northeasterly right of way line of Trunk Highway Number 52; thence South 59°18'11" East along said northeasterly right of way line 162.79 feet; thence South 04°07'55" West along said northeasterly right of way line 111.80 feet; thence South 59°18'11" East along said northeasterly right of way line 330.88 feet; thence North 00°50'18" West 2282.98 feet to the north line of said West Half of the Northeast Quarter; thence South 89°20'34" West 411.08 feet to the point of beginning.

That part of the North Half of the Southeast Quarter of Section 2, Township 108 North, Range 15 West, Olmsted County, Minnesota, lying northerly and easterly of State Highway Number 52.

That part of the Northeast Quarter of the Northeast Quarter of Section 2, Township 108 North, Range 15 West, Olmsted County, Minnesota, lying southerly and westerly of the following described line:

Commencing at the northeast corner of said Northeast Quarter of the Northeast Quarter; thence on an assumed bearing of South 00 degrees 54 minutes 41 Seconds East along the east line of said Northeast Quarter of the Northeast Quarter 778.98 feet to the point of beginning of the line to be described; thence North 44 degrees 55 minutes 49 seconds West 1087.92 feet to the north line of said Northeast Quarter of the Northeast Quarter and there terminating

That part of the Northeast Quarter of the Northeast Quarter of Section 2, Township 108 North, Range 15 West, Olmsted County, Minnesota, lying northerly and easterly of the following described line:

Commencing at the northeast corner of said Northeast Quarter of the Northeast Quarter; thence on an assumed bearing of South 00 degrees 54 minutes 41 seconds East along the east line of said Northeast Quarter of the Northeast Quarter 778.98 feet to the point of beginning of the line to be described; thence North 44 degrees 55 minutes 49 Seconds West 1087.92 feet to the north line of said Northeast Quarter of the Northeast Quarter and there terminating.

That part of the West Half of the Northeast Quarter of Section 2, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Beginning at the northwest corner of said West Half of the Northeast Quarter; thence on an assumed bearing of South 00°50'18" East along the west line of said West Half of the Northeast Quarter 1914.70 feet to the northeasterly right of way line of Trunk Highway Number 52; thence South 59°18'11" East along said northeasterly right of way line 162.79 feet; thence South 04°07'55" West along said northeasterly right of way line 111.80 feet; thence South 59°18'11" East along said northeasterly right of way line 330.88 feet; thence North 00°50'18" West 2282.98 feet to the north line of said West Half of the Northeast Quarter; thence South 89°20'34" West 411.08 feet to the point of beginning.

That part of the West Half of the Northeast Quarter of Section 12, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing for a place of beginning at the northwest corner of the Northeast Quarter of said Section and running thence East along the north line of said Section a distance of 1304.2 feet to the northeast corner of said West Half of the Northeast Quarter; thence South along the east line of said West Half a distance of 2101 feet to the northerly right-of-way line of U.S. Trunk Highway Number 52; thence Northwesterly along said northerly right-of-way line a distance of 1816.68 feet to the west line of said Northeast Quarter; thence North a distance of 871.6 feet to the place of beginning.

That part of the East Half of the Northwest Quarter of Section 12, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing for a place of beginning at the northeast corner of the Northwest Quarter of said Section 12 and running thence West along the north line of said Northwest Quarter a distance of 921.1 feet to a point in the northerly right-of-way line of U.S. Trunk Highway Number 52; thence southeasterly along said northerly right-of-way line a distance of 1264.65 feet to the east line of said Northwest Quarter thence North along the east line of said Northwest Quarter a distance of 871.6 feet to the place of beginning.

That part of the East Half of the Northeast Quarter of Section 12, Township 108 North, Range 15 West, Olmsted County, Minnesota, lying and being north and east of Highway Number 52 and south and west of that certain Township Road, formerly known as State Highway Number 20, running northwesterly and southeasterly through said East Half of the Northeast Quarter.

That part of the East Half of the Northeast Quarter of Section 12, Township 108 North, Range 15 West, Olmsted County, Minnesota, lying north and east of the Township Road.

That part of the Northeast Quarter of the Southeast Quarter of Section 12, Township 108 North, Range 15 West, Olmsted County, Minnesota, lying and being north and east of Highway Number 52 as it is presently located across said Northeast Quarter of the Southeast Quarter.

That part of the East One-Half of the Northwest Quarter of Section 12, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at the center of said Section 12 and thence westerly along the south line of the Northwest Quarter of said Section 12 a distance of 1306.85 feet to the west line of the East One-Half of the Northwest Quarter of said Section 12; thence Northerly along said west line a distance of 1078.91 feet for a point of beginning of the tract to be described; thence continuing northerly along said west line a distance of 1535.66 feet to the southerly right of way line of Trunk Highway No. 52; thence South 45 degrees 32 minutes 35 seconds East along said right of line a distance of 162.70 feet; thence North 44 degrees 27 minutes 25 seconds East a distance of 25.00 feet; thence continuing along said right of way line South 45 degrees 32 minutes 35 seconds East a distance of 864.00 feet; thence South 44 degrees 27 minutes 25 seconds West a distance of 400.00 feet at right angles to said right of way; thence South 45 degrees 32 minutes 35 seconds East a distance of 800.00 feet parallel with said right of way line; thence North 89 degrees 23 minutes 50 seconds West a distance of 1041.17 feet to the point of beginning, EXCEPT Minnesota Department of Transportation Right of Way Plat No. 55-100.

The East Half of the Northwest Quarter and the East Half of the Southwest Quarter of the Northwest Quarter of Section 6, Township 108 North, Range 14 West, Olmsted County, Minnesota.

The Northwest Quarter of the Northwest Quarter of Section 6, Township 108 North, Range 14 West, Olmsted County, Minnesota.

The West Half of the Southwest Quarter of the Northwest Quarter and the West Half of the Northwest Quarter of the Southwest Quarter of Section 6, Township 108 North, Range 14 West, Olmsted County, Minnesota.

The North 5 acres of the Southwest Quarter of the Southeast Quarter lying west of the St. Paul and Elliota Road in Section 6, Township 108 North, Range 14 West, Olmsted County, Minnesota.

The Southeast Quarter of the Southwest Quarter of Section 6, Township 108 North, Range 14 West, Olmsted County, Minnesota.

The Southwest Quarter of the Southwest Quarter of Section 6, Township 108 North, Range 14 West, Olmsted County, Minnesota.

The Southeast Quarter of the Northwest Quarter and the North Half of the Southwest Quarter of the Northwest Quarter of Section 7, Township 108 North, Range 14 West, Olmsted County, Minnesota.

The North Half of the Northwest Quarter of Section 7, Township 108 North, Range 14 West, Olmsted County, Minnesota.

The South Half of the Southwest Quarter of the Northwest Quarter of Section 7, Township 108 North, Range 14 West, Olmsted County, Minnesota.

The Southwest Quarter of the Northeast Quarter of Section 7, Township 108 North, Range 14 West, Olmsted County, Minnesota.

EXCEPTING THEREFROM THE FOLLOWING DESCRIBED PARCELS:

1) That part of the Southeast Quarter of the Northeast and the Northeast Quarter of the Southeast Quarter of Section 12, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at a surveyor's monument located at the northeast corner of the Southeast Quarter of said Section 12; thence on an assumed bearing of South 00° 36'36" East along the East line of said Section 12 a distance of 172.31 feet to the north right-of-way line of Minnesota Trunk Highway Number 52; thence North 65°39'04" West 626.00 feet along said right-of-way line; thence North 22°10'09" East 633.60 feet to the centerline of the Township Road presently known as 59th Avenue; thence South 31°41'17" East 246.86 feet along said centerline; thence southeasterly a distance of 337.05 feet along a tangential curve concave to the northeast having a radius of 2600.00 feet and a central angle of 07°25'39" to the east line of the Southeast Quarter of the Northeast Quarter of said Section 12; thence South 01°24'13" East along the east line of the Southeast Quarter of the Northeast Quarter of said Section 12, not tangent to said curve, 188.00 feet to the point of beginning.

AND

2) That part of the Southwest Quarter of the Northwest Quarter of Section 7, Township 108 North, Range 14 West, described as follows:

Commencing at a Surveyor's monument located at the southwest corner of the Southwest Quarter of the Northwest Quarter of said Section 7; thence on an assumed bearing of the North 1°24'13" West a distance of 188.00 feet along the West line of said Southwest Quarter of the Northwest Quarter; thence South 32°52'02" East 221.13 feet to the South line of said Southwest Quarter of the Northwest Quarter; thence South 88°54'04" West 115.42 feet to the point of beginning.

AND

3) That part of the Southwest Quarter of the Southeast Quarter of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follow:

Commencing at the northwest corner of said Section 1; thence on an assumed bearing of South 00°54'41" East along the west line of the Northwest Quarter of said

Section 1 for a distance of 778.98 feet; thence South 44°55'49" East 4566.75 feet to the point of beginning; thence continuing South 44°55'49" East 755.78 feet; thence South 88°57'41" West 1033.47 feet to the west line of said Southwest Quarter of the Southeast Quarter; thence North 01°13'47" West along said west line of the Southwest Quarter of the Southeast Quarter 515.04 feet; thence easterly a distance of 74.28 feet along a curve concave to the south and not tangent with the last described line, said curve has a radius of 22818.32 feet, a central angle of 00°11'11", and the chord of said curve bears South 89°57'15" East 74.28 feet; thence South 89°51'39" East tangent to said curve 7.10 feet; thence North 00°09'26" East 40.00 feet; thence South 89°51'39" East 429.10 feet to the point of beginning.

AND

4) That part of the Southeast Quarter of the Southwest Quarter and that part of the Southwest Quarter of the Southwest Quarter, all in Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at the northwest corner of said Section 1; thence on an assumed bearing of South 00°54'41" East along the west line of the Northwest Quarter of said Section 1 for a distance of 778.98 feet; thence South 44°55'49" East 4566.75 feet; thence continuing South 44°55'49" East 755.78 feet; thence South 88°57'41" West 1033.47 feet to the east line of said Southeast Quarter of the Southwest Quarter and the point of beginning; thence North 01°13'47" West along said east line of the Southeast Quarter of the Southwest Quarter 515.04 feet; thence westerly a distance of 78.47 feet along a curve concave to the south and not tangent with the last described line, said curve has a radius of 22818.32 feet, a central angle of 00°11'49", and the chord of said curve bears South 89°51'15" West 78.47 feet; thence South 89°45'20" West tangent to said curve 239.41 feet; thence North 00°14'38" West 35.00 feet; thence South 89°45'20" West 267.50 feet; thence southwesterly a distance of 466.08 feet along a tangential curve concave southerly having a radius of 1844.86 and a central angle of 14°28'30"; thence South 14°43'05" East not tangent to said curve 5.00 feet; thence southwesterly a distance of 389.36 feet along a curve concave southeasterly and not tangent with the last described line, said curve has a radius of 1839.86 feet, a central angle of 12°07'31", and the chord of said curve bears South 69°13'05" West 388.64 feet; thence South 27°44'48" West not tangent to said curve 56.31 feet; thence South 27°00'55" East 356.65 feet; thence North 88°57'41" East 1283.97 feet to the point of beginning.

AND

5) That part of the Southwest Quarter of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follow:

Commencing at the northwest corner of said Section 1; thence on an assumed bearing of South 00°55'04" East along the west line of the Northwest Quarter of said Section 1 for a distance of 778.98 feet; thence South 44°56'12" East 5322.53 feet; thence South 88°57'18" West 1033.59 feet to the east line of said Southwest Quarter; thence North 01°14'01" West along said east line of the Southwest Quarter

515.04 feet; thence westerly a distance of 78.47 feet along a curve concave to the south and not tangent with the last described line, said curve has a radius of 22818.32 feet, a central angle of 00°11'49", and the chord of said curve bears South 89°50'52" West 78.47 feet; thence South 89°44'57" West tangent to said curve 239.41 feet; thence North 00°15'01" West 35.00 feet; thence South 89°44'57" West 150.29 feet to the point of beginning; thence continuing South 89°44'57" West 117.21 feet; thence southwesterly a distance of 466.08 feet along a tangential curve concave southerly having a radius of 1844.86 feet, a central angle of 14°28'30", and the chord of said curve bears South 82°30'42" West 464.84 feet; thence South 14°43'28" East not tangent to said curve 5.00 feet; thence southwesterly a distance of 389.36 feet along a non-tangential curve concave southeasterly, said curve has a radius of 1839.86 feet, a central angle of 12°07'31", and the chord of said curve bears South 69°12'42" West 388.64 feet; thence South 27°44'25" West not tangent to said curve 56.31 feet; thence North 31°35'41" West 204.57 feet; thence North 37°01'22" West 184.22 feet; thence northwesterly a distance of 645.86 feet along a non-tangential curve concave to the southwest, having a radius of 1055.16 feet, a central angle of 35°04'13", and the chord of said curve bears North 54°34'07" West 635.82 feet; thence North 89°47'33" East 1700.60 feet; thence South 00°15'07" East 442.40 feet to the point of beginning.

AND

6) That part of the Northwest Quarter of the Northeast Quarter and that part of the Northeast Quarter of the Northeast Quarter, all in Section 2, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at the northwest corner of said Northwest Quarter of the Northeast Quarter; thence on an assumed bearing of South 00°04'39" East, along the west line of said Northwest Quarter of the Northeast Quarter, 75.00 feet to the south right of way line of White Pines Road SE; thence South 89°53'39" East, along said south right of way line, 562.51 feet to the point of beginning; thence South 00°47'49" West 460.81 feet; thence South 88°46'10" East 931.93 feet; thence North 00°18'35" East 461.84 feet to said south right of way line; thence westerly 216.54 feet along said south right of way line and along a non-tangential curve, concave to the south, said curve has a radius of 1357.40 feet, a central angle of 9°08'24", and the chord of said curve bears North 85°19'27" West 216.31 feet; thence North 89°53'39" West, tangent to said curve and along said south right of way line, 712.22 feet to the point of beginning, containing 10.00 acres.

AND

7) That part platted as Bioscience Drive SE all in the plat of ELK RUN BIOSCIENCE PARK FIRST, according to the recorded plat thereof.

ALSO LESS AND EXCEPT THE FOLLOWING DESCRIBED PARCELS:

Parcel C-1 Land Description

That part of the South Half of the Southeast Quarter of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at the southwest corner of said Southeast Quarter of Section 1; thence on an assumed bearing of South 89°01'27" East along the south line of said Southeast Quarter 1501.93 feet to the point of beginning; thence continuing South 89°01'27" East along the south line of said Southeast Quarter 250.81 feet; thence northwesterly 741.40 feet along a non-tangential curve, concave to the southwest, to the west line of the Southeast Quarter of said Southeast Quarter, said curve has a radius of 1151.74 feet, a central angle of 36°52'58", and the chord of said curve bears North 38°20'36" West 728.67 feet; thence North 15°38'02" West not tangent to said curve 663.34 feet; thence South 84°45'43" West 1022.66 feet; thence southeasterly 490.48 feet along a non-tangential curve concave to the northeast, said curve has a radius of 501.97 feet, a central angle of 55°59'02", and the chord of said curve bears South 37°44'18" East 471.20 feet; thence South 65°43'49" East tangent to said curve 720.38 feet; thence southeasterly 647.74 feet along a tangential curve, concave to the southwest, said curve has a radius of 921.74 feet, a central angle of 40°15'49", and the chord of said curve bears South 45°35'55" East 634.49 feet to the point of beginning.

The above described parcel contains 16.85 acres and is subject to any easements, covenants and restrictions of record.

Parcel D-1 Land Description

That part of the East Half of the Northeast Quarter of Section 12, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at the northwest corner of said Northeast Quarter of Section 12; thence on an assumed bearing of South 89°01'27" East along the north line of said Northeast Quarter 1501.93 feet to the point of beginning; thence continuing South 89°01'27" East along the north line of said Northeast Quarter 250.81 feet; thence southeasterly 83.97 feet along a non-tangential curve, concave to the southwest, said curve has a radius of 1151.74 feet, a central angle of 04°10'39", and the chord of said curve bears South 17°48'48" East 83.95 feet; thence South 15°43'28" East tangent to said curve 972.20 feet; thence South 29°45'39" East 103.08 feet; thence South 13°44'23" East 564.60 feet; thence South 30°55'39" East 552.38 feet; thence southeasterly 219.09 feet along a tangential curve, concave to the northeast, said curve has a radius of 2206.83 feet, a central angle of 05°41'18", and the chord of said curve bears South 33°46'17" East 219.00 feet to the east line of said East Half of the Northeast Quarter and to a point that lies 334.93 feet north of the southeast corner of said East Half of the Northeast Quarter; thence South 00°38'43" East not tangent to said curve and along the east line of said East Half of the Northeast Quarter 146.96 feet; thence northwesterly 336.64 feet along a non-tangential curve, concave to the northeast, said curve has a radius of 2600.00 feet, a central angle of 07°25'07", and the chord of said curve bears North 34°38'12" West

336.40 feet; thence North 30°55'38" West tangent to said curve 246.86 feet; thence South 22°55'47" West 117.64 feet; thence North 30°55'39" West 384.85 feet; thence northwesterly 278.59 feet along a tangential curve, concave to the northeast, said curve has a radius of 1049.93 feet, a central angle of 15°12'10", and the chord of said curve bears North 23°19'34" West 277.77 feet; thence North 15°43'28" West tangent to said curve 186.13 feet; thence North 33°43'44" West 210.30 feet; thence North 09°33'15" West 372.16 feet; thence North 15°43'28" West 652.20 feet; thence northwesterly 156.73 feet along a tangential curve concave to the southwest, said curve has a radius of 921.74 feet, a central angle of 09°44'32", and the chord of said curve bears North 20°35'44" West 156.54 feet to the point of beginning.

The above described parcel contains 11.93 acres and is subject to any easements, covenants and restrictions of record.

Parcel E-1 Land Description

That part of the Southwest Quarter of the Northwest Quarter of Section 7, Township 108 North, Range 14 West, Olmsted County, Minnesota, described as follows:

Commencing at the southwest corner of said Southwest Quarter of the Northwest Quarter of Section 7; thence on an assumed bearing of North 89°39'37" East along the south line of said Southwest Quarter of the Northwest Quarter 115.42 feet to the point of beginning; thence continuing North 89°39'37" East along the south line of said Southwest Quarter of the Northwest Quarter 185.96 feet; thence northwesterly 452.55 feet along a non-tangential curve concave to the northeast, said curve has a radius of 2206.83 feet, a central angle of 11°44'58", and the chord of said curve bears North 42°29'26" West 451.76 feet to the west line of said Southwest Quarter of the Northwest Quarter and to a point that lies 334.93 feet north of the southwest corner of said Southwest Quarter of the Northwest Quarter; thence South 00°38'43" East along the west line of said Southwest Quarter of the Northwest Quarter 146.96 feet; thence South 32°06'48" East 221.10 feet to the point of beginning.

The above described parcel contains 0.83 acres and is subject to any easements, covenants and restrictions of record.

Parcel G-1 Land Description

That part of the Northeast Quarter of the Northwest Quarter, the Northwest Quarter of the Northeast Quarter and the Northeast Quarter of the Northeast Quarter, all in Section 2, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Beginning at the northeast corner of said Northeast Quarter of the Northwest Quarter of Section 2; thence on an assumed bearing of South 00°04'39" East along the east line of said Northeast Quarter of the Northwest Quarter 60.00 feet to the southerly right of way line of 520th Street per the ELK RUN BIOSCIENCE PARK FIRST plat, according to the recorded plat thereof and on file at the County Recorder's Office, Olmsted County, Minnesota; thence North 89°54'02" West parallel with the north line of said Northeast Quarter of the Northwest Quarter, and along said southerly right of way line of 520th Street 675.19 feet to the easterly right of way line of Bioscience Drive SE per said ELK

RUN BIOSCIENCE PARK FIRST plat; thence South 00°59'12" East along said easterly right of way line of Bioscience Drive SE 15.33 feet; thence South 89°55'36"East 674.94 feet to the east line of said Northeast Quarter of the Northwest Quarter; thence South 89°53'39" East 1274.73 feet; thence southeasterly 1081.56 feet along a non-tangential curve, concave to the southwest, said curve has a radius of 1357.40 feet, a central angle of 45°39'10", and the chord of said curve bears South 67°04'04" East 1053.18 feet; thence South 40°12'34" East not tangent to said curve 615.39 feet to the east line of said Northeast Quarter of the Northeast Quarter; thence North 00°09'25" West along the east line of said Northeast Quarter of the Northeast Quarter 306.55 feet; thence North 44°14'30" West 105.25 feet; thence North 44°14'28" West 288.43 feet; thence North 46°47'21" East 374.82 feet to the east line of said Northeast Quarter of the Northeast Quarter; thence North 00°09'25" West 105.98 feet to the northeast corner of said Northeast Quarter of the Northeast Quarter; thence North 89°52'05" West along the north line of said Northeast Quarter of the Northeast Quarter 735.96 feet; thence North 89°51'19" West along the north line of said Northeast Quarter of the Northeast Quarter and along the north line of said Northwest Quarter of the Northeast Quarter 1903.49 feet to the point of beginning.

The above described parcel contains 11.70 acres and is subject to any easements, covenants and restrictions of record.

Parcel H-1 Land Description

That part of the West Half of the Northwest Quarter, the Southeast Quarter of the Northwest Quarter, the Northeast Quarter of the Southwest Quarter, the Northwest Quarter of the Southeast Quarter, and the Southwest Quarter of the Northeast Quarter all in Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at the northwest corner of said West Half of the Northwest Quarter of Section 1; thence on an assumed bearing of South 00°09'25" East along the west line of said West Half of the Northwest Quarter 644.65 feet to the point of beginning; thence South 42°03'55" East 395.04 feet; thence South 44°14'29" East 740.00 feet; thence South 66°51'38" East 65.00 feet; thence South 27°32'33" East 52.20 feet; thence South 44°14'29" East 350.00 feet; thence South 71°35'16" East 2857.85 feet to the north line of said Northwest Quarter of the Southeast Quarter; thence South 00°42'03" West 809.46 feet; thence North 89°24'53" West 1298.60 feet; thence North 39°51'50" West 196.52 feet; thence North 44°14'29" West 2950.00 feet; thence North 54°26'43" West 254.02 feet; thence North 44°14'29" West 150.00 feet; thence North 40°12'32" West 24.62 feet to the west line of said West Half of the Northwest Quarter; thence North 00°09'25" West 306.55 feet to the point of beginning.

The above described parcel contains 60.06 acres and is subject to any easements, covenants and restrictions of record.

Parcel I-1 Land Description

That part of the Northwest Quarter of the Northwest Quarter of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Beginning at the northwest corner of said Northwest Quarter of the Northwest Quarter; thence on an assumed bearing of South 89°52'05" East along the north line of said Northwest Quarter of the Northwest Quarter 77.86 feet; thence South 00°07'11" West 33.00 feet; thence South 46°47'20" West 106.33 feet to the west line of said Northwest Quarter of the Northwest Quarter; thence North 00°09'25" West 105.98 feet to the point of beginning.

The above described parcel contains 0.12 acres and is subject to any easements, covenants and restrictions of record.

Parcel B-2 Land Description

That part of the East Half of the Southwest Quarter and the West Half of the Southeast Quarter, all in Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at the southeast corner of said East Half of the Southwest Quarter of Section 1; thence on an assumed bearing of North 00°28'22" West along the east line of said East Half of the Southwest Quarter 1088.11 feet to the point of beginning; thence North 89°29'55" West 1331.51 feet to the west line of said East Half of the Southwest Quarter; thence North 00°18'49" West along the west line of said East Half of the Southwest Quarter 815.48 feet; thence South 84°34'51" East 1180.79 feet; thence South 89°24'53" East 1298.60 feet; thence South 89°06'04" East 164.90 feet to the east line of said West Half of the Southeast Quarter; thence South 00°17'44" East along the east line of said West Half of the Southeast Quarter 610.13 feet; thence North 89°06'04" West 175.51 feet; thence South 84°45'43" West 1022.66 feet; thence North 89°29'55" West 112.27 feet to the point of beginning.

The above described parcel contains 42.98 acres and is subject to any easements, covenants and restrictions of record.

Parcel C-2 Land Description

That part of the East Half of the Southeast Quarter, Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at the southeast corner of said East Half of the Southeast Quarter of Section 1; thence on an assumed bearing of North 00°07'07" West along the east line of said East Half of the Southeast Quarter 1201.60 feet to the point of beginning; thence continuing North 00°07'07" West along the east line of said East Half of the Southeast Quarter 610.10 feet; thence North 89°06'05" West 1309.09 feet to the west line of said East Half of the Southeast Quarter; thence South 00°17'44" East along the west line of said East Half of the Southeast Quarter 610.13 feet; thence South 89°06'05" East 1307.21 feet to the point of beginning.

The above described parcel contains 18.32 acres and is subject to any easements, covenants and restrictions of record.

Parcel D-2 Land Description

That part of the Northwest Quarter of the Southwest Quarter and the South Half of the Southwest Quarter and the Southwest Quarter of the Southeast Quarter all in Section 6, Township 108 North, Range 14 West, Olmsted County, Minnesota, described as follows:

Commencing at the southwest corner of said Southwest Quarter of Section 6; thence on an assumed bearing of North 00°07'07" West along the west line of said Southwest Quarter 1201.60 feet to the point of beginning; thence continuing North 00°07'07" West along the west line of said Southwest Quarter 610.10 feet; thence South 55°42'31" East 737.89 feet; thence South 00°10'16" East 80.00 feet to the north line of said South Half of the Southwest Quarter; thence North 89°35'26" East along the north line of said South Half of the Southwest Quarter 1930.47 feet to the northeast corner of said South Half of the Southwest Quarter; thence North 89°33'39" East along the north line of said Southwest Quarter of the Southeast Quarter 522.17 feet to the centerline of the Township Road; thence South 36°29'59" East along said centerline 416.88 feet; thence South 89°33'13" West 768.56 feet to the west line of said Southwest Quarter of the Southeast Quarter; thence North 00°16'06" West along the west line of said Southwest Quarter of the Southeast Quarter 161.54 feet; thence northwesterly 652.55 feet along a non-tangential curve, concave to the southwest, said curve has a radius of 2211.83 feet, a central angle of 16°54'14", and the chord of said curve bears North 81°57'27" West 650.18 feet; thence South 88°41'02" West not tangent to said curve 1896.57 feet to the point of beginning.

The above described parcel contains 14.83 acres and is subject to any easements, covenants and restrictions of record.

Parcel B-3 Land Description

That part of the Northeast Quarter of the Southeast Quarter, Section 2, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at the southeast corner of said Southeast Quarter of Section 2; thence on an assumed bearing of North 00°09'22" West along the east line of said Southeast Quarter 1625.14 feet to the northeasterly right of way line of Trunk Highway No. 52 per the Minnesota Department of Transportation Right of Way Plat No. 55-30 and also to the point of beginning; thence northwesterly 221.73 feet along a non-tangential curve, concave to the southwest, and along said northeasterly right of way line of Trunk Highway No. 52, said curve has a radius of 3999.88 feet, a central angle of 03°10'34", and the chord of said curve bears North 55°50'31" West 221.70 feet; thence northwesterly along said northeasterly right of way line of Trunk Highway No. 52 and along a Euler Spiral Curve which falls 100.00 feet northeasterly of and parallel with the Euler Spiral Curve on the existing right of way acquisition line per said Minnesota Department of Transportation Right of Way Plat No. 55-30, the chord of said Euler Spiral Curve bears North 58°10'13" West 153.59 feet; thence North 58°32'38" West and along

said northeasterly right of way line of Trunk Highway No. 52 a distance of 523.01 feet; thence South 84°34'51" East 762.40 feet to the east line of said Northeast Quarter of the Southeast Quarter; thence South 00°09'22" East along the east line of said Northeast Quarter of the Southeast Quarter 406.41 feet to the point of beginning.

The above described parcel contains 3.45 acres and is subject to any easements, covenants and restrictions of record.

Parcel C-3 Land Description

That part of the South Half of the Southwest Quarter and the Northwest Quarter of the Southwest Quarter of Section 1, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at the southwest corner of said South Half of the Southwest Quarter of Section 1; thence on an assumed bearing of North 00°09'22" West along the west line of said South Half of the Southwest Quarter and along the west line of said Northwest Quarter of the Southwest Quarter 1625.14 feet to the northeasterly right of way line of Trunk Highway No. 52 per the Minnesota Department of Transportation Right of Way Plat No. 55-30 and to the point of beginning; thence southeasterly 480.53 feet along a non-tangential curve, concave to the southwest, and along said northeasterly right of way line of Trunk Highway No. 52, said curve has a radius of 3999.88 feet, a central angle of 06°53'00" and the chord of said curve bears South 50°48'44" East 480.24 feet; thence southeasterly along said northeasterly right of way line of Trunk Highway No. 52 and along a Euler Spiral Curve which falls 100.00 feet northeasterly of and parallel with the Euler Spiral Curve on the existing right of way acquisition line per said Minnesota Department of Transportation Right of Way Plat No. 55-30, the chord of said Euler Spiral Curve bears South 46°37'48" East 153.59 feet; thence South 46°15'24" East along said northeasterly right of way line of Trunk Highway No. 52 a distance of 1768.30 feet to the south line of said South Half of the Southwest Quarter; thence South 89°47'24" East along the south line of said South Half of the Southwest Quarter 160.50 feet; thence North 22°45'42" West 1188.39 feet; thence North 89°29'55" West 129.21 feet to the east line of the Southwest Quarter of said Southwest Quarter; thence North 00°18'49" West along the east line of said Southwest Quarter of the Southwest Quarter and along the east line of said Northwest Quarter of the Southwest Quarter 815.48 feet; thence North 84°34'51" West 1335.50 feet to the west line of said Northwest Quarter of the Southwest Quarter; thence South 00°09'22" East along the west line of said Northwest Quarter of the Southwest Quarter 406.41 feet to the point of beginning.

The above described parcel contains 35.52 acres and is subject to any easements, covenants and restrictions of record.

Parcel D-3 Land Description

That part of the Northeast Quarter of the Northwest Quarter, Section 12, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at the northwest corner of said Northwest Quarter of Section 12; thence on an assumed bearing of South 89°47'24" East along the north line of said Northwest Quarter 1756.95 feet to the northeasterly right of way line of Trunk Highway No. 52 per the Minnesota Department of Transportation Right of Way Plat No. 55-15 and to the point of beginning; thence South 46°15'24" East along said northeasterly right of way line of Trunk Highway No. 52, a distance of 1012.61 feet; thence North 39°13'29" West 903.04 feet to the north line of said Northeast Quarter of the Northwest Quarter; thence North 89°47'24" West 160.50 feet to the point of beginning.

The above described parcel contains 1.28 acres and is subject to any easements, covenants and restrictions of record.

EXHIBIT B

PARCEL 2:

The South 45.25 acres of that part of the North One-Half of the Northeast Quarter of Section 7, Township 108 North, Range 14 West, lying west of the St. Paul Elliota Road.

EXCEPTING THEREFROM THE FOLLOWING DESCRIBED PARCEL:

Parcel E-2 Land Description

That part of the Northeast Quarter of the Northeast Quarter, Section 7, Township 108 North, Range 14 West, Olmsted County, Minnesota, described as follows:

> Commencing at the northeast corner of said Northeast Quarter of the Northeast Quarter of Section 7; thence South 00°02'35" West along the east line of said Northeast Quarter of the Northeast Quarter 1314.88 feet to the south line of said Northeast Quarter of the Northeast Quarter; thence South 89°29'05" West along the south line of said Northeast Quarter of the Northeast Quarter 258.66 feet to the centerline of C.S.A.H. No. 18 (St. Paul Elliota Road) and the point of beginning; thence continuing South 89°29'05" West along the south line of said Northeast Quarter of the Northeast Quarter 195.44 feet; thence North 00°30'55" West 251.65 feet; thence North 45°14'15" West 495.30 feet; thence North 28°31'01" West 386.31 feet; thence North 89°29'05" East 90.47 feet to said centerline of C.S.A.H. No. 18 (St. Paul Elliota Road); thence South 36°25'22" East along said centerline 901.58 feet; thence southeasterly 240.34 feet along said centerline and along a tangential curve, concave to the southwest, said curve has a radius of 719.00 feet, a central angle of 19°09'08", and the chord of said curve bears South 26°50'48" East 239.22 feet to the point of beginning.

The above described parcel contains 2.65 acres and is subject to any easements, covenants and restrictions of record.

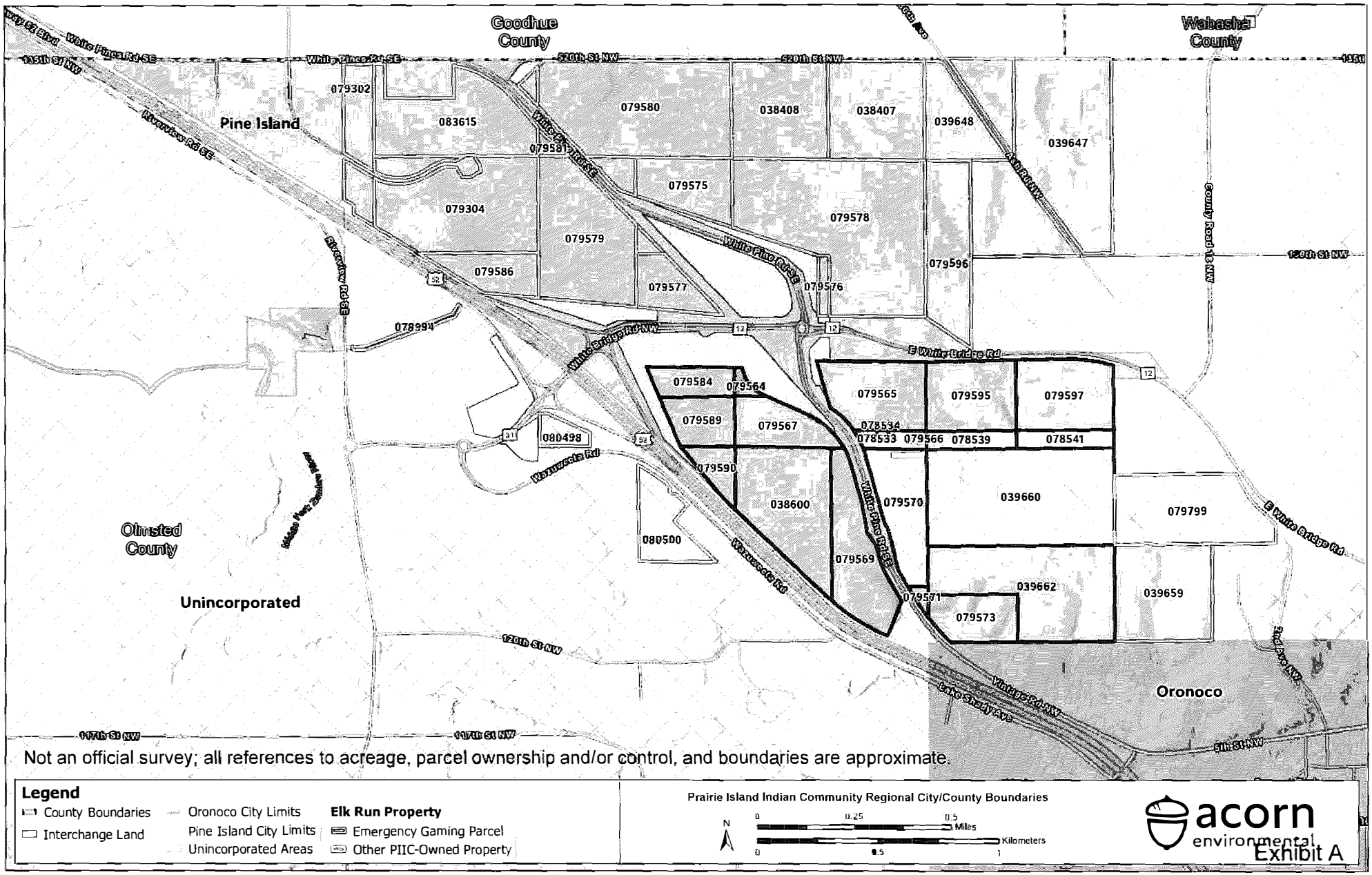
EXHIBIT C

PARCEL 3

That part of the North Half of the Southeast Quarter of Section 2, Township 108 North, Range 15 West, Olmsted County, Minnesota, described as follows:

Commencing at the southwest corner of said Southeast Quarter of Section 2; thence on an assumed bearing of North 00°50'18" West along the west line of said Southeast Quarter 1334.35 feet to the point of beginning; thence continuing North 00°50'18" West along said west line 50.00 feet; thence North 89°01'22" East 274.29 feet; thence North 68°54'11" East 1271.21 feet; thence North 30°41'49" East 155.33 feet to the southwesterly right of way of Trunk Highway Number 52; thence South 45°15'59" East along said southwesterly right of way 51.54 feet; thence South 30°41'49" West 160.15 feet; thence South 68°54'11" West 1297.39 feet; thence South 89°01'22" West 283.29 feet to the point of beginning, EXCEPT that part within the existing county road right of way per Commissioners Order Map No. 93979 and that part within the existing U.S. Highway No. 52 right of way per Minnesota Department of Transportation Right of Way Plat No. 55-99.

Parcel IDs:
850131079584, 850143079564, 850134079589, 850132079567, 851221079590, 851212038600, 851214079569, 850144079565, 840633079595, 840634079597, 850144078534, 850144078533, 850144079566, 840633078539, 840634078541, 851211079570, 840721039660, 840724039662, 851214079571, 840723079573, 850242078994, 850133080498, 851221080500, 850241079586, 850122079581, 850132079579, 850134079577, 850124079575, 850121079580, 850112038408, 850111038407, 840622039648, 840624039647, 840623079596, 850142079576, 850141079578, 850214079302, 850212083615, 850214079304



Not an official survey; all references to acreage, parcel ownership and/or control, and boundaries are approximate.

Legend

- County Boundaries
- Interchange Land
- Oronoco City Limits
- Pine Island City Limits
- Unincorporated Areas
- **Elk Run Property**
- Emergency Gaming Parcel
- Other PIIC-Owned Property

Prairie Island Indian Community Regional City/County Boundaries

N

0 0.25 0.5 Miles

0 0.5 1 Kilometers

acorn environmental

Exhibit A

Appendix B

Prairie Island Indian Community Emergency Casino Socioeconomic Analysis and Competitive Effects Analysis

Appendix B1

Prairie Island Indian Community Emergency Casino Socioeconomic Analysis

THE INNOVATION GROUP

Prairie Island Indian Community
Emergency Casino Socioeconomic Analysis

Elk Run - Pine Island, Minnesota

Prepared for:

Prairie Island Indian Community

October 2023

Prepared by:

The Innovation Group
9200 East Mineral Avenue
Suite 100
Centennial, CO 80112
303.798.7711
www.theinnovationgroup.com

Emergency Gaming Facility Socioeconomic Analysis

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EXECUTIVE SUMMARY

Prairie Island Indian Community ("PIIC" or "Client") commissioned The Innovation Group for a socioeconomic analysis of an emergency gaming facility in Pine Island, Minnesota to be developed in the event of an emergency closure of PIIC's existing Treasure Island Resort & Casino, located on PIIC's Prairie Island Reservation located near Red Wing, Minnesota. This analysis is being conducted in support of environmental documentation being prepared in compliance with the National Environmental Policy Act (NEPA). This report summarizes the economic and community impacts—including job creation, increases in labor income, and positive revenue impacts for other local and state businesses, among others— that could be expected from the planned development components. Unless otherwise noted, the term 'local' refers to the communities in the vicinity of the Project Site, including the cities of Pine Island and Oronoco, Olmsted County, and Goodhue County, among others.

The executive summary details the key findings and conclusions from our analysis.

Building Program

The following building program underlies the analysis presented throughout this report.

- Casino
  - 500 electronic gaming devices
- Food and Beverage Outlet
  - Small, casual dining outlet servicing casino patrons

Ongoing Economic Impacts

The following table displays the total ongoing economic impacts from the emergency gaming facility's operation, projected to inject total value added of $76.9 million annually into the local and state economy (outside of PIIC-reservation lands), partially mitigating the severe impact of the emergency closure on the Prairie Island reservation and the surrounding communities (which this study does not estimate).

Table 1: Emergency Gaming Facility Total Ongoing Impacts

Impact Type	Employment	Labor Income ($MM)	Value Added ($MM)	Output ($MM)
Direct Effect	342	$19.7	$46.4	$84.5
Indirect Effect	105	$9.2	$16.9	$31.8
Induced Effect	79	$6.1	$13.5	$22.7
Total	527	$35.0	$76.9	$139.0

Source: IMPLAN Group, LLC

Fiscal impacts from ongoing operations were estimated utilizing IMPLAN[1] software. Fiscal impacts resulting from IMPLAN include business taxes (including sales taxes), payroll taxes, property taxes, and other relevant taxes both locally and statewide. Based on the forecasted operations of the facility, IMPLAN estimates that $4.8 million of tax revenue would accrue to local governments while $7.6 million of tax revenue would accrue to the state government. Finally, IMPLAN estimates $6.1 million of tax revenue would accrue to the federal government. It is important to note that the fiscal impacts estimated by IMPLAN and illustrated in the tables below exclude any gaming administrative fees generated for Minnesota and includes taxes from direct, indirect, and induced effects.

Table 2: Local Tax Impact: Emergency Gaming Facility Ongoing Operations ($000)

Description	Total
Social Insurance Tax- Employee Contribution	$0.0
Social Insurance Tax- Employer Contribution	$0.0
TOPI: Sales Tax	$632.8
TOPI: Property Tax	$3,941.8
TOPI: Motor Vehicle License	$0.2
TOPI: Severance Tax	$0.2
TOPI: Other Taxes	$102.6
TOPI: Special Assessments	$73.6
OPI: Corporate Profit Tax	$0.0
Personal Tax: Income Tax	$0.0
Personal Tax: Motor Vehicle License	$0.2
Personal Tax: Property Taxes	$23.0
Personal Tax: Other Tax (Fish/Hunt)	$0.0
Total	$4,774.4

Source: IMPLAN Group, LLC

[1] The Innovation Group utilized IMPLAN Online software and data in completing the Economic Impact Analysis

Table 3: State Tax Impact: Emergency Gaming Facility Ongoing Operations ($000)

Description	Total
Social Insurance Tax- Employee Contribution	$4.5
Social Insurance Tax- Employer Contribution	$5.3
TOPI: Sales Tax	$4,869.6
TOPI: Property Tax	$344.8
TOPI: Motor Vehicle License	$142.7
TOPI: Severance Tax	$30.4
TOPI: Other Taxes	$323.8
TOPI: Special Assessments	$0.0
OPI: Corporate Profit Tax	$532.0
Personal Tax: Income Tax	$1,236.8
Personal Tax: Motor Vehicle License	$47.1
Personal Tax: Property Taxes	$2.0
Personal Tax: Other Tax (Fish/Hunt)	$37.5
Total	$7,576.7

Source: IMPLAN Group, LLC

Table 4: Federal Tax Impact: Emergency Gaming Facility Ongoing Operations ($000)

Description	Total
Social Insurance Tax- Employee Contribution	$2,304.8
Social Insurance Tax- Employer Contribution	$1,839.1
TOPI: Excise Taxes	($1,118.1)
TOPI: Custom Duty	($1,165.5)
OPI: Corporate Profits Tax	$1,049.5
Personal Tax: Income Tax	$3,225.6
Personal Tax: Estate and Gift Tax	$0.0
Total	$6,135.5

Source: IMPLAN Group, LLC

Construction Economic Impacts

Combining the local and rest of state impacts, the following table displays the total economic impacts from the construction of the development, which is projected to inject total value added of $13.7 million into the local and state economy.

Table 5: Emergency Gaming Facility Total Construction Impacts

Impact Type	Employment	Labor Income ($MM)	Value Added ($MM)	Output ($MM)
Direct Effect	51	$3.8	$4.5	$7.8
Indirect Effect	48	$3.9	$5.8	$12.1
Induced Effect	33	$1.9	$3.4	$5.8
Total	132	$9.6	$13.7	$25.7

Source: IMPLAN Group, LLC
Note: Single-year equivalents.

Based on the construction cost estimates for the Emergency gaming facility, the one-time fiscal impacts from construction would contribute $321,500, $778,600, and $1.8 million to local, state and federal governments, respectively.

Table 6: Local Tax Impact from Construction: Emergency Gaming Facility ($000)

Description	Total
Social Insurance Tax- Employee Contribution	$0.0
Social Insurance Tax- Employer Contribution	$0.0
TOPI: Sales Tax	$28.9
TOPI: Property Tax	$271.6
TOPI: Motor Vehicle License	$0.1
TOPI: Severance Tax	$0.1
TOPI: Other Taxes	$8.2
TOPI: Special Assessments	$6.8
OPI: Corporate Profit Tax	$0.0
Personal Tax: Income Tax	$0.0
Personal Tax: Motor Vehicle License	$0.1
Personal Tax: Property Taxes	$5.8
Personal Tax: Other Tax (Fish/Hunt)	$0.0
Total	$321.5

Source: IMPLAN Group, LLC

Table 7: State Tax Impact from Construction: Emergency Gaming Facility ($000)

Description	Total
Social Insurance Tax- Employee Contribution	$1.1
Social Insurance Tax- Employer Contribution	$1.3
TOPI: Sales Tax	$322.6
TOPI: Property Tax	$23.4
TOPI: Motor Vehicle License	$9.7
TOPI: Severance Tax	$2.1
TOPI: Other Taxes	$22.0
TOPI: Special Assessments	$0.0
OPI: Corporate Profit Tax	$65.8
Personal Tax: Income Tax	$309.1
Personal Tax: Motor Vehicle License	$11.8
Personal Tax: Property Taxes	$0.5
Personal Tax: Other Tax (Fish/Hunt)	$9.3
Total	$778.6

Source: IMPLAN Group, LLC

Table 8: Federal Tax Impact from Construction: Emergency Gaming Facility ($000)

Description	Total
Social Insurance Tax- Employee Contribution	$551.8
Social Insurance Tax- Employer Contribution	$440.3
TOPI: Excise Taxes	($72.7)
TOPI: Custom Duty	($75.8)
OPI: Corporate Profits Tax	$129.7
Personal Tax: Income Tax	$804.8
Personal Tax: Estate and Gift Tax	$0.0
Total	$1,778.1

Source: IMPLAN Group, LLC

Social and Community Impacts

In this section we examine the social and community impacts of the proposed casino development. Increased local services and costs that inform social and community impacts generally fall into three categories: those arising from population and development growth, those arising from the impacts of increased visitation and traffic, and social impacts resulting from problem gambling.

Population and Employment Related Impacts

The emergency gaming facility in Pine Island is expected to produce $86.1 million in annual gross revenue and directly employ 342 people by 2026—the development's assumed second year of operations.

For the purposes of this section, Olmsted County and Pine Island, the host county and host municipality for the Emergency gaming facility, will be used as the primary study areas of impacts as pertaining to employment and increased population.

Employment Impact

As noted, the proposed gaming facility is projected to require 342 jobs[2]. At the outset, these jobs are likely to be filled by current employees of Treasure Island Resort & Casino, again mitigating some of the substantial negative impact caused by the closure. Over time, these jobs would be expected to be filled by a combination of local unemployed workers, local out-bound commuters, residents of neighboring cities, and new residents.

Unemployment in Olmsted County stood at approximately 1,987 workers in 2022. While the 2020 recession adversely impacted unemployment in the area, pre-2020 we observed declines in unemployment levels in the market area. Additionally, 2021 and 2022 data reveals that unemployment continued its downward trajectory following the 2020 recession.

[2] Headcount, including full and part-time workers.

As the following table illustrates, over time, the existing workforce in Olmsted County is estimated to fill nearly 70.0% of the new jobs created by a casino development, and the remaining roughly 30% of workers are estimated to represent new residents moving into the county.

Table 9: Emergency Gaming Facility Development Source of Workforce

Source of Employment	Proposed Project	Metric Applied	Source
A. Number of New Employees	342	Total Jobs	IMPLAN, The Innovation Group
B. Number of Commuters from outside Olmsted County	*79*	23.2%, based on Workforce Commuting Patterns	US Census
C. I.W.V. Unemployed back to work	*56*	3.3% of a future estimate of 1,700 Unemployed Workers	US Census
D. Commuters Staying within Olmsted County	*99*	1.6% of 6,179 Olmsted workers who currently commute outside the area	US Census
E. Total from Existing Area Workforce	*234*	B+C+D	
F. Estimated Total New Workers Needed	*108*	A-E	
% of New Employees	*31.5%*	F/A	

Household and Population Impact

Assuming approximately 1.1 casino workers per household, the total number of new households to the local area is estimated at 98. On average, households in Olmsted County comprise 2.43 persons, bringing the total population increase to Olmsted County and the surrounding area to 238 people, or 0.1% of the estimated 2026 Olmsted County population and 6.1% of the city of Pine Island estimated 2026 population.

Table 10: Emergency Gaming Facility Impact on Households and Population

New employees moving to area	108
# of jobs per household	1.1
Number of new Households	*98*
Olmsted County Avg. Household Size	2.43
New Area Population	238
% Increase of 2026 Olmsted County Pop	0.1%
% Increase of 2026 Pine Island City Pop	6.1%

Source: The Innovation Group

School Impact

Based on the number of new households and Minnesota household metrics, the increase to school enrollment is estimated to be approximately 45 children in the local area. These new enrollments represent a minimal increase over 2022 enrollment.

Table 11: Emergency Gaming Facility Development Impact on County School Enrollment

	Metric	Olmsted County
Number of New Households		98
Number of Households That Will Have Children*	29.8%	29
*Number of Children per Household***	*1.93*	
Total Number of Children		56
Projected School Age Children	80%	45
2022 Public School Enrollment		24,822
Post-Opening Projected School Enrollment		24,867
% Change		0.2%

Source: ESRI, US Census Bureau: Table ST-F1-2000.; American Community Survey 2018
*Minnesota percent of households with presence of children under age of 18
**Minnesota's average number of children per family with children

Housing Impact

Given the presence of surplus housing units in the local area, the additional households that are projected to locate in Olmsted County would likely result in an absorption of some of these surplus housing units. The table below is provided to illustrate potential impacts to Olmsted County and is conservative because new households will likely be dispersed into the larger surrounding area as well, including Goodhue County, the City of Pine Island, and the City of Oronoco.

At current rates, the number of surplus housing units in Olmsted County—which was 4,336 housing units according to 2023 ESRI data—would be sufficient to accommodate the households estimated to relocate to Olmsted County as a result of the emergency gaming facility's opening. Based on the estimated 98 new Olmsted County households resulting from the opening, as discussed previously, we estimate that 3.3% of the 2023 surplus housing units in Olmsted County would be absorbed.

Table 12: Olmsted County Population and Housing

	2023
Population	167,852
Households	67,812
Housing Units	72,148
Surplus Housing Units	4,336
Number of new Households generated by Emergency Gaming Facility employment	*98*
Percent of surplus housing units absorbed	3.3%

Sources: ESRI, US Census, The Innovation Group

The new jobs created at the proposed gaming development would provide stable employment for existing residents that can support homeownership, likely increasing homeownership figures throughout the local area.

Conclusion

Overall, the emergency gaming facility is projected to add 238 people to the local population and increase school enrollment by 45 students. We believe these additions to the area would be very

manageable given the current infrastructure in place and affirmative have a positive impact on boosting home ownership.

Municipal Services Impact

Host communities should expect impacts similar in kind to other commercial development of similar scope and visitor potential. The projected increase in visitor population should be expected to lead to increases in public safety services and judicial system caseload.

Evidence suggests that on-going impacts from gaming developments to local communities are highly manageable and the cost of addressing those impacts typically are offset by the new local tax dollars generated by the development. Of most direct consequence to casino development are costs associated with increased police, fire, and EMS coverage. These would largely fall into the purview of the local police and fire departments serving Pine Island. We note, however, that any impacts to the local police department described herein would be at least partially offset by PIIC's own police department.

Prairie Island Indian Community Public Safety Department

The Prairie Island Indian Community Police Department has 10 employees (but is authorized for up to 11 officers) and is a part of PIIC's Public Safety department. In addition to the Community's own police force, the Community entered into a cooperative agreement regarding law enforcement with Goodhue County and the City of Red Wing and their law enforcement agencies on March 11, 2004. The Community has also participated as a party to the Southeast Region Counties Mutual Aid Agreement for law enforcement services, and a prosecution agreement with the Goodhue County Attorney's Office to annual payments to serve as the prosecuting agency for state citations issued by the PIPD.

Police

The City of Pine Island has contracted with the Goodhue County Sheriff's Office to provide police services to the City. In 2022, the City of Pine Island contracted for a total of 6,955 hours of service from the Goodhue County Sheriff's Office. In the same year, Goodhue County Sheriff's Office answered 13,846 calls for service with a total of 1,815 citations issued and 751 arrests made. The Olmsted County Sheriff's Office has 196 employees with 99 working in the Adult Detention Center and 97 working in the Law Enforcement Center. The 2023 budget for the Public Safety Department for Olmsted County is $43.1 million, up from $41.8 million in 2022 and $42.9 million in 2021. Since 2019, the expenditures for Public Safety have increased by a CAGR of 0.7%.

Fire / EMS

The Pine Island Volunteer Fire Department services the area where the proposed site is for Elk Run. The Pine Island Fire Department services the City of Pine Island and the townships of Milton, New Haven, Oronoco, Pine Island and Roscoe. The department responds to approximately 440 calls annually as stated on the Pine Island, Minnesota website. While the Pine Island Volunteer Department does not publicly report their annual budget, we were able to estimate the department's

budget based on budget and call data for the City of Rochester, Minnesota Fire Department[3]. Based on an average budget per call figure of $1,685 for the Rochester Fire Department, we estimate the annual budget for the Pine Island Volunteer Fire Department at $741,241 in 2022.

Comparative Analysis

Research in other jurisdictions show that impacts to local communities are manageable and are typically offset by the new local tax dollars generated by the development. Based on casino evaluations performed by Purdue University and other research institutions on behalf of the Indiana Gaming Commission, statewide average actual costs borne by host communities are approximately 0.3% of gaming revenues. A study of the fiscal impact of Belterra on Switzerland County, Indiana in 2005 concluded, "…the added property, wagering and admissions taxes, and the incentive payments, exceeded the costs imposed by the riverboat. This allowed the county to increase appropriations—to cover added riverboat costs and to provide more public services—while charging Switzerland taxpayers less".[4]

The introduction of a casino can lead to an increase in traffic patrol requirements and in the number of calls for police service. Arrests or citations related to increased visitation to the local area would create increased caseloads for the local judiciary. Even calls not resulting in arrest or citation can result in a need for increased police staffing.

Criminal Incident Rates

Incident rates from the data above was utilized in order to establish an incident rate that would be applied to the emergency gaming facility in order to project the number of calls and actual arrests that can be expected with the addition of the development to the community.

Table 13: Average Criminal Incident Rate

	Estimated Calls	Estimated Arrests
Rivers Casino - Pittsburgh, PA	0.018%	0.007%
Rivers Casino - Des Plaines, IL	0.034%	0.002%
Yakama Nation Legends CAsino - Toppenish, WA	0.026%	0.006%
Northern Quest Resort & Casino - Airway Heights, WA	0.025%	0.006%
Western US Tribal Gaming Facility	0.044%	0.010%
Pacific Northwestern US Tribal Gaming Facility	0.008%	0.002%
Average	*0.026%*	*0.005%*

Criminal offense data for Olmsted County are available from the FBI's Uniform Crime Reporting (UCR) Program. In 2022, there were 6,448 criminal offenses reported in the county. It is estimated that the proposed facility would have approximately 234 police calls in 2026. The potential

[3] https://www.rochestermn.gov/home/showpublisheddocument/39328/638276147055700000; https://www.kttc.com/2023/03/02/rochester-fire-department-sees-record-number-calls-2022/

[4] *Five-Year License Renewal: Belterra Resort Indiana, LLC*, performed by Indiana University-Purdue University Indianapolis on behalf of the Indiana Gaming Commission, October 2005, page 36.

increase of 234 calls represents an increase of 3.6% over 2022 volumes based on incidents reported by the UCR Program.

Table 14: Olmsted County Police Service Calls Estimate

2026 Projected Emergency Gaming Facility Visitation	906,984
Average call rate	*0.026%*
Projected Arrests	234
2022 Offenses Reported	6,448
Projected Offenses Reported with Casino Impact	6,682
% Change	3.6%

Sources: FBI Uniform Crime Report, The Innovation Group

For additional information on criminal incidents and qualitative data from other jurisdictions, see Appendix B.

Fire Incident Rates

Incident rates from the data above was utilized in order to establish an incident rate that is applicable to the proposed gaming facility to project the number of calls the local fire departments can expect. It should be noted that some communities have seen a smaller impact on services. For example, the Kenner Fire Department in Louisiana has reported a small number of service calls at the Treasure Chest Casino, averaging approximately seven medical calls and only one fire call in the last five years.

Table 15: Average Fire Department Call Rate Estimate

SugarHouse Casino - Philadelphia, PA	0.001%
Rivers Casino - Pittsburgh, PA	0.0004%
Rivers Casino - Des Plaines, IL	0.005%
Grand Victoria Casino - Elgin, IL	0.006%
Western US Tribal Gaming Facility	0.005%
Pacific Northwestern US Tribal Gaming Facility	0.007%
Average	0.004%

Source: The Innovation Group

As shown in the following table, it is estimated that the proposed facility would result in an increase of approximately 35 service calls in Pine Island. This is an increase of approximately 7.9% over the current call volume of 440 calls as stated on the Pine Island, Minnesota website.

Table 16: Pine Island Fire/EMS Service Call Estimates

2026 Projected Emergency Gaming Facility Visitation	906,984
Average service call rate	0.004%
Projected Fire Service/EMS Calls	35
Annual Service Calls	440
% Change	*7.9%*

Sources: Pine Island Volunteer Fire Department, The Innovation Group

Conclusion and Implications
Fiscal Impacts and Municipal Services

Impacts arising from population and development growth would be effectively diluted by the size of the existing local labor force, housing stock, and school capacity. Impacts arising from increased visitation—such as police, fire and EMS calls—are detailed below.

Moreover, and as noted previously, the fiscal impacts to the local police department described below would be offset at least partially by the PIIC's own police department who would primarily handle the increase in 234 calls per year. The PIPD and Goodhue County Sherrif's Department currently provide police protection services to the Community's Reservation and the existing Casino, and Goodhue County Sheriff's Department provides law enforcement services to the City of Pine Island. The Goodhue County Sherrif's Department and/or Olmsted County Sherrif's Department may provide supplemental law enforcement services to the Project Site. Because Goodhue County Sheriff's Department already has agreements in place with the City of Pine Island and the PIIC, fiscal impacts to Goodhue County are already addressed. While Olmsted County Sheriff's Department would not be the primary responder to the new service calls, the analysis below illustrates the potential fiscal impact that could arise under an extremely conservative scenario where Olmsted County becomes the first responder to the emergency gaming facility.

On top of this, the gains in tax revenues that would accrue to the local governments as a result of increased economic activity generated by the emergency gaming facility and its employees would mitigate increases in municipal services expenses. In sum, the development would have a significant positive impact on governmental services, specifically from a revenue and cost perspective for local and state governments.

Estimated Municipal Expenses

The following table shows the estimated expenses attributable to the subject development from police and fire/EMS services, based on the Comparative Analysis section above, with percent change estimates from that analysis applied to future budget estimates. As noted previously, the figures below illustrate the potential fiscal impact that could arise under an extremely conservative scenario where Olmsted County becomes the first responder to the emergency gaming facility.

Table 17: Local Police and Fire/EMS Expense Increase – 2026

	Forecasted Annual Budget		
Police	$43,945,925	*Incremental %*	*3.6%*
		Incremental $	$1,596,496
Fire/EMS	$772,773	*Incremental %*	*7.9%*
		Incremental $	$60,827
Total Increase in Municipal Services			$1,657,323

Sources: Olmsted County Sherriff's Office, The Innovation Group

Problem Gambling

Since gambling is already prevalent in Minnesota, it is reasonable to assume a problem gambling population currently exists. In other words, those with a propensity for problem gambling already have ready access to gambling products. Moreover, it is our understanding that this facility would become operational only in the event of a closure of the much larger (1,800 electronic gaming devices and 40 tables) Treasure Island Resort & Casino. With this effective reduction in gaming supply in the state, it is likely that the prevalence of problem gambling in Minnesota would remain unchanged or even decrease due to the operation of a smaller emergency gaming facility.

INTRODUCTION

Prairie Island Indian Community ("PIIC" or "Client") commissioned The Innovation Group for a socioeconomic analysis of an emergency gaming facility in Pine Island and Olmsted County, Minnesota to be developed in the event of an emergency closure of PIIC's existing Treasure Island Resort & Casino, located on PIIC's Prairie Island Reservation located near Red Wing, Minnesota. This analysis is being conducted in support of environmental documentation being prepared in compliance with the National Environmental Policy Act (NEPA). This report summarizes the economic and community impacts—including job creation, increases in labor income, and positive revenue impacts for other local and state businesses, among others— that could be expected from the planned development components. Unless otherwise noted, the term 'local' refers to the communities in the vicinity of the Project Site, including the cities of Pine Island and Oronoco, Olmsted County, and Goodhue County, among others.

The report begins with a summary of the assumed building program and high-level construction cost estimates for the planned building program. We then detail our Economic Impact Analysis, summarizing both our methodology and the corresponding results. Finally, we detail our Social and Community Impact Analysis.

The assumptions utilized in our analyses as well as important notes and considerations are detailed throughout this report.

Building Program

The following building program underlies the analysis presented throughout this report.

- Casino
  - 500 electronic gaming devices
- Food and Beverage Outlet
  - Small, casual dining outlet servicing casino patrons

CONSTRUCTION COST ESTIMATES

This section includes The Innovation Group's high-level construction cost estimates for the proposed Elk Run development based on the renovation of the existing structure on the site.

Construction Cost Estimate

The following table displays The Innovation Group's construction cost estimate for the redevelopment of the existing structure on the Elk Run site.

Table 18: Emergency Gaming Facility Construction Cost Estimate

Casino FoH	$5,713,200
Casino BoH	$1,485,432
Gaming devices for purchase	$15,870,000
F&B FoH	$463,750
F&B BoH	$225,750
Subtotal	$23,758,132
Design & Studies	$593,953
Site Work & Permits	$237,581
Total Development	$24,589,667

ECONOMIC IMPACT ANALYSIS

The economic benefits—the revenues, jobs, and earnings—that accrue from the annual operations of an enterprise are termed ***ongoing*** impacts. The construction phase of a project is considered a ***one-time*** benefit to an area. This refers to the fact that these dollars would be introduced into the economy only during construction; construction impacts are expressed in single-year equivalence to be consistent in presentation with ongoing annual impacts.

The economic impact of an industry consists of three layers of impacts:

1. Direct effects
2. Indirect effects
3. Induced effects

The **direct effect** is the economic activity that occurs within the industry itself. The direct effect for casino operations represents the expenditures made by the facility in the form of employee compensation and purchases of goods and services (direct expenditures), which ultimately derive from patron spending on the casino floor, and patron spending on non-gaming amenities is an additional direct effect.

Indirect effects are the impact of the direct expenditures on other business sectors: for example, the advertising firm who handles a casino's local media marketing. Indirect effects reflect the economic spin-off that is made possible by the direct purchases of a casino. Firms providing goods and services to a casino have incomes partially attributable to the casino.

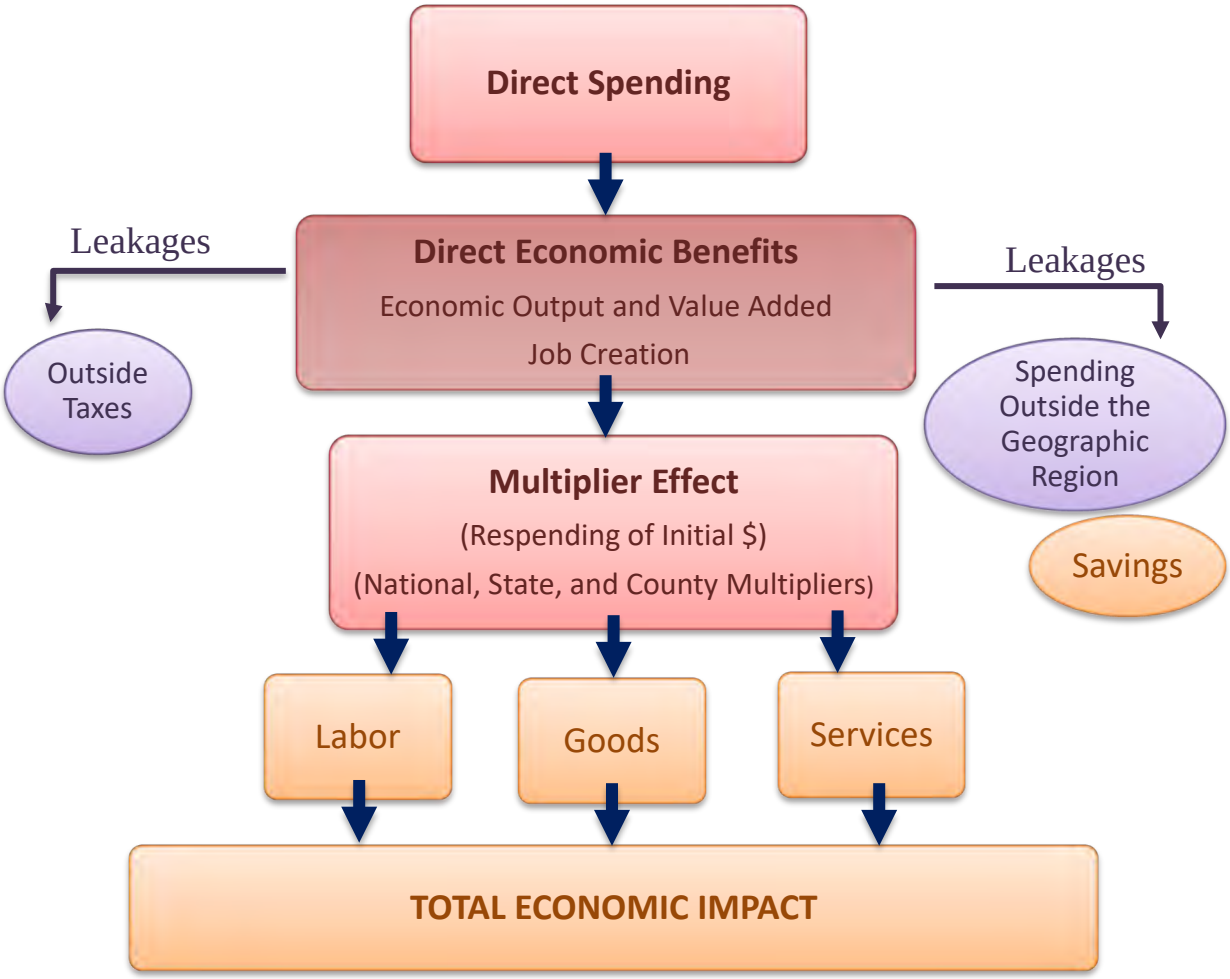
Finally, the **induced effects** result from the spending of labor income: for example, casino employees using their income to purchase consumer goods locally. As household incomes are affected by direct employment and spending, this money is recirculated through the household spending patterns causing further local economic activity.

The **total** economic impact of an industry is the sum of the three components.

Determining the direct economic impact is a critical first step in conducting a valid economic impact analysis. Once the direct expenditures are identified, the indirect and induced effects are calculated using multipliers derived from an input-output model[5] of the economy. The IMPLAN input-output model identifies the relationships between various industries. The model is then used to estimate the effects of expenditures by one industry on other industries so that the total impact can be determined. Industry multipliers are developed based on U.S. Census data. IMPLAN accounts closely follow the accounting conventions used in the "Input-Output Study of the U.S. Economy" by the Bureau of Economic Analysis.

[5] IMPLAN Online software and data were utilized for this study.

The following flow-chart shows how the economic impact model operates.



A Note on Substitution

Casino development frequently elicits concern that a substitution of consumer spending (the substitution effect) would negatively impact local businesses, especially smaller "mom and pop" retail, restaurant, and other entertainment industries. Intuitively it seems to be logical that spending at a casino would be diverted from other consumer activities such as going to a movie or taking a trip to the beach. However, numerous empirical studies have failed to find any conclusive evidence of significant economic substitution after the introduction of new casinos, nor is there any conclusive evidence as to the amount of spending that is substituted or the industry that it would have otherwise been spent in.

It is likely that countervailing positive effects dilute or outweigh any substitution that occurs. First, there is the increased household income in the area from casino employment. Secondly, there is a substantial body of research and case studies demonstrating the positive impacts that casinos have

on surrounding local businesses. A review of studies of casino impacts on local business shows that casinos can stimulate local economies, resulting in communitywide growth, including in the local food and beverage business and retail businesses. Casino visitors stop at local retail outlets and restaurants in addition to some overnight casino guests patronizing local non-casino hotels. More information on local business impacts is contained in Appendix B.

It was determined after careful consideration that any substitution effects that may occur in the state as a result of the Elk Run operations would not be modeled in the economic impact analysis.

Economic Impact Modeling

The IMPLAN tools utilized to model direct effects vary according to the type of data collected for each input segment. There are six types of economic activity changes that IMPLAN is designed to model for: industry, commodity, labor income, household income, industry spending pattern, and institutional (government) spending patterns. The most commonly used activity is an industry change, as the business generating a change in revenue, labor, or employment is often known and attributable to a specific industry sector.

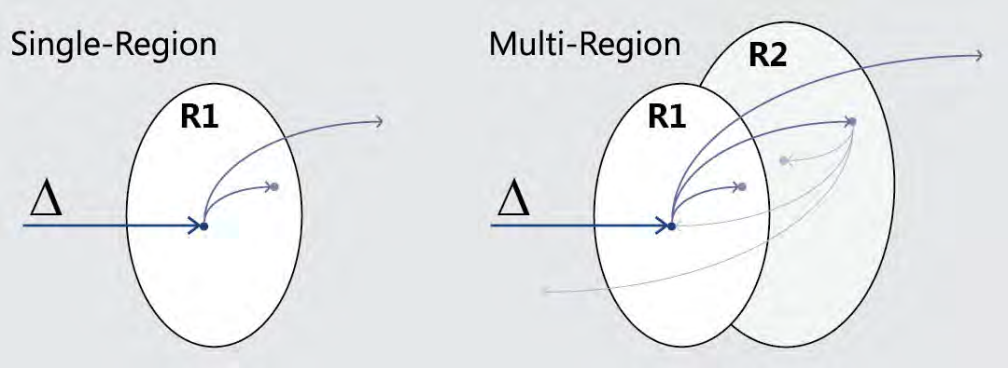
The IMPLAN sectoring scheme is based on the 6-digit North American Industry Classification System (NAICS), developed under the auspices of the Office of Management and Budget (OMB), which classifies business establishments based on the activities they are primarily engaged in or the commodities they create. IMPLAN's current sectoring scheme aggregates the 2017 version of the NAICS classification scheme down to just 536 industry sectors. When an industry and the commodity produced by the industry have the same name, the commodity is considered the primary product of that industry and will share the same sector code. Other commodities produced by that industry are considered secondary products of that industry. Therefore, it is possible for more than one industry to produce a specific good or service.

When using the Industry Change function, the direct effect values are entered into IMPLAN using the appropriate sector and IMPLAN calculates the multiplier effects resulting from that direct spending. A commodity change will distribute the total demand or sales for the good or service as an industry change across all producing industries or institutions, based on their regional market share distribution of that commodity. For construction impacts as well as impacts from architectural and engineering, the Industry Change function was most appropriate for modeling the costs associated with land improvements, building, and design related costs. Costs associated with purchases of Furniture, Fixtures and Equipment (FF&E) and gaming machines were modeled using the Commodity Change function. The Industry Change function was also utilized for casino operations as well as the non-gaming operations of the development.

Multi-Regional Input-Output Approach

Given the site's location within Pine Island and unincorporated Olmsted County, the proposed development would have local impacts in Pine Island (partially within Goodhue County and Olmsted County) as well as Olmsted County. In order to model economic impacts for the local area as well as for the rest of Minnesota, we relied upon the multi-regional input-output (MRIO) analysis method available in the IMPLAN Online software.

In this process, we enter the ongoing and one-time impacts associated with proposed casino into a Local Area model encompassing Olmsted County. Then, this Local Area model is linked to a model of all the other Minnesota counties. This allows our analysis to capture purchases and employment that occur outside the host county but elsewhere within Minnesota. Our analysis of these linked models yields direct, indirect, and induced effects for host county, as well as indirect and induced effects for the balance of the state. The IMPLAN model contains information about supply chains that estimate linkages between counties.



The multi-regional analysis thus results in impacts for the host county and the rest of the state (termed "Rest of State" in the table headings in this report). By definition, direct effects occur only in the Host County, as this is the site of the economic activity.

Interpreting Results

The IMPLAN analysis expresses impacts (direct, indirect, and induced) for the following four economic variables:

Employment is measured in IMPLAN and by the U.S. Census as headcount, in other words the number of full and part-time workers supported by an economic activity.

Labor Income (LI) is compensation to all workers both employees and owners in terms of wages and salaries as well as benefits and payroll taxes. Profits from self-employed businesses can also be included in this category as compensation to the owner. These are known as employment compensation (EC) and proprietor income (PI) in IMPLAN. $LI = EC + PI$

Value-Added (VA) measures the industry or event's contribution to Gross Domestic Product (GDP). It consists of labor income (as described above), taxes on production and imports (TOPI), and other property income (OPI, such as corporate profits, rent payments, and royalties). It is the difference between a business or industry's total sales and the cost of all input materials or intermediate expenditures. *VA = LI + TOPI + OPI*

Output is the total value of industry production; it consists of value-added plus intermediate expenditures (IE). Output is frequently the total price paid by consumers for a good or service. *Output = VA + IE*

Value-Added is the most appropriate measure of economic impact because it excludes intermediate inputs, which are the goods and services (including energy, raw materials, semi-finished goods, and services purchased from all sources) used in the production process to produce ***other*** goods or services rather than for ***final*** consumption. For example, the paper stock used in a magazine publication is an intermediate input whereas paper stock sold in an office-supply store is the final product sold to the consumer. The value of producing the magazine's paper stock is accounted for in measures of GDP within the Paper Manufacturing sector, not in the Publishing sector.

Ongoing Operations

The ongoing operations of the casino in Pine Island would result in ongoing economic benefits that would accrue annually to the state of Minnesota. Direct inputs for the casino development were derived from The Innovation Group's previously completed gaming market assessment and pro forma analysis of the casino property.

Operating Inputs

Direct effect inputs for casino operations account for the workers employed at the facility and the compensation they earn as well as direct spending (less any promotional rewards or benefits received) by the gaming operations. Staffing and employment compensation estimates were based on The Innovation Group's operating pro forma model and input into the IMPLAN software. Our staffing model has been calibrated to actual operating data from existing casinos and is on a Full-Time Equivalent ("FTE") basis. These FTEs were converted into total number of employees (Full and Part-time) using IMPLAN's conversion matrix, which for the casino sector is 0.82136 FTEs for each employee on a headcount basis.

The following table shows the total inputs utilized in the IMPLAN modeling for the emergency gaming facility. Please note, relevant values for the assumed second year of operations, or 2026, were used as input values for the direct effect inputs.

Table 19: Direct Effect Inputs – Ongoing Operations ($000s)

Industry Change	Industry Sales	Employment	Labor Income
503 Gambling industries (except casino hotels)	$82,293.2	314	$18,761.6
509 Full-service restaurants	$2,166.6	28	$922.8

Source: IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group.

Annual Economic Impacts from Operations

The following section presents the ongoing economic impacts resulting from the emergency gaming facility's operating activities. These impacts occur annually and can be thought of as long-term benefits both locally and within the rest of the state.

Based on the operating data forecasted by The Innovation Group, the operations of the potential Pine Island development are estimated to directly support 342 local workers annually, with annual labor income equaling $19.7 million and total added value to the economy of $46.4 million. These direct impacts drive a further $17.9 million in added value to the economy and 124 jobs from indirect and induced effects. At the outset, direct jobs are likely to be filled by current employees of Treasure Island Resort & Casino, again mitigating some of the substantial negative impact caused by the closure. Over time, these jobs would be expected to be filled by a combination of local unemployed workers, local out-bound commuters, residents of neighboring cities, and new residents.

In total, the local region is estimated to benefit from annual employment impacts of 466 workers, $30.2 million in labor income and $64.4 million in total value added, as shown in the table below.

Table 20: Emergency Gaming Facility Local Ongoing Impacts

Impact Type	Employment	Labor Income ($MM)	Value Added ($MM)	Output ($MM)
Direct Effect	342	$19.7	$46.4	$84.5
Indirect Effect	76	$6.3	$10.0	$19.1
Induced Effect	48	$4.2	$7.9	$13.1
Total	466	$30.2	$64.4	$116.6

Source: IMPLAN Group, LLC

The following table displays the economic impacts from the emergency gaming facility's operations for the rest of Minnesota. In total, this region is estimated to benefit from annual employment impacts of 61 workers, $4.8 million in labor income and $12.5 million in total value added, as shown in the table below.

Table 21: Emergency Gaming Facility Rest of State Ongoing Impacts

Impact Type	Employment	Labor Income ($MM)	Value Added ($MM)	Output ($MM)
Direct Effect	-	$0.0	$0.0	$0.0
Indirect Effect	30	$2.9	$6.9	$12.8
Induced Effect	31	$1.9	$5.6	$9.6
Total	61	$4.8	$12.5	$22.4

Source: IMPLAN Group, LLC

Combining the local and rest of state impacts, the following table displays the total ongoing economic impacts from the casino development's operations, which is projected to inject total value added of $76.9 million into the local and state economy annually(outside of PIIC-reservation lands)partially mitigating the severe impact of the emergency closure on the Prairie Island reservation and the surrounding communities (which this study does not estimate).

Table 22: Emergency Gaming Facility Total Ongoing Impacts

Impact Type	Employment	Labor Income ($MM)	Value Added ($MM)	Output ($MM)
Direct Effect	342	$19.7	$46.4	$84.5
Indirect Effect	105	$9.2	$16.9	$31.8
Induced Effect	79	$6.1	$13.5	$22.7
Total	527	$35.0	$76.9	$139.0

Source: IMPLAN Group, LLC

Fiscal Impacts

Fiscal impacts from ongoing operations were estimated utilizing IMPLAN software. Fiscal impacts resulting from IMPLAN include business taxes (including sales taxes), payroll taxes, property taxes, and other relevant taxes both locally and statewide. Based on the forecasted operations of the casino, IMPLAN estimates that $4.8 million of tax revenue would accrue to local governments while $7.6 million of tax revenue would accrue to the state government. Finally, IMPLAN estimates $6.1 million of tax revenue would accrue to the federal government. It is important to note that the fiscal impacts estimated by IMPLAN and illustrated in the tables below exclude any gaming administrative fees generated for Minnesota and includes taxes from direct, indirect, and induced effects.

Table 23: Local Tax Impact: Emergency Gaming Facility Ongoing Operations ($000)

Description	Total
Social Insurance Tax- Employee Contribution	$0.0
Social Insurance Tax- Employer Contribution	$0.0
TOPI: Sales Tax	$632.8
TOPI: Property Tax	$3,941.8
TOPI: Motor Vehicle License	$0.2
TOPI: Severance Tax	$0.2
TOPI: Other Taxes	$102.6
TOPI: Special Assessments	$73.6
OPI: Corporate Profit Tax	$0.0
Personal Tax: Income Tax	$0.0
Personal Tax: Motor Vehicle License	$0.2
Personal Tax: Property Taxes	$23.0
Personal Tax: Other Tax (Fish/Hunt)	$0.0
Total	$4,774.4

Source: IMPLAN Group, LLC

Table 24: State Tax Impact: Emergency Gaming Facility Ongoing Operations ($000)

Description	Total
Social Insurance Tax- Employee Contribution	$4.5
Social Insurance Tax- Employer Contribution	$5.3
TOPI: Sales Tax	$4,869.6
TOPI: Property Tax	$344.8
TOPI: Motor Vehicle License	$142.7
TOPI: Severance Tax	$30.4
TOPI: Other Taxes	$323.8
TOPI: Special Assessments	$0.0
OPI: Corporate Profit Tax	$532.0
Personal Tax: Income Tax	$1,236.8
Personal Tax: Motor Vehicle License	$47.1
Personal Tax: Property Taxes	$2.0
Personal Tax: Other Tax (Fish/Hunt)	$37.5
Total	$7,576.7

Source: IMPLAN Group, LLC

Table 25: Federal Tax Impact: Emergency Gaming Facility Ongoing Operations ($000)

Description	Total
Social Insurance Tax- Employee Contribution	$2,304.8
Social Insurance Tax- Employer Contribution	$1,839.1
TOPI: Excise Taxes	($1,118.1)
TOPI: Custom Duty	($1,165.5)
OPI: Corporate Profits Tax	$1,049.5
Personal Tax: Income Tax	$3,225.6
Personal Tax: Estate and Gift Tax	$0.0
Total	$6,135.5

Source: IMPLAN Group, LLC

Construction

Construction of the proposed development would bring one-time (non-recurring) benefits to Minnesota. Construction impacts are expressed on a single-year basis. Therefore, the employment figures, for example, represent person-year equivalents; for a construction period of two years, the actual number of workers onsite would be half the person-year equivalent.

The impact of construction only relates to expenditures made directly by the development company to design, build and outfit the physical structure. For construction, architectural, and engineering impacts, the Industry Change function was employed using sectors 55-Construction of New Commercial Structures, Including Farm Structures and 457-Architectural, Engineering, and Related Services. Costs associated with purchases of Furniture, Fixtures and Equipment (FF&E) and machine purchases were modeled using the Commodity Change function sectors 3393-Wholesale Trade Services-Professional and Commercial Equipment and Supplies and 3391-All Other Miscellaneous Manufactured Products.

Construction Inputs

Based on high-level construction capital costs estimated by the Innovation Group, the following table outlines the final inputs used to calculate the economic impact by sector. The cost of electronic gaming devices was separated out from the other FF&E. IMPLAN estimates what percentage of the purchases, including electronic gaming devices, would originate from within the study area based on its Social Accounting Matrix (SAM).

Table 26: Emergency Gaming Facility Estimated Construction Cost Inputs ($000)

Component	
Industry Change	
55 Construction of New Commercial Structures	$6,735.6
457 Architectural, engineering, and related services	$594.0
Commodity Change	
3393 Wholesale trade services	$1,390.1
3391 All other miscellaneous manufactured products	$15,870.0
Total Direct	$24,589.7

Source: IMPLAN Group, LLC; The Innovation Group

Economic Impacts from Construction

Based on the construction capital costs estimated by The Innovation Group, the IMPLAN model estimates that construction of the emergency gaming facility would directly support 51 workers locally, with labor income equaling $3.8 million and total added value to the economy of $4.5 million. These direct impacts drive a further $2.2 million in added value to the economy and 24 jobs from indirect and induced effects.

In total, the local region is estimated to have benefited from a one-time, single-year equivalent employment impact of 75 workers, $5.0 million in labor income and $6.7 million in total value added, as shown in the table below.

Table 27: Emergency Gaming Facility Local Construction Impacts

Impact Type	Employment	Labor Income ($MM)	Value Added ($MM)	Output ($MM)
Direct Effect	51	$3.8	$4.5	$7.8
Indirect Effect	10	$0.6	$0.9	$1.7
Induced Effect	13	$0.7	$1.3	$2.1
Total	75	$5.0	$6.7	$11.6

Source: IMPLAN Group, LLC
Note: Single-year equivalents.

The following table displays the economic impacts from construction for the rest of the state of Minnesota. In total, this region is estimated to benefit from a one-time employment impact of 57 workers, $4.5 million in labor income and $7.1 million in total value added, as shown in the table below.

Table 28: Emergency Gaming Facility Rest of State Construction Impacts

Impact Type	Employment	Labor Income ($MM)	Value Added ($MM)	Output ($MM)
Direct Effect	-	$0.0	$0.0	$0.0
Indirect Effect	38	$3.3	$4.9	$10.4
Induced Effect	20	$1.2	$2.2	$3.7
Total	57	$4.5	$7.1	$14.1

Source: IMPLAN Group, LLC
Note: Single-year equivalents.

Combining the local and rest of state impacts, the following table displays the total economic impacts from the construction of the development, which is projected to inject total value added of $13.7 million into the local and state economy.

Table 29: Emergency Gaming Facility Total Construction Impacts

Impact Type	Employment	Labor Income ($MM)	Value Added ($MM)	Output ($MM)
Direct Effect	51	$3.8	$4.5	$7.8
Indirect Effect	48	$3.9	$5.8	$12.1
Induced Effect	33	$1.9	$3.4	$5.8
Total	132	$9.6	$13.7	$25.7

Source: IMPLAN Group, LLC
Note: Single-year equivalents.

Fiscal Impacts

Fiscal impacts resulting from IMPLAN include business taxes (including sales taxes), payroll taxes, property taxes, and other relevant taxes both locally and statewide. Based on the construction cost estimates for the emergency gaming facility, the one-time fiscal impacts from construction would contribute $321,500, $778,600, and $1.8 million to local, state and federal governments, respectively.

Table 30: Local Tax Impact from Construction: Emergency Gaming Facility ($000)

Description	Total
Social Insurance Tax- Employee Contribution	$0.0
Social Insurance Tax- Employer Contribution	$0.0
TOPI: Sales Tax	$28.9
TOPI: Property Tax	$271.6
TOPI: Motor Vehicle License	$0.1
TOPI: Severance Tax	$0.1
TOPI: Other Taxes	$8.2
TOPI: Special Assessments	$6.8
OPI: Corporate Profit Tax	$0.0
Personal Tax: Income Tax	$0.0
Personal Tax: Motor Vehicle License	$0.1
Personal Tax: Property Taxes	$5.8
Personal Tax: Other Tax (Fish/Hunt)	$0.0
Total	$321.5

Source: IMPLAN Group, LLC

Table 31: State Tax Impact from Construction: Emergency Gaming Facility ($000)

Description	Total
Social Insurance Tax- Employee Contribution	$1.1
Social Insurance Tax- Employer Contribution	$1.3
TOPI: Sales Tax	$322.6
TOPI: Property Tax	$23.4
TOPI: Motor Vehicle License	$9.7
TOPI: Severance Tax	$2.1
TOPI: Other Taxes	$22.0
TOPI: Special Assessments	$0.0
OPI: Corporate Profit Tax	$65.8
Personal Tax: Income Tax	$309.1
Personal Tax: Motor Vehicle License	$11.8
Personal Tax: Property Taxes	$0.5
Personal Tax: Other Tax (Fish/Hunt)	$9.3
Total	$778.6

Source: IMPLAN Group, LLC

Table 32: Federal Tax Impact from Construction: Emergency Gaming Facility ($000)

Description	Total
Social Insurance Tax- Employee Contribution	$551.8
Social Insurance Tax- Employer Contribution	$440.3
TOPI: Excise Taxes	($72.7)
TOPI: Custom Duty	($75.8)
OPI: Corporate Profits Tax	$129.7
Personal Tax: Income Tax	$804.8
Personal Tax: Estate and Gift Tax	$0.0
Total	$1,778.1

Source: IMPLAN Group, LLC

SOCIAL AND COMMUNITY IMPACT ANALYSIS

This section assesses the social and community impacts of the proposed emergency gaming facility in Pine Island.

Increased local services and costs resulting from the gaming operations generally fall into three categories: those arising from population and development growth, those arising from the impacts of increased visitation and traffic, and social impacts resulting from problem gambling.

The analysis draws upon social science research as well as data analysis conducted by The Innovation Group. Although casino developments are perceived to be different in kind from other commercial developments of comparable size and visitor base, inordinate negative impacts from casino developments have not materialized, even in small communities with limited infrastructure and resources. In fact, experience over the past two decades has demonstrated that mitigation payments designed in anticipation of drastic impacts have often exceeded the actual need of the communities.

The perception that casinos breed crime is not supported by the evidence. While the *number* of reported crimes can increase, as with any commercial development that attracts visitors, casino gaming has not been shown to lead to an increase in crime *rates*.

Host communities should expect impacts similar in kind to other commercial development of similar scope and visitor potential. The projected increase in visitor population should be expected to lead to increases in public safety services and judicial system caseload. The one significant difference in kind relates to the association between problem gambling and other social pathologies as discussed in Appendix A.

In summary, evidence suggests that on-going impacts to local communities are highly manageable, typically requiring only a small fraction of gaming revenues to address fully.

Section One: Population and Employment Related Impacts

The emergency gaming facility in Pine Island is expected to produce $86.1 million in annual gross revenue and directly employ 342 people by 2026—the development's assumed second year of operations.

For the purposes of this section, Olmsted County and the City of Pine Island will host the facility and so will be used as the primary study areas of impacts as pertaining to employment and increased population.

Employment Impact

As noted, the proposed emergency gaming facility is projected to require 342 jobs[6]. At the outset, these jobs are likely to be filled by current employees of Treasure Island Resort & Casino, again mitigating some of the substantial negative impact caused by the closure. Over time, these jobs would be expected to be filled by a combination of local unemployed workers, local out-bound commuters, residents of neighboring cities, and new residents.

Unemployment in Olmsted County stood at approximately 1,987 workers in 2022. While the 2020 recession adversely impacted unemployment in the area, pre-2020 we observed declines in unemployment levels in the market area. Additionally, 2021 and 2022 data reveals that unemployment continued its downward trajectory following the 2020 recession.

Table 33: Olmsted County, MN Average Annual Employment Statistics

Year	Civilian labor force	Employment	Unemployment	Unemployment rate (%)
2013	83,450	80,055	3,395	4.1
2014	83,226	80,284	2,942	3.5
2015	84,080	81,573	2,507	3.0
2016	85,163	82,628	2,535	3.0
2017	87,102	84,728	2,374	2.7
2018	87,845	85,764	2,081	2.4
2019	89,543	87,229	2,314	2.6
2020	92,206	87,167	5,039	5.5
2021	90,609	87,783	2,826	3.1
2022	91,063	89,076	1,987	2.2

Source: Bureau of Labor Statistics, LAUS series, Not-seasonally adjusted; The Innovation Group

According to recent LEHD Origin-Destination Employment Statistics (LODES)[7] data from the US Census, 92.5% of the 82,718 workers living in Olmsted County work there, meaning 7.5% commute out to other locations or work remotely for businesses located elsewhere. The percentage of jobs in Olmsted County held by residents outside of the county is 23.2%.

Table 34: Olmsted, County, MN Commuting Patterns

A. Workers residing in Olmsted County	82,718
B. Number of Jobs in Olmsted County	99,611
C. Live & work in Olmsted County	76,539
% who live & work in Olmsted County	92.5%
% of A who commute OUT	7.5%
% of B who commute IN	23.2%

Source: US Census. (2020) LEHD Origin-Destination Employment Statistics (2016-2020)

[6] Headcount, including full and part-time workers.
[7] More information about the data source can be found here: https://lehd.ces.census.gov/doc/help/onthemap/OnTheMapDataOverview.pdf

As the following table illustrates, the existing workforce in Olmsted County is estimated to fill nearly 70.0% of the new jobs created by a casino development, and the remaining 31.5% of workers are estimated to represent new residents moving into the area.

Table 35: Emergency Gaming Facility Development Source of Workforce

Source of Employment	Proposed Project	Metric Applied	Source
A. Number of New Employees	342	Total Jobs	IMPLAN, The Innovation Group
B. Number of Commuters from outside Olmsted County	*79*	23.2%, based on Workforce Commuting Patterns	US Census
C. I.W.V. Unemployed back to work	*56*	3.3% of a future estimate of 1,700 Unemployed Workers	US Census
D. Commuters Staying within Olmsted County	*99*	1.6% of 6,179 Olmsted workers who currently commute outside the area	US Census
E. Total from Existing Area Workforce	*234*	B+C+D	
F. Estimated Total New Workers Needed	*108*	A-E	
% of New Employees	*31.5%*	F/A	

These estimates were based on previous research completed by The Innovation Group and results from a recent analysis of Plainridge casino in Plainville, Massachusetts. The survey of Plainridge employees demonstrates that casino employment is comprised mainly of workers already residing within commuting distance: a mixture of previously employed residents looking for a better opportunity or the ability to work closer to home, along with previously unemployed local residents. The percentage of workers who moved to take the position with Plainridge was a small percentage of the staff. Furthermore, most casino workers had not had prior casino work experience.

Table 36: Plainridge Casino Source of Workforce

	# of Responses	Percentage
Prior Employment status:		
Unemployed	162	15.5%
Employed Part-time	363	34.7%
Underemployed	*189*	*18.1%*
Employed Full-time	522	49.9%
Total	1,047	100.0%
Reason for taking the position		
Job closer to home	305	29.1%
Other results		
No prior casino experience	902	86.2%
Moved to take the position	75	7.2%

New Employee Survey at Plainridge Park Casino: Analysis of First Two Years of Data Collection
University of Massachusetts Donahue Institute, Economic and Public Policy Research Group, May 10, 2017

Other studies show similar impacts on employment. The Rappaport Institute for Greater Boston and the John F. Kennedy School of Economics at Harvard University (Baxandall and Sacerdote

2005) in a national, county-level study of Native American casinos found a slight decrease in unemployment rates after casinos opened. The analysis included all California casinos in existence in the 1990s. From their total sample of 156 casino counties, the Rappaport study isolated out 57 counties with large casinos and relatively low population and nine counties with both large casinos and large populations to see if there were statistical differences in terms of community impacts. The authors compared the county unemployment rate averaged for the year before and after a casino opens in a county, and then subtracted that number from the average state change in unemployment to isolate the county-specific effect. The following table shows their results:

Table 37: Rappaport Study Employment Results

	All Casino-Counties[1]	Counties with Large-Capacity Casinos[2]	Populous Casino Counties[3]
Population Growth (%)	+5*	8.6	+8.1*
Total Employment (%)	+6.7*	+14.9*	5.7
Unemployment (%)	-0.3	-1.2*	0.5

*Statistically significant results at 99% confidence interval.
1. Reports how adjusted outcomes in 156 counties that introduced Indian-run casinos during the 1990s differed from the other 2,959 that did not.
2. The effect for 21 counties in the top 10th percentile in terms of number of slot machines (over 1,760).
3. The effect for the 57 casino counties in the top population quartile (over 55,000 residents).

The Rappaport study also highlighted results for three counties in southern California: Riverside, San Bernardino, and San Diego. In all three counties, the unemployment decreased relative to the state average. For example, before casino development, Riverside County had a slightly lower unemployment rate than the state average (by 0.3%). After casino development, the county's unemployment rate was 1.7% lower than the state average, a relative decrease of 1.4 percentage points. San Bernardino had a relative decrease of 0.5 points and San Diego 0.4.

Table 38: Rappaport Study California County Results for Employment (%)

	Relative Unemployment % (County - State Average) Before	Relative Unemployment % (County - State Average) After	Change in Relative % Unemployment (Before - After)
Riverside, CA	-0.3	-1.7	-1.4
San Bernardino, CA	-2.2	-2.7	-0.5
San Diego, CA	-4.1	-4.5	-0.4

Household and Population Impact

Assuming approximately 1.1 casino workers per household, the total number of new households to the local area is estimated at 98. On average, households in Olmsted County comprise 2.43 persons, bringing the total population increase to Olmsted County and the surrounding area to 238 people, or 0.1% of the estimated 2026 Olmsted County population and 6.1% of the city of Pine Island estimated 2026 population.

Table 39: Emergency Gaming Facility Impact on Households and Population

New employees moving to area	108
# of jobs per household	1.1
Number of new Households	*98*
Olmsted County Avg. Household Size	2.43
New Area Population	238
% Increase of 2026 Olmsted County Pop	0.1%
% Increase of 2026 Pine Island City Pop	6.1%

Source: The Innovation Group

School Impact

Based on the number of new households and Minnesota household metrics, the increase to school enrollment is estimated to be approximately 45 children in the local area. For illustrative purposes, the analysis below assumes all children are enrolled in Olmsted County schools, which is conservative because they will likely be enrolled in school districts throughout the local region. These new enrollments represent a minimal increase over 2022 enrollment.

Table 40: Emergency Gaming Facility Impact on County School Enrollment

	Metric	Olmsted County
Number of New Households		98
Number of Households That Will Have Children*	29.8%	29
*Number of Children per Household***	*1.93*	
Total Number of Children		56
Projected School Age Children	80%	45
2022 Public School Enrollment		24,822
Post-Opening Projected School Enrollment		24,867
% Change		0.2%

Source: ESRI, US Census Bureau: Table ST-F1-2000.; American Community Survey 2018
*Minnesota percent of households with presence of children under age of 18
**Minnesota's average number of children per family with children

School enrollment trends for the districts serving Olmsted County can be found in the table below.

Table 41: Olmsted County Annual School Enrollment by District

	2018	2019	2020	2021	2022
Byron	2,079	2,114	2,215	2,264	2,278
Chatfield	917	873	843	872	897
Dover-Eyota	1,124	1,101	1,093	1,085	1,082
Rochester	17,791	18,015	18,145	17,474	17,617
Rochester Beacon Academy	111	148	124	112	96
Rochester Math and Science Academy	327	347	411	420	445
Rochester STEM Academy	113	141	128	124	129
Rosa Parks Charter High School	72	62	71	70	61
Stewartville	2,117	2,108	2,152	2,116	2,058
Zumbro	164	168	176	173	159
Total	24,815	25,077	25,358	24,710	24,822

Source: Minnesota Department of Education

Housing Impact

Given the presence of surplus housing units in the local area, the additional households that are projected to locate in Olmsted County would likely result in an absorption of some of these surplus housing units. The table below is provided to illustrate potential impacts to Olmsted County and is conservative because new households will likely be dispersed into the larger surrounding area as well, including Goodhue County, the City of Pine Island, and the City of Oronoco.

At current rates, the number of surplus housing units in Olmsted County—which was 4,336 housing units according to 2023 ESRI data—would be sufficient to accommodate the households estimated to relocate to Olmsted County as a result of the emergency gaming facility. Based on the estimated 98 new households moving to the local area resulting from the emergency gaming facility, as discussed previously, we estimate that 3.3% of the 2023 surplus housing units in Olmsted County would be absorbed.

Table 42: Olmsted County Population and Housing

	2023
Population	167,852
Households	67,812
Housing Units	72,148
Surplus Housing Units	4,336
Number of new Households generated by Emergency Gaming Facility employment	*98*
Percent of surplus housing units absorbed	3.30%

Sources: ESRI, US Census, The Innovation Group

The new jobs created at the proposed gaming development would provide stable employment for existing residents that can support homeownership, likely increasing homeownership figures throughout the local area.

Conclusion

Overall, the emergency gaming facility is projected to add 238 people to the local population and increase school enrollment by 45 students. We believe these additions to the area would be very manageable given the current infrastructure in place.

Section Two: Municipal Services Impact

Host communities should expect impacts similar in kind to other commercial development of similar scope and visitor potential. The projected increase in visitor population should be expected to lead to increases in public safety services and judicial system caseload.

Evidence suggests that on-going impacts from gaming developments to local communities are highly manageable and are typically offset by the new local tax dollars generated by the development. Of most direct consequence to casino development are police, fire, and EMS. These would largely fall into the purview of the local police and fire departments serving Pine Island. We note, however, that any impacts to the local police department described herein would likely be at least partially offset by PIIC's own police department.

Prairie Island Indian Community Public Safety Department

The Prairie Island Indian Community Police Department has 10 employees (but is authorized for up to 11 officers) and is a part of PIIC's Public Safety department. In addition to the Community's own police force, the Community entered into a cooperative agreement regarding law enforcement with Goodhue County and the City of Red Wing and their law enforcement agencies on March 11, 2004. The Community has also participated as a party to the Southeast Region Counties Mutual Aid Agreement for law enforcement services, and a prosecution agreement with the Goodhue County Attorney's Office to annual payments to serve as the prosecuting agency for state citations issued by the PIPD.

Police

The City of Pine Island has contracted with the Goodhue County Sheriff's Office to provide police services to the City. In 2022, the City of Pine Island contracted for a total of 6,955 hours of service from the Goodhue County Sheriff's Office. In the same year, Goodhue County Sheriff's Office answered 13,846 calls for service with a total of 1,815 citations issued and 751 arrests made. The Olmsted County Sheriff's Office has 196 employees with 99 working in the Adult Detention Center and 97 working in the Law Enforcement Center. The 2023 budget for the Public Safety Department for Olmsted County is $43.1 million, up from $41.8 million in 2022 and $42.9 million in 2021. Since 2019, the expenditures for Public Safety have increased by a CAGR of 0.7%.

Fire / EMS

The Pine Island Volunteer Fire Department services the proposed Elk Run Emergency Casino site as well as the City of Pine Island and the townships of Milton, New Haven, Oronoco, Pine Island and Roscoe. The department responds to approximately 440 calls annually as stated on the Pine Island, Minnesota website. While the Pine Island Volunteer Department does not publicly report their annual budget, we were able to estimate the department's budget based on budget and call

data for the City of Rochester, Minnesota Fire Department[8]. Based on an average budget per call figure of $1,685 for the Rochester Fire Department, we estimate the annual budget for the Pine Island Volunteer Fire Department at $741,241 in 2022.

Comparative Analysis

Research in other jurisdictions show that impacts to local communities are manageable and are typically offset by the new local tax dollars generated by the development. Based on casino evaluations performed by Purdue University and other research institutions on behalf of the Indiana Gaming Commission, statewide average actual costs borne by host communities are approximately 0.3% of gaming revenues. A national, county-level study of Native American casinos by The Rappaport Institute for Greater Boston and the John F. Kennedy School of Economics at Harvard University (Baxandall and Sacerdote 2005) found a slight decrease in crime rates after casinos opened. The study also highlighted results for three counties in southern California: Riverside, San Bernardino, and San Diego. In all three counties, crime decreased relative to the state average. For example, before casino development, Riverside County suffered 22 more crimes per 1,000 residents than the state average. After casino development, the county had just 6 more crimes per 1,000 residents than the state average, a relative decrease of 16 crimes per thousand residents. San Bernardino had a relative decrease of 10 crimes per thousand, and San Diego 9.[9]

Table 43: Rappaport Study California County Results for Crime

	Relative Crime (Before)	Relative Crime (After)	Change in Relative Crime (After - Before)
Riverside, CA	0.022	0.006	-0.016
San Bernardino, CA	0.016	0.006	-0.01
San Diego, CA	0.008	-0.001	-0.009

The introduction of a casino can lead to an increase in traffic patrol requirements and in the number of calls for police service. Arrests or citations related to increased visitation to the local area would create increased caseloads for the local judiciary. Even calls not resulting in arrest or citation can result in a need for increased police staffing.

Criminal Incident Rates

The following section provides data for the number of calls police respond to and the numbers of arrests made at a sampling of casinos throughout the country. The analysis includes numerous individual properties. Please note, due to the confidential nature of some of the data included in this section, some of the property names have been given generic labels.

[8] https://www.rochestermn.gov/home/showpublisheddocument/39328/638276147055700000; https://www.kttc.com/2023/03/02/rochester-fire-department-sees-record-number-calls-2022/

[9] See Appendix B for more details

SugarHouse Casino – Philadelphia, Pennsylvania

SugarHouse Casino is located along the Delaware River, outside of downtown Philadelphia in an urban neighborhood. The following statistics provide an overview of the number of calls and arrests the police department has made near the casino. It should be noted that the following data overstates the number of calls to the casino as the Philadelphia Police Department collects data based on address, which in this case also includes adjacent commercial properties. The Pennsylvania State Police respond to incidents within the casino. The number of calls to the area near the casino declined from 2012 to 2014 by over 50% and offenses declined by 75%. This is due to a steep decline in the "all other offenses" category, indicating change in police procedure or local ordinances.

Table 44: SugarHouse Casino Service Calls and Criminal Offenses

Crime Category	2012	2013	2014	Average
Total Service Calls	1,023	708	499	743
Part One Offenses	*30*	*22*	*19*	*24*
Rape	0	1	0	0
Robbery	1	3	2	2
Aggravated Assault	5	1	0	2
Theft	21	16	16	18
Stolen Vehicle	3	1	1	2
Part Two Offenses	*122*	*137*	*21*	*93*
Simple Assault	12	19	5	12
Fraud	3	1	2	2
Prostitution	14	8	5	9
Narcotic	3	2	0	2
Offenses Against Family	1	0	0	0
Driving Under the Influence	3	0	1	1
Liquor Law Violations	0	0	0	0
Public Drunkenness	1	2	0	1
Disorderly Conduct	11	13	5	10
All Other Offenses	74	92	3	56
Total Offenses	152	159	40	117

Source: Philadelphia Police Department, The Innovation Group

Rivers Casino – Pittsburgh, Pennsylvania

Rivers Casino is located near Heinz Field, along the Ohio River in Pittsburgh, Pennsylvania. Police protection is provided by two entities, the Pennsylvania State Police and the Pittsburgh Police. The Pennsylvania State Police address incidents within the casino, while the local Pittsburgh Police respond to incidents outside of the casino. The following provides an overview of the calls made to the state and local police.

Table 45: Rivers Casino Pittsburgh Police Service Calls

Call Type	2012	2013	2014	Average
911	18	17	18	18
Accident	19	16	17	17
Animal	0	0	0	0
Auto Theft	6	3	4	4
Assault	3	13	10	9
Child	3	2	2	2
Criminal Mischief	7	8	4	6
Disorderly Person	23	19	20	21
Dispute	6	2	6	5
Disturbance	2	0	1	1
DV	7	3	6	5
Drugs	1	0	0	0
Fight	0	5	6	4
Fire	0	1	1	1
Fraud	0	0	1	0
Gun/Weapon	6	2	1	3
Harassment	2	3	2	2
Hit & Run	28	27	26	27
Ind Exposure/Sex Asslt	2	0	0	1
Intox (Person/Driver)	43	38	44	42
Medical	13	14	19	15
Overdose	2	1	3	2
Parking	3	3	2	3
Police	36	33	71	47
Psych	5	5	5	5
Resist Arr	0	0	0	0
Robbery	0	1	3	1
Retail Theft	0	0	0	0
Shots Fired	1	0	0	0
Soliciting	18	12	6	12
Suspicious Act/Pe/Veh	7	4	7	6
Theft	4	13	14	10
Theft fr Auto	14	5	12	10
Traffic	14	16	20	17
Trespass	1	0	2	1
Unknown	5	1	5	4
Warrant	8	1	1	3
Misc	21	22	19	21
Total	328	290	358	325

Source: Pittsburgh Police Department, The Innovation Group

Table 46: Rivers Casino Pennsylvania State Police Service Calls

Call Type	2013	2014	Average
Criminal Homicide	0	0	0
Sex Offenses	0	2	1
Robbery	0	0	0
Assaults	32	26	29
Property Offenses	535	368	452
Arson	0	0	0
Drug Violations	18	27	23
Alcohol Crimes	14	25	20
Total	599	448	524

Source: Pennsylvania State Police, The Innovation Group

The Rivers Casino in Pittsburgh receives an average of 849 calls to the casino and areas directly adjacent to the casino. The incident rate was calculated based on the estimated attendance at the facility and the total number of service calls.

Table 47: Rivers Casino Service Call Rates

Revenue 2014	$346,297,439
Avg. Spend	$75
Est. Attendance	4,617,299
Average Pittsburgh Police Calls	325
Incident Rate Pittsburgh Police Calls	0.007%
Average Pennsylvania Police Calls	524
Incident Rate Pennsylvania State Police Calls	0.011%
Incident Rate All Police Calls	0.018%

Source: Pittsburgh Police Department, Pennsylvania State Police, Pennsylvania Gaming Control Board, The Innovation Group

Rivers Casino – Des Plaines, Illinois

The Rivers Casino in Des Plaines is located on the west side of Chicago within close proximity to O'Hare Airport. The following provides an overview of the number and type of calls that the Des Plaines Police Department at the casino.

Table 48: Rivers Casino Des Plaines Police Service Calls

	2012	2013	2014	Average
Assault & Battery	61	73	68	67
Administrative & Investigative	275	204	336	272
Animal/Pet Related	10	5	5	7
Community Relations Related	128	29	24	60
Controlled Substance	5	30	79	38
Disorderly Conduct	12	9	16	12
Fire/LEO Assist	180	48	62	97
Fraudulent Activity	43	70	88	67
Gambling Related	3	0	0	1
Medical Related	7	6	6	6
Minors with Alcohol	2	0	1	1
Motor Vehicle Offense (DUI, DL)	44	44	42	43
Property Damage	12	13	14	13
Theft Related	35	44	70	50
Traffic Accident	60	59	46	55
Traffic Enforcement	26	40	49	38
Trespassing	431	354	341	375
Welfare/Missing Persons Related	1	4	6	4
Total	1,335	1,032	1,253	1,207

Source: Des Plaines Police Department, The Innovation Group

Attendance figures from the Illinois Gaming Board were utilized in order to calculate the incident rates for calls made to local police.

Table 49: Des Plaines Service Call Rates

Casino Attendance 2014	3,519,071
Average Casino Service Calls	1,207
Incident Rate for Service Calls	0.034%

Source: Des Planes Police Department, Illinois Gaming Board, The Innovation Group

Yakama Nation Legends Casino – Toppenish, Washington

Located in Toppenish, Washington, the Yakima Nation Legends Casino is an approximately 25-minute drive time from Yakima, Washington. The facility is roughly 3 hours northeast of Portland and two and a half hours southeast of Seattle. The following table provides attendance and service call figures utilized to calculate the incident rates for calls made to local police.

Table 50: Toppenish, WA Service Call Rates

Casino Attendance 2021	1,291,575
2021 Casino Service Calls	334
Incident Rate for Service Calls	0.026%

Source: Toppenish Police Department, Washington State Gambling Commission, The Innovation Group

Northern Quest Resort & Casino – Airway Heights, Washington

The Northern Quest Resort and Casino is located just outside of Spokane, Washington—roughly 15 minutes to the west. The following table provides attendance and service call figures utilized to calculate the incident rates for calls made to local police.

Table 51: Airway Heights, WA Service Call Rates

Casino Attendance 2021	1,691,348
2021 Casino Service Calls	422
Incident Rate for Service Calls	0.025%

Source: Airway Heights Police Department, Washington State Gambling Commission, The Innovation Group

Western US Tribal Gaming Facility

This western US tribal gaming facility received over 2 million visits in 2019. The following table provides attendance and service call figures utilized to calculate the incident rates for calls made to local police.

Table 52: Western US Tribal Gaming Facility Service Call Rates

Casino Attendance 2019	2,043,000
Average Casino Service Calls	895
Incident Rate for Service Calls	0.044%

Source: Proprietary and confidential data, The Innovation Group

Pacific Northwestern US Tribal Gaming Facility

This Pacific Northwestern US tribal gaming facility received nearly 2.5 million visits in 2019. The following table provides attendance and service call figures utilized to calculate the incident rates for calls made to local police.

Table 53: Pacific Northwestern US Tribal Gaming Facility Service Call Rates

Casino Attendance 2019	2,485,159
Average Casino Service Calls	191
Incident Rate for Service Calls	0.008%

Source: Proprietary and confidential data, The Innovation Group

Average Incident Rates

Incident rates from the data above was utilized in order to establish an incident rate that would be applied to the emergency gaming facility in order to project the number of calls and actual arrests that can be expected with the addition of the development to the community. Data from Philadelphia was excluded from the average because it doesn't include incidents on the casino floor.

Table 54: Average Criminal Incident Rate Per Patron Visit

	Estimated Calls	Estimated Arrests
Rivers Casino - Pittsburgh, PA	0.018%	0.007%
Rivers Casino - Des Plaines, IL	0.034%	0.002%
Yakama Nation Legends Casino - Toppenish, WA	0.026%	0.006%
Northern Quest Resort & Casino - Airway Heights, WA	0.025%	0.006%
Western US Tribal Gaming Facility	0.044%	0.010%
Pacific Northwestern US Tribal Gaming Facility	0.008%	0.002%
Average	*0.026%*	*0.005%*

For illustrative purposes, the tables below depict data for Olmsted County, although multiple law enforcement jurisdictions are responsible for services within the local area. Criminal offense data for Olmsted County are available from the FBI's Uniform Crime Reporting (UCR) Program. In 2022, there were 6,448 criminal offenses reported in the county. It is estimated that the proposed emergency gaming facility would have approximately 234 police calls in 2026. The potential increase of 234 calls represents an increase of 3.6% over 2022 volumes based on incidents reported by the UCR Program.

Table 55: Olmsted County Police Service Calls Estimate

2026 Projected Emergency Gaming Facility Visitation	906,984
Average call rate	*0.026%*
Projected Arrests	234
2022 Offenses Reported	6,448
Projected Offenses Reported with Casino Impact	6,682
% Change	3.6%

Sources: FBI Uniform Crime Report, The Innovation Group

The following charts show a breakdown of reported criminal offenses by type for Olmsted County.

Table 56: Olmsted County Sheriff's Department Offenses Reported 2022

Type	Incidents	% of Total
Total	6,448	100.0%
Crimes Against Persons	1,148	17.8%
Crimes Against Property	4,213	65.3%
Crimes Against Society	1,087	16.9%

Sources: Minnesota Crime Data Reporter

For additional information on criminal incidents and qualitative data from other jurisdictions, see Appendix B.

Fire Incident Rates

The following section provides data for the number of calls local fire departments respond to for a sampling of casinos throughout the country. Most calls made to the area around the casino are calls for EMS service or traffic accidents. There are a very small number of calls that are labeled as fire and usually involve a false alarm.

SugarHouse Casino – Philadelphia, Pennsylvania

The Philadelphia Fire Department responded to an average of 28 calls from 2012 to 2014. Of those calls, the majority were in connection with EMS or traffic accidents.

Table 57: Philadelphia Fire Department Calls

	2012	2013	2014	Average
EMS and Traffic Accident	27	18	19	21
Fire	9	8	3	7
Total	36	26	22	28

Source: Philadelphia Fire Department, The Innovation Group

The following utilizes the estimated attendance figures from the previous section in order to calculate the fire call rate for SugarHouse Casino in Philadelphia.

Table 58: Philadelphia Fire Department Call Rate

Estimated Casino Attendance	3,534,995
Average Fire Incidents	28
Fire Dept. Call Rate	0.001%

Source: Philadelphia Fire Department, The Innovation Group

Rivers Casino – Pittsburgh, Pennsylvania

The Pittsburgh Fire Department responded to an average of 17 calls from 2012 to 2014. Of those calls, the majority were in connection with EMS or traffic accidents.

Table 59: Pittsburgh Fire Department Calls

	2012	2013	2014	Average
EMS and Traffic Accident	10	9	15	11
Fire	9	5	3	6
Total	19	14	18	17

Source: Pittsburgh Fire Department, The Innovation Group

The following utilizes the estimated attendance figures from the previous section to calculate the fire call rate for Rivers Casino Pittsburgh.

Table 60: Pittsburgh Fire Department Call Rate

Estimated Casino Attendance	4,617,299
Average Fire Incidents	17
Fire Dept. Call Rate	0.0004%

Source: Pittsburgh Fire Department, The Innovation Group

Rivers Casino – Des Plaines, Illinois

The Philadelphia Fire Department responded to an average of 168 calls from 2012 to 2014. Of those calls, the majority were in connection with EMS or traffic accidents.

Table 61: Des Plaines Fire Department Calls

	2012	2013	2014	Average
EMS	185	138	167	163
Fire	3	4	6	4
Total	188	142	173	168

Source: Des Plaines Fire Department, The Innovation Group

The following utilizes the estimated attendance figures from the previous section in order to calculate the fire call rate for Rivers Casino in Des Plaines.

Table 62: Des Plaines Fire Department Call Rate

Attendance	3,519,071
Average Calls	168
Fire Dept. Call Rate	0.005%

Source: Des Plaines Fire Department, The Innovation Group

Grand Victoria - Elgin

The City of Elgin, Illinois is located near a major metropolitan area. The Grand Victoria Casino is also located within an hour of downtown Chicago and draws from that market. The following table provides an overview of incidents reported by the Elgin Fire Department for the Grand Victoria Casino.

Table 63: Grand Victoria Elgin Fire Response 2014

Call Type	2012	2013	2014	Average
EMS	65	72	67	68
Fire	0	0	0	0
Good Int.	2	2	3	2
Public Assistance	0	2	1	1
False	4	2	5	4
Total	71	78	76	75

Source: Elgin Fire Department, The Innovation Group

Attendance was taken from the Illinois Gaming Board. Based on these figures, the rate of incidents compared to number of guests was extremely small.

Table 64: Grand Victoria Elgin Fire Call Rate

Des Plaines Fire Incidents	
Attendance	1,372,095
Average Calls	75
Fire Dept. Call Rate	0.005%

Source: Elgin Fire Department, Illinois Gaming Board, The Innovation Group

Western US Tribal Gaming Facility

The following table provides attendance and service call figures utilized to calculate the incident rates for calls made to the local fire department.

Table 65: Western US Tribal Gaming Facility Fire Call Rate

Casino Attendance 2019	2,043,000
Average Casino Service Calls	97
Incident Rate for Service Calls	0.005%

Source: Proprietary and confidential data, The Innovation Group

Pacific Northwestern US Tribal Gaming Facility

The following table provides attendance and service call figures utilized to calculate the incident rates for calls made to the local fire department.

Table 66: Pacific Northwestern US Tribal Gaming Facility Service Fire Call Rate

Casino Attendance 2019	2,485,159
Average Casino Service Calls	167
Incident Rate for Service Calls	0.007%

Source: Proprietary and confidential data, The Innovation Group

Average Fire Incident Rates

Incident rates from the data above was utilized in order to establish an incident rate that is applicable to the proposed emergency gaming facility to project the number of calls the local fire departments can expect. It should be noted that some communities have seen a smaller impact on services. For example, the Kenner Fire Department in Louisiana has reported a small number of service calls at the Treasure Chest Casino, averaging approximately seven medical calls and only one fire call in the last five years.

Table 67: Average Fire Department Call Rate Estimate

SugarHouse Casino - Philadelphia, PA	0.001%
Rivers Casino - Pittsburgh, PA	0.0004%
Rivers Casino - Des Plaines, IL	0.005%
Grand Victoria Casino - Elgin, IL	0.006%
Western US Tribal Gaming Facility	0.005%
Pacific Northwestern US Tribal Gaming Facility	0.007%
Average	0.004%

Source: The Innovation Group

As shown in the following table, it is estimated that the proposed emergency gaming facility would result in an increase of approximately 35 service calls in the local area. This is an increase of approximately 7.9% over the current call volume of 440 calls to the Pine Island Volunteer Fire Department, as stated on the Pine Island, Minnesota website.

Table 68: Pine Island Fire/EMS Service Call Estimates

2026 Projected Emergency Gaming Facility Visitation	906,984
Average service call rate	0.004%
Projected Fire Service/EMS Calls	35
Annual Service Calls	440
% Change	*7.9%*

Sources: Pine Island Volunteer Fire Department, The Innovation Group

Conclusion and Implications

Fiscal Impacts and Municipal Services

Impacts arising from population and development growth would be effectively diluted by the size of the existing local labor force, housing stock, and school capacity. Impacts arising from increased visitation—such as police, fire and EMS calls—are detailed below.

Moreover, and as noted previously, the fiscal impacts to the local police department described below would be offset at least partially by the PIIC's own police department who would primarily handle the increase in 234 calls per year. The PIPD and Goodhue County Sherrif's Department currently provide police protection services to the Community's Reservation and the existing Casino, and Goodhue County Sheriff's Department provides law enforcement services to the City of Pine Island. The Goodhue County Sherrif's Department and/or Olmsted County Sherrif's Department may provide supplemental law enforcement services to the Project Site. Because Goodhue County Sheriff's Department already has agreements in place with the City of Pine Island and the PIIC, fiscal impacts to Goodhue County are already addressed. While Olmsted County Sheriff's Department would not be the primary responder to the new service calls, the analysis below illustrates the potential fiscal impact that could arise under an extremely conservative scenario where Olmsted County becomes the first responder to the emergency gaming facility. On top of this, the gains in tax revenues that would accrue to the local governments as a result of increased economic activity generated by the emergency gaming facility and its employees would mitigate increases in municipal services expenses. In sum, the development would have a significant positive impact on governmental services.

Estimated Municipal Expenses

The following table shows the estimated expenses attributable to the subject development from police and fire/EMS services, based on the Comparative Analysis section above, with percent change estimates from that analysis applied to future budget estimates. As noted previously, the figures below illustrate the potential fiscal impact that could arise under an extremely conservative scenario where Olmsted County becomes the first responder to the emergency gaming facility.

Table 69: Local Police and Fire/EMS Expense Increase – 2026

	Forecasted Annual Budget		
Police	$43,945,925	*Incremental %*	*3.6%*
		Incremental $	$1,596,496
Fire/EMS	$772,773	*Incremental %*	*7.9%*
		Incremental $	$60,827
Total Increase in Municipal Services			$1,657,323

Sources: Olmsted County Sherriff's Office, The Innovation Group

Problem Gambling

Since gambling is already prevalent in Minnesota, it is reasonable to assume a problem gambling population currently exists. In other words, those with a propensity for problem gambling already have ready access to gambling products. Moreover, it is our understanding that this facility would

become operational only in the event of a closure of the much larger (1,800 electronic gaming devices and 40 tables) Treasure Island Resort & Casino. With this effective reduction in gaming supply in the state, it is likely that the prevalence of problem gambling in Minnesota would remain unchanged or even decrease due to the operation of a smaller emergency gaming facility.

APPENDIX A: PROBLEM GAMBLING MITIGATION

Definition and Prevalence

A majority of Americans, about 86%, report having gambled at least once in their lifetime[10]. Most people gamble for recreational purposes without the behavior becoming a problem. Studies, however, estimate that 0.4%-1.6% of the United States population can be classified as pathological gamblers.[11,12] Pathological gambling has been commonly associated with relationship problems, employment issues, and significant financial difficulties.

The American Psychiatric Association (2004) defines a pathological gambler as a person who features a continuous loss of control over gambling. Furthermore this gambler illustrates a progression, in gambling frequency and amounts wagered, in the preoccupation with gambling and in obtaining monies with which to gamble. However, problem gambling is a more loosely defined term and is commonly associated with gaming-related difficulties that are considered less serious than those of a pathological gambler. For the sake of this report we will utilize the definition by noted researchers Cox, Rosenthal and Volberg which defines problem gambling as a pattern of gambling behavior that compromise, disrupt or damage personal, family or vocational pursuits.[13]

The National Research Council[14] utilizes a three-level metric. Level 1 gambling is considered social and or recreational gambling with no appreciable harmful effects. Level 2 gambling is synonymous with problem gambling. Level 3 gambling is synonymous with pathological gambling. Problem gambling is an urge to gamble despite harmful negative consequences or a desire to stop. It is often defined by whether harm is experienced by the gambler or others, such as the gamblers family, significant other, spouse, friends, or coworkers. A problem gambler may or may not be a pathological gambler. Pathological or compulsive gambling is defined as a mental disorder characterized by a continuous or periodic loss of control over gambling, a preoccupation with gambling and with obtaining money with which to gamble, irrational thinking, and a continuation of the behavior despite adverse consequences.

Prevalence rates to determine adult problem gambling rates are measured by administering a survey (often a variation of the South Oaks Gambling Screen or a modified DSM-IV questionnaire) to a statistically valid sample of the adult population of the jurisdiction being

[10] James KC, Bible WA, Dobson JC, Lanni JT, Leone RC, Loescher RW, et al. *National gambling impact study commission final report*. National Gambling Impact Study Commission. 1999.
[11] Shaffer HJ, Hall MN, Vander Bilt J. "Estimating the prevalence of disordered gambling behavior in America and Canada: a research synthesis." *Am J Public Health.* 1999
[12] Petry NM, Stinson FS, Grant BF. "Comorbidity of DSM-IV pathological gambling and other psychiatric disorders: results from the national epidemiologic survey on alcohol and related conditions." *J Clin Psychiatry*. 2005
[13] Cox, S., H. R. Lesieur, R. J. Rosenthal & R. A. Volberg. 1997. *Problem and Pathological Gambling in America: The National Picture.* Columbia, MD: National Council on Problem Gambling.
[14] National Research Council, pp. 20-21.

measured. Adolescent rates are measured in a similar manner. Such a method and analysis of data that accompanies the process is referred to as a general population prevalence study.

Jurisdictions, both domestically and internationally, have conducted studies to estimate the percentage of the population that could be classified as having some level of problem gambling behavior. These studies, commonly referred to as prevalence studies, are designed to reflect the scope and severity of problem gambling behavior.[15]

One of the most frequently cited studies on prevalence rates is *Estimating the Prevalence of Disordered Gambling Behavior in the United States and Canada: A Meta-analysis by the Harvard Medical School Division on Addictions*. The meta-analysis method of estimating prevalence rates has been used in related addiction fields of drug prevention and patterns of alcohol use and alcohol treatment. It is considered a more cost-effective method than a national study since it makes use of existing research already conducted in a field.

The Harvard Medical School study, believed to be the first to use meta-analysis measurements for problem gambling prevalence rates, analyzed 152 distinct previous prevalence studies available for review by June 15, 1997. The study determined that 2.0 percent of the adult population could be considered as Level 2 of disordered gambling (often referred to as problem gambling) and 0.9 percent of Level 3 or disordered gambling (also referred to as pathological gambling) during the past year. The vast majority of adults in the general population, then, do not experience gambling-related problems of any clinical significance.

The meta-analysis raw data was given to the Committee on the Social and Economic Impact of Pathological Gambling of the National Research Council (NRC) in its analysis for the National Gaming Impact Study Commission. After an extensive review, the NRC agreed with the above rates of problem gambling and used the numbers in its own analysis of problem gambling in its final report.

The introduction of casino gambling has the potential of negative social impacts. These potential impacts can be controlled and minimized through proper planning, awareness campaigns, and prevention and treatment programs applied in a coordinated manner by all relevant stakeholders. By utilizing some of the many proven prevention and treatment programs, the potential social impact of the advent of gaming can be minimized. Allocating funds to problem gambling services can help mitigate problem gambling and promote responsible gambling.

As an example, by devoting more resources to prevention and treatment, Connecticut was able to cut prevalence rates despite further gaming development. In 1996, Connecticut had only a single clinic, but by the time of an updated study in 2008, the state had 17 clinics.[16] Prevalence rates

[15] *Estimating the Prevalence of Disordered Gambling Behavior in the United States and Canada: A Meta-analysis*, Harvard Medical School Division on Addictions, 1997.
[16] Spectrum Gaming Group, *Gambling in Connecticut: Analyzing the Economic and Social Impacts*, prepared for the State of Connecticut, Division of Special Revenue, June 2009.

declined substantially during that period, despite the opening of Mohegan Sun late in 1996 and further expansion at Foxwoods, including the opening of Grand Pequot Tower hotel in 1997.

Table 70: Connecticut Prevalence Rates

	2008 Survey	1997 Study
Problem Gamblers	0.90%	2.20%
Probable Pathological Gamblers	0.70%	0.60%
Total Disordered Gamblers	1.60%	2.80%

Source: Spectrum Gaming Group.

Responsible Gaming and Harm Minimization

Responsible gambling/gaming programs take several forms in an effort to combat and prevent gambling-related harms. Instances of problem gambling manifest in two categories of harm: (1) personal harm, including effects on health, well-being, and relationships, and/or (2) economic harm. Research on responsible gaming falls short of the levels of scientific analysis necessary to develop responsible gaming "best practices." While various publications have attempted to synthesize existing research on common responsible gaming and harm minimization practices, the field of research often lacks peer-reviewed scientific analyses.

In their current form, the most common responsible gaming practices reflected in the field of research are self-exclusion programs, gambling help lines, tracking behavioral characteristics, setting gambling limits, providing responsible gaming-oriented game features, and employee training. Each of these strategies will be discussed below.

As a condition of licensing, commercial casino states may mandate that casinos prepare and submit for approval a wide-ranging plan for addressing responsible gaming issues. Required elements of the plan often include employee training and public awareness efforts along with other policies that various states have addressed specifically through standalone statutes, or regulations, that address only a single subject. The required elements of these plans vary by state.

In Maryland, for example, a responsible gambling program must consist of mechanisms that both mitigate the effects of problem gambling in the State and maximize the access of individuals with a gambling problem to problem gambling resources.[17]

Massachusetts makes the issuance of gaming licenses contingent upon the submission of a plan to "address lottery mitigation, compulsive gambling problems, workforce development and community development [,] and host and surrounding community impact and mitigation issues."[18] The State intends for these requirements to advance its objective of providing a gaming

[17] Maryland responsible gaming plan statute. COMAR 36.01.03.07(B).
[18] Massachusetts responsible gaming statute. M.G.L. Ch. 23K, § 15(6).

environment that is safe and productive for all stakeholders. In furtherance of this objective, Massachusetts prompts gaming licensees to develop plans that train employees to identify patrons exhibiting problems with gambling, and prevention programs for vulnerable populations.[19]

Other states, such as Ohio, connect their responsible gaming plans to other mitigation mechanisms, such as voluntary exclusion programs, to better protect vulnerable groups.[20] Overall, the development of responsible gaming plans serves to establish concrete frameworks to better promote safe gaming.

Self-Exclusion Programs

Voluntary self-exclusion programs, typically operated by casinos and online gambling sites or gaming regulators, give individuals the ability to exclude themselves from gambling activities. Many states require that patrons have the ability to authorize a casino to refuse their right to gamble and to expel them if they are found gambling or, in some cases, otherwise found on the premises. Program management models vary; in some cases, they are run by the state or a state-appointed group, in others they are managed directly by licensees. State statutes vary in the length of the self-exclusion periods available – typically ranging from a six month ban to lifetime restriction – and in the procedures for reversing self-exclusion. In some states, third parties also have the ability to voluntarily exclude patrons exhibiting problem gambling behavior. Many state laws specify that, in addition to banning play, the casino must also eliminate direct promotional outreach to these individuals as well as exclude them from complimentary offerings ("comps") or access to credit. Such programs illustrate efforts to mitigate the potential social harms of expanded gaming in a state, including mental health issues, relationship concerns, and financial and work problems resulting from problem gambling.[21] As one of the most investigated responsible gaming strategies, self-exclusion programs benefit from a robust body of research conducted around the world.

Generally, the research on the effectiveness of self-exclusion programs concludes that this method is a safe and, for some gamblers, effective form of intervention against problem gambling. As one study suggests, self-exclusion may have similar outcomes to counseling and may reduce harm in the short-term. Additional research has indicated that self-excluded persons also engage in treatment, self-help groups, or other forms of support experience more positive outcome than those who do not. This research suggests that self-exclusion programs that serve as a gateway to treatment are most successful for individuals harmed by problem gambling. Research has also indicated that problem gamblers appear to be more receptive to self-exclusion mitigation strategies when compared to self-led efforts to seek professional help.[22] Ultimately, self-exclusion has

[19] M.G.L., Ch. 23K, § 18(6)
[20] *See e.g.*, Ohio Regulation 3772-12-06.
[21] Nerilee Hing, Barry Tolchard, Elaine Nuske & Louise Holdsworth, *A Process Evaluation of a Self-Exclusion Program: A Qualitative Investigation from the Perspective of Excluders and Non-Excluders*, 12 INTERNATIONAL JOURNAL OF MENTAL HEALTH AND ADDICTION 509, 510 (2014), 10.1007/s11469-014-9482-5.
[22] Hing, *supra* note 5, at 510.

transitioned from a "punitive" enforcement model to one that aims to provide individual assistance in order to connect vulnerable persons with counseling and other support services.

The framework for self-exclusion programs varies from state to state, but many states mandate that patrons have the ability to refuse their right to gamble and to expel them from the premises.[23] In Kansas, for example, the voluntary exclusion statutes require that each self-exclusion applicant "refrain from visiting gaming facilities, pari-mutuel licensee locations, and fair association race meets."[24] Kansas' statutes also enable the gaming commission to "prohibit the applicant from entering the premises of all gaming facilities."

Similarly, Massachusetts enables a person to be placed on a self-exclusion list by "acknowledging that the person is a problem gambler and by agreeing that, during any period of voluntary exclusion, the person shall not collect any winnings or recover any losses."[25] Massachusetts also prohibits gaming establishments from marketing "to persons on any excluded persons list," and requires gaming establishments to deny access to complimentary credits. Ultimately, Massachusetts identifies voluntary self-exclusion as "one means to help address problem gambling behavior or deter an individual with family, religious, or other personal concerns from entering . . . a gaming establishment."[26]

Various challenges interfere with the effectiveness of self-exclusion. First, the number of gambling facilities within a jurisdiction may make the enforcement of self-exclusion impractical; if alternative facilities can be easily accessed, the effectiveness of self-exclusion may be compromised. Notably, statutorily required training may not sufficiently prepare officials responsible for self-exclusion enforcement.[27] The diversity of socioeconomic and psychological conditions among voluntary self-excluders may require responsive enforcement mechanisms. Furthermore, the need to apply for placement on a self-exclusion list within a gaming facility may compromise the integrity of the process, thereby deterring potential self-excluders from participating.

Individual compliance poses another well-documented challenge to the effectiveness of self-exclusion programs. For example, one study determined that more than half of the participants for whom self-exclusion was still in effect had returned to a casino or breached their contracts by the six month follow-up interview. Additionally, a study of self-excluded individuals in Missouri found similar breaches, indicating that the benefits of the program were attributable more to the act of enrollment than to enforcement. This research has led to the frequent conclusion that responsibility for self-exclusion lies with both the gaming industry and the self-excluding individual.

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[23] Regulatory Management Counselors, *Comparative Governance and Regulatory Structure of Gaming Regulations Related to Expanded Legalized Gaming Activities in the Commonwealth of Virginia* (Aug. 5, 2019), at 160 (hereinafter *Comparative Governance Report*).
[24] *Id.* at 161.
[25] *Id.* at 169.
[26] *Id.* at 171.
[27] Hing, *supra* note 5, at 511.

In conclusion, voluntary self-exclusion programs may reduce the urge to gamble and increase the perception of control over personal behavior.[28] While self-exclusion alone cannot substitute for dedicated treatment, it provides an external control mechanism that may limit problem gambling and encourage voluntary excluders to seek professional help.

Tracking Behavioral Characteristics

In an effort to predict the likelihood that a patron will experience harm from gambling and to introduce preventative interventions before the onset of such problems, gaming jurisdictions have implemented systems to track player behavioral characteristics. These behavioral tracking systems are based on algorithms of play. Implementation strategies vary with the form of gaming: whereas in online gaming environments tracking procedures benefit from access to all player transaction information, in brick-and-mortar environments, the strategy is often designed around player tracking systems (e.g., Players Clubs) that depend upon an individual patron's participation.

Research on the effectiveness of tracking frameworks has produced informative findings. Based on analysis of player habits, studies have suggested that efforts to promote responsible gaming should be tailored to each type of gambling offered at a gaming location, rather than adhering to a general mitigation program. By studying behaviors and thoughts patrons use to control the amount they gamble, such as attempts to set a budget or to seek help, research has identified characteristics that could be used to develop prevention and early intervention programs for problem gamblers. Research dedicated to tracking the behavioral characteristics of online gamblers has determined that patrons who engaged in more than two types of gambling within their first month of play, with high variability of wagers, were more likely to benefit from responsible gaming programs.

The study of behavioral characteristics remains a highly-variable task. Given the limitations inherent in the use of personalized player data, there remains a lack of definitive evidence of any behavioral algorithm that can accurately predict patterns of gambling disorder.

Setting Gambling Limits

The ability to set gambling limits, a process also known as pre-commitment, allows gamblers to predetermine the amount of time or money they are permitted to devote to gambling activities before play begins. Depending on the gaming venue or website, spending limits can include deposit, play, loss, win, bet, and time limits.

Research on the effectiveness of pre-determined gambling limits has demonstrated mixed outcomes and has illustrated positive and negative results of this mitigation technique. Studies have indicated that requiring individuals to set such limits may reduce overall money spent on gambling, but evidence is still lacking to suggest that this spending reduction occurred in individuals who were experiencing gambling-related harms, or that gambling-related harm was reduced. Furthermore, research has indicated that voluntary money limit setting was more effective

[28] Robert Ladouceur, Caroline Sylvain & Patrick Gosselin, *Self-Exclusion Program: A Longitudinal Evaluation Study*, 23 J. GAMBLING STUDIES 85, 85 (2007), 10.1007/s10899-006-9032-6.

than time limits in reducing problem gambling behavior. While self-limiting has been found to reduce the variety of games played and the number of bets placed, gambling limits have not been found to reduce the amount wagered per bet. Additionally, research has indicated that pre-commitment may have little effect on decreasing gambling expenditures, especially among those who are intent on continued gambling and who are likely to find methods of circumventing gambling limits.

Finally, the emergence of GameSense, a program that employs in-house responsible gaming information centers or advisors, and other limit-setting programs like PlayMyWay, signal that the future direction of gambling mitigation plans is likely to employ gambling limits. Further research will be required to produce evidence that supports the effectiveness of pre-commitment initiatives.

Responsible Gaming-Oriented Game Features

This harm minimization technique involves the modification to the structure or operation of games to assist patrons in making informed choices about their gambling activity, and to encourage responsible gaming behavior. While research on this mitigation strategy is often focused on the use of warning messages, select studies have explored the use of additional modifications, such as slowing down the rate of play, posting clocks around gambling facilities, and offering "play money" modes.

A threshold study evaluating the effectiveness of five game features (messages, bank meters, clocks, demo mode, and charity donations) found that most participants were aware of at least one feature, but that only a small portion actually utilized the features. Further research concluded that, when compared to warning messages that appear on the periphery of a screen, messages that appear in the middle of a screen are more frequently recalled and considered more useful. Patrons in one study also identified a cash display as helpful to controlling gambling activities.

The research on responsible gaming-oriented game features has provided varying insights on the effectiveness of such features. While evidence confirming the efficacy of responsible game features is mixed, little research has shown that game features reduce gambling-related harm in a real-world setting.

Employee Training

Training of gaming facility employees in responsible gaming is a nearly universal practice. Some states require that this training include instruction on the complex question of how to identify problem gamblers on the gaming floor. Other states provide for in-depth education on the nature and symptoms of problem gambling.[29] With this training, employees of gambling facilities can better serve patrons who may be identified as problem gamblers by providing information about problem gambling programs. Delaware, for example, requires that the rules for state lottery games provide "procedures for the display and presentation of messages concerning responsible gaming and the regulations, procedures and training for identification of and assistance to compulsive gamblers."[30]

While few studies exist that explore the effectiveness of employee training programs, research has determined that there is considerable disparity in employee ability to accurately identify problem gambling behavior among patrons. Studies indicate that employee training can improve employee knowledge of responsible gambling, however, there is limited evidence that this enhanced understanding enables employees to more accurately identify patrons with a gambling disorder.

Additional obstacles to the effectiveness of employee training are found in the difficulty, awkwardness, and uncertainty present in the act of confronting a patron. Studies have indicated that gaming facility employees often experience difficulty when approaching patrons due to uncertain estimations of a patron's potential problems or in an attempt to avoid causing a patron embarrassment.

Ultimately, the spectrum of harm from problem gambling manifests differently from state to state. As a result, the role of employee training may vary with the extent of a state's understanding of the gambling problems its residents face.

Public Health

By understanding gambling and its potential impacts on public health, policymakers and health practitioners alike can work to minimize gambling's negative impacts, while promoting its potential benefits. Today, public health perspectives are not limited to the biological and behavioral dimensions of gambling. Rather, a contemporary public health perspective can also target the social and economic determinants of gambling, such as income, employment, and poverty. Four principles have emerged as the basis for a public health framework on gambling: (1) scientific research is the foundation of public health knowledge, (2) public health knowledge is derived from population-based observations, (3) health initiatives are proactive (i.e., health promotion and prevention are primary, while treatment is secondary), and (4) public health is balanced and considers both the costs and benefits of gambling. This framework can stimulate a

[29] Mississippi employee training: MGC Regs. Title 13, Part 3, Rule 10.6
[30] Delaware employee training: 19 Del. C. § 4805(a)(29).

better understanding of gambling, further elucidate the determinants of problem gambling, and indicate a range of intervention strategies.

Throughout the past decade, publicly-funded problem gambling services have received increased support in the United States. The total number of states that reported publicly-funded problem gambling services increased from 37 in 2010 to 40 in 2016, and the total amount of public funding allocated to problem gambling services increased from $60.6 million in 2013 to $73.0 million in 2016. Among the states that provided funding, the most commonly supported services were problem gambling awareness programs, counselor training, helplines, and problem gambling treatment. Despite the continued growth of problem gambling efforts throughout the United States, in 2016, about one quarter of one percent of people who needed problem gambling treatment received publicly-funded care from a gambling treatment specialist.

Public Education and Informed Choice

Across gaming jurisdictions worldwide, governments and gaming providers have recognized the importance of providing patrons sufficient information to make informed decisions about their gambling. While individuals retain the ultimate responsibility over their gambling choices and level of participation, optimal decision-making depends significantly on the availability of reliable and comprehensive information. This concept of the "informed decision" is pervasive in systems of law and economics and remains an essential component of effective problem gambling mitigation efforts.

Several environmental factors may influence gambling behavior simultaneously, making it difficult to determine the local impact of any one factor. Advertising to promote problem gambling awareness, for example, has attempted to influence gambling behavior and reduce gambling-related harm. Various studies have concluded that the impact of advertising is not likely to be overt, and it may be difficult to measure the impact of advertising efforts to promote problem gambling awareness.

States may require that casinos post signs and/or offer brochures identifying the risks of gambling, signs of gambling disorder, the odds of casino games and/or toll-free phone numbers and other resources for assistance. Common practices among the states include requirements that gambling facilities ensure their advertisements display problem gambling help-line phone numbers. Additionally, some states, like Maryland, require that radio, television, and video advertisements contain a gambling assistance message.[31]

Some states provide regulations that specifically address risk-related advertisements for internet and mobile gaming. Delaware, for example, mandates that internet lottery websites include advertisements for and links to information for treatment, education, and assistance of compulsive

[31] Maryland advertising requirements. COMAR 36.03.06.03(B)(5).

gamblers and their families.[32] Similarly, West Virginia requires online sportsbooks and mobile gambling applications to display links to responsible gaming resources.[33]

Gaming jurisdictions have acknowledged that different messaging approaches may work better for different groups. One Canadian study prospectively detailed the most effective messaging approach for different styles of gaming. For casual gamblers (new and occasional gamblers), programs that enhance gambling literacy, including key safeguards and main risk factors, are essential. Frequent gamblers (i.e., those that gamble at least once per month, but not weekly) need a deeper understanding of how gambling works, including information on house edge, randomness, and independence of events. Finally, the study concluded that intensive gamblers (i.e., those who gamble weekly or more often) need to be informed of their play activity, offered self-assessment tools that draw attention to the consequences of their gaming habits, and made aware of the options available for help in addressing gambling-related problems.

Additional Mitigation Strategies

In addition to the main mitigation techniques discussed above, various jurisdictions also employ additional strategies to promote healthy gambling practices. These strategies include restrictions on alcohol, treatment and research funding, and casino credit restrictions along with bet limits.

Restrictions on Alcohol

Several states require casinos to limit alcoholic beverage service on the gaming floor, or to limit access to gambling services for patrons who are visibly intoxicated. The extent of restrictions on the sale of alcoholic beverages varies across different states. Some states, like Michigan and Kansas do not impose any restriction on alcohol service in gaming facilities. Other states, however, like Massachusetts and Maryland limit the time and place of alcohol sales.

Many states that restrict alcohol service mandate that gambling facilities refuse to sell or serve alcohol to patrons that appear intoxicated, or are younger than 21-years old.[34] Maryland, for example, requires that video lottery licensees prevent intoxicated individuals from playing video lottery or table games and prohibit intoxicated individuals from entering areas where such games are located. Maryland further restricts alcohol service by prohibiting licensed operators from providing complimentary alcoholic beverages.[35]

As a further restriction on alcohol service in gambling facilities, Massachusetts requires gambling facilities to obtain a gaming beverage license in order to serve alcohol on the premises of such a facility.[36] The sale of alcohol must adhere to the conditions of the issued gaming beverage license, which may be imposed on such license "in the interest of the integrity of gaming and/or public

[32] Delaware advertising requirements. 29 Del. C. § 4826.
[33] West Virginia advertising requirements. WV CSR § 179-9-13.4.
[34] *See e.g.*, 4 Del. C § 706; Md. Code Ann., State Govt. Law, § 9-1A-24(c)(1); 205 CMR 136.02.
[35] COMAR 36.03.10.09(A)(2)
[36] M.G.L. Ch. 23K, § 26.

health, welfare, or safety."[37] Massachusetts further requires that gaming licensees promulgate a system of internal controls to monitor the sale of alcohol. At minimum, such a system must include procedures to (1) ensure proper training of employees involved in the service of alcoholic beverages, (2) prevent serving alcoholic beverages to underage or visibly intoxicated individuals, (3) ensure that visibly intoxicated or impaired patrons are not permitted to play slot machines or table games, and (4) ensure that alcohol is properly secured and stored.[38] In addition, Massachusetts prohibits the sale of alcohol between 2:00AM and 4:00AM to patrons who are not in the gaming area and not actively engaged in gambling.[39]

Restrictions on the sale of alcohol play a significant role in the gambling regulations of several states. While the extent of such restrictions may vary, the motivation to promote public health and welfare remains widely relevant.

Treatment and Research Funding

States may implement financial commitments to support treatment for problem gamblers, education services concerning problem gambling, and research to advance responsible gaming and prevent problem gambling. Most states that implement such commitments earmark certain state revenues from gaming for these programs.

Pursuant to advancing public health efforts, Massachusetts assesses an annual fee in proportion to the number of gaming positions at each gaming establishment. This fee is meant to cover the costs of public health services and programs dedicated to addressing problems associated with compulsive gambling.[40] Monies within the Fund may be expended to assist social service programs that address gambling prevention, substance abuse services, and educational campaigns to mitigate the potential addictive nature of gambling.[41] Massachusetts also imposes upon each gaming licensee a requirement to provide on-site space for independent substance abuse, compulsive gambling, and mental health counseling services.[42]

Efforts in other states pursue a more targeted approach, focusing treatment funding specifically on problem gambling, rather than on addictive behavior in general. Kansas, for example, established the Problem Gambling and Addictions Grant Fund to provide assistance for the treatment of "persons diagnosed as suffering from pathological gambling."[43]

The scope of research efforts varies from state to state. Massachusetts has established an annual research agenda to study the social and economic effects of gaming in the State and to obtain

[37] 205 CMR 136.02.
[38] Massachusetts alcohol service restriction: 205 CMR 138.12.
[39] Massachusetts alcohol service restriction: 205 CMR 136.07(7)(i).
[40] Massachusetts research statutes. M.G.L., Ch. 23K, § 56(e).
[41] M.G.L., Ch. 23K, § 58.
[42] M.G.L., Ch. 23K, § 21.
[43] Kansas problem gambling treatment statutes. K.S.A. §79-4805(c)(1).

scientific information relative to neuroscience, psychology, sociology, epidemiology, and etiology of gambling.[44] Similarly, Michigan reserves a significant portion of the monies within its Compulsive Gambling Prevention Fund for, among other things, "research, and evaluation of pathological gamblers and their families."[45]

The majority of states have implemented treatment and research funding provisions to make gaming as healthy for participating individuals, and the environment around them, as possible.

Casino Credit Restrictions and Bet Limits

Some state laws aim to protect patrons from betting more than they can afford to lose by banning casinos from offering credit advances and limiting bet amounts. Methods to limit credit advances include both patron-driven efforts, such as voluntarily placing one's name on a credit exclusion list, and facility efforts, including policies and procedures that limit those patrons to whom a gambling facility may issue credit.

Generally, the procedures established by states aim to ensure that a gaming facility does not extend credit to patrons beyond an amount that those patrons lack a reasonable ability to repay. Regulations may range from broad mandates to gaming operators to exercise caution and good judgment in extending credit[46], to more specific rules that identify groups to whom credit should be limited. As an example of targeted restrictions, Massachusetts requires that a gaming licensee's policies prevent the extension of credit to patrons who self-identify as problem gamblers, place themselves on a voluntary credit suspension list, or are on public assistance.[47]

While the use of credit restrictions as a mitigation tool may vary across states, the desired effect of such restrictions and limitations remains similar. The promotion of safe gambling habits through credit restrictions and bet limits emerges as a primary goal of many states.

[44] Massachusetts research statutes. M.G.L., 23K, § 71.
[45] Michigan problem gambling research statutes. MCL 432.253.
[46] Delaware credit restrictions. 10 Del. Admin. Code 204-6.1.10.
[47] Massachusetts credit restrictions. 205 CMR 138.43(1)(d).

APPENDIX B: CASINOS AND CRIME

The social and community impacts of gaming development have been extensively studied. In many areas research findings have been inconclusive and thus considerable resources continue to be devoted to researching possible negative impacts given the unique nature of gaming compared to other commercial enterprises.

A number of broad studies of the social and economic impact of casinos have been conducted in the United States. In the late 1990s, prompted by the expansion of casinos throughout the United States, mainly in the form of riverboat casinos, Native American casinos, and racetrack slot parlors, Congress set up the National Gambling Impact Study Commission (NGISC). Its findings were released in 1999.

The Commission retained the National Research Council (NRC) to review the existing research on the socio-economic impacts of casino development. The NRC concluded that the existing research on the subject was inadequate:

> The NRC project involved a review of all existing and relevant studies by representatives of a variety of scientific fields. In the end, NRC recommended that further study be initiated. Study of the benefits and costs of gambling "is still in its infancy." Lamenting past studies that utilized "methods so inadequate as to invalidate their conclusions," the absence of "systematic data," the substitution of "assumptions for the missing data," the lack of testing of assumptions, "haphazard" applications of estimations in one study by another, the lack of clear identification of the costs and benefits to be studied, and many other problems, NRC concluded the situation demands a "need for more objective and extensive analysis of the economic impact that gambling has on the economy."[48]

The Commission then retained the National Opinion Research Center (NORC) to undertake said "objective and extensive analysis" concerning impacts. The NORC came to the following conclusion:

> First, the casino effect is not statistically significant for any of the bankruptcy or crime outcome measures…….. This is not to say that there is no casino-related crime or the like; rather, these effects are either small enough as not to be noticeable in the general wash of the statistics, or whatever problems that are created along these lines when a casino is built may be countered by other effects.[49]

Despite the NGISC's authoritative findings, some researchers continue to claim that casinos cause crime.[50] However, there are three major flaws in much of this research:

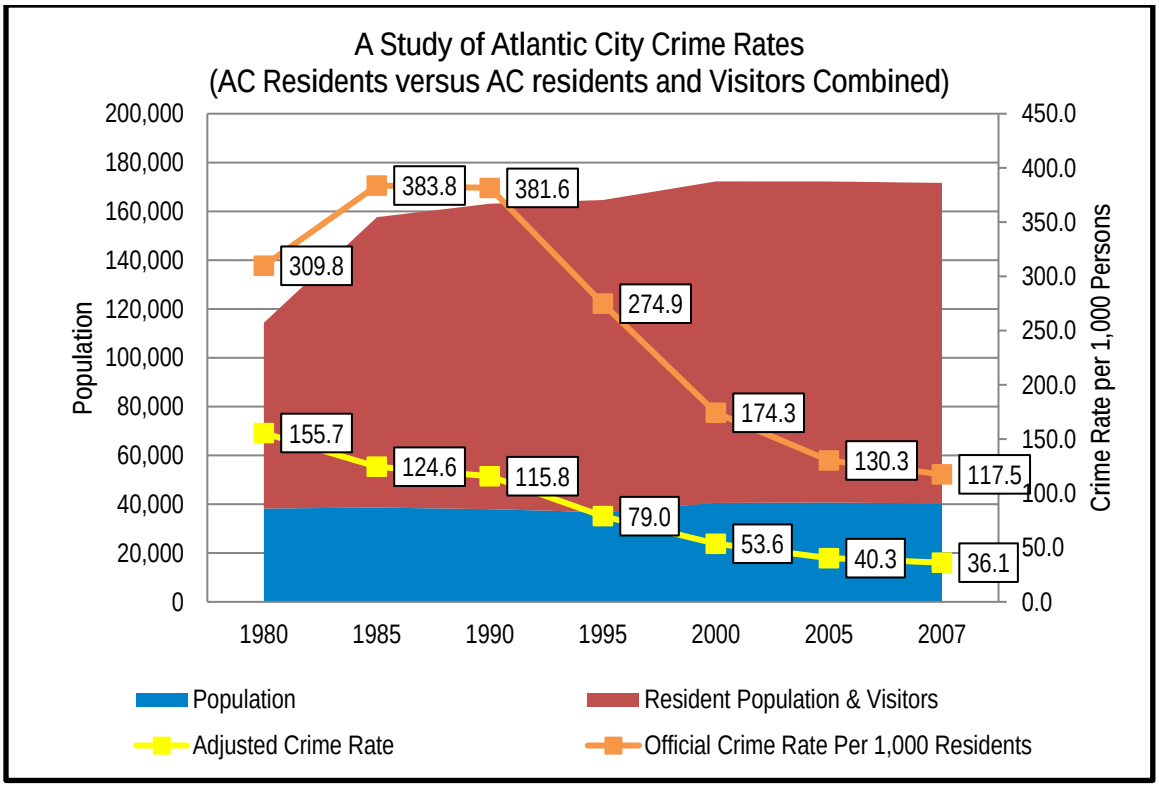
[48] National Gambling Impact Study, Chapter 7. 1999. Gambling's Impact on People and Places.
[49] The National Gambling Impact Study Commission, "National Gambling Impact Study" (1999).
[50] See Grinols and NBER discussion below.

1. Much of the research that attributes an increase in crime to casinos has ignored the temporary population increases brought about by casino visitation. When crime rates are calculated not accounting for the influx of visitors, there appears to be an increase in crime. While this may be true in absolute terms, it radically overestimates the increase in likelihood of residents being victims of crime.
2. Further to #1, some research applies crimes such as on-site thefts of casino visitors to the local population, leading to an invalid increase in the local crime rate.
3. The crimes rates are not studied over a sufficient period of time and therefore temporary increases or long term trends attributable to more primary causal factors are not always recognized or are misinterpreted.

One of the earliest examples of flawed research is related to Atlantic City. The ***number*** of crimes tripled after casinos opened in 1978, and some researchers applied the increase to the local resident population, which in the resulting invalid calculation resulted in a tripling of the crime ***rate***. However, most of the increase related to thefts within the casinos, which did not impact the local population. A valid calculation of the crime rate has to include the visitation base.

In fact, there has been a ***decreased*** chance of being a victim of crime since casinos were developed in Atlantic City. Factors likely include an increase in casino employment and law enforcement resources, safer infrastructure with well-lit garages, and an increase in general tourism activity. According to more recent data supplemented to the study completed by Margolis et al, [51] this decline in crime rates per 1,000 residents continued through 2007 to a rate of 36.1 per thousand residents. The chart below illustrates the crime rate trends from 1980 to 2007.

[51] Margolis, J. & Altheimer & Gray. (December 1997). "Casinos and crime: An analysis of the evidence." American Gaming Association. http://www.americangaming.org/assets/files/studies/Crime.pdf . The Innovation Group.



The Rappaport Institute for Greater Boston and the John F. Kennedy School of Economics at Harvard University (Baxandall and Sacerdote 2005) in a national, county-level study of Native American casinos found a slight decrease in crime rates after casinos opened. The analysis included all California casinos in existence in the 1990s. From their total sample of 156 casino counties, the Rappaport study isolated out 57 counties with large casinos and relatively low population and nine counties with both large casinos and large populations to see if there were statistical differences in terms of community impacts. The following table shows their results:

Table 71: Rappaport Study Results

	All Casino-Counties[1]	Counties with Large-Capacity Casinos[2]	Populous Casino Counties[3]
Population Growth (%)	+5*	8.6	+8.1*
Total Employment (%)	+6.7*	+14.9*	5.7
Unemployment (%)	-0.3	-1.2*	0.5
House Prices	$5,869	$8,924	$7,083
Crime (Per 1,000 People)	-3	-6	-1

*Statistically significant results at 99% confidence interval.
1. Reports how adjusted outcomes in 156 counties that introduced Indian-run casinos during the 1990s differed from the other 2,959 that did not.
2. The effect for 21 counties in the top 10th percentile in terms of number of slot machines (over 1,760).
3. The effect for the 57 casino counties in the top population quartile (over 55,000 residents).

The Rappaport study concluded:

> Our analysis shows that while total crime can be expected to increase when casinos open, the increase is due to increased population, not to a casino-created crime wave. Looking at FBI indexed crimes per resident in all [156] counties; we find that introducing a casino is associated with a decrease of 3 reported crimes per 1,000 people. The introduction of a casino, however, had no statistically significant effect on per-capita crime rates in either large-population casino counties or in large-casino counties. The per-capita crime rate in the 9 large-population counties that also hosted large-capacity casinos dropped 9 crimes per 1,000 residents, however.[52]

It is worth noting that the study included two of the largest casinos in the world, Foxwoods and Mohegan Sun. In Ledyard, Connecticut (which hosts the Foxwoods casino), crimes outside the casino increased from 214 in 1991 to 364 in 1998, but in subsequent years, State Police data show that off-casino crimes in Ledyard fell below pre-casino levels. In Montville, Connecticut (host to Mohegan Sun), as with Ledyard, the number of crimes reported "remained relatively constant," which the authors conclude is "surprising since the sheer increase in activity around these towns might have led to greater crime."[53]

The study also highlighted results for three counties in southern California: Riverside, San Bernardino, and San Diego. In all three counties, crime decreased relative to the state average. For example, before casino development, Riverside County suffered 22 more crimes per 1,000 residents than the state average. After casino development, the county had just 6 more crimes per 1,000 residents than the state average, a relative decrease of 16 crimes per thousand residents. San Bernardino had a relative decrease of 10 crimes per thousand, and San Diego 9.

Table 72: Rappaport Study California County Results for Crime

	Relative Crime (Before)	Relative Crime (After)	Change in Relative Crime (After - Before)
Riverside, CA	0.022	0.006	-0.016
San Bernardino, CA	0.016	0.006	-0.01
San Diego, CA	0.008	-0.001	-0.009

[52] IBID. As summarized in their 2008 report, "Betting on the Future: The Economic Impact of Legalized Gambling."

53 Baxandall, P. & B. Sacerdote (January 2005). *The Casino Gamble in Massachusetts: Full Report and Appendices*. Rappaport Institute for Greater Boston, John F. Kennedy School of Economics, Harvard University. Page 14.

In other western jurisdictions, the Montana legislature in 1997 commissioned a study on the video gaming industry. The resulting analysis found no impact on crime rates in Montana:

> While gambling may have caused an increase of certain types of crime, Montana's overall crime rate increase is not any higher than the increases in matched cities with little or no legal gambling. In fact, in almost three-quarters of the specific comparisons carried out, crime rates rose more (or decreased less) in the matched cities than in the Montana cities.
>
> Each of the seven largest Montana cities was matched with an out-of-state city in the region with similar population size, similar population growth rate, similar racial composition, but with little or no legal gambling. The percentage change in crime rates for three indices of crime (total serious crime, property crime, and violent crime) was computed for three time periods… between 1984 and 1994. [The data] illustrate the lack of a systematic pattern in crime rate changes between Montana cities and those in states with little or no gambling. For example, the violent crime rate grew faster in Cheyenne, Wyo., than in Great Falls between 1984 and 1994, yet the index of property crime decreased in Cheyenne while it increased in Great Falls during the same period.[54]

In summary, there is no evidence from gross level data that the advent of casinos has a measurable impact on local crime rates in general, whether in Eastern, Midwestern, or Western jurisdictions. It is highly likely any crimes associated with casinos are either offset by economic benefits or that the level of crime is so small as to be overwhelmed by other factors such as economic trends.

Primary Research from Select Casino Jurisdictions

The figures from the casinos used in the Comparative Analysis Criminal Incidents section, provide a general picture of criminal activity at a casino. Other communities have found lower and higher levels of incidents. For example, figures from the Kenner Police Department note an average of 9 criminal incidents at the Treasure Chest Casino from 2012 to 2014. Attendance at the Treasure Chest Casino in Kenner is over one million annually.

A recent article in The Enterprise provided additional qualitative data from the casinos in this analysis. An officer from the Pittsburgh Police department compared the number of calls to games at the local baseball and football stadiums, "Nothing different than when there's a ball game," Luczak said. "I wouldn't say there's much change."[55]

Des Plaines Police Deputy Chief Nick Treantafeles had similar sentiments, "It's just like any place that serves alcohol," he said. "You get drunk and disorderly, but their security handles 98 percent of the issues there. We might get called for a fight that gets out of hand. ... It hasn't put a damper on the services we offer the rest of the community."[56]

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[54] Montana Gambling Commission Study, 1998, Chapter 8.
[55] http://www.enterprisenews.com/article/20150517/NEWS/150516955/12741/NEWS/?Start=1
[56] http://www.enterprisenews.com/article/20150517/NEWS/150516955/12741/NEWS/?Start=1

While specific increase in police staffing varies from community to community, many communities found no need to increase police staffing, as shown below in the examples from Indiana. The Center for Urban Policy and the Environment at Indiana University-Purdue University has prepared 5-year evaluations of riverboat licensees for the Indiana Gaming Commission which contain sections on community impacts. The following bullet points include summaries and excerpts from these reports with respect to police and fire protection.

Casino Aztar:

- The Evansville Police Department reports no increases in crime since the riverboat opening. They do report a drop in crime in 1999 when compared to the previous year.
- "No new police officers or firefighters were added. Traffic control has not been a problem..."

Majestic Star:

- The community purchased 12 police cars with Year 1 incentive payments.
- Gary's Chief of Police reports no additional criminal activity surrounding the riverboat.

Horseshoe Hammond (formerly Empress Casino Hammond):

- The Hammond Police Department reports crime has fallen in most categories when compared to before the boat opened.

Hollywood (formerly Argosy):

- According to the Lawrenceburg Police Department, casino-related arrests for public intoxication, DWI, and minor theft, as well as traffic accidents in the area have increased slightly each year from 1997 to 2000.
- Lawrenceburg has added two police officers since the boat opened to deal with the increased caseload.

Ameristar (formerly Harrah's East Chicago):

- According to East Chicago's police department, no additional criminal activity can be attributed to the riverboat's presence.
- "Crime in East Chicago has decreased substantially over this time period due to increased cooperation with federal agencies, community policing and increased staffing."

Blue Chip Casino:

- According to Michigan City's chief of police, no additional criminal activity can be attributed to Blue Chip's presence.

On the issue of crime, Jeremy Margolis, who had served as Assistant U.S. Attorney in Chicago, Illinois Inspector General, and Director of the Illinois State Police, found in a 1997 study[57] that the chance of being victim of a crime decreases after casino development. Factors include an increase in employment brought by casinos, increased law enforcement resources, safer infrastructure with well-lit garages, and an increase in general tourism activity.

In testimony before the Pennsylvania Gaming Control Board (PGCB) in 2006, Margolis was asked to give an update of his seminal study. Margolis concluded, based on examining updated crime data from the F.B.I. as well as interviews with the Executive Director of the Illinois Crime Commission, the Illinois State Police, and the Illinois Gaming Board, that the situation is "really unchanged except for the maturation of the industry, the maturation of the regulatory process has probably settled things down more than it had settled when I completed my study in 1997. It's just not an issue."[58]

[57] Margolis, J. (December 1997). "Casinos and crime: An analysis of the evidence." American Gaming Association.
[58] PGCG hearing transcript, September 7, 2006, pages 22-23.

APPENDIX C: IMPACT ON LOCAL BUSINESS

Research Results

There is a substantial body of research and case studies demonstrating the impacts that casinos have on surrounding local businesses. There are several important reasons that local businesses benefit from the development of a casino:

- Casino visitors stopping at local retail outlets and restaurants.
- Long-distance patrons staying at area hotels; even in markets with casino hotels, non-casino hotels enjoy boosts in occupancy.
- Casino expenditures on local goods and services put more money into the local economy.

A review of studies of casino impacts on local business shows that casinos can stimulate local economies, resulting in communitywide growth, including in the local food and beverage business and retail businesses. There is little evidence of significant economic substitution after the introduction of new casinos, particularly for casinos in urban areas.

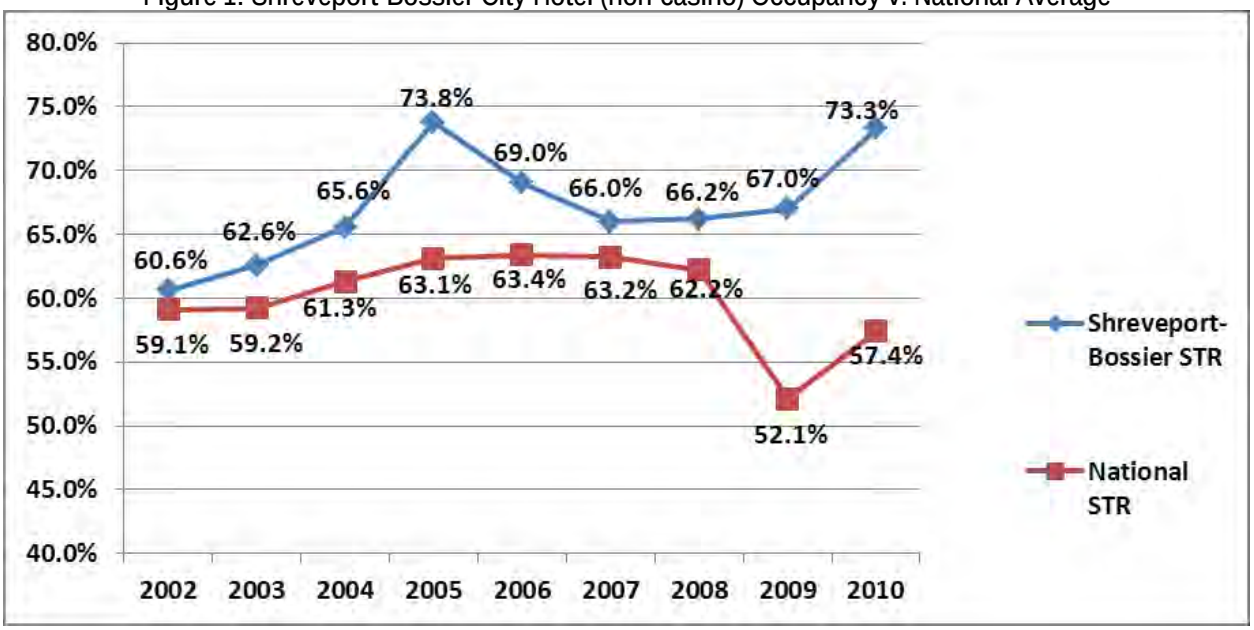
Primary Research

Casino development increases room demand at non-casino hotels even when casino hotels are built. For example, in Shreveport-Bossier City, Louisiana, hotel occupancy rates averaged approximately 60% before casinos were developed beginning in 1994, which is a standard level of occupancy for a small city market without casinos. The Shreveport-Bossier City casino industry was fully developed by 2003 with six casinos featuring 9,500 gaming positions, by which time hotel occupancy in non-casino hotels had risen to 63%, climbing to 74% by 2005.[59]

The casino industry also helped non-casino hotels in Shreveport-Bossier City weather the impacts of the Great Recession much better than the national hotel market, with hotel occupancy dropping to no lower than 66% compared to the national trough of 52%.

[59] Shreveport-Bossier Convention and Tourism Bureau 2011 Lodging Report.

Figure 1: Shreveport-Bossier City Hotel (non-casino) Occupancy v. National Average



Source: Shreveport-Bossier Convention and Tourism Bureau 2011 Lodging Report; Smith Travel Research

Such a boost to non-casino hotel demand results from the overall increased visitation to the area and the overflow from peak periods when casino hotels are fully booked. On the Mississippi Gulf Coast, gaming began in late 1992 and by the early 2000's there were 11 casinos, all but one of which had associated hotels. During this period, occupancy rates in non-casino hotels remained steady at 55% despite a 143% increase in total rooms, including a 60% increase in non-casino hotel rooms.[60]

The overflow effect has been experienced in numerous jurisdictions beyond the Mississippi and Shreveport examples presented above. In fact, third-party developers frequently build new hotels in the vicinity of a casino to take advantage of that overflow, even in remote areas with no other organic sources of demand. For example, an Americas Best Value Inn, a Best Western and a Days Inn were developed next to the Coushatta Casino Resort in Kinder, Louisiana even though the remote casino property has over 950 rooms of its own.

Gaming development on the Mississippi Gulf Coast also boosted retail and restaurant development by local business owners taking advantage of the increased visitation to the area. As the following table shows, between 1991 and 1997 the number of retail and eating and drinking establishments increased in the two counties that host casinos. The increases were an astounding 77 percent for drinking and dining establishments in Hancock County while retail establishments in both counties also increased over this period.

[60] Source: Mississippi Gaming Commission.

Table 73: Change in Retail and Eating and Drinking Establishments 1991-1997

County	Retail	Eating and drinking places
Harrison County, MS	14.7%	4.2%
Hancock County, MS	6.6%	77.1%

Source: US Census County Business Patterns

On the West Coast, three separate data sources indicate that substantial hotel development at tribal casinos on the outskirts of San Diego (and not within the City) has not negatively impacted local hotels. The Transient Occupancy Tax (TOT) collected by the City of San Diego has grown substantially since recovering from the 2009-10 recession effects, despite the operation of several large rural casino hotels, including an 1,100-room hotel at Harrah's Rincon, that do not pay the TOT.

Table 74: City of San Diego, CA Transient Occupancy Tax Collections (MMs)

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
$160.24	$136.32	$128.11	$139.77	$150.82	$157.03	$170.17	$186.24	$202.80	$221.10

Source: San Diego Tourism Authority

While some of the TOT increase may be related to collection of the TOT at AirBnBs beginning in 2015, hotel occupancy data—which do not include AirBnBs—also increased in the three years from 2014 to 2016. HVS reports that hotel demand and occupancy in the San Diego market "increased steadily from 2010 through 2018, resulting in peak occupancy levels above 78% by year-end 2018." RevPAR (revenue per available room, a measure of hotel performance) has also seen steady increases since the recession, rising above $130 for the first time in 2018.[61]

This HVS report is corroborated by STR data for the San Diego market, data that excludes casino properties, as shown in the following table.

[61] http://hvi.hvs.com/market/united-states/San_Diego; accessed June 2, 2022.

Table 75: San Diego pre-Covid Hotel Trends

	Occupancy %	RevPAR $	Room Revenue ($MMs)
2012	73.3	100.27	1,377
2013	74.0	103.22	1,414
2014	76.6	112.00	1,534
2015	78.5	122.23	1,674
2016	79.3	126.62	1,768
2017	79.2	130.47	1,844
2018	80.9	138.44	1,951
2019	78.7	134.84	1,937

Source: STR; The Innovation Group

Secondary Research

Casino development sometimes elicits concern, which research has dispelled, that substitution of consumer spending (the substitution effect) will impact local businesses, especially smaller "mom and pop" retail, restaurant and entertainment businesses. This argument has its origins in long-ago controversies regarding Atlantic City. Clyde Barrow, Director for the Center of Policy Analysis at the University of Massachusetts Dartmouth, traces the Atlantic City "myth" to a misinformation campaign by the Atlantic City Restaurant and Tavern Association "to win more concessions for its members from the city's casino hotels."[62]

Research by Kathryn Hashimoto and George Fenich found that contrary to a negative impact, casinos in Atlantic City actually reversed a downward trend:

> The number of eating and drinking establishments in Atlantic County was actually declining in the years *prior* to the opening of the first casinos. However, this decline was actually reversed after the first casinos opened, when the number of non-casino eating and drinking places increased from 415 in 1978 to 569 in 1994 (37 percent). Moreover, in the 11 years since the Hashimoto and Fenich study, the number of non-casino eating and drinking places in Atlantic County has continued to increase to 625 (9.8 percent) in 2004 with 9,020 employees (36 percent).[63]

In a review of available literature, the research division of the Federal Reserve Bank of St. Louis concluded in a 2003 report that the results are "mixed" regarding the impacts of casinos on other local businesses. The report references one study that "found that the growth in retail sales tax collections from various industries slowed after the introduction of casino gambling." However,

[62] Barrow, Clyde and Mathew Hirshy. "The Persistence of Pseudo-Facts in the U.S. Casino Debate: The Case of Massachusetts" Gaming Law Review and Economics Volume 12, Number 4, 2008.
[63] Ibid.

another referenced study from Indiana showed that casino development retained spending by patrons "who would have, without the casino, spent their money outside of the local area."[64]

Furthermore, there is substantial economic research from throughout the country contradicting the substitution effect. Hashimoto and Fenich's 1997 research shows that "in jurisdictions from the seashore to the riverfront to rural areas, north and south, east and west, local restaurants tended to thrive after a casino opened nearby." Furthermore, Hashimoto and Fenich conclude: "When casinos are developed, all aspects of the local food and beverage business increase: the number of establishments increases, the number of people employed increases and payroll increases at an even greater rate than the first two."[65]

Research conducted in 1996 by Nancy Reeves and Associates for the Mille Lacs Band of Ojibwe, entitled "The Economic Impact of Grand Casino Mille Lacs and Grand Casino Hinckley on Their Surrounding Areas" concluded that:

> At least 15 businesses have either opened, expanded, or re-opened since the opening of Grand Casino Mille Lacs. Included are 4 hotels/motels and resorts, 8 restaurants and fast food establishments, 2 gas stations and a go-kart track. Together, these businesses have added an estimated 142 jobs in the area.
>
> With the opening of Grand Casino Hinckley in 1992, the hospitality business in Hinckley was transformed from a rest stop for travelers to a tourist destination. In addition to the casino complex, with its 1,275 jobs, Hinckley has added 11 new businesses and expanded 4 more since 1992, adding 87 new jobs. As is the case in the Mille Lacs area, Hinckley is now a year round destination because of the casino. Also similar to the Mille Lacs situation, the main street businesses in Hinckley have seen increases in customer spending attributed primarily to casino employees living in the area.

The Center for Policy Analysis University of Massachusetts Dartmouth came to similar conclusions analyzing a number of gaming jurisdictions throughout the country. The number of restaurants and retail sales excluding those from casinos increased in Bossier City, Louisiana; Biloxi/Gulfport, Mississippi; Connecticut; Gilpin County, Colorado, and; Tunica County, Mississippi.

> There was a net increase of eight restaurants in Bossier City, Louisiana following the introduction of riverboat casinos. The city's taxable restaurant sales, excluding restaurants in the hotels and casinos, increased by 5 percent in 1994 and by 7 percent in 1995 *after* the introduction of riverboat casinos. In Biloxi/Gulfport, Mississippi, the rate of non-casino

[64] Thomas A. Garrett, Senior Economist, Federal Reserve Bank of St. Louis, *Casino Gambling in America and Its Economic Impacts,* August 2003.

[65] George Fenich and Kathryn Hashimoto, "The Effects of Casinos on Local Restaurant Business," paper presented at the International Conference on Gambling and Risk-Taking, Montreal, 1997.

> retail sales growth increased from an average of 3 percent annually (1990-1992) in the years prior to riverboat gambling to 12 percent annually in the years after riverboat gaming began in the locality.
>
> …the number of restaurants in the area surrounding Foxwoods and Mohegan Sun increased from 472 to 506 following the casino's opening, while restaurant employment increased from 5,911 to 6,628 during the same period.… In Gilpin County Colorado, the number of restaurants increased from 31 to 40 after the introduction of casino gaming. In Tunica County, Mississippi, the number of restaurants increased by 13 percent and restaurant employment grew by 9 percent after the introduction of casino gaming in the county.[66]

Similar conclusions have been reached in other studies:

- Even after accounting for substitution effect, economists at the University of Missouri and Washington University concluded that casino gambling in Missouri had a net positive annual impact on Missouri output of $759 million, corresponding to a continuing higher level of employment of 17,932 jobs generating $508 million more in personal income.[67]
- A multijurisdictional analysis of retail spending found that in Biloxi/Gulfport, Miss., annual retail sales growth rates increased an average of 3 percent per year from 1990 to 1992, the year when casinos were introduced. Between 1993 and 1995, retail sales jumped 13 percent. In Will County, Ill., retail sales growth trailed statewide trends until 1992, when riverboat casinos were introduced in the local economy. But each year between 1992 and 1995, retail sales growth in Will County exceeded the state rate. In Shreveport/Bossier City, La., retail sales increased by more than 10 percent during 1994, the year that riverboat casinos opened, as the region enjoyed the highest retail sales increase in more than a decade.[68]

In summary, there is a wealth of evidence contradicting the proposition that gaming substitutes for other expenditures. The positive spillover effect on local hotels for one is unequivocally demonstrated in numerous jurisdictions, even in markets where casinos operate hotels for their gaming customers.

---

[66] Ibid.

[67] Charles Leven et al., "Casino Gambling and State Economic Development," paper presented at the Regional Science Association, 37th European Congress, Rome, Aug. 26-29, 1997.

[68] Arthur Andersen, *Economic Impacts of Casino Gaming in the United States, Volume 2: Micro Study* (Washington, D.C.: American Gaming Association, May 1997).

DISCLAIMER

Certain information included in this report contains forward-looking estimates, projections and/or statements. The Innovation Group has based these projections, estimates and/or statements on our current expectations about future events. These forward-looking items include statements that reflect our existing beliefs and knowledge regarding the operating environment, existing trends, existing plans, objectives, goals, expectations, anticipations, results of operations, future performance and business plans.

Further, statements that include the words "may," "could," "should," "would," "believe," "expect," "anticipate," "estimate," "intend," "plan," "project," or other words or expressions of similar meaning have been utilized. These statements reflect our judgment on the date they are made and we undertake no duty to update such statements in the future.

Although we believe that the expectations in these reports are reasonable, any or all of the estimates or projections in this report may prove to be incorrect. To the extent possible, we have attempted to verify and confirm estimates and assumptions used in this analysis. However, some assumptions inevitably will not materialize as a result of inaccurate assumptions or as a consequence of known or unknown risks and uncertainties and unanticipated events and circumstances, which may occur. Consequently, actual results achieved during the period covered by our analysis will vary from our estimates and the variations may be material. As such, The Innovation Group accepts no liability in relation to the estimates provided herein.

Appendix B2

Prairie Island Indian Community Optional Secondary Gaming Facility Competitive Effects Analysis

Prairie Island Indian Community
Optional Secondary Gaming Facility
Competitive Effects Analysis

Elk Run - Pine Island, Minnesota

Prepared for:

Prairie Island Indian Community

March 2024

Prepared by:

The Innovation Group
9200 East Mineral Avenue
Suite 100
Centennial, CO 80112
303.798.7711
www.theinnovationgroup.com

Optional Secondary Gaming Facility Competitive Effects Analysis

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List of Tables

INTRODUCTION

Prairie Island Indian Community ("PIIC" or "Client") commissioned The Innovation Group for an analysis of potential competitive effects of an optional future gaming facility in Pine Island, Minnesota, secondary to PIIC's existing Treasure Island Resort & Casino (Casino) and after the 6-year Forbearance Period if the Community determines additional income and employment opportunities are needed to support the Tribal population. Although specific plans have not yet been developed, after the 6-year Forbearance Period following the acquisition of the Project Site in trust, the Community may consider renovating the barn structure within the Project Site for the permanent operation of the secondary gaming facility to serve as an employment center and economic engine for the Community. This optional future satellite gaming facility is anticipated to be identical to the proposed emergency gaming facility described in the "Prairie Island Indian Community Emergency Casino Socioeconomic Analysis" prepared by The Innovation Group.

In terms of potential socioeconomic impacts of the Optional Secondary Gaming Facility outside of the competitive effects detailed herein, we expect impacts to generally be similar in nature to those summarized in the "Prairie Island Indian Community Emergency Casino Socioeconomic Analysis" prepared by The Innovation Group. We expect employment impacts to be in-line with those outlined in the emergency gaming facility analysis due to the consistent facility sizing and gaming machine offering. We note however, that value added and output economic impacts will be lower than those estimated for the emergency gaming facility analysis due to lower visitation and revenue for the Optional Secondary Gaming Facility. These lower potential economic benefits will be at least partially offset by lower incremental municipal costs related to police and fire calls due to the lower projected visitation for Optional Secondary Gaming Facility.

Assuming the Project Site is acquired in trust in 2025, operation of the Optional Secondary Gaming Facility may occur 6 years later, or as early as 2031. It is assumed that the Optional Secondary Gaming Facility would occur simultaneously with ongoing operations of the existing Casino.

COMPETITIVE EFFECTS ANALYSIS

Gaming substitution effects could arise from development of the Optional Secondary Gaming Facility's potential impact on other casinos in the region. We note that two card rooms are also present in the Minnesota market; however, given their locations and the fact that the Optional Secondary Gaming Facility will offer slot machine gaming only, we believe the Optional Secondary Gaming Facility will have an immaterial impact to card room revenues.

Impacts on Other Tribal Casinos

Based on the results of the gravity model analysis—that is, comparing the Optional Secondary Gaming Facility forecast model to the future baseline—The Innovation Group has estimated the impact the Optional Secondary Gaming Facility would have on other tribal casinos within the two-hour market area. Casinos outside the two-hour drivetime area are not estimated to be significantly affected. The table below summarizes the anticipated decline in revenues at the nearest competitive facilities, based on the gravity model comparing the two forecast model results to the future baseline. The largest impacts would generally be experienced by would generally be experienced by the nearest casinos, including the Treasure Island Resort & Casino, which is owned and operated by PIIC, and the Diamond Jo Worth Casino.

Table 1: Substitution Effect on Regional Competitors 2031

	% Gaming Revenue Impact
Tribal Gaming	
Treasure Island	-7.6%
Mystic Lake Casino	-1.9%
Little Six Casino	-1.2%
Canterbury Park	-0.7%
Running Aces	-0.3%
HCG Tomah	-4.6%
St. Croix Turtle Lake	-1.2%
Grand Casino Hinckley	-0.8%
HCG Black River Falls	-6.5%
Commercial Gaming	
Diamond Jo Worth	-12.8%

Source: The Innovation Group

These impacts are estimated through the gravity model only and without the benefit of private data of the competitors (with the exception of the Treasure Island Resort & Casino). Casinos typically generate revenue from dedicated and incidental customers from out-of-market gaming demand; these are visits driven by reasons other than proximity of permanent residence, such as tourism, traffic intercept, and variety of gaming experience. The Optional Secondary Gaming Facility would not be expected to affect out-of-market revenue at competitors. As such, the percentage impacts above are believed to be an overestimate, since the gravity model does not represent total gaming revenue. This is especially significant regarding the impact on Diamond Jo Worth, which we expect receives approximately half of its revenue from its local market including Mason City, which Elk Run is not expected to impact. Therefore, the 12.8% impact is forecast for only the revenue Diamond Jo Worth receives from the Rochester area.

Furthermore, it should be noted that these substitution effects are "but-for" effects, not year-over-year effects. In other words, they are 2031 revenue forecasts measured against a 2031 baseline assuming the satellite casino does not open. On a year-over-year basis (i.e., 2030 compared to 2031), the declines would be lower since a year's worth of organic growth from population and income growth would occur. The impacts would be expected to occur within the first 12 months of operation of the Optional Secondary Gaming Facility, after which time organic growth at the existing market casinos would be expected to resume.

DISCLAIMER

Certain information included in this report contains forward-looking estimates, projections and/or statements. The Innovation Group has based these projections, estimates and/or statements on our current expectations about future events. These forward-looking items include statements that reflect our existing beliefs and knowledge regarding the operating environment, existing trends, existing plans, objectives, goals, expectations, anticipations, results of operations, future performance and business plans.

Further, statements that include the words "may," "could," "should," "would," "believe," "expect," "anticipate," "estimate," "intend," "plan," "project," or other words or expressions of similar meaning have been utilized. These statements reflect our judgment on the date they are made and we undertake no duty to update such statements in the future.

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Appendix C

Grading and Drainage Study

REHDER
& ASSOCIATES, INC.
Civil Engineers & Land Surveyors

GRADING AND DRAINAGE STUDY

FOR

Prairie Island Indian Community Emergency Gaming and Fee-to-trust Project

2137 White Pines Road SE
Pine Island, MN 55963

11-10-23

TABLE OF CONTENTS:

I. Project Introduction

The proposed project is the renovation of an existing building into a single story casino and construction of a parking lot located at 2137 White Pines Road SE in Pine Island, MN. The Gaming Fee-to-Trust Property consists of 420 acres with a proposed project area of approximately 11.7 acres (See Appendix A).

II. Existing Conditions

The existing project area (11.7 acres) consists of an abandoned elk ranch. The elk ranch is made up of an office, 2 steel pole barn buildings, the foundations for 2 or 3 buildings that had been previously removed and a fair amount of concrete and bituminous pavement. The existing impervious area within the project area is approximately 7.6 acres. Soils information for the site was taken from the USDA Web Soil Survey and found to consist of sandy loams and loams (Hydrologic Soil Group Type 'B'). Sandy loam and loam has a mix of sand, silt, and clay that is usually well-suited for a building foundation. Loam is generally considered an excellent soil type for construction. The existing project area does not have any stormwater infrastructure and a majority of the site surface drains to the east/southeast and eventually south towards State Highway 52. There is also a small area that drains west towards the ditch along White Pines Road SE and eventually south towards State Highway 52.

III. Grading Analysis

A topographic survey of the site has not been prepared and thus the existing topography provided on the plan was taken from 2' lidar contour data acquired from the Minnesota DNR Arc GIS Lidar Database. Then utilizing a building and site parking plan prepared by RSP Architects (See Appendix B), a schematic grading plan was developed for the site (See Appendix C). The site drains away from the renovated building in all directions with the entire proposed parking lot draining to the southeast where the runoff will be captured by a series of catch basins and then piped to a proposed infiltration basin east of the parking lot. The finished floor elevation is approximately 17.5' above the 100-yr high water level of the proposed infiltration basin and there is no FEMA flood plain within the project area and thus the project will not change the FEMA flood plain delineation.

An earthwork analysis utilizing Civil 3D software was calculated comparing the existing lidar contour data compared to the proposed contours provided in the schematic grading plan including a fill factor of 1.2.

The overall cut and fill quantities are as follows:

Cut = 7,200 CY
Fill = 59,300 CY
Estimated volume of engineered fill required (Assume 1' under building) = 820 C.Y.

Note: The earthwork quantities include the construction of the storm water basin.

It appears the need for fill is due to the existing large elk grain basins on the site requiring a fair amount of material to be brought up to the proposed grade. Given the good soil conditions in the area, the fill material could be borrowed elsewhere on the 420 acre site as opposed to importing material from off-site. See Exhibit D for a borrow area that could provide approximately 52,000 CY. Removing material from the borrow area would not affect the storm water runoff from the site.

IV. Stormwater Analysis

Existing Conditions
The existing project area is an abandoned farm/ranch with approximately 7.6 acres of impervious area. A majority of the site surface drains to the east/southeast and eventually south towards State Highway 52. There is also a small area that drains west towards the ditch along White Pines Road SE and eventually south towards State Highway 52.

Proposed Conditions
The proposed project will remove the existing buildings, foundations, and pavements with only the existing office and adjacent building to remain. The post construction impervious area will be approximately 5.4 acres which is a reduction of approximately 2.2 acres compared to the existing conditions. The renovated building and parking lot drain to the southeast and into a series of catch basins that will provide pre-treatment with a sump structure and skimmer before being piped to a proposed infiltration basin east of the parking lot.

Requirements
When the land goes into trust, only tribal and EPA requirements related to stormwater will apply. However, the proposed facilities have also been designed consistent with state and local requirements as follows:

(MPCA General Stormwater Permit, Olmsted County, New Haven Township)

- Volume control for 1.1-inch of runoff from the new and reconstructed impervious areas.
- Water quality to meet 60% phosphorous (TP) and 90% total suspended solids (TSS) removal.
- Rate control matching the pre-project rates for the 2, 10 and 100-year events.

Stormwater Management

To meet the stormwater requirements an infiltration basin was proposed to provide volume control, treatment, and rate control.

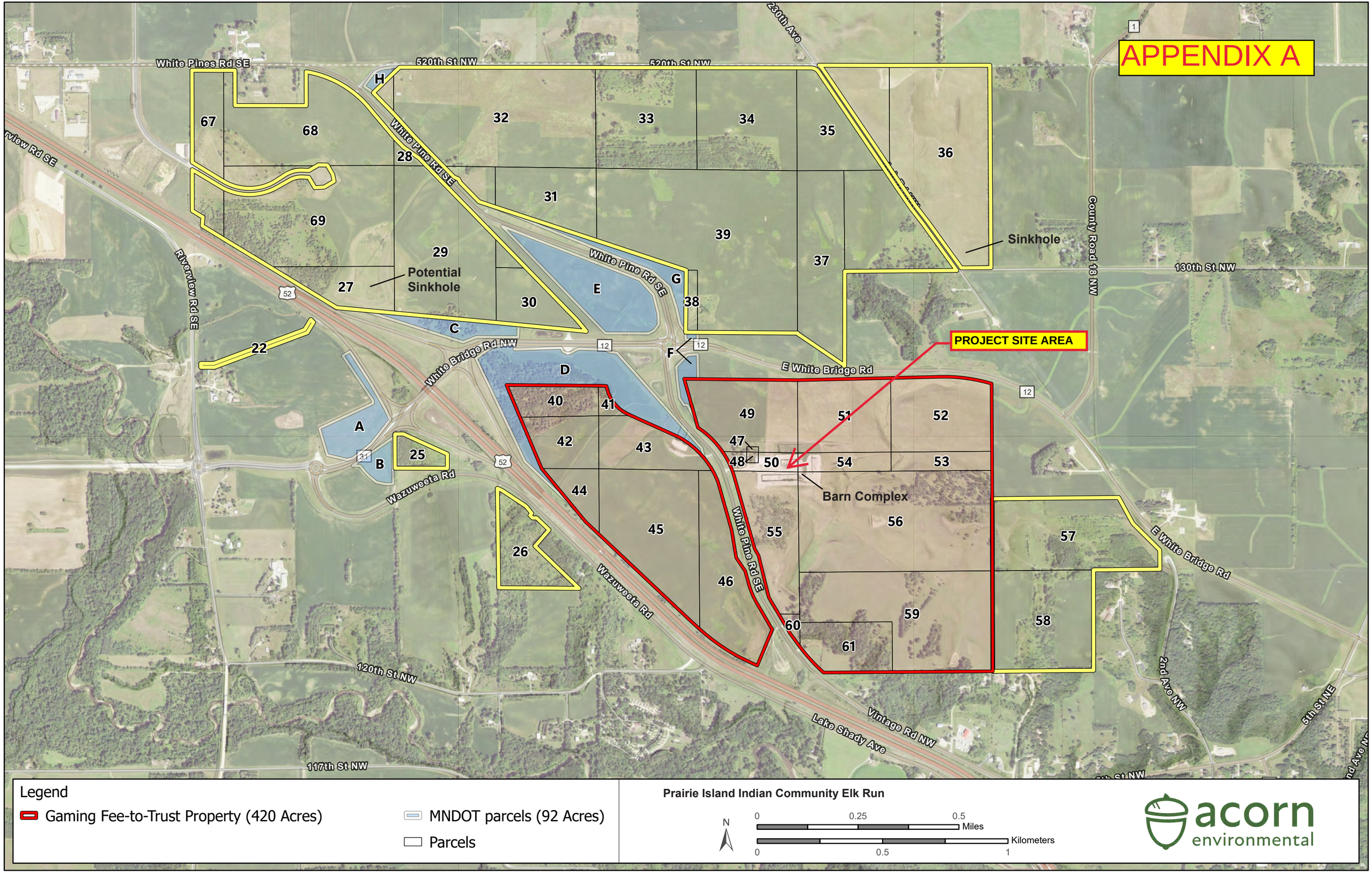
Pre-treatment for the basin will be provided by a sump manhole structure with "THE PRESERVER" device installed. "THE PRESERVER" is a device that is installed within a sump manhole that provides skimming and energy dissipation for the runoff running through the structure. A storm water pollution prevention plan (SWPPP) will be prepared to EPA standards to address storm water runoff impacts.

Project Peak Flows:

The estimated pre-project peak 100-yr flow = 83.4 CFS
The estimated post-project peak 100-yr flow = 64.7 CFS

See Appendix E for the full stormwater report.

APPENDIX A



Legend

- Gaming Fee-to-Trust Property (420 Acres)
- MNDOT parcels (92 Acres)
- Parcels

Prairie Island Indian Community Elk Run

N

0 0.25 0.5 Miles

0 0.5 1 Kilometers

acorn environmental

APPENDIX B

1 SITE PLAN
1" = 40'-0"

TRUE NORTH

RSP

RSP Architects
1220 Marshall Street NE
Minneapolis
Minnesota 55413-1036
612.677.7100
612.677.7499 fax
www.rsparch.com

Consultants

Certification

NOT FOR CONSTRUCTION 20 MAY, 2018

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the state of Minnesota.

Name

License Number

Date Signed

Project For

TREASURE ISLAND RESORT & CASINO

TEMPORARY CASINO

Project No.	9998.000.00
Drawn By	Author
Checked By	Checker
Date	09/18/23

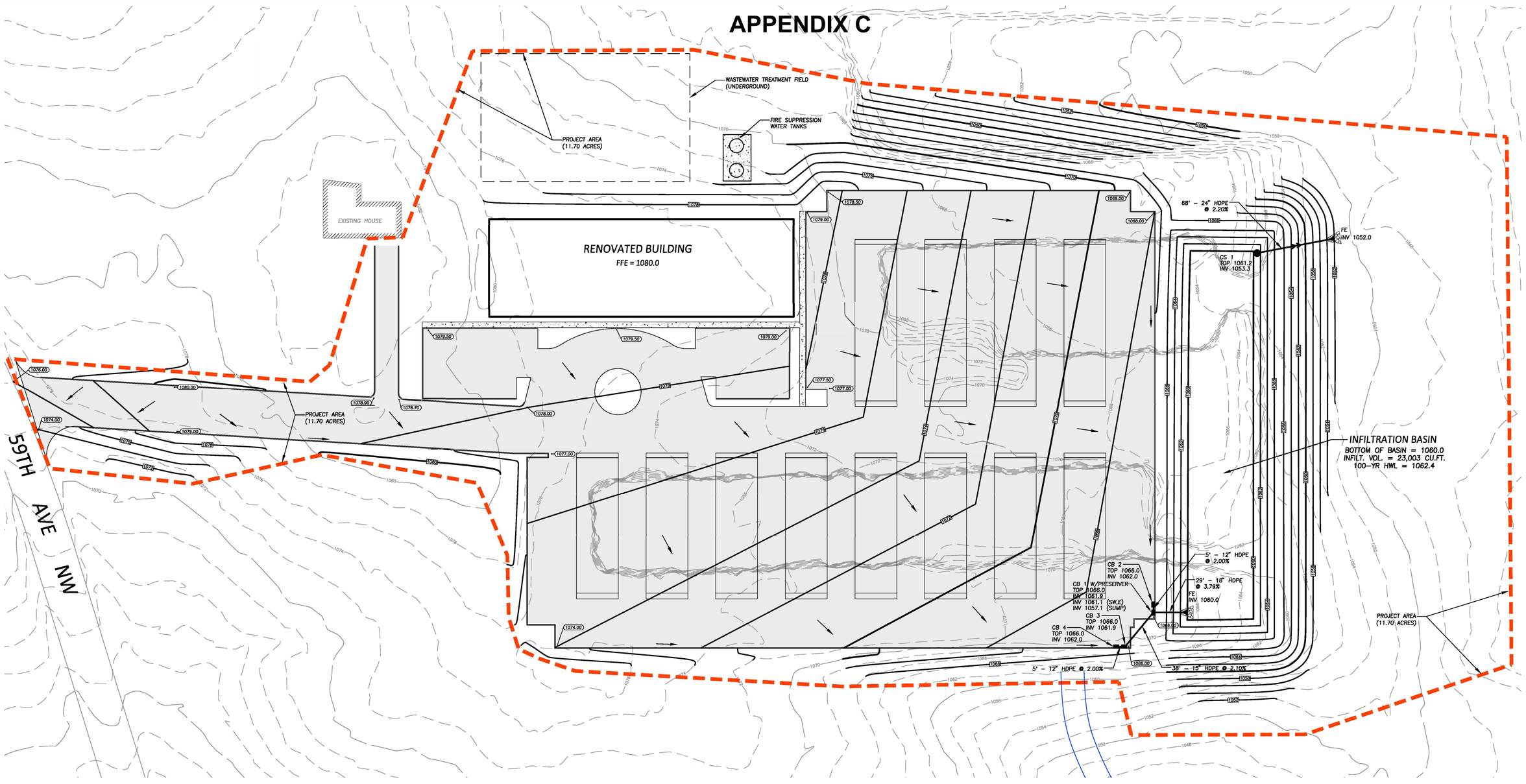
Sheet Issues / Revisions

No.	Date	Description

Site Plan

G201

APPENDIX C



GRADING NOTES

1 – *All elevations shown are to final surfaces.*

EROSION CONTROL NOTES

1 – *All erosion control measures shown shall be installed prior to grading operations and maintained until all areas disturbed have been restored.*
2 – *Sweep paved public streets as necessary where construction sediment has been deposited.*
3 – *Each area disturbed by construction shall be restored per the specifications within 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.*
4 – *Temporary soil stockpiles must have silt fence around them and cannot be placed in surface waters, including storm water conveyances such as curb and gutter systems, or conduits and ditches.*
5 – *All pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours of connection to a surface water.*
6 – *Excess concrete/water from concrete trucks shall be disposed of in portable washout concrete basin or disposed of in a contained area.*

CATCH BASIN/MANHOLE SCHEDULE

STRUCTURE NO.	BARREL SIZE	NEENAH CASTING NO.
CB 1	48"	R-3067V
CB 2	24" X 36"	R-3067V
CB 3	48"	R-3067V
CB 4	24" X 36"	R-3067V

SITE SUMMARY

PROJECT AREA = 11.70 ACRES
EXISTING IMPERVIOUS AREA = 7.74 ACRES
POST CONSTRUCTION IMPERVIOUS AREA = 5.53 ACRES

LEGEND

- PROPOSED MANHOLE/CATCH BASIN
- PROPOSED FLARED END
- PROPOSED STORM SEWER
- PROPOSED CONCRETE
- PROPOSED BITUMINOUS
- PROPOSED CONTOUR (1050)
- PROPOSED ELEVATION (1023.54)
- DRAINAGE ARROW
- EXISTING CONTOUR (980)

N

0 20 40 80 120
Scale in Feet

REHDER & ASSOCIATES, INC.
Civil Engineers & Land Surveyors
3440 Federal Drive, Suite 110
Eagan, MN 55122
Telephone: 651-452-5051
www.rehder.com

PROJECT NO.: 231-0591.348 DRAWING FILE: 0591348.DWG

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRELIMINARY

Name _____ Date _____ Reg. No. _____

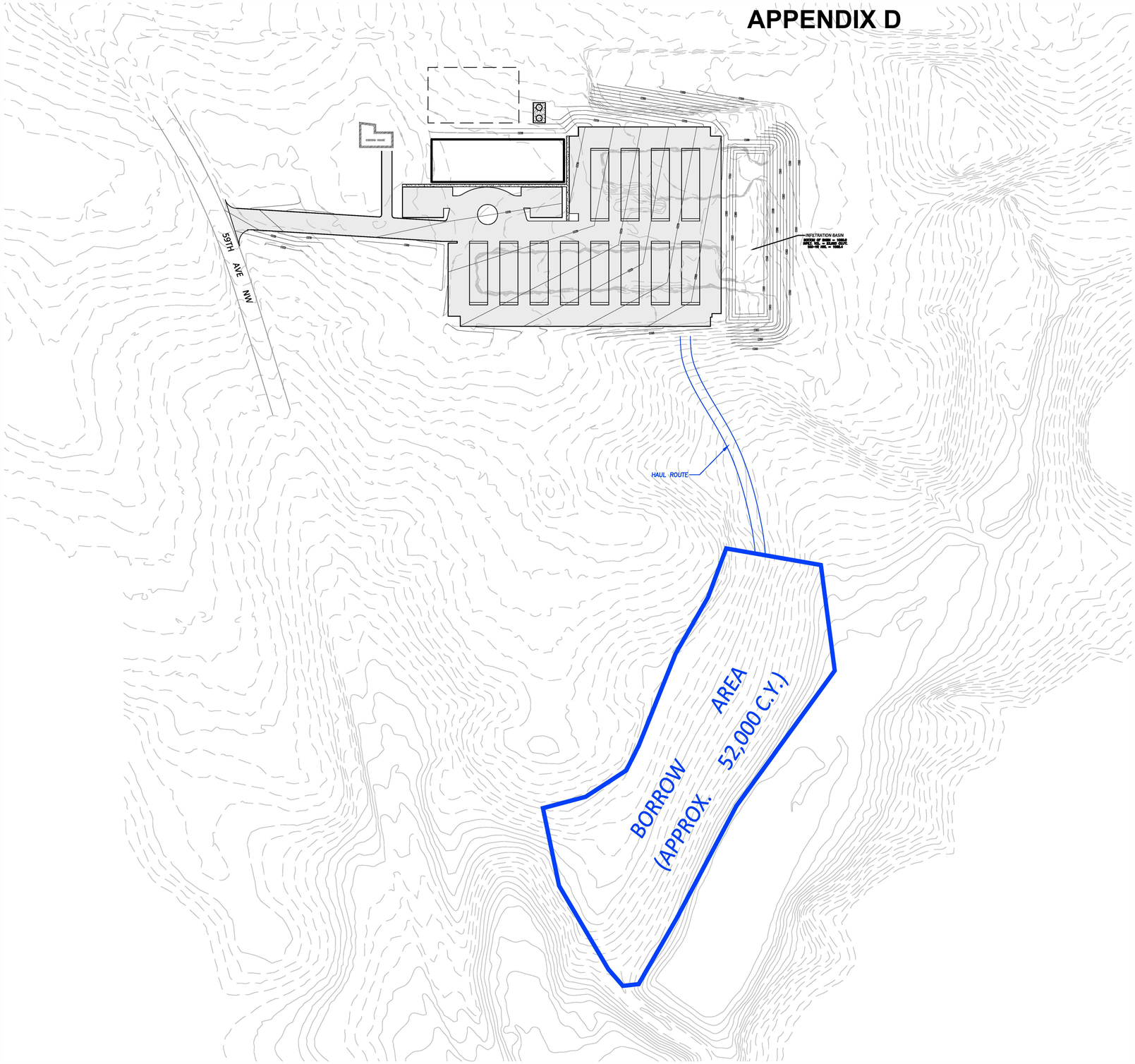
11-10-23

Issued
GRADING & DRAINAGE STUDY

SCHEMATIC GRADING PLAN
PRAIRIE ISLAND INDIAN COMMUNITY
GAMING AND FEE-TO-TRUST PROJECT
NEW HAVEN TOWNSHIP

SHEET NUMBER
C1

APPENDIX D



LEGEND

- PROPOSED CONCRETE
- PROPOSED BITUMINOUS
- 1050 PROPOSED CONTOUR
- DRAINAGE ARROW
- 980 EXISTING CONTOUR

N

0 50 100 200 300

Scale in Feet

REHDER & ASSOCIATES, INC.
Civil Engineers & Land Surveyors
3440 Federal Drive, Suite #1 0
Eagan, MN 55122
Telephone: 651.452.4545 505
www.rehder.com

PROJECT NO.: 23-05 91 348 DRAWING FILE: 0591348.DWG

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRELIMINARY

Name _____ Date _____

Reg. No. _____

Issued	
GRADING & DRAINAGE STUDY	11-10-23

BORROW AREA EXHIBIT
PRAIRIE ISLAND INDIAN COMMUNITY
GAMING AND FEE-TO-TRUST PROJECT
NEW HAVEN TOWNSHIP

SHEET NUMBER

C2

APPENDIX E IS AVAILABLE UPON REQUEST

Appendix D

Expanded Environmental and Regulatory Setting

Expanded Environmental and Regulatory Setting

INTRODUCTION

This appendix provides additional detail regarding the environmental setting and summarizes the framework of laws, regulations, and agreements pertaining to the site and actions outlined throughout the Environmental Assessment (EA). The topics are organized by resource category, and while most regulations discussed within the document are described here, this list is not comprehensive and is limited to the primary regulations relevant to the analysis within the EA. Once taken into trust, it is noted that state and local laws and regulations are generally not applicable.

LAND RESOURCES – EA SECTION 3.2

Federal

Clean Water Act

The Clean Water Act (CWA) prohibits sediment and erosion discharge into navigable waters of the United States and establishes water quality goals. The State Water Resources Control Board (SWRCB) requires a Construction General Permit if a project disturbs one or more acres of soil. A site-specific Stormwater Pollution Prevention Plan (SWPPP) is required under this permit. For more information on the CWA and the SWRCB, see Water Resources below.

State and Local

Soil and Water Conservation Policy

Minnesota State Statute 103A.203 provides a statement of policy and encourages landowners to implement land management practices that would conserve soil, water, and other natural resources. The following practices are recommended:

- Control or prevent erosion, sedimentation, siltation, and related pollution in order to preserve natural resources;
- Ensure continued soil health, as defined under section 103c.101, subdivision 10a, and soil productivity;
- Protect water quality;
- Prevent impairment of dams and reservoirs;
- Reduce damages caused by floods;
- Preserve wildlife;
- Protect the tax base; and
- Protect public lands and waters.

New Haven Township Book of Ordinances

Section 10.24 establishes regulations related to extraction of materials and minerals, open pits, and water impoundments. This section requires acquisition of a conditional use permit prior to these activities. Standard permit requirements for extraction of materials and minerals includes fencing of the pit or excavation area, sloping the banks to avoid caving or sliding banks, stabilize against erosion, and maintains roads and loading areas in a dust-free condition.

City of Pine Island Comprehensive Plan

This plan recognizes the importance of agriculture and fertile soils of the City. It recognizes the importance of locating future agricultural land use planning within fertile soils and prime farmland. The plan includes the following policies related to land resources: 1) Developers must consult the wetlands and soils maps for the site to confirm soil suitability for use, and 2) The future growth boundary should exclude areas of unsuitable soils.

Olmsted County General Land Use Plan

The Olmsted County General Land Use Plan identifies important geological and land resources settings within Olmsted County that drive its related goals and policies. The plan notes that much of Olmsted County, including the Project Site is within active Karst lands, where the risk of sinkholes can be high. The Project Site falls within an area of low to medium sinkhole risk. The plan further identifies that the Project Site is not within an area known for sand and gravel production, but that there is some potential for crushed stone extraction in the area. Chapter 7 of the plan includes the County policies, including:

- Preserve the natural and cultural resources that provide a “sense of place” for the county.
- Conserve and restore natural resources, including agricultural resources, and protect the ecological systems of the natural environment and economic uses of those resources.
- Respond to land use and resource management issues in a flexible and proactive way.
- Create and maintain sustainable communities.

Environmental Setting

The geological history of southeastern Minnesota has been driven by four glacial periods over the last two million years (GSM, 2017). Within the Mississippi Valley, driftless areas that were not covered by the most recent glacier (the Wisconsin glacier, approximately 10,000 years ago) lack natural lakes. These areas are characterized by deep valleys and exposed bluffs resulting from the erosion of runoff generated by melt from those areas with glacial cover (GSM, 2017). Other areas of exposed rock, including limestone, sandstone, and dolomite, are attributed to historic oceanic influence from over 70 million years ago. Olmsted County is the only county in the state with no natural lakes (Olmsted County, 2022a). Per the County’s GLUP, the Project Site is within active karst lands, where the risk of sinkholes can be high. The Project Site falls within an area of low to medium sinkhole risk.

Topography

The Project Site contains significant areas of relatively flat land intermixed with rolling hills. Elevations on-site range from approximately 1,000 to 1,100 feet amsl. While there are naturally occurring hills, there are also areas of historic grading, specifically related to earthen water impoundments and building up of access roads. Drainages throughout the property includes both channeled features with steep banks as well as gently sloped swales and manmade water impoundments with steeper earthen dams.

Seismic Conditions, Liquefaction, and Landslides

A fault is generally considered active if there has been activity within the last 11,000 years. The USGS maintains records of fault locations and activity (USGS, 2023a). There are no known faults within the state, active or otherwise. Therefore, the risk of seismic events at the Project Site is extremely low. Liquefaction occurs when loose, saturated, and relatively cohesionless soil deposits temporarily lose strength from seismic shaking. The primary factors controlling the onset of liquefaction include intensity and duration of strong ground motion, characteristics of subsurface soil, on-site stress conditions, and the depth to groundwater. The liquefaction susceptibility for the Project Site is very low given the lack of seismic activity in the State. Areas susceptible to landslides are comprised of weak soils on sloping terrain. Events such as heavy rains or strong seismic shaking events can induce landslides. There are no known documented landslides within three miles of the Project Site. Beyond three miles, the closest recorded landslide events in relation to the Project Site are associated with bank changes observed along regional waterways during a LiDAR analysis of pre- and post-rain event data with no specified date of occurrence (USGS, 2023b).

Soils and Erosion

A custom soils report was run for the Project Site and showed numerous types of soils underlying the Project Site (NRCS, 2023). **Table 3.2-2** in the EA summarizes soil types on the Project Site along with soil characteristics and acres of cover on the Project Site. A soil map is provided in the EA as **Figure 3.2-1.** Erosion is the wearing and removal of soil materials from the ground surface and the transportation of these soil materials resulting in deposition elsewhere. Mechanisms of soil erosion include stormwater runoff and wind as well as human activities. Examples of activities that can cause erosion include changes in drainage patterns and removal of vegetation. Factors that influence erosion include physical properties of the soil, topography (slope), and annual rainfall and peak intensity. Erosion risks increase on sloped areas. Minor erosion was observed in portions of existing drainages on-site where a channel was observed, and portions of the existing silage pits were observed to be in disrepair.

Mineral Resources

A search of the USGS Mineral Resources Data System found no known mineral resources within the Project Site (USGS, 2023c). A historical Phase I completed for the Project Site noted an aggregate quarry to the immediate northwest of the Project Site on land owned by the Community. Field surveys completed in 2023 did not identify obvious signs of historical resource extraction in this area. Therefore, it is assumed any extraction of aggregate materials that occurred adjacent to the Project Site in the past was of a small scale and did not warrant listing within the USGS Mineral Resources Data System. The nearest known mineral resources in relation to the Project Site are gravel (Roscoe Quarry and Peterson Quarry) and silica (Goodhue County Sand Deposit No 1) quarries located several miles from the Project Site (USGS, 2023c).

WATER RESOURCES – EA SECTION 3.3

Federal

Executive Order 11988

Executive Order (EO) 11988 requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

Specifically, EO 11988 states that agencies shall first determine whether the proposed action will occur in a floodplain. EO 11988 defines a floodplain as an area that has a one percent or greater chance of flooding in any given year. Second, if an agency proposes to allow an action to be located in a floodplain, the agency shall consider alternatives to avoid adverse effects and incompatible development in the floodplains. If the only practicable alternative action requires siting in a floodplain, the agency shall minimize potential harm to or within the floodplain.

Clean Water Act

The CWA (33 U.S. Code [USC] § 1251-1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The U.S. Environmental Protection Agency (USEPA) is delegated as the administrative agency under the CWA. Relevant sections of the CWA are as follows.

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines. Section 303(d) requires states to identify impaired off-Reservation water bodies, rank these impaired bodies based on severity of contamination and uses for the waters, and develop water quality management strategies, usually in the form of total maximum daily loads for the contaminant(s) of concern.
- Section 401 (Water Quality Certification) requires an applicant for any federal permit that proposes an activity that may result in a discharge to Waters of the U.S., to obtain certification from the USEPA for on-trust land activities, or the state for off-Reservation activities, that the discharge will comply with other provisions of the CWA.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into Waters of the U.S. Each NPDES permit contains limits on concentrations of pollutants discharged to surface waters to prevent degradation of water quality and protect beneficial uses.

The Federal Antidegradation Policy was adopted as part of the 1972 amendments to the CWA. Federal policy (Code of Federal Regulations [CFR], Title 40, Part 131.12) specifies that each state must develop, adopt, and retain an anti-degradation policy to protect the minimum level of off-Reservation surface water quality necessary to support existing uses. Each state must also develop procedures to implement the anti-degradation policy through water quality management processes. Each state anti-degradation policy must include implementation methods consistent with the provisions outlined in 40 CFR § 131.12. On trust land, these issues are addressed by the USEPA.

General NPDES Permit for Construction

In 1990, an amendment to the CWA directed the NPDES permitting program to address non-point source pollution from construction activities. Construction activities include clearing, grading, excavation, stockpiling, and reconstructing existing facilities involving removal and replacement of existing foundations or other hardscapes. Construction projects disturbing one or more acres of soil must be covered under the NPDES Construction General Permit process. For tribal projects on land held in trust by the federal government, the Tribe proposing the project must apply for coverage under the USEPA's NPDES Construction General Permit. Project proponents are required to submit to the USEPA a complete Notice of Intent (NOI) to comply with the permit. A complete NOI package consists of an NOI form, site map, and fee. The USEPA's NPDES Construction General Permit also requires the development and implementation of a SWPPP.

The SWPPP contains a site map showing the construction site perimeter, existing and proposed buildings, lots and roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the site. The SWPPP must list Best Management Practices (BMP) that will be implemented during construction and operation to address stormwater runoff rates and quality. SWPPP BMPs include the following categories:

- Site planning considerations, such as preservation of existing vegetation;
- Vegetation stabilization through methods such as seeding and planting;
- Physical stabilization through use of dust control and stabilization measures;
- Diversion of runoff by utilizing earth dikes and temporary drains and swales;
- Velocity reduction through measures such as slope roughening/terracing; and
- Sediment trapping/filtering through use of silt fences, straw bales, sandbag filters, and sediment traps and basins.

Safe Drinking Water Act

Under the mandate of the Safe Drinking Water Act, the USEPA sets legally enforceable National Primary Drinking Water Regulations (primary standards) that apply to public water systems. These standards are established to protect human health by limiting the levels of contaminants in drinking water. The USEPA also defines National Secondary Drinking Water Regulations (secondary standards) for contaminants that cause cosmetic and aesthetic effects, but not for health effects. The USEPA recommends that these secondary standards be met but does not require systems to comply with them.

The USEPA does not oversee the construction and permitting of groundwater wells, but requires that public health standards, such as an effectively installed sanitary seal, are in place. The USEPA will also primarily establish monitoring and operational requirements, which will typically be specific to the project area. Both primary and secondary drinking water standards are expressed as either Maximum Contaminant Levels, which define the highest level of a contaminant allowed in drinking water, or Maximum Contaminant Level Goals, which define the level of a contaminant below which there is no known or expected risk to health. Monitoring requirements typically include total coliform, nitrate, inorganic chemicals, volatile organic chemicals, non-volatile synthetic organic chemicals, secondary drinking water standard constituents, and general chemistry (including alkalinity, hardness, and minerals). The frequency of sampling varies and may be reduced over time.

Federal Emergency Management Agency

The Disaster Relief Act of 1974 as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 created the Federal Emergency Management Agency (FEMA), which is responsible for determining flood elevations and floodplain boundaries based on U.S. Army Corps of Engineers (USACE) studies. FEMA is also responsible for distributing Flood Insurance Rate Maps, which are used in the National Flood Insurance Program. These maps identify the locations of special flood hazard areas, including 100-year floodplains.

State and Local

Soil and Water Conservation Policy

Minnesota State Statute 103A.203 provides a statement of policy and encourages landowners to implement land management practices that would conserve soil, water, and other natural resources. The following practices are recommended:

- Control or prevent erosion, sedimentation, siltation, and related pollution in order to preserve natural resources;
- Ensure continued soil health, as defined under section 103c.101, subdivision 10a, and soil productivity;
- Protect water quality;
- Prevent impairment of dams and reservoirs;
- Reduce damages caused by floods;
- Preserve wildlife;
- Protect the tax base; and
- Protect public lands and waters.

Wetlands Conservation Act

The Minnesota Wetlands Conservation Act was passed into law in 1991 for the purpose of protecting wetlands and thereby water quality and biological diversity. The goal of this act is to result in no net loss of wetlands within the State. When a project or individual may impact a wetland, the Act preferentially requires that an attempt be made to avoid the impact. If full avoidance is not possible, the next action is to minimize the impact. Finally, for unavoidable impacts, the Act requires replacement of lost wetlands. Replacement habitat is required to be equal in size and function to the habitat lost. The Minnesota Board of Water and Soil Resources oversees local governments that administer the Act, and enforcement is provided by MDNR Conservation Officers.

Minnesota Buffer Law

This law sets forth the necessary vegetative buffers that must be maintained for lakes, rivers, streams, and ditches. The buffers must be made of perennial vegetation and must follow the below standards: 1) 50 feet for lakes, rivers, streams, and 2) 16.5 feet for ditches. In some cases, the Minnesota Board of Water and Soil Resources may allow for alternative buffer setups consistent with the Natural Resources Conservation Service Field Office Guide, provided that the amended buffer provides the same water quality benefits.

Minnesota Water Law

According to the Minnesota Water Law, waters of the State are defined as “surface or underground waters, except surface waters that are not confined but are spread and diffused over the land. Waters of the state includes boundary and inland waters.” In general, the Water Law regulates public waters and wetlands, but also specifies regulations related to appropriation of water, impoundment of water, and activities that impact these resources. Additionally, the Water Law specifies that the commissioner of natural resources for the state is responsible for the preparation of a statewide water resources conservation program. The Minnesota Board of Water and Soil Resources provides conservation planning resources for the State of Minnesota.

Minnesota Administrative Rules Ch 6120

Also known as the Shoreland and Floodplain Management Rules, these rules regulate land use and development within shoreland areas and floodplains. This includes restrictions on structure location and height within shorelands, standards for floodplain evaluation, floodplain management minimum requirements, and permitted land uses within floodplains.

Olmsted County Wetland Conservation Ordinance

This ordinance has a no net loss policy for wetlands impacts. The ordinance also considers "edge support areas" to be subject to this ordinance. This is defined as "non-wetland areas with features associated with perched groundwater tables or groundwater supported slope wetlands located in the Decorah Edge." The policy identifies the permitting and development process from the identification of wetlands to avoidance or compensation and monitoring of replacement wetlands.

Olmsted County Water Management Plan

This plan identifies the following water management priority concerns and associated goals:

- Drinking water and groundwater protection
    - Goal: Ensure that all Olmsted County residents have access to safe drinking water, now and in the future
- Agricultural Erosion and Sediment Control, Nutrient Management, & Chemical Use
    - Goal: Protect ground and surface water from any potentially adverse impacts of rural land management activities and implement effective measures to meet all water quality standards in each watershed.
- Impaired surface waters
    - Goal: Ensure the ability of the county and region's surface waters to meet their designated uses.
- Stormwater quality and quantity
    - Goal: Improve our area's water quality through better urban and suburban storm water management.
- Wetland resources and natural corridors protection
    - Goal: Utilize the natural functions of the County's landscape to improve water quality.

Comprehensive Watershed Management Plan (Zumbro River)

This is a planning document to identify issues within the Zumbro River Watershed and to identify priority issues, goals, and management actions. The plan also identifies planning actions to address issues, including capital improvement projects, monitoring/data collection projects, and education and public involvement. The following issues were identified:

- Groundwater contamination
- Excessive flooding
- Degraded surface water quality
- Accelerated erosion and sedimentation
- Degraded soil health, landscape resiliency and altered hydrology, and threats to fish, wildlife, and habitat
- Groundwater supply

City of Pine Island Comprehensive Plan

The Parks, Recreation, and Open Space section of the City's Comprehensive Plan identify those goals and policies related to biological resources. Relevant policies include:

- Limit Pine Island's flood damage liability as well as private investors' liability by adopting and enforcing the urban growth boundary.

- Restrict development in primary flood areas or flood fringe areas consistent with the adopted City Flood Plain Management Ordinance.
- Adopt buffer land protection areas around flood ways and wetland areas as defined by existing floodway and wetland maps.
- Where possible seek dedication of proposed development areas falling within buffer land protection for the purposes of trail and nature area preserve developments.
- Limit the intensity of development within the shoreland areas along the protected rivers within the City.

Olmsted County General Land Use Plan

Chapter 3 of the plan identifies significant land features within the County, including wetlands and public waters, geological formations, floodplains, and soil data. Chapter 7 of the plan includes the County policies, including:

- Preserve the natural and cultural resources that provide a "sense of place" for the county.
- Conserve and restore natural resources, including agricultural resources, and protect the ecological systems of the natural environment and economic uses of those resources.
- Respond to land use and resource management issues in a flexible and proactive way.
- Create and maintain sustainable communities.

Environmental Setting

Surface Water

Olmsted County is the only County in Minnesota with no natural lakes. The main surface waters in the vicinity of the Project Site are the Middle Fork Zumbro River and South Branch Middle Fork Zumbro River to the south. Dry Run Creek and the Zumbro River occur north and east of the Project Site. A hydroelectric dam has been constructed across the Zumbro River, which creates Zumbro Lake (see **Figure 3.3-1** in the EA). The Project Site falls within the Middle Fork Zumbro River Watershed (070400040307) (USEPA, 2022a). In 2017, the USEPA evaluated the condition of two stretches of the Middle Fork Zumbro River as well as the South Branch Middle Fork Zumbro River. As a result, all three of these stretches were listed as impaired under Section 303(d) of the Clean Water Act. Based on the waterbody report for the stretch of the Middle Fork Zumbro River from Pine Island to Oronoco, this waterbody is listed as impaired for aquatic recreation (USEPA, 2022a). This listing is specifically for the presence of Escherichia coli (E. coli), nutrient eutrophication, and turbidity. The stretch of the Middle Fork Zumbro River from Zumbro Lake to Oronoco is listed for aquatic life, specifically for the presence of E. coli, nutrient eutrophication, and turbidity (USEPA, 2022b). The South Branch Middle Fork Zumbro River is listed as impaired for both aquatic life and aquatic recreation, specifically for the presence of E. coli, nutrient eutrophication, and turbidity (USEPA, 2022c). Surface waters on the Project Site include six ponds and a network of ephemeral channels and swales. These features are described in detail in the drainage discussion below.

Drainage

Drainage infrastructure on-site is limited to water controls designed to impound water for livestock use. These features were observed during a survey conducted in October of 2023, described in **Section 3.5**. There are six manmade ponds on the Project Site. Three of these ponds were created along the southern boundary of the Project Site in low-lying areas to capture runoff for livestock before draining off-site.

One pond was located centrally on the Project Site and was observed to be an active stock watering pond that was holding significant water at the time of the survey. A fifth pond was observed near the southwestern border of the Project Site in line with an ephemeral channel. An earthen dam was used to create the pond, which collects water for livestock before draining off-site. The final pond is also located near the center of the Project Site and is similarly impounded with an earthen dam. This area collects stormwater runoff as well as drainage from the farm complex. A drainage outlet from the farm complex was observed feeding into this pond. This drainage outlet collected runoff from the farm complex as well as animal waste from the easternmost barn, which has a raised floor. Surface water resources on the Project Site are shown on Figure 7 of **Appendix E** of the EA. The general drainage flow currently runs from east/southeast towards Hwy 52 (**Appendix C** of the EA). A small portion of the Project Site drains west into a roadside ditch along White Pine Road SE and towards Hwy 52. The main receiving water south of the Project Site is the Middle Fork Zumbro River, which is separated from the Project Site by Hwy 52. Under current conditions, stormwater runoff rates during a 100-year storm event are modeled as such: 80 cubic feet per second (cfs) to the east, 4.9 cfs to the west, and 83.4 cfs to the south (**Appendix C** of the EA).

Flooding

FEMA is responsible for predicting the potential for flooding in most areas. FEMA routinely performs this function through the update and issuance of Flood Insurance Rate Maps, which depict various levels of predicted inundation. The Project Site is within Flood Zone C, which is designated as an area of minimal flood hazard outside of the 100-year floodplain (Zones A and AE) and 500-year flood zone (FEMA, 2017; FEMA, 2023).

Groundwater

The Minnesota Department of Natural Resources (MDNR) maintains information on groundwater provinces throughout the State. The Project Site falls within Groundwater Province 3: Karst Province (MDNR, 2021). This region is defined by having limited groundwater availability through surficial sands and buried sands and good groundwater availability from bedrock sources. According to MDNR, this area is specifically composed of sedimentary bedrock aquifers that are capable of yielding sufficient groundwater for most activities (MDNR, 2021).

The Minnesota Pollution Control Agency also maintains records of groundwater contamination and areas of groundwater quality concern (MPCA, 2023). The nearest record of potential groundwater contamination in relation to the Project Site is the Olmsted County Landfill, which is a closed landfill site located approximately 3.6 miles southeast of the Project Site. According to the Groundwater Contamination Atlas, this site is listed for the presence of contaminants cis-1,2-dichloroethene, trichloroethylene, and vinyl chloride (MPCA, 2021). The site was listed on the EPA National Priorities List but has been delisted since 1995 after remediation activities. Ongoing monitoring has continued since, with the most recent efforts involving placement of four new groundwater monitoring wells in 2016 (MPCA, 2021).

The Project Site is currently served by an existing on-site groundwater well. Uses include watering livestock and supplying the on-site residence. The Minnesota Department of Health (MDH) maintains a repository of groundwater well locations and whether such wells are public, domestic, irrigation, or monitoring wells (MDH, 2023). The vast majority of wells in the vicinity of the Project Site are domestic wells, however, given the significant amount of row crop production in the area, it is likely that these wells also serve to at least periodically supplement crop irrigation.

AIR QUALITY – EA SECTION 3.4

Federal

Clean Air Act of 1970

The Clean Air Act (CAA; 42 USC Chapter 85) is the federal legislation for the protection of air quality. The CAA gives the USEPA authority to regulate air quality by promulgating standards and levels for air quality and enforcing those standards and levels on federal, state, and tribal land. The CAA requires the USEPA to regulate hazardous air pollutants, which are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects.

The Federal CAA of 1970, as amended, establishes air quality standards for several critical air pollutants (CAPs): ozone (O_3), carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead (Pb). These pollutants are termed "criteria" pollutants because the USEPA has established specific concentration threshold criteria based upon specific medical evidence of health effects or visibility reduction, soiling, nuisance, and other forms of damage. These National Ambient Air Quality Standards (NAAQS) are divided into primary standards and secondary standards. Primary standards are designed to protect the public health and secondary standards are intended to protect the public welfare from effects such as visibility reduction, soiling, nuisance, and other forms of damage. NAAQS and Minnesota Ambient air quality standards (MAAQS) are presented in **Table 1.**

Areas are designated attainment, nonattainment, or maintenance by the USEPA depending on whether the area is below or exceed the established NAAQS. Nonattainment areas must take steps towards attainment within a specific period of time. Once an area reaches attainment for particular criteria pollutant, then the area is re-designated attainment or maintenance. The CAA places most of the responsibility on states to achieve compliance with the NAAQS. States, municipal statistical areas, and counties that contain areas of nonattainment are required to develop a State Implementation Plan (SIP), which outlines policies and procedures designed to bring the state into compliance with the NAAQS.

Ozone

Photochemical reactions involving reactive organic gases (ROG)/volatile organic compounds (VOC) and nitrogen oxides (NO_X) resulting from the incomplete combustion of fossil fuels are the largest source of ground-level O_3. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, O_3 is primarily a summer air pollution problem. As a photochemical pollutant, O_3 is formed only during daylight hours under appropriate conditions. However, it is destroyed throughout the day and night. O_3 is considered a regional pollutant as the reactions forming it take place over time and are often most noticeable downwind from the sources of the emissions.

Particulate Matter 2.5

Particle pollution is a mixture of microscopic solids and liquid droplets suspended in air. This pollution, also known as $PM_{2.5}$, is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, soil or dust particles, and allergens (such as fragments of pollen or mold spores). The size of particles is directly linked to their potential for causing health problems. Particles smaller than 2.5 µm pose the greatest problems because they can be inhaled deep into the lungs. Exposure to such particles can affect respiratory system function.

Table 1: Ambient Air Quality Standards

Pollutant	Averaging Time	Standard (parts per million)		Standard (microgram per cubic meter)		Violation Criteria	
		MAAQS	NAAQS	MAAQS	NAAQS	MAAQS	NAAQS
O_3	8 hours	0.070	0.070	137	137	If 3-year average of the annual 4th high daily maximum exceeds standard	If exceeded on more than 3 days in 3 years
CO	8 hours	9	9	10,000	10,000	If annual 2nd high exceeds standard	If exceeded on more than 1 day per year
	1 hour	35	35	23,000	40,000	If annual 2nd high exceeds standard	If exceeded on more than 1 day per year
NO_2	Annual arithmetic mean	0.053	0.053	100	100	If exceeded	If exceeded
	1 hour	0.100	0.100	188	188	If 3-year average of the annual 98th-percentile exceeds standard	N/A
SO_2	Annual arithmetic mean	0.030	0.030	79	79	If exceeded	If exceeded
	24 hours	0.144	0.14	367	N/A	If annual 2nd high exceeds standard	If exceeded on more than 1 day per year
	1 hour (primary)	0.075	197	655	196	If 3-year average of the annual 99th-percentile exceeds standard	N/A
	3 hours (secondary)	0.5	0.5	1,310	N/A	If annual 2nd high exceeds standard	If exceeded on more than 1 day per year
PM_{10}	24 hours	N/A	N/A	150	150	3-year average of the annual estimated exceedance days is less than or equal to 1	If exceeded on more than 1 day per year
$PM_{2.5}$	Annual arithmetic mean (primary)	N/A	N/A	12	12	If exceeded	If exceeded
	Annual arithmetic mean (secondary)	N/A	N/A	15	15	If 3-year average of the seasonally-weighted average exceeds standard	If exceeded
	24 hours	N/A	N/A	35	35	If 3-year average of the annual 98th-percentile exceeds standard	If exceeded on more than 1 day per year
Lead	Rolling 3-month Avg.	N/A	N/A	0.15	0.15	If exceeded	If exceeded
H_2S	30-minutes	0.03	No Federal Standard	42	No Federal Standard	If exceeded more than 2 times in 5 consecutive days	N/A

Source: USEPA, 2023; Minn. R. 7009.0080

Carbon Monoxide

CO is not readily dispersed throughout the atmosphere; therefore, it is considered a localized air quality issue as it is close to the emission source. CO emissions generally cause an acute (short-term) health threat. CO is a pollutant of concern at major signalized intersections (greater than 100,000 vehicles per day) that exhibit prolonged vehicle idling times.

Hazardous Air Pollutants

In addition to the above-listed CAPs, Hazardous Air Pollutants (HAP) are a group of chemical pollutants which can cause adverse effects to human health and/or the environment. HAPs are a list of over 188 airborne chemicals developed by the USEPA. Sources of HAPs include industrial processes, such as petroleum refining and chrome plating operations; commercial operations, such as gasoline stations and dry cleaners; cigarette smoke; and motor vehicle exhaust. Cars and trucks release at least 40 different HAPs. The most important, in terms of health risk, are diesel particulate matter (DPM), benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Health effects of HAPs can include cancer, birth defects, and neurological damage.

HAPs are less pervasive in the urban atmosphere than CAPs but are linked to short-term (acute) or long-term (chronic or carcinogenic) human health effects. The majority of health risks from HAPs can be attributed to relatively few compounds. The most important HAPs are found in DPM. Diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. Diesel exhaust contains a variety of harmful gases and over 40 other cancer-causing substances, and the visible emissions in diesel exhaust are PM that includes carbon particles or "soot." Exposure to DPM is a health hazard, particularly to children whose lungs are developing and the elderly who may have serious health problems.

Federal General Conformity

Under the General Conformity Rule, updated in 2010, the lead agency with respect to a federal action is required to demonstrate that the proposed federal action conforms to the applicable SIP before the action is taken. There are two phases to a demonstration of general conformity.

- The Conformity Review process, which entails an initial review of the federal action to assess whether a full conformity determination is necessary
- The Conformity Determination process, which requires that a proposed federal action be demonstrated to conform to the applicable SIP

The Conformity Review requires the lead agency to compare estimated emissions to the applicable general conformity levels (40 CFR 93.153 [b][1] and [2]), which these can be seen in **Table 2** and **Table 3**. If the emission estimates from step one is below the applicable threshold(s), then a general conformity determination is not necessary and the full Conformity Determination is not required. If emission estimates are greater than the applicable threshold(s), the lead agency must conduct a Conformity Determination.

Federal Class I Areas

Title 1, Part C of the CAA was established in part to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value.

The CAA designates all international parks, national wilderness areas, and memorial parks larger than 5,000 acres and national parks larger than 6,000 acres as "Class I areas." The CAA prevents significant deterioration of air quality in Class I areas under the Prevention of Significant Deterioration (PSD) Program. The PSD Program protects Class I areas by allowing only a small increment of air quality deterioration in these areas by requiring assessment of potential impacts on air quality related values of Class I areas.

Table 2: 40 CFR 93.153 [b][1] Emission Rates for Nonattainment Areas (NAAs)

Pollutant	Tons per Year
Ozone (VOC's or NOX):	
Serious NAA's	50
Severe NAA's	25
Extreme NAA's	10
Other ozone NAA's outside ozone transport region	100
Other ozone NAA's Inside an Ozone Transport Region	
VOC	50
NOx	100
Carbon Monoxide: all maintenance areas	100
SO_2 or NO_2: All NAAs	100
PM_{10}	
Moderate NAA's	100
Serious NAAs	70
PM2.5 (direct emissions, SO2, NOX, VOC, and Ammonia)	
Moderate NAA's	100
Serious NAAs	70
PD: all NAA's	25

Table 3: 40 CFR 93.153 [b][2] Emission Rates for Maintenance Areas

Pollutant	Tons per Year
Ozone (NOX), SO_2 or NO_2	
All maintenance areas	100
Ozone (VOC's)	
Maintenance areas inside an ozone transport region	50
Maintenance areas outside an ozone transport region	100
Carbon monoxide: All maintenance areas	100
PM_{10}: All maintenance areas	100
$PM_{2.5}$ (direct emissions, SO_2, NOx, VOC, and Ammonia)	100
All maintenance areas	100
Pb: All maintenance areas	25

Any major source of emissions within 100 kilometers (62.1 miles) from a federal Class I area is required to conduct a pre-construction review of air quality impacts on the area(s). A "major source" for the PSD Program is defined as a facility that will emit (from direct stationary sources) 250 tons per year (tpy) of regulated pollutant. For certain industries, these requirements apply to facilities that emit (through direct stationary sources) 100 tpy or more of a regulated pollutant. Mobile sources (e.g., vehicle emissions) are by definition not stationary sources and are therefore not subject to the PSD program.

Tribal New Source Review

The Tribal Minor New Source Review (NSR) permitting program was established by the USEPA under the CAA. The minor NSR program applies to both new minor sources and minor modifications to both major and minor projects in attainment and nonattainment areas. NSR programs must comply with the standards and control strategies of the Tribal Implementation Plan (TIP) or SIP.

If there is not an applicable SIP or TIP, the USEPA issues permits and implements the program. A General Permit under the minor NSR program would be required on tribal trust land if stationary source allowable emissions of regulated pollutants would exceed the thresholds presented in 40 CFR 49.153, Table 1 (presented in **Table 4**). This General Permit serves as a preconstruction permit containing limitations and other restrictions specifying the construction, modification, and operation of a minor source. The applicability of Tribal NSR is made on a source's potential to emit (PTE). For emergency generators, the USEPA has determined that 500 hours per year should be assumed as a reasonable and realistic "worst-case" estimate on a PTE basis (USEPA, 1995).

Table 4: Tribal Minor New Source Review Thresholds

Pollutant	Emissions Thresholds for Nonattainment Areas (tpy)	Emissions Thresholds for Attainment Areas (tpy)
NOx	5	10
ROG	2	5
PM	5	10
PM_{10}	1	5
$PM_{2.5}$	0.6	3
CO	5	10
SO_2	5	10
Pb	0.1	0.1

Source: 40 CFR 49.153

Climate Change

On February 19, 2021, Secretary of the Interior Deb Haaland issued Secretarial Order (SO) 3399 to prioritize action on climate change throughout the Department and to restore transparency and integrity in the Department's decision-making processes. SO 3399 specifies that when considering the impact of GHG emissions from a proposed action, Bureaus/Offices should use appropriate tools, methodologies, and resources available to quantify GHG emissions and compare GHG quantities across alternatives. SO 3399 acknowledges that identifying the interactions between climate change and the environmental impacts of a proposed action in NEPA documents can help decision makers identify opportunities to reduce GHG emissions, improve environmental outcomes, and contribute to protecting communities from the climate crisis.

On January 9, 2023, the Council on Environmental Quality issued National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change (88 Fed. Reg. 1196). This interim guidance directs agencies to consider the potential effects of a proposed action on climate change and the effects of climate change on a proposed action and its environmental impacts.

CEQ recommends that agencies quantify a proposed action's projected GHG emissions for the expected lifetime of the action and provide additional context for GHG emissions, including the use of the best available social cost of GHG (SC–GHG) estimates, to translate climate impacts into the more accessible metric of dollars.

This guidance does not propose a specific, quantitative threshold of significance; however, it states that agencies should consider the potential for mitigation measures to reduce or mitigate GHG emissions and climate change effects when those measures are reasonable and consistent with achieving the purpose and need for the proposed action. CEQ recommends that agencies explain how the proposed action and alternatives would help meet or detract from achieving relevant climate action goals and commitments, including federal goals, international agreements, state or regional goals, Tribal goals, agency-specific goals, or others as appropriate.

State

Minnesota Pollution Control Agency

The Minnesota Legislature established the MPCA in 1967. Through the authority of state and federal statutes and guidelines, the state agency focuses on preventing and reducing the pollution of air, land, and water, and protect against the effects of climate change. The MPCA develops and enforces environmental regulations and standards to control pollution and ensure compliance with environmental laws. This includes regulations related to air quality, water quality, solid waste management, and hazardous substances. MPCA issues permits to businesses and facilities that may impact the environment. These permits outline specific conditions and limits to ensure compliance with environmental regulations. The agency also works to ensure that businesses follow these permits and take corrective actions when necessary.

Minnesota Ambient Air Quality Standards

Minnesota's Ambient Air Quality Standards were established in 1969. The standards are summarized in **Table 1** above.

Global Climate Change

In 2023, the Minnesota Legislature established the Clean Energy Law. This legislation establishes a carbon-free energy standard and a renewable energy standard and requires electrical utilities to achieve 80 percent carbon-free energy by 2030, 90 percent by 2035, and 100 percent by 2040. The law also requires that 55 percent of the energy sold to Minnesota customers come from renewable sources by 2035.

BIOLOGICAL RESOURCES – EA SECTION 3.5

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects species that are at risk of extinction and provides for the conservation of the ecosystems on which they depend. The U.S. Fish & Wildlife Service (USFWS) and the National Oceanic and Atmosphere Administration, Fisheries Service (NOAA Fisheries) share responsibility for implementing FESA. Generally, USFWS manages terrestrial and freshwater species, while NOAA Fisheries is responsible for marine and anadromous species.

Threatened and endangered species on the federal list (50 CFR Sections 17.11 and 17.12) are protected from take, which is defined as direct or indirect harm. If "take" of a listed species is incidental to an otherwise lawful activity, this triggers the need for consultation under Section 7 of the FESA for federal agencies.

Pursuant to the requirements of the FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present on the proposed project site and whether the proposed project will have a potentially significant impact upon such species. Under the FESA, habitat loss is considered to be an impact to the species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species that is proposed for listing under the FESA or to result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC Section 1536[3], [4]). Therefore, project-related impacts to these species, or their habitats, would be considered significant.

Migratory Bird Treaty Act

Migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law. As such, project-related disturbances must be reduced or eliminated during the nesting season.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act was originally enacted in 1940 to protect bald eagles and was later amended to include golden eagles (16 USC Subsection 668-668). This act prohibits take, possession, and commerce of bald and golden eagles and associated parts, feathers, nests, or eggs with limited exceptions. The definition of take is the same as the definition under the FESA. The USFWS established five recovery programs in the mid-1970s based on geographical distribution of the species. Critical habitat was not designated by regulation under FESA.

In 1995, the USFWS reclassified the bald eagle from endangered to threatened under FESA in the contiguous 48 states, excluding Michigan, Minnesota, Wisconsin, Oregon, and Washington, where it had already been listed as threatened. In 2007, the bald eagle was federally delisted under FESA. However, the provisions of the act remain in place for protection of bald and golden eagles.

Clean Water Act (Sections 404 and 401)

Any project that involves discharge of dredged or fill material into jurisdictional Waters of the U.S. must first obtain authorization from the USACE, under Section 404 of the CWA. Projects requiring a 404 permit under the CWA also require a Section 401 certification from either the USEPA for trust land, or the RWQCB for non-trust land. These two agencies also administer the NPDES general permits for construction activities disturbing one acre or more.

Effective September 8, 2023, the USEPA and the USACE have issued a new final rule in the Code of Federal Regulations to conform the definition of ‘waters of the United States’ to the 2023 Supreme Court’s May 25, 2023 decision in Sackett vs. EPA.

Under the new final rule, tributaries and wetlands must have a continuous surface connection to navigable waterways to be considered jurisdictional under the Clean Water Act. Only those relatively permanent, standing, or continuously flowing bodies of water meet the current definition. In certain states where litigation regarding this definition is ongoing, the pre-2015 definition of waters of the U.S. is in effect. Minnesota is not one of these states and currently operates under the definition as promulgated under the new final rule.

Magnuson-Stevens Act and Sustainable Fisheries Act

The Magnuson–Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) is the primary law that governs marine fisheries management in U.S. federal waters. First passed in 1976, the Magnuson-Stevens Act fosters the long-term biological and economic sustainability of marine fisheries. Its objectives include: preventing overfishing; rebuilding overfished stocks; increasing long-term economic and social benefits; ensuring a safe and sustainable supply of seafood; and protecting habitat that fish need to spawn, breed, feed, and grow to maturity. The Sustainable Fisheries Act of 1996 (Public Law 104-297) amended the Magnuson-Stevens Act to establish new requirements for fishery management councils to identify and describe Essential Fish Habitat (EFH) and to protect, conserve, and enhance EFH for the benefit of fisheries.

EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. The Sustainable Fisheries Act also established a federal EFH consultation process that advises federal agencies to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH. Consultation is required if a federal agency has authorized, funded, or undertaken part or all of a proposed activity and the action will adversely affect EFH. An adverse effect includes direct or indirect physical, chemical, or biological alternations to waters or substrate, species and their habitat, quality and/or quantity of EFH, or other ecosystem components. If a federal agency determines that an action will not adversely affect EFH, and NOAA Fisheries agrees, no consultation is required. A 2002 update to EFH regulations allowed fishery management councils to designate Habitat Areas of Particular Concern, specific areas within EFH that have extremely important ecological functions and/or are especially vulnerable to degradation.

State and Local

Minnesota Endangered and Threatened Species Law of 1971

The Minnesota Endangered and Threatened Species Law of 1971, or the Endangered Species Statute, provides the MDNR with jurisdiction to designate species as threatened, endangered, or of special concern. Under this statute, species listed as threatened or endangered are protected from take, import, transport or sale, with limited exception such as in the case of proper permitting, or destruction of plants under certain agricultural operations. Species of special concern are not afforded specific protections, however, they are included in the MDNR lists as species that merit ongoing observation and may in the future be formally listed.

Soil and Water Conservation Policy

Minnesota State Statute 103A.203 provides a statement of policy and encourages landowners to implement land management practices that would conserve soil, water, and other natural resources. The following practices are recommended:

- Control or prevent erosion, sedimentation, siltation, and related pollution in order to preserve natural resources;

- Ensure continued soil health, as defined under section 103C.101, subdivision 10a, and soil productivity;
- Protect water quality;
- Prevent impairment of dams and reservoirs;
- Reduce damages caused by floods;
- Preserve wildlife;
- Protect the tax base; and
- Protect public lands and waters.

Wetlands Conservation Act

The Minnesota Wetlands Conservation Act was passed into law in 1991 for the purpose of protecting wetlands and thereby water quality and biological diversity. The goal of this act is to result in no net loss of wetlands within the State. When a project or individual may impact a wetlands, the Act preferentially requires that an attempt be made to avoid the impact. If full avoidance is not possible, the next action is to minimize the impact. Finally, for unavoidable impacts, the Act requires replacement of lost wetlands. Replacement habitat is required to be equal in size and function to the habitat lost. The Minnesota Board of Water and Soil Resources oversees local governments that administer the Act, and enforcement is provided by MDNR Conservation Officers.

Minnesota Buffer Law

This law sets forth the necessary vegetative buffers that must be maintained for lakes, rivers, streams, and ditches. The buffers must be made of perennial vegetation and must follow the below standards: 1) 50 feet for lakes, rivers, streams, and 2) 16.5 feet for ditches. In some cases, the Minnesota Board of Water and Soil Resources may allow for alternative buffer setups consistent with the Natural Resources Conservation Service Field Office Guide, provided that the amended buffer provide the same water quality benefits.

Minnesota Water Law

According to the Minnesota Water Law, waters of the State are defined as “surface or underground waters, except surface waters that are not confined but are spread and diffused over the land. Waters of the state includes boundary and inland waters.” In general, the Water Law regulates public waters and wetlands, but also specifies regulations related to appropriation of water, impoundment of water, and activities that impact these resources.

Additionally, the Water Law specifies that the commissioner of natural resources for the state is responsible for the preparation of a statewide water resources conservation program. The Minnesota Board of Water and Soil Resources provides conservation planning resources for the State of Minnesota.

Olmsted County Wetland Conservation Ordinance

This ordinance has a no net loss policy for wetlands impacts. The ordinance also considers “edge support areas” to be subject to this ordinance. This is defined as “non-wetland areas with features associated with perched groundwater tables or groundwater supported slope wetlands located in the Decorah Edge.” The policy identifies the permitting and development process from the identification of wetlands to avoidance or compensation and monitoring of replacement wetlands.

City of Pine Island Comprehensive Plan

The Parks, Recreation, and Open Space section of the City's Comprehensive Plan identify those goals and policies related to biological resources. Relevant policies include:

- Adopt buffer land protection areas around flood ways and wetland areas as defined by existing floodway and wetland maps.
- Where possible seek dedication of proposed development areas falling within buffer land protection for the purposes of trail and nature area preserve developments.
- Limit the intensity of development within shoreland areas along protected rivers within the City.
- Encourage developments that incorporate and work with their natural surroundings while they preserve the various functions and integrity of our natural environment.

Olmsted County General Land Use Plan

Chapter 3 of the plan identifies significant land features within the County, including wetlands and public waters, geological formations, historic and current vegetative land cover types, and environmental corridors. Chapter 7 of the plan includes the County policies, including:

- Preserve the natural and cultural resources that provide a "sense of place" for the county.
- Conserve and restore natural resources, including agricultural resources, and protect the ecological systems of the natural environment and economic uses of those resources.
- Respond to land use and resource management issues in a flexible and proactive way.
- Create and maintain sustainable communities.

CULTURAL AND PALEONTOLOGICAL RESOURCES – EA SECTION 3.6

National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA), as amended, and its implementing regulations found in 36 CFR Part 800 require federal agencies to identify cultural resources that may be affected by actions involving federal lands, funds, or permitting. The BIA must comply with Section 106 for the proposed trust acquisition. The significance of the resources must be evaluated using established criteria outlined in 36 CFR 60.4, as described below. If a resource is determined to be a historic property, Section 106 of the NHPA requires that effects of the federal undertaking on the resource be determined. A historic property is defined as:

> *…any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and material remains related to such a property… (NHPA Sec. 301[5])*

Section 106 of the NHPA prescribes specific criteria for determining whether a project would adversely affect a historic property, as defined in 36 CFR 800.5. An impact is considered adverse when prehistoric or historic archaeological sites, structures, or objects that are listed on or eligible for listing in the National Register of Historic Places (NRHP) are subjected to the following:

- Physical destruction of or damage to all or part of the property;
- Alteration of a property;
- Removal of the property from its historic location;
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
- Neglect of a property that causes its deterioration; and
- Transfer, lease, or sale of the property out of federal control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

If the historic property will be adversely affected by the undertaking, then prudent and feasible measures to resolve adverse impacts must be taken. The State Historic Preservation Office must be provided an opportunity to review and comment on these measures prior to project implementation.

National Register of Historic Places

The eligibility of a resource for listing in the NRHP is determined by evaluating the resource using criteria defined in 36 CFR § 60.4 as follows. The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

A) That are associated with events that have made a significant contribution to the broad patterns of our history;
B) That are associated with the lives of persons significant in our past;
C) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D) That have yielded, or may be likely to yield, information important to prehistory or history.

Sites younger than 50 years, unless of exceptional importance, are not eligible for listing in the NRHP. In addition to meeting at least one of the criteria listed above, the property must also retain enough integrity to enable it to convey its historic significance. The NRHP recognizes seven aspects or qualities that, in various combinations, define integrity. These seven elements of integrity are location, design, setting, materials, workmanship, feeling, and association.

To retain integrity a property will always possess several, and usually most, of these aspects. While most historic buildings and many historic archaeological properties are significant because of their association with important events, people, or styles (Criteria A, B, and C), the significance of most prehistoric and some historic-period archaeological properties is usually assessed under Criterion D. Criterion D stresses the importance of the information contained in an archaeological site rather than its intrinsic value as a surviving example of a type or its historical association with an important person or event. It places importance not on physical appearance but rather on information potential.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA), 25 USC 3001 et seq., provides a process for museums and federal agencies to return Native American cultural items – human remains, funerary objects, sacred objects, or objects of cultural patrimony – to lineal descendants, and culturally affiliated Indian tribes and Native Hawaiian organizations. NAGPRA includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American resources on federal and Tribal land, and penalties for noncompliance and illegal trafficking.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 (ARPA; Public Law 96-95; 16 USC 470aa-mm) provides for the protection of archaeological resources and sites that are on public and Indian lands and fosters increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data that were obtained before October 31, 1979. ARPA also provides for penalties for noncompliance and illegal trafficking.

Paleontological Resources Preservation Act

Paleontological resources are defined as the traces or remains of prehistoric plants and animals. Such remains often appear as fossilized or petrified skeletal matter, imprints, or endocasts, and reside in sedimentary rock layers. Paleontological resources are considered important for their scientific and educational value. Fossil remains of vertebrates are considered significant. Invertebrate fossils are considered significant if they function as index fossils. Index fossils are those that appear in the fossil record for a relatively short and known period of time. This allows geologists to interpret the age range of the geological formations in which they are found.

The Paleontological Resources Preservation subtitle of the Omnibus Public Land Management Act, 16 USC 470aaa to aaa-11 requires the U.S. Department of Agriculture (USDA) and the U.S. Department of the Interior to issue implementation regulations to provide for the preservation, management, and protection of paleontological resources on federal lands and ensure that these resources are available for current and future generations to enjoy as part of America's national heritage.

Minnesota State Historic Preservation Office

The Minnesota State Historic Preservation Office (SHPO) is a division of the Department of Administration. The SHPO leads the state's historic preservation efforts by articulating and supporting a statewide preservation vision. The SHPO also provides standards and oversight for the identification, designation, and protection of the State’s significant cultural resources.

Minnesota Statewide Historic Preservation Plan

The Minnesota Statewide Historic Preservation Plan (2022-2032) is the result of a three-year collaborative process involving the public, stakeholders, and other partners. The Plan contains a summary of past accomplishments, trends affecting historic resources, and challenges and opportunities in preserving such resources. The second part of the Plan outlines the State's vision of accomplishing the five broad Plan Goals focusing on partnerships, access to information, equity, economic benefits, and sustainability and climate resiliency. The Plan was approved by the National Park Service in 2021.

Environmental Setting

Prehistory

Paleoindian

The first documented Native American occupation of Olmsted County followed the retreat of the last glaciers at the end of the Pleistocene. Migratory groups of hunters and gatherers identified as the Paleoindian tradition were present in this area beginning at least 12,000 years before present (B.P.). A small number of characteristic Clovis and Folsom projectile points have been found in Minnesota (Dobbs 1988; Koenen 2007), including at least one point and a unique cache of biface blanks in Olmsted County.

Archaic

Climatic and cultural shifts appear in the archaeological record with the advent of the Archaic tradition, which extended from about 9,500 to 2,500 B.P. Although *Prairie Archaic* and *Eastern Archaic* assemblages have been found in Minnesota (Dobbs 1988), it is difficult to attribute Olmsted County Archaic sites to any specific contexts. Rather, large-scale cultural and technological changes occur during this period and are presented in archaeological assemblages.

Woodland

The Woodland tradition (2,500–1,000 B.P.) is typically associated with the introduction of horticulture, construction of earthen burial mounds, and the manufacture of ceramics. In general, Woodland peoples relied heavily on fish and mussels gathered from major river valleys but continued to exploit large game such as deer and elk. Defining specific complexes and cultural contexts for Woodland manifestations has been difficult (Arzigian, 2008). At present, there is insufficient evidence to securely attribute specific Woodland contexts to Olmsted County.

Mississippian

At about Anno Domini (A.D.) 1000 in central Illinois, the population and cultural center of Cahokia rose to prominence, and in the space of one hundred years its influence had spread throughout the central United States. There were Cahokia outposts along the Mississippi River and in areas such as Red Wing, where Mississippian and Late Woodland peoples interacted. An example of one characteristic type of artifact, a so-called “chunkey stone” reportedly found in Olmsted County, is curated in the County’s History Center.

Late Prehistoric and Protohistoric:

In southeast Minnesota, the best documented Native American culture of the Late Prehistoric period was the Oneota. Although the origins of Oneota cultures are uncertain, by 900 B.P. they were spreading across much of the Midwest. Oneota peoples had a mixed hunting, foraging, and agricultural economy, and made a distinctive pottery using shell tempering. Oneota peoples are believed to have had a tribal level of sociopolitical organization, and they lived in large, permanent, or semi-permanent villages. There are no major Oneota agricultural villages reported from Olmsted County, but Oneota sites in La Crosse show evidence of exploitation of the prairies in southeast Minnesota for winter bison hunts.

History

Contact between Europeans and Native Americans began during the 1600s when European trade goods and introduced diseases entered Minnesota as eastern tribes moved west, disrupting and displacing many populations.

The Eastern Dakota were the most widespread Native American group in central and northern Minnesota during the historic period, along with the Ojibway peoples who moved into northern Minnesota to the Lake-Forest biome (Benchley et al., 1997:203–205). A series of conflicts between Native peoples and Euro-American settlers culminated in 1862 with the Dakota Conflict, after which most Dakota peoples were forcibly relocated further west. The Minnesota Territory was formed in 1849 by which time Euro-American populations began to settle in what is now known as Olmsted County (Leonard, 1910). Olmsted County was established in 1855 and formerly organized in 1858, shortly after the community of Pine Island was platted and its post office was established which is still in operation today. The largest town in Olmsted County, Rochester, was also founded about the same time (Leonard, 1910; Poch, 1980). Although many of the first settlers were farmers, in the 1860s railroad construction and growing industries also attracted new residents, so by the 1870s, the urban dwellers began to outnumber the rural population.

SOCIOECONOMIC CONDITIONS AND ENVIRONMENTAL JUSTICE – EA SECTION 3.7

Federal

Executive Order 12898

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, as amended, directs federal agencies to develop an Environmental Justice Strategy that identifies and addresses disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. The CEQ has oversight responsibility of the federal government's compliance with EO 12898 and NEPA. The CEQ, in consultation with the USEPA and other agencies, has developed guidance to assist federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed. The document *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* provides the following direction on how to analyze the impacts of actions on low-income and minority populations:

> *Under NEPA, the identification of a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe does not preclude a proposed agency action from going forward, nor does it necessarily compel a conclusion that a proposed action is environmentally unsatisfactory. Rather, the identification of such an effect should heighten agency attention to alternatives (including alternative sites), mitigation strategies, monitoring needs, and preferences expressed by the affected community or population. (USEPA, 1998)*

As previously stated, according to guidance from the CEQ (1997) and USEPA (1998), agencies should consider the composition of the affected area, to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by a proposed action and, if so, whether there may be disproportionately high and adverse environmental effects to those populations. Communities may be considered "minority" under the executive order if one of the following characteristics apply.

- The cumulative percentage of minorities within a census tract is greater than 50 percent (primary method of analysis); or

- The cumulative percentage of minorities within a census tract is less than 50 percent, but the percentage of minorities is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (secondary method of analysis).

According to USEPA, either the county or the state can be used when considering the scope of the "general population." A definition of "meaningfully greater" is not given by the CEQ or USEPA, although the latter has noted that any affected area that has a percentage of minorities above the state's percentage is a potential minority community and any affected area with a minority percentage double that of the state's is a definite minority community under EO 12898. Communities may be considered "low-income" under the EO if one of the following characteristics applies.

- The median household income for a census tract is below the poverty line (primary method of analysis); or
- Other indications are present that indicate a low-income community is present within the census tract (secondary method of analysis).

In most cases, the primary method of analysis will suffice to determine whether a low-income community exists in the affected environment. However, when a census tract income may be just over the poverty line or where a low-income pocket within the tract appears likely, the secondary method of analysis may be warranted. Other indications of a low-income community under the secondary method of analysis include presence of households whose income is less than or equal to 200% of the poverty level.

Executive Order 14096

EO 14096, issued in April of 2023, amends and expands certain provisions of EO 12898, and includes the following:

- Provides a broader definition of potentially disadvantaged communities.
- Explicitly expands definition of potentially disadvantaged communities to include persons with a Tribal affiliation and disabled persons;
- Requires Federal Agencies to fulfill environmental justice reporting requirements and prepare strategic plans; and
- Describes additional reporting and notification requirements related to toxic spills.

State and Local

No regulations applicable to the development of the Project Site were identified during the socioeconomic conditions and environmental justice analysis.

TRANSPORTATION AND CIRCULATION – EA SECTION 3.8

Federal

Department of Transportation (DOT)

The mission of the DOT is to ensure a fast, safe, efficient, accessible, and convenient transportation system that meets national interests and enhances quality of life.

Organizations within the DOT include the Federal Highway Administration (FHWA), the Federal Aviation Administration, the National Highway Traffic Safety Administration, the Federal Transit Administration, the Federal Railroad Administration, and the Maritime Administration. The FHWA supports State and local governments in the design, construction, and maintenance of the Nation's highway system (Federal Aid Highway Program) and various federally and tribal owned lands (Federal Lands Highway Program). Through financial and technical assistance to State and local governments, the Federal Highway Administration is responsible for ensuring that America's roads and highways continue to be among the safest and most technologically sound in the world. US-52 is a federal highway within the vicinity of the Project Site.

State

Minnesota Department of Transportation (MnDOT)

MnDOT is the principal agency of the State for development, implementation, administration, consolidation and coordination of State transportation policies, plans and programs, as well as federal transportation plans and programs. The Stewardship and Oversight Agreement between MnDOT and the FHWA allows MnDOT to assume certain review and approval actions for the FHWA depending on whether a project is on the Interstate System, National Highway System, or off the National Highway System. MnDOT's Access Management Manual addresses planning, design, and implementation of land use and transportation strategies in an effort to maintain a safe flow of traffic while accommodating the access needs of adjacent development. The Facility Design Guide provides design guidance for roads, highways, and other facilities.

Environmental Setting

Transportation Networks and Intersections

The roadways surrounding the Project Site are shown in **Figure 1.4-2** of the EA and include E White Bridge Road, White Pine Road SE, White Bridge Road, and Hwy 52. Regional access to the Project Site is provided via Hwy 52. The Project Site is locally accessible via an access driveway located on White Pine Road SE. This road runs from north to south and can be accessed from E White Bridge Road to the north or White Bridge Road NW to the south. Both roads are exits off Hwy 52. Additional details of the surrounding intersections and roadways relevant to the Project Site are included below:

- White Pines Road SE: A predominantly two-lane undivided north-south roadway that is classified as a secondary arterial in Olmsted County. Respective of both the north and south approaches to the roundabout located at the intersection of White Pines Road SE and E White Bridge Road, approximately 250 feet prior to entering the roundabout, the single lane becomes two-lane road. Upon exiting the roundabout in north and south outbound lanes, White Pines Road SE returns to a single lane configuration.
- White Pines Road SE and County Road 12/E White Bridge Road Roundabout: West of the roundabout, E White Bridge Road is a four-lane divided roadway traveling in an east-west direction; east of the same roundabout, approximately 550 feet after vehicles exit the roundabout eastbound, E White Bridge Road becomes a two-lane undivided roadway continuing in an east/southeast direction. The roadway is classified as a major arterial in Olmsted County, MN.
- US 52/County Road 31/12 Interchange: A grade separated interchange where the traffic crosses to the other side of the roadway between freeway ramps. This type of interchange is also known as Diverging Diamond Interchange (DDI).

- The crossing allows for vehicles to turn left on and off freeway ramps more efficiently without stopping or crossing opposing lanes of traffic. Right turns on and off the freeway ramps occur either before or after the crossover intersection, when traffic is on the normal side of the roadway. There are two thru-lanes along County Road 31/12 that transitions to E White Bridge east of the crossover on the east ramp. The thru lanes are controlled by a traffic signal.
- E White Bridge Road/White Pines Road SE Intersection: controlled by a multi-lane roundabout. The existing lane configuration of this intersection is as follows:

    - Northbound: One dedicated left-turn lane, and one shared thru/right-turn lane
    - Southbound: One dedicated left-turn lane, and one shared thru/right-turn lane
    - Eastbound: One shared left-turn/thru lane and one shared thru/right-turn lane
    - Westbound: One shared left-turn/thru lane and one shared thru/right-turn lane

LAND USE – EA SECTION 3.9

Federal

Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that federal programs are administered in a matter that is compatible with state and local units of government, and private programs and policies to protect farmland (7 U.S.C. § 4201).

The Natural Resource Conservation Service (NRCS) is responsible for the implementation of the FPPA and categorizes farmland in a number of ways. These categories include prime farmland, farmland of statewide importance, and unique farmland. Prime farmland is considered to have the best possible features to sustain long-term productivity. Farmland of statewide importance includes farmland similar to prime farmland, but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Unique farmland is characterized by inferior soils and, depending on climate, generally needs irrigation.

The NRCS fulfills the directives of the Soil and Water Conservation Act (16 USC § 2001-2009) by identifying significant areas of concern for the protection of national resources. NRCS uses a land evaluation and site assessment system to establish a Farmland Conversion Impact Rating (FCIR) score. The FCIR is completed on form AD-1006. The FCIR form has two components: land evaluation, which rates soil quality up to 100 points, and the site assessment, which measures other factors that affect the property's viability up to 160 points. The total FCIR score is used as an indicator for the project's sponsor to consider alternative sites if the potential adverse impacts on the farmland exceed the allowable level; however, the FPPA does not require federal agencies to alter projects to avoid or minimize farmland conversion.

Sites receiving a combined score of less than 160 (out of 260 possible points) do not require further evaluation. For sites with a combined score greater than 160 points, at least two other alternatives are required to be considered and the alternative with the lowest number of points selected unless there are other overriding considerations.

Soil types on the Project Site classified as farmland include the following:

- *Prime farmland* is of particular importance in meeting the nation's short- and long-range needs for food and fiber and is land that "has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses" (USDA, 2023). Prime farmland may be actively cultivated, pastureland, forestland, or other land, but it is not urban or built-up land or water areas.
  In some areas, prime farmland has been lost to industrial and urban uses which puts pressure on marginal lands, which generally are more erodible, more susceptible to drought, and less productive and cannot be as easily cultivated.
- *Unique farmland* is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other fruits and vegetables. It "has the special combination of soil quality, growing season, moisture supply, temperature, humidity, air drainage, elevation, and aspect needed for the soil to economically produce sustainable high yields of these crops when properly managed." (USDA, 2023).
- Land that does not meet the criteria for prime or unique farmland may be considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies, but generally it "includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods" (USDA, 2023).
- Finally, land may be considered *farmland of local importance* for the production of food, feed, fiber, forage, and oilseed crops as identified by the appropriate local agencies. Farmland of local importance may include land tracts that have been designated for agriculture by a local ordinance.

Approximately 75 acres (18%) of the Project Site are mapped as soils that are not prime farmland, approximately 113 acres (28%) of the Project Site are considered farmland of statewide importance, while the majority of the Project Site (approximately 224 acres or 54%) is composed of prime farmland soils. Due to the characterization of some of the soils within the development area as "Prime Farmland," consultation with the Natural Resource Conservation Service (NRCS) was conducted to determine agricultural value of the development area under the Farmland Protection Policy Act (FPPA). A Farmland Conversion Impact Rating (FCIR) form was submitted to the NRCS and the score (128) did not exceed the threshold (160).

Federal Aviation Regulation

In accordance with 14 CFR 77, which provides requirements, standards, and processes for determining obstructions to air navigation, the Federal Aviation Administration's (FAA's) primary objective is to promote air safety and the efficient use of the navigable airspace. In furthering this mission, the FAA conducts aeronautical studies based on information provided on FAA Form 7460-1, Notice of Proposed Construction or Alteration, by proponents of construction or development in the vicinity of airports. Developers must file Form 7460-1 with the FAA at least 45 days prior to construction if any of the following parameters are met:

- Proposed structure(s) will exceed 200 feet above ground level;
- Proposed structure(s) will be in proximity to an airport and will exceed the slope ratio;
- Proposed structure(s) involves construction of a traverseway (i.e., highway, railroad, waterway, etc.) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b);

- Proposed structure(s) will emit frequencies, and do/does not meet the conditions of the FAA Colocation Policy;
- Proposed structure(s) will be in an instrument approach area and might exceed part 77 Subpart C;
- Proposed structure(s) will be in proximity to a navigation facility and may impact the assurance of navigation signal reception;
- Proposed structure(s) will be on an airport or heliport; or
- Filing has been requested by the FAA.

State and Local

State Agricultural Land Preservation and Conservation Policy

The State Agricultural Land Preservation and Conservation Policy (Section 17.80 of the Minnesota Statues) emphasizes that it is the policy of the State to preserve agricultural land and conserve its long-term use for the production of food and other agricultural products by:

- Protection of agricultural land and certain parcels of open space land from conversion to other uses.
- Conservation and enhancement of soil and water resources to ensure their long-term quality and productivity.
- Encouragement of planned growth and development of urban and rural areas to ensure the most effective use of agricultural land, resources and capital.
- Fostering of ownership and operation of agricultural land by resident farmers.

To accomplish the policies described above, several different methods were identified to best implementing the policies and are described below:

- Defining and locating lands well suited for the production of agricultural and forest products, and the use of that information as part of any local planning and zoning decision.
- Provide government with guidelines, tools and incentives to prevent the unplanned and unscheduled conversion of agricultural and open space land to other uses.
- Providing relief to agricultural areas subject to development pressures, such as with taxes.
- Development of state policy to increase implementation of soil and water conservation by farmers.
- Assuring that state agencies act to maximize the preservation and conservation of agricultural land and minimize the disruption of agricultural production while still taking into consideration the broader agricultural community needs.
- Assuring that public agencies employ and promote the use of management procedures which maintain or enhance the productivity of lands well suited to the production of food and other agricultural products
- Guiding the orderly development and maintenance of transportation systems in rural Minnesota while preserving agricultural land to the greatest possible extent;
- Guiding the orderly construction and development of energy generation and transmission systems while enhancing the development of alternative energy and preserving agricultural land to the greatest possible extent.
- Guide the orderly development of solid and hazardous waste management sites needs while still preserving agricultural land to the greatest possible extent by minimizing the use of agricultural land for waste management sites.

Olmsted County General Land Use Plan

The GLUP is a long-range policy document that guides the future growth and development of the County for the next 20 to 25 years. It covers the entire county, including the cities, townships, and unincorporated areas. The GLUP is based on a vision statement that reflects the community's values and aspirations for the future of the county. The vision statement is: "Olmsted County is a vibrant, prosperous, and inclusive community that values its natural and cultural resources, fosters innovation and collaboration, and provides opportunities for all to thrive." The GLUP is organized around four guiding principles that support the vision statement and provide the overall direction for the plan. The guiding principles are:

- Preserve and enhance the natural environment and rural character of the County. This principle aims to protect the county's natural resources, such as water, soil, air, wildlife, and scenic beauty, and to maintain the county's agricultural heritage and rural lifestyle.
- Promote compact and efficient urban development patterns. This principle aims to accommodate the county's projected population and employment growth in a way that minimizes sprawl, maximizes infrastructure efficiency, and creates livable and walkable communities.
- Support a diverse and resilient economy. This principle aims to foster a strong and diverse economic base that provides a range of employment opportunities, supports innovation and entrepreneurship, and enhances the county's regional competitiveness.
- Foster a healthy and equitable community. This principle aims to improve the health and well-being of the county's residents, especially those who are vulnerable or disadvantaged, and to ensure that everyone has access to quality education, housing, transportation, and social services.

The GLUP translates the guiding principles into specific goals and policies that address various aspects of land use, such as residential, commercial, industrial, agricultural, natural, and recreational uses. The goals and policies provide the basis for evaluating and regulating land use proposals and requests.

In addition, the GLUP also includes a Future Land Use Plan that illustrates the desired land use pattern for the county in 2045. The Future Land Use Plan designates different land use categories, such as urban, rural, mixed-use, and conservation, and defines their characteristics, locations, and densities. The Future Land Use Plan is consistent with the goals and policies of the GLUP and serves as a guide for zoning and subdivision decisions.

The GLUP identifies several implementation strategies that outline the actions and steps needed to achieve the goals and policies of the plan. The implementation strategies include adopting and updating zoning and subdivision ordinances, preparing, and adopting subarea plans, conducting and updating studies and inventories, coordinating and collaborating with other jurisdictions and agencies, and securing and allocating funding and resources. The GLUP includes a monitoring and evaluation framework that tracks the progress and effectiveness of the plan implementation. The monitoring and evaluation framework consists of indicators, targets, and benchmarks that measure the performance and outcomes of the plan. The monitoring and evaluation framework also provides a mechanism for reviewing and updating the plan as needed to reflect changing conditions and needs of the county.

The portion of the Project Site within Olmsted County is zoned R-1 (Low Density Residential District; Code of Ordinance – Chapter 1400) and A2 (Agricultural Protection District). The R-1 zoning is intended to provide a limited amount of low-density residential development in areas noted as "Urban Service Areas" in the Land Use Plan. Permitted uses include one single-family detached dwelling, accessory structures, raising of a maximum of ten chickens, State-licensed adult residential care facilities serving six or fewer persons, and day care facilities serving less than 12 children.

The purpose of the A2 zoning is to maintain, conserve, and enhance agricultural lands that are historically valuable for pastureland, crop product, and natural habitat for plant and animal life. This designation is intended to encourage long term agricultural uses and preserve prime agricultural farmland by restricting the location and density of non-farm dwellings and other non-farmland uses, but it allows for slightly higher density of non-farm dwellings and non-farm uses as compared to the A1 Agricultural Protection District. Permitted uses for A2 zoning include: one farm dwelling, with a second dwelling or mobile home allowed when farms exceed 80 acres; farming and feedlots up to 1,000 animal units; farm drainage, irrigation, and flood control facilities; one seasonal roadside farmstand and associated road; forest and game management areas; renewable energy facilities (non-utility wind energy conversion systems and solar energy farms); State-licensed adult residential care facilities serving six or fewer persons; day care facilities serving less than 12 children; and compost facilities.

City of Pine Island Comprehensive Plan

The Pine Island Comprehensive Plan is intended to guide the growth of the community. When the updated version was adopted on October 19, 2010, it became the policy foundation to realize the community vision into reality through zoning and other land use regulation, programs, education efforts, and public expenditures. The Comprehensive Plan includes numerous different subjects regarding city growth and planning that have been organized into goals and policies around the following themes:

- Demographics and Housing
- Land Use
- Transportation
- Parks, Recreation and Open Space
- Wastewater Infrastructure
- Water Infrastructure
- Sustainability
- Historic Preservation

The City of Pine Island Comprehensive Plan is a document that guides the future growth and development of the city. It was adopted by the city council on October 19, 2010. The plan was created with the input of various stakeholders, including residents, businesses, city officials, and neighboring jurisdictions. The plan consists of the following elements:

- Demographic Profile: Provides a summary of the population, household, and income characteristics of the city, as well as projections for future trends.
- Housing: Analyzes the existing and future housing needs and preferences of the City and identifies goals and policies to promote a diverse and affordable housing stock.
- Natural Resources: Identifies the natural features and resources of the City, such as water, soil, vegetation, and wildlife, and establishes goals and policies to protect and enhance them.
- Land Use: Inventories current land use patterns and categories of the City and proposes a future land use plan and map that reflects the desired development pattern and character of the City.
- Transportation: Reviews the existing transportation system and facilities of the city, such as roads, trails, transit, and parking, and proposes a future transportation plan and map that addresses the mobility and accessibility needs of the city.
- Parks and Recreation: Inventories the current park and recreation facilities and programs of the city and proposes a future park and recreation plan and map that provides adequate and diverse recreational opportunities for the City.

- Public Utilities: Summarizes the existing and future water and wastewater infrastructure and services of the city and identifies goals and policies to ensure their adequacy and efficiency.
- Historic Preservation: Addresses the historic and cultural resources of the City, such as buildings, sites, and districts, and establishes goals and policies to preserve and promote them.

The Comprehensive Plan is intended to serve as a vision and a tool for the city to achieve its desired future. It is also a legal document that provides the basis for the city's zoning and subdivision regulations, as well as other plans and policies. The portions of the Project Site located with the City of Pine Island are designated AG (Agricultural District). This designation specifies protecting existing agricultural investments until utilities can be extended and thus additional development commenced. Allowable uses in AG zoning include: commercial feedlots; farms, hobby farms, stables, and other agriculture; single-family dwellings; golf courses, country clubs, parks, and other recreational uses; essential services other than transmission pipelines; and State-licensed care facilities serving six or fewer persons. In addition to this designation, the Project Site is also within the Urban Growth Boundary set by the City of Pine Island Comprehensive Plan (City of Pine Island, 2010). In 2008, the City prepared a conceptual "Elk Run Concept Master Plan" that included multiple types of residential uses (low, medium, and high density), commercial uses including retail and office space, medical offices, mental and physical wellness centers, schools and sports complex, and various community amenities including parks, outdoor amphitheater, and equestrian center. The portion of the Elk Run Concept Master Plan that overlays the portion of the Project Site within the City limits included a mixture of residential and commercial land uses (City of Pine Island, 2008). The Comprehensive Plan future land use map designates the Project Site as Commercial in the western portion and a mixture of Low Density Residential and Medium and High Density Residential in the eastern portion, consistent with the previously contemplated Elk Run Concept Master Plan.

City of Oronoco Comprehensive Plan: Future Land Use

The City of Oronoco Comprehensive Plan is the guiding document to outline the history and goals of the community, promote orderly growth, and ensure future land use decisions move the city towards its vision. The most recent Comprehensive Plan "Plans, Goals, Policies, & Implementation Steps" document was last updated on July 17, 2006, although a more recent Planned Future Land Use map was published on July 21, 2020. The City is currently undertaking an update to its Comprehensive Plan, but until such time as it is adopted the 2006 Comprehensive Plan remains the guiding document for the municipality. The Comprehensive Plan includes numerous different subjects regarding city growth and planning that have been organized into goals and policies around the following themes:

- Community Profile
- Community Values and Vision
- Community Character and Appearance
- Land Use
- Housing
- Parks, Recreation, and Open Space
- Transportation
- Infrastructure
- Implementation

The comprehensive plan provides guidance for the future physical growth of the community based on the existing land use, projections for future growth and input of Oronoco residents, businesses, and property owners. The land use goals are idealized end results that the plan strives to accomplish in managing future growth and protecting manmade and natural resources.

PUBLIC SERVICES AND UTILITIES – EA SECTION 3.10

Federal

Safe Drinking Water Act and Clean Water Act

See Water Resources – EA Section 3.3 above.

Public Law 280

Public Law 280 was enacted in 1953 to grant certain states criminal jurisdiction over Indians on reservations in addition to permitting civil litigation under tribal or federal court jurisdiction to be handled by state courts. The states mandated to assume criminal and civil jurisdiction over federal Indian lands are Alaska, California, Minnesota, Nebraska, Oregon, and Wisconsin, although certain tribal lands are exempt, including Metlakatla Indian Community on the Annette Island Reserve, Red Lake Reservation, and Warm Springs Reservation. In addition to these states, other states elected to assume full or partial responsibility, including Arizona, Florida, Idaho, Iowa, Montana, Nevada, North Dakota and Utah. The federal government relinquished all special criminal jurisdictions over Indian offenders and victims in these states. However, Public Law 280 does not grant states the following regulatory powers over lands held in federal trust or tribes:

- Federally guaranteed fishing, tribal hunting, and trapping rights
- Fundamental tribal governmental functions, such as domestics relations and tribal enrollment
- Authority to impose state taxes

Due to the one-sided process that imposed state jurisdiction on tribes and the complete failure to recognize tribal sovereignty and tribal self-determination, Public Law 280 was opposed by Indian Nations from its enactment. Subsequent acts of Congress, court decisions, and state actions to retrocede (or give back) jurisdiction back to the federal government have mitigated some of the effects of the 1953 law and strengthened tribes' jurisdiction over civil and criminal matters on their reservations.

State and Local

Minnesota Public Utilities Commission

The Minnesota Public Utilities Commission is responsible for issuing permits on energy generating facilities, including route permits for siting of certain high-voltage transmission lines. Additionally, the Commission's purpose is to "create and maintain a regulatory environment that ensures safe, adequate and efficient utility services at fair, reasonable rates consistent with State telecommunications and energy policies." The Commission is quasi-judicial and holds authority, powers, and functions similar to those of a court or judge.

City of Pine Island Comprehensive Plan

Chapter 6 of the Comprehensive Plan summarizes the City's wastewater infrastructure and identifies goals and policies related to municipal wastewater treatment. Chapter 7 of the Comprehensive Plan summarizes the City's water infrastructure and identifies goals and policies related to municipal water provision. In general, the Comprehensive Plan seeks to provide cost-effective public utilities to future development areas.

Environmental Setting

Water Supply

Groundwater is the source of drinking water for residents Olmsted County and the City of Pine Island. While 85% of the population is supplied by a municipal source, the remaining 15% rely on private wells. To fulfill the residential, agricultural, and industrial demands of Olmsted County, nearly 6 billion gallons of water are drawn from public and private wells annually (Rochester-Olmsted Planning Department, 2013; City of Pine Island, 2010). Currently there is no municipal water supplied to the Project Site.

Wastewater Service

Cities within Olmsted County, except for Oronoco, have municipal wastewater treatment facilities. The City of Oronoco wastewater treatment facility is currently under construction and new service connections are anticipated to begin in the spring of 2024 (City of Oronoco, 2023). The Minnesota Pollution Control Agency is responsible for regulating and monitoring these facilities (Rochester-Olmsted Planning Department, 2013).

Solid Waste

Approximately 612,000 pounds of waste is produced each day within Olmsted County with approximately 44% being recycled (Olmsted County, 2022b). The County maintains an integrated solid waste management system that emphasizes disposal in environmentally safe and economic ways that are beneficial, including the Olmsted Waste-to-Energy Facility (OWEF) that processes most of the garbage in the County and converts it into energy in the form of steam and electricity. Ash from the OWEF as well as non-combustible solid waste is currently sent to the Kalmar Landfill for disposal (Olmsted County, 2023), however the County is developing ash utilization projects to reuse the ash as aggregate road base to further minimize the amount of solid waste transported to Kalmar Landfill (Olmstead County, 2023). The nearest landfill, Kalmar Landfill, is located approximately 9.8 miles south southwest of the Project Site in the County and is approximately 160 acres in size (Olmsted County, 2023). It accepts municipal solid waste, ash from the OWEF, and construction and demolition debris.

Electricity, Natural Gas, and Telecommunications

The Project Site is located at the border of three electrical service providers, including Peoples Energy Cooperative (PEC), the Goodhue County Cooperative Electrical Association (GCCE), and Xcel Energy (GCCE, 2023). The Project Site is currently provided with electricity from PEC, which is a member-owned electrical cooperative that delivers energy to over 20,000 members in rural Minnesota. PEC owns three solar arrays, but otherwise purchases its electricity from Dairyland Power Cooperative and Interstate Power and Light, both based in Wisconsin (PEC, 2023). The service area of Goodhue County Cooperative Electrical Association currently ends just north of the Project Site, but it has electrical system upgrades planned for summer 2024 and currently has two three-phase lines in the Pine Island area (GCCE, 2023).

Xcel Energy provides electrical services to the City of Pine Island and its service area currently ends north-northwest of the Project Site. It has proposed future electrical infrastructure upgrades in the vicinity of the Project Site. Xcel Energy is a utility company that provides electricity and natural gas services to millions of customers across eight states, including Minnesota. Xcel Energy has a diverse mix of energy sources, including wind, solar, hydro, biomass, natural gas and nuclear. In 2022, 53% of the power Xcel Energy provided came from carbon-free sources with approximately 23% from coal, 24% from natural gas, 13% from nuclear, 33% from wind, 4% from solar, and 3% from other renewable energy.

The plants operated by Xcel Energy have a combined electricity production capacity of almost 20,900 megawatts. This amount of power can supply about 1,100 homes per megawatt on average (Xcel Energy, 2023). There are private companies that provide telephone, internet, and cable services to properties within the vicinity of the Project Site. Examples include BEVCOMM and T-Mobile.

Law Enforcement

The Project Site is located within the boundaries of both the City of Pine Island and the unincorporated County, and therefore falls within the jurisdiction of different law enforcement agencies. In addition, the Community maintains its own police department for law enforcement on tribal lands. Each of these law enforcement agencies is described below. The Prairie Island Police Department (PIPD) provides police protection services to the Community's Reservation and the existing Casino. It maintains a staff of approximately 10 employees including a chief of police and 8 officers, but it has authorization for 11 officers. The PIPD is fully equipped with patrol cruisers, off-road vehicles and boats. PIPD officers are certified by the State and are licensed peace officers with jurisdiction to enforce state and tribal laws. Three of the officers also possess federal deputation. In addition to the Community's own police force, the Community entered into a cooperative agreement regarding law enforcement with Goodhue County and the City of Red Wing and their law enforcement agencies on March 11, 2004. The Community has also participated in the Southeast Region Counties Mutual Aid Agreement for law enforcement services. Additionally, the Community has entered into a prosecution agreement with the Goodhue County Attorney's Office for the Prairie Island Reservation, and the Community provides annual payments for the Goodhue County Attorney's Office to serve as the prosecuting agency for State citations issued by the Community's Police officers.

Goodhue County Sheriff's Office provides police services for the City of Pine Island. These services include resources from the Sheriff's Office, such as preventive patrol, crime prevention, traffic and ordinance enforcement, and the investigation of crimes. Hours of service are determined through an analysis of needs and is cooperatively decided upon by the city council and the Goodhue County Sheriff's Office, and consequently, the hours of coverage vary in each community (Goodhue County, 2023). In 2022, the City of Pine Island contracted for a total of 6,955 hours of service from the Goodhue County Sheriff's Office. In the same year, Goodhue County Sheriff's Office answered 13,846 calls for service with a total of 1,815 citations issued and 751 arrests made (Goodhue County Sheriff's Office, 2023). The Olmsted County Sheriff's Office provides services to the unincorporated County and has 196 employees in total. The law enforcement office has several divisions, including the patrol division. This division has one captain and six platoons directed by a sergeant. The enforcement office also has the staff training and emergency management division that is responsible for the planning and exercising for human-made and natural disasters. Approximately 97 outdoor warning sirens and facilities are maintained by this division in addition to maintaining and updating the County's Emergency Operation Plan.

Fire Protection and Emergency Medical

In the vicinity of the Project Site, the Pine Island Fire Department serves the City of Pine Island and the townships of Milton, New Haven, Oronoco, Pine Island, and Roscoe with fire protection and emergency services (Pine Island Fire Department, 2023). The department responds to approximately 440 calls annually ranging from medical emergencies, motor vehicle accidents, rescue calls, and incidents involving hazardous materials. The department has approximately 26 volunteer fire fighters (County Office, 2023). The Pine Island Fire Department only has one fire station, and this fire station is approximately 4.8 miles northwest of the Project Site. The nearest fire station to the Project Site is the Oronoco Fire Station, approximately 0.9 miles southeast.

Unincorporated Olmsted County is serviced by several fire departments in the County, but the unincorporated portion of the Project Site would likely be serviced by the Pine Island Fire Department, which protects over 10,000 residents across a nearly 131 square mile area including the City of Pine Island and the township of Oronoco (Pine Island Fire Department, 2023). The nearest hospital center to the Project Site is Mayo Clinic Hospital, Saint Mary's Campus, approximately 11 miles south of the Project Site. This hospital provides a range of services, including cardiac treatment, psychiatry and psychology treatment, neurosurgery, rehabilitation unit, and emergency department that includes a Level 1 Trauma Center (Mayo Clinic, 2023).

Public Schools

The Project Site is located within the Pine Island Public School District. The District currently provides educational services through four schools in total. Enrollment data indicated approximately 1,493 students in the Pine Island Public School District (National Center for Education Statistics, 2023). In Olmsted County, the 2022 public school enrollment is estimated at 24,822 students (**Appendix B** of the EA). The nearest school to the Project Site is the Pine Island Public School approximately 2 miles west.

Parks and Recreation

Public parkland and open space in Olmsted County spans over 12,000 acres and includes County regional parks, trails, and dedicated open spaces. The State, the Minnesota Department of Natural Resources, and each of the city governments also own and manage complementary parks and lands. The County's own parkland holdings amount to 2,217 acres, which feature multi-use facilities as well as single-purpose use areas (Olmsted County Planning Department, 2021). The closest park area to the Project Site is Oronoco Park, approximately 0.6 miles southeast of the Project Site.

NOISE – EA SECTION 3.11

Federal

Federal Highway Administration Noise Abatement Criteria

The Federal Highway Administration (FHWA) provides construction noise level thresholds in its Construction Noise Handbook, 2006. These are provided in **Table 6**.

Table 5: Federal Construction Noise Thresholds

Noise Receptor Locations and Land Uses	Daytime dBA, Leq (7 am - 6 pm)	Evening dBA, Leq (6 pm - 10 pm)	Nighttime dBA, Leq (10 pm - 7 am)
Noise-Sensitive Locations (residences, institutions, hotels)	78 or Baseline +5 (whichever is louder)	Baseline + 5	Baseline + 5 (if Baseline < 70) or Baseline + 3 (if Baseline > 70)
Commercial Areas (businesses, offices, stores)	83 or Baseline + 5	None	None
Industrial Areas (factories, plants)	88 or Baseline + 5	None	None

Operational noise standards used in this study are FHWA Noise Abatement Criteria (NAC) for the assessment of noise consequences related to surface traffic and other project-related noise sources. These standards are discussed below.

The FHWA establishes NAC for various land uses that have been categorized based upon activity. Land uses are categorized on the basis of their sensitivity to noise as indicated in **Table 7**. The FHWA NAC is based on peak traffic hour noise levels. Sensitive receptors with the potential to be impacted by the project alternatives primarily consist of residential land uses; thus, the Category B noise standard (67 dBA L_{eq}) would apply to those uses.

Federal Transit Administration Transit Noise and Vibration Impact Assessment Manual

Peak particle velocity (PPV) is often used to measure vibration. PPV is the maximum instantaneous peak (inches per second) of the vibration signal.

Table 6: Federal Noise Abatement Criteria Hourly A-Weighted Sound Level Decibels

Activity Category	Activity Criteria Leq (h), dBA	Evaluation Location	Activity Category Description
A	57	Exterior	Land on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67	Exterior	Residential
C	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, tv studios, and trails
D	52	Interior	Auditoriums, daycare centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or non-profit institutional structures, radio studios, recording studios, schools, and television studios
E	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F
F	--	--	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, shipyards, utilities (water resources/treatment, electricity), and warehousing
G	--	--	Undeveloped lands that are not permitted

The PPV levels are used to estimate L_v or VdB levels (vibration decibels with a reference velocity of one micro-inch per second). Scientific studies have shown that human responses to vibration vary by the source of vibration, which is either continuous or transient.

Continuous sources of vibration include construction while transient sources include truck movements. Generally, the thresholds of perception and annoyance are higher for transient sources than for continuous sources. **Table 8** summarizes the Federal Transportation Administration's (FTA) guideline vibration damage criteria for various structural categories. As shown therein, buildings extremely susceptible to vibration damage could be damaged if vibration levels exceed 90 VdB. Additionally, although humans have a perceptibility threshold of 65 VdB, human response to vibration is not usually significant unless the vibration exceeds 70 VdB (FHWA, 2006). Background vibration velocity in residential areas is usually 50 VdB or lower.

Table 8: Construction Vibration Damage Criteria

Building Category	Approximate PPV (in/sec)	Approximate Lv (VdB)
Reinforced-concrete, steel, or timber (no plaster)	0.5	102
Engineered concrete and masonry (no plaster)	0.3	98
Non-engineered timber and masonry buildings	0.2	94
Buildings extremely susceptible to vibration damage	0.12	90

State and Local

Minnesota Pollution Control Agency Guide to Noise Control

The Minnesota Pollution Control Agency (MPCA) enforces State noise rules (Minnesota Rules Ch. 7030). Minnesota's primary noise limits are set by noise area classifications (NACs) based on land uses at the location of the person that hears the noise. NACs are also based on the sound level in decibels (dBA) over ten percent (L10), or six minutes, and fifty percent (L50), or thirty minutes, of an hour. For residential locations (NAC 1), limits are L10 = 65 dBA and L50 = 60 dBA during the daytime (7 am – 10 pm) and L10 = 55 dBA and L50 = 50 dBA during the nighttime (10 pm – 7 am) (Minnesota Rules Ch. 7030.0040). This means that during a one-hour period of monitoring, daytime noise levels cannot exceed 65 dBA for more than 10 percent of the time (six minutes) and cannot exceed 60 dBA more than 50 percent of the time (30 minutes). Common land uses associated with each NAC include the following:

- NAC 1: Residential housing, religious activities, camping and picnicking areas, health services, hotels, educational services
- NAC 2: Retail, business and government services, recreational activities, transit passenger terminals
- NAC 3: Manufacturing, fairgrounds and amusement parks, agricultural and forestry activities
- NAC 4: Undeveloped and unused land

Although there is a NAC 4, there are no noise standards for these areas. The Project Site falls within NAC 3 for agriculture. Thresholds for each NAC are shown in **Table 9**.

Table 9: NAC Noise Thresholds

	Daytime		Nighttime	
NAC	L10	L50	L10	L50
1	65 dBA	60 dBA	55 dBA	50 dBA
2	70 dBA	65 dBA	70 dBA	65 dBA
3	80 dBA	75 dBA	80 dBA	75 dBA

Source: Minnesota Rules Ch. 7030.0040

Fundamentals of Sounds, Effects of Noise on People, and Characteristics of Vibrations

Fundamentals of Sound

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound.

The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second or Hertz (Hz). Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected, or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers, and therefore, to avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals) as a point of reference, which is defined as 0 dB (decibels) at this threshold. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness. Since the decibel scale is logarithmic, not linear, two sound levels 10-dB apart differ in acoustic energy by a factor of 10.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (dBA) and the way the human ear perceives sound. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise. The day/night average level (DNL or L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction.
- Interference with activities such as speech, sleep, and learning.
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category.

There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level.

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. Regarding increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness and can cause an adverse response.

Stationary point sources of noise—including stationary mobile sources such as idling vehicles—attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

Characteristics of Vibrations

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, amplitude and frequency of the source, and the response of the system that is vibrating. Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. A threshold of 0.20 inches/second PVV is considered to be a reasonable threshold for short-term construction projects.

HAZARDOUS MATERIALS – EA SECTION 3.12

Federal

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) regulates the land disposal of hazardous materials from cradle-to-grave. This means establishing a regulatory framework for the generation, transport, treatment, storage and disposal of hazardous waste. Specifically, Subtitle D of RCRA pertains to non-hazardous solid waste and Subtitle C focuses on hazardous solid waste. A solid waste can consist of solids, liquids and gases, but these must be discarded in order to be considered waste.

Additionally, the USEPA has developed regulations to set minimum national technical standards for how disposal facilities should be designed and operated. States issue permits to ensure compliance with USEPA and state regulations. The regulated community is comprised of a diverse group that must comprehend and adhere to RCRA regulations. These groups can consist of hazardous waste generators, government agencies, small businesses, and gas stations with underground petroleum tanks.

Food, Drug, and Cosmetic Act

Under the federal Food, Drug, and Cosmetic Act, the USEPA sets maximum residue limits, or tolerances, for pesticides residues on food. When the USEPA sets a tolerance level for a food, this is the level deemed safe. In defining safe, this means that, "reasonable certainty that no harm will result from aggregate exposure to the pesticide residue." When determining a safety finding for a tolerance level, the USEPA considers the toxicity of the pesticide and its break-down products, aggregate exposure to the pesticide in foods and from other sources of exposure if applicable, and any special risks specific to infants and children. If a tolerance is not set for a pesticide residue, a food containing that pesticide residue will be subject to government seizure if deemed appropriate. However, once a tolerance has been established for a pesticide residue, then residue levels below the tolerance will not trigger enforcement actions. If the residue level is detected above that tolerance, then the commodity will be subject to seizure. Some pesticides do not have a set tolerance level as the USEPA may grant exemptions in the cases where the pesticide residue does not pose, under foreseeable situations, a significant dietary risk.

Insecticide, Fungicide, and Rodenticide Act

The federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) addresses the sale, distribution, and labeling of pesticides, as well as the certification and training of pesticide applicators. FIFRA establishes recordkeeping and reporting requirements on certified applicators of restricted use pesticides. Furthermore, FIFRA imposes storage, disposal, and transportation requirements on registrants and applicants for the registration of pesticides. Pesticide use is regulated through requirements to apply pesticides in a manner consistent with the label. The labeling requirement includes directions for use, warnings, and cautions along with the uses for which the pesticide is registered (e.g., pests and appropriate applications). This includes the specific conditions for the application, mixture, and storage of the pesticide. Additionally, the label must specify a time period for re-entry into an area after the pesticide has been applied, and when crops may be harvested after the application of the pesticide. If a pesticide is used in a manner contrary to specifics on its label, then the use constitutes a violation of the FIFRA.

Hazardous Communication Standard

The Occupational Safety and Health Administration helps ensure employee safety by regulating the handling and use of chemicals in the workplace. For instance, it administers the Hazard Communication Standard (HCS). The HCS ensures safety in the workplace concerning chemicals through requiring information to be provided and understood by workers about the identity and hazards associated with chemicals they may work with. This also requires that chemical manufactures and importers evaluate the hazards associated with the chemicals they create or import, and that these chemicals have proper labels and material safety data sheets concerning their hazards to others (e.g., customers). Downstream of the production, employers who utilize these hazardous chemicals in their workplaces are obligated to have labels and safety data sheets for workers and to train them on the proper handling of these chemicals.

Hazardous Substances Act

The Consumer Product Safety Commission has a limited role in regulating hazardous substances; it primarily deals with the labeling of consumer products through the federal Hazardous Substances Act (HSA). HSA only requires products that may at some point be in the presence of people's dwellings to be labeled, including during purchase, storage, or use. These labels must alert consumers of the potential hazards that the product may pose.

However, in order for a product to be required for labelling, the product must be toxic, corrosive, flammable/combustible, an irritant, a strong sensitizer, or have the ability to generate pressure through decomposition, heat, or other means. Furthermore, the product must possess the ability to cause severe personal injury or substantial illness during or as a result of any customary or reasonably predictable handling or use, including ingestion by children.

Toxic Substances Control Act

The federal Toxic Substances Control Act (TSCA), as amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act, permits the USEPA to evaluate the potential risk from novel and existing chemicals and address unacceptable risks chemicals may have on human health and the environment. The USEPA oversees the production, importation, use, and disposal of certain chemicals. This includes the USEPA having the authority to require record keeping, reporting, and test requirements and restrictions associated with certain chemical substances and/or mixtures. However, certain groups of chemicals are excluded from TSCA consideration, including—but not limited to—food, drugs, cosmetics and pesticides. Examples of chemicals included in TSCA consideration are lead paint, asbestos, mercury, formaldehyde, and polychlorinated biphenyls.

Emergency Planning and Community Right-to-Know Act

The federal Emergency Planning and Community Right-to-Know Act (EPCRA) is designed to assist local communities protect public health, safety, and the environment from chemical hazards. The Community Right-to-Know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. The EPCRA also requires industry to report on the storage, usage, and releases of hazardous substances to federal, state, and local governments, and states and communities can use the information gained to improve chemical safety and protect public health and the environment.

National Fire Protection Association Codes and Standards

The National Fire Protection Association (NFPA) publishes over 300 consensus codes and standards to minimize the possibility and effects of fire and other risks, including, but not limited to (NFPA, 2022):

- NFPA 13 Standard for the Installation of Sprinkler Systems
- NFPA 72 National Fire Alarm and Signaling Code
- NFPA 88A Standard for Parking Structures
- NFPA 1660 Standard for Emergency, Continuity, and Crisis Management: Preparedness, Response, and Recovery
- NFPA 1140 Standard for Wildland Fire Protection

State and Local

Olmsted County Multi-Hazard Mitigation Plan

The Multi-Hazard Mitigation Plan is a requirement of the Federal Disaster Mitigation Act of 2000. The County is vulnerable to a variety of potential natural disasters that can threaten the loss of life and property in the county. Hazards such as tornadoes, flooding, wildfires, blizzards, straight-line winds, ice storms, and droughts have the potential for inflicting vast economic loss and personal hardship. The Multi-Hazard Mitigation Plan was created from the combined efforts of the County and its local governments to fulfill the responsibility for hazard mitigation planning.

The intent of the plan is to reduce the actual threat of specific hazards through reducing their potential to cause damage and losses. The County has specified the following goals for this Multi-Hazard Mitigation Plan:

- To evaluate and rank the hazards that impact the County.
- To determine the extent of existing mitigation programs and policy capabilities within the County.
- To create a detailed, working document that will establish a standardized process for ensuring coordination of hazard mitigation efforts and to implement an ongoing and comprehensive hazard mitigation strategy.
- To familiarize state and local officials and the general public about comprehensive hazard mitigation in the County and obtain their support (Olmsted County, 2017).

Environmental Setting

Phase I ESA

Wenck Associates, Inc. completed a Phase I Environmental Site Assessment (ESA) in March 2018 that included the Project Site and other nearby properties to assess whether there were recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs), and historical recognized environmental conditions (HRECs) in connection with these properties (**Appendix K** of the EA). The Phase I ESA was conducted in accordance with the American Society for Testing and Materials (ASTM) Standard Practice E-2247-16 and practices set forth in 40 CFR Part 312 – Standards for Conducting all Appropriate Inquiry. Per the ASTM Standard Practice E-2247-16, RECs, HRECs, and HRECs are defined as follows:

- REC refers to the presence or likely presence of any hazardous substances or petroleum products in, on or at a property due to any release to the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of future release to the environment.
- CREC refers to a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority and are allowed to remain, but subject to the implementation of required controls.
- HREC refers to a past release of any hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority or meets unrestricted use criteria established by a regulatory authority without subjecting the property to any required controls.

A records retrieval and review of records, site reconnaissance, and interviews with people knowledgeable about the Project Site and other properties were conducted in support of the Phase I ESA assessment. According to reviewed sources of information, the Project Site was developed with a farmstead prior to 1937 and was primarily agricultural land with limited elk farming until 1985 when the majority of the Project Site was turned into an elk farm and grazing land. Between approximately 1985 and 2006, the Project Site accepted silage from a local, offsite source, and used the silage as elk food and the liquid silage residue as fertilizer. In 2009, an elk from the Project Site tested positive for chronic wasting disease, and the entire herd of 1,500 elk was subsequently culled. The Project Site received a letter from the USEPA indicating that grazing could resume in 2014. Since 2014, portions of the Project Site have been used for seasonal cattle grazing, and the Project Site is also used for agricultural row crops.

Mapped sites of regulatory interest from the databases identified in the GeoSearch Radius Report were determined to not be likely to affect soil, groundwater, or soil vapor conditions at the Project Site due to their locations with respect to the presumed direction of groundwater flow, and/or other information provided by the database report.

During the site visit conducted on the Project Site on March 7, 2018, no conditions of concern were identified except for the floor drains observed in the shop portion of the barn. Interview information indicated that the floor drains discharged directly to the subsurface at the Project Site, but the precise discharge location was not determined. Due to the management of petroleum products and maintenance chemicals in the tractor barn, the length of time that the floor drains have been in use (at least 47 years at the time of the Phase I ESA), and the subsurface discharge of the floor drains, the Phase I ESA identified a material threat of release of petroleum products and potentially hazardous substances.

In December 2018, a subsequent limited Phase II ESA was performed by Braun Intertec Corporation (Braun) to investigate areas of potential contamination identified in the 2018 Phase I ESA (Braun, 2019b). Through additional information obtained from the previous property owner, it was determined that the barn drains were connected to an underground storage tank, and that several other previously unidentified fuel storage USTs were located beneath the paved area south of the barn. The barn drain UST and fuel storage USTs were removed in July 2019. Additional investigations were conducted in connection with the USTs, summarized briefly below:

- Barn Drain UST: In November 2019, a Supplemental Environmental Site Assessment (SESA) was conducted in connection with removal of the barn UST (Braun, 2019a). Four soil borings were collected around the former UST to evaluate the extent of the low concentration of diesel range organics (DRO) found in the groundwater during July 2019 UST excavation. No groundwater was encountered in the soil borings and no contaminants were detected in the soil analytical samples.
- The site was subsequently enrolled in the Minnesota Pollution Control Agency (MPCA) Petroleum Brownfield Program (MPCA Site ID#0021034) and a No Petroleum Action letter was provided by MPCA which concluded that no additional action was required with regards to the barn drain UST and no further investigation and/or response actions are required. The No Petroleum Acton letter was signed by MPCA on June 18, 2020 (MCPA, 2020b).

  Fuel Storage USTs: During site investigations associated with the fuel storage USTs removal, gasoline range organics (GRO) were detected under a petroleum UST to the south of the barn (identified as Tank 2) and a limited additional investigation was recommended (Braun, 2019a). Braun facilitated a MPCA Limited Site Investigation (LSI) with findings indicating no soil contamination or impacts to the groundwater aquifer. The soil impacts were determined to be limited to the immediate area below former Tank 2 and an MPCA site closure was recommended (Braun, 2020). MPCA concurred with the finds in a Petroleum Tank Release Site File Closure letter on June 10, 2020 stating the investigations and/or cleanup activities have adequately addressed the petroleum tank release. MPCA concluded that any remaining contamination, if present, does not appear to pose a threat to public health or the environment under current conditions (**Appendix K** of the EA; MCPA, 2020a).

Through the investigations within the 2018 Phase I ESA and subsequent 2019 SESA and 2020 LSI, no other observations or on-site operations indicated the presence of a release or a material threat of release of petroleum products or potentially hazardous substances. The identified material releases and subsequent investigations at both the barn drain UST and diesel fuel UST are considered HRECs. No other RECs were identified in connection with the property.

Nuclear Power Plant

There are two nuclear power plants in the State, Monticello Nuclear Generating Plant located in Monticello and the Prairie Island Nuclear Generating Plant located outside of Red Wing, located approximately 100 miles and 30 miles from the Project Site, respectively. The Prairie Island Nuclear Generating Plant is located adjacent to the existing Casino and poses a potentially significant risk to the Casino, Reservation, and the surrounding areas. The plant stores nuclear waste on-site in large steel casks. While the waste is stored in casks that are designed to withstand natural disasters, accidents, and terrorist attacks, the plant has no permanent disposal site for the radioactive waste that is produced by the nuclear fission process (MRP News, 2022).

Should a nuclear power plant emergency occur, it could impact an area ranging from the immediate vicinity of the plant to several square miles around it. The danger would arise from radioactive gases or materials that could be carried by the wind from the plant (Xcel Energy, 2020).

FEMA is responsible for overseeing preparedness by state and local authorities situated near nuclear plants. The United States Nuclear Regulatory Commission (NRC) regulations have established 10-mile emergency planning zones (EPZ) around domestic nuclear power plants. Local and state authorities within the 10-mile zone must develop protective action plans for responding to a radiological incident that include evacuations and sheltering in place. Local and state authorities also must provide information on radiation and protective actions to residents of the 10-mile zone on an annual basis. While the existing Casino and Reservation are within the 10-mile EPZ and potential evacuation area for the plant, the Project Site and the City of Pine Island are not. The following planning and informational documents pertain to the plant:

- Prairie Island Nuclear Generating Plant After Action Report/Improvement Plan: Prepared by FEMA, this report evaluated the Radiological Emergency Preparedness Full Participation Plume Exposure Pathway Exercise conducted on August 24, 2010 to test emergency response capabilities. It includes sections on exercise overview, design summary, and analysis of capabilities, detailing the exercise planning team, participating jurisdictions, and the evaluation of exercise criteria. The report also presents findings, deficiencies, corrective actions, and the schedule of corrective actions for identified exercise issues within the 10-mile EPZ surrounding the Prairie Island Nuclear Generating Plant (FEMA, 2010), of which the existing Casino and Reservation fall within.
- Prairie Island Emergency Planning Guide from Xcel Energy: Provides essential information about radiation and instructions on what to do in the unlikely event of an accident at the Prairie Island Nuclear Generating Plant. It is intended for individuals who live, work, or attend school within 10 miles of the plant or are visiting the area, which includes the existing Casino and Reservation. The guide is updated annually (Xcel Energy, 2022).
- Disaster Accountability Project, Report on Emergency Evacuation Planning for Prairie Island Nuclear Generating Plant: Surveyed local emergency preparedness efforts and the level of information provided to the public within a 50-mile radius of the Prairie Island Nuclear Generating Plant and found a number of deficiencies, including conflicting information provided for 10-mile radius evacuation zones and a lack of preparedness for areas within a 50-miles radius of the plant. The 50-mile radius includes the existing Casino, Reservation, and the Project Site (Disaster Accountability Project, 2016).

The Project Site is approximately 30 miles south of the Prairie Island Nuclear Generating Plant and is therefore outside of the FEMA-designated 10-mile radius EPZ, but within the 50-mile Ingestion Planning Zone. The Ingestion Planning Zone refers to an additional area of concern where protective actions may be necessary associated with contamination of water supplies, food crops and livestock above FDA guidelines, and ground contamination above USEPA guidelines (Minnesota Department of Public Safety, 2018). While there is a multi-hazard mitigation plan in Olmsted County (County), this does not directly address any risks from the Prairie Island Nuclear Generating Plant. Furthermore, there are no evacuation or planning documents addressing nuclear emergency preparedness in the County.

Wildfire

On average from 1976-2011, there were approximately 1,600 wildfires each year in Minnesota, with most occurring in March, April, and May, as well as throughout the year with the exception of winter. During the period with the highest wildfire potential, ample fuel is available due to the winter kill-off that leaves ample dead and dry vegetation that is combustible. Simultaneously, there is less green vegetation to serve as a barrier for a moving wildfire. Approximately 15 wildfires were responded to in Olmsted County in the 30-year period between 1985 and April 2015, which were human-caused and burned a total of 57 acres. The largest fire burned 20 acres in 1997 in the southeastern corner of Olmsted County that originated from a burn pile of debris. Overall, wildfire was ranked as low risk within Olmsted County because their occurrence is uncommon. Furthermore, different jurisdictions in the County do not vary in their vulnerability to wildfires and increased development has not changed this vulnerability in recent years (Olmsted County, 2017).

VISUAL RESOURCES – EA SECTION 3.13

Federal

Wild and Scenic Rivers Act of 1968

The Wild and Scenic Rivers Act of 1968 is a federal law that was established to protect selected rivers in the United States that have outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. The Act preserves the unique character of these rivers while also acknowledging their potential for appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection. The National Wild and Scenic Rivers System was created by the Wild and Scenic Rivers Act. River units designated as part of the system are classified and administered three types based on the condition of the river, the amount of development in the river or on the shorelines, and the degree of accessibility by road or trail at the time of designation:

- Wild River Areas: These rivers or sections of rivers are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
- Scenic River Areas: These rivers or sections of rivers are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- Recreational River Areas: These rivers or sections of rivers are readily accessible by road or railroad, may have some development along their shorelines, and may have undergone some impoundment or diversion in the past.

Typically, rivers are added to the system by an act of Congress, but they may also be added by state nomination with the approval of the Secretary of the Interior. Congress initially designated 789 miles of eight rivers as part of the system. Today there are 208 river units with 12,708.8 miles in 40 states and Puerto Rico, administered by federal agencies or by state, local, or tribal governments. Federal agencies are typically the National Park Service, the Bureau of Land Management, the Forest Service, or the Fish and Wildlife Service.

State and Local

Minnesota's Wild and Scenic Rivers Act

Minnesota's Wild and Scenic Rivers Act was established in 1973 by the State Legislature to create a statewide system for preserving and protecting rivers in the State with outstanding natural, scenic, scientific, historic, cultural, and recreational values. The Act mandates the Department of Natural Resources to establish statewide standards and criteria for designating, classifying, and managing the state's Wild and Scenic Rivers, including minimum standards for land use, development, and administration. Six rivers have been designated under the Act: Kettle, Mississippi, North Fork of the Crow, Minnesota, Rum, and Cannon. Each designated stretch has rules that constitute the management plan for that river. The individual river plans include the following:

- The classification of the river or river segments as wild, scenic and/or recreational;
- The boundaries of the area along the river to be included within the system, which may not exceed 320 acres per mile on both sides of the river;
- Rules governing the use of public lands and waters within the designated area, which may differ from the statewide rules;
- Standards for local land use controls within the designated area, which may differ from statewide standards and criteria based on the particular attributes of the area;
- Rules regarding recreation management and the acquisition of land and/or scenic easements within the area; and
- Rules for administering the management plan.

Minnesota Scenic Byways Program

The Minnesota Scenic Byways program is a network of roads that have been designated as having regionally outstanding scenic, natural, recreational, cultural, historic, or archaeological significance. The program was launched in 1992 by the Minnesota Department of Transportation, the Minnesota Department of Natural Resources, the Minnesota Office of Tourism (Explore Minnesota) and the Minnesota Historical Society.

The program aims to establish partnerships with communities, organizations and government agencies to match resources with grassroots marketing and economic development efforts. The program is designed to identify highway routes of exceptional interest and to encourage economic development through tourism and recreation. The program has 22 byways that total 2,948 miles throughout the state. The byways travel through or by a variety of topographies, including waterfalls, woods, prairies, and plains.

Olmsted County General Land Use Plan

Olmsted County General Land Use Plan provides a framework for land use decisions in the County. It indirectly includes policies and recommendations for visual resources through the preservation of natural and scenic resources.

The General Land Use Plan has several policies and goals for natural and scenic resources. These include preserving natural resources such as wetlands, floodplains, and woodlands, protecting and improving the quality of surface and groundwater resources, and preserving scenic resources such as parks, open spaces, and scenic corridors. These policies and goals are designed to ensure that natural and scenic resources are protected and preserved for the benefit of the community and future generations. For more information on the Olmsted County General Land Use Plan, see Land Resources – EA Section 3.3 above.

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Appendix E

Biological Assessment

BIOLOGICAL ASSESSMENT

PRAIRIE ISLAND INDIAN COMMUNITY

Emergency Gaming Facility and Fee-to-Trust Project

Olmsted County, MN| April 2024

Lead Agency:

Bureau of Indian Affairs
Midwest Regional Office
Norman Pointe II Building
5600 W. American Blvd. Suite 500
Bloomington, MN 55437

BIOLOGICAL ASSESSMENT

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Section 1 | Introduction

1.1 PURPOSE OF ASSESSMENT

The purpose of this biological assessment is to provide technical information and to review the Proposed Action in sufficient detail to determine to what extent the Proposed Action may affect federally threatened, endangered, or candidate species. This biological assessment has been prepared in accordance with legal requirements found in Section 7 (a)(2) of the Endangered Species Act (16 U.S. C 1536(c)). The purpose of a biological assessment is to evaluate the potential effects of an action on species listed and proposed for listing, as well as designated and proposed Critical Habitat, and to determine whether any such species or habitat are likely to be adversely affected by the action.

1.2 DESCRIPTION OF ACTION AREA AND PROPOSED ACTION

Action Area

The Proposed Action consists of the acquisition by the U.S. Bureau of Indian Affairs (BIA) of the approximately 419.8-acre Action Area in unincorporated Olmsted County and City of Pine Island, Minnesota into federal trust status for the Prairie Island Indian Community (Tribe) for gaming purposes, and subsequent improvements to the Action Area for the potential future operation of an emergency gaming facility should the Tribe's existing Treasure Island Resort & Casino close due to a catastrophic event (Proposed Action). A portion of the Action Area is within the City of Pine Island, and the remaining portion is within an unincorporated area of the County. The western portion of the Action Area is within the New Haven Township, while the eastern portion of the Action Area falls within the Oronoco Township. The Action Area is located in Sections 1 and 12 of Township 108 North, Range 15 West and Sections 6 and 7 of Township 108 North, Range 14 West, within the Fifth Principal Meridian. The Action Area falls within the Oronoco U.S. Geological Survey (USGS) 7.5' quadrangle map. **Figure 1** and **Figure 2** show the location of the Action Area and **Figure 3** presents an aerial photograph of the Action Area and the immediate vicinity.

For purposes of this assessment, the Action Area is defined as the entire property, which totals 419.8 acres. The sum of the development footprints is designated as the Project Area, which totals 14.2 acres.

Development Components

Development components are shown in **Table 1** and **Figure 4**. The Proposed Action includes the renovation of an existing barn structure totaling approximately 21,678 square feet into an emergency gaming facility. The facility will include approximately 500 slot machines, a food service area, gaming support, back of house support, and employee spaces. A surface level parking lot will be constructed within the developed area surrounding the existing barn and will provide 520 parking stalls. Access to the gaming facility will be provided via an existing access drive that will be improved to accommodate the anticipated traffic. Utilities to support the gaming facility are already present on-site. An existing single-family detached residence will be renovated to serve as Tribal office space, and renovations would not expand the residence's current footprint. Work associated with the office will be limited to the existing structure and surrounding developed/landscaped space. Access to the office space will be provided off the existing access drive that will also serve the gaming facility.

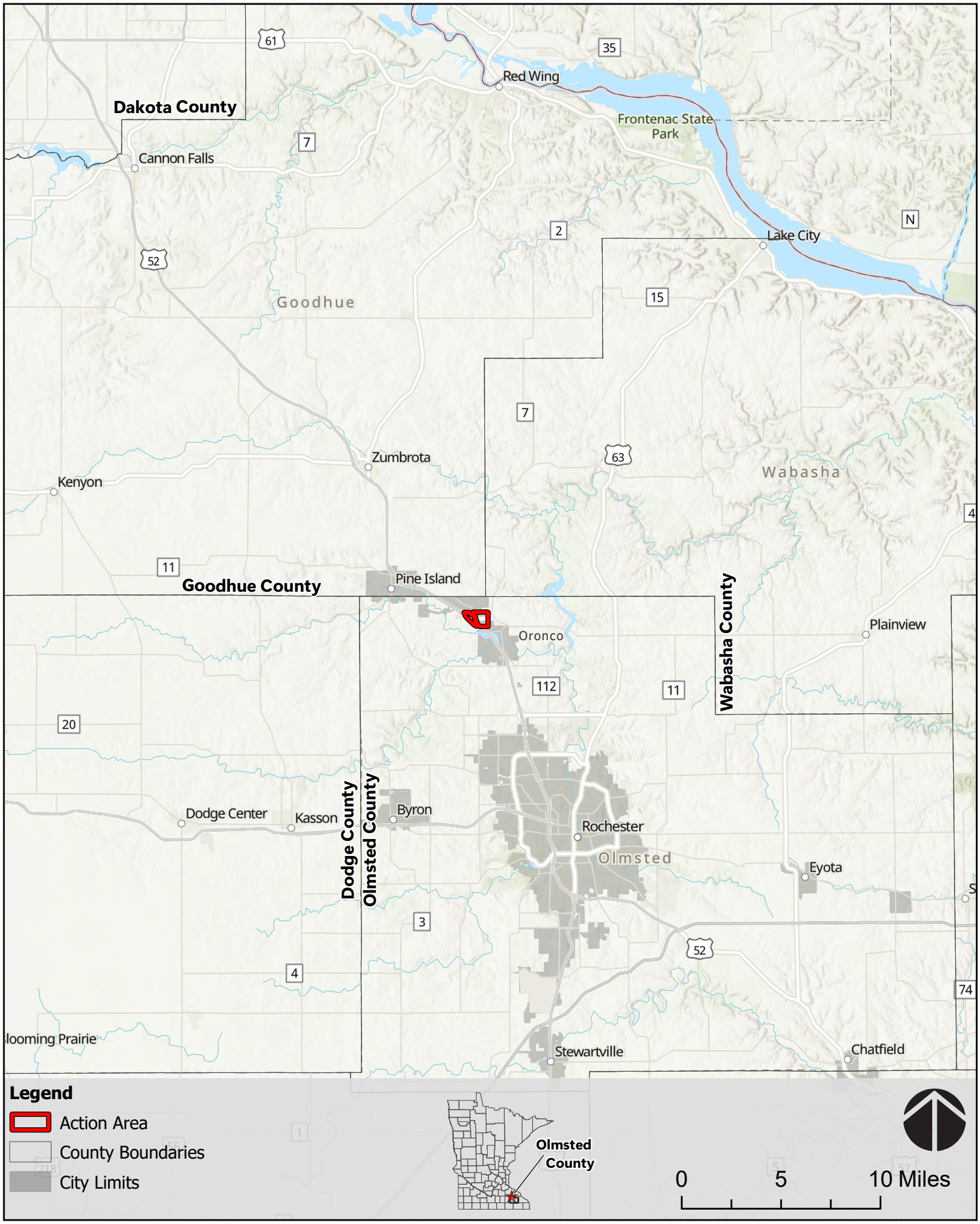

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FIGURE 1

REGIONAL LOCATION

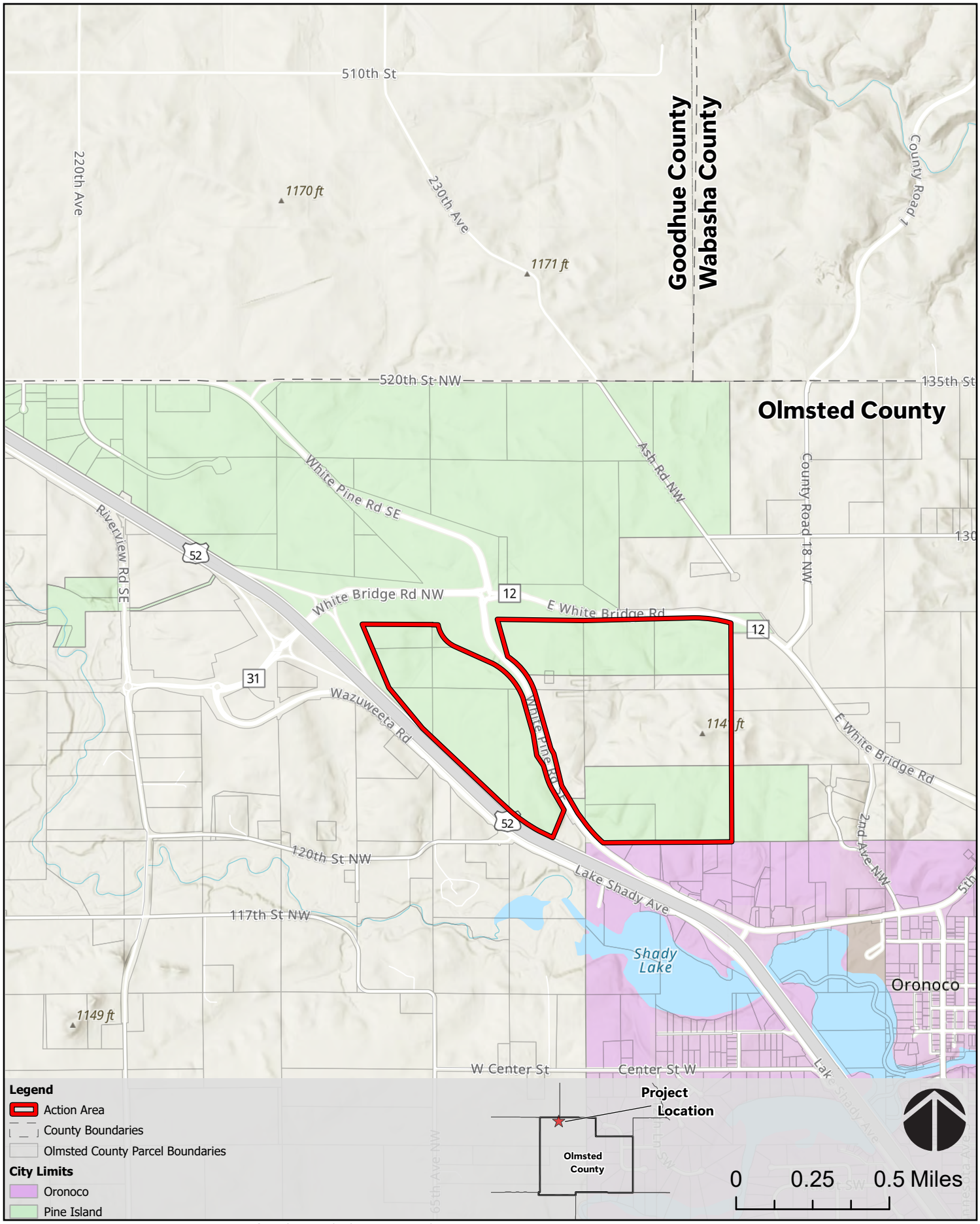

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FIGURE 2
SITE AND VICINITY

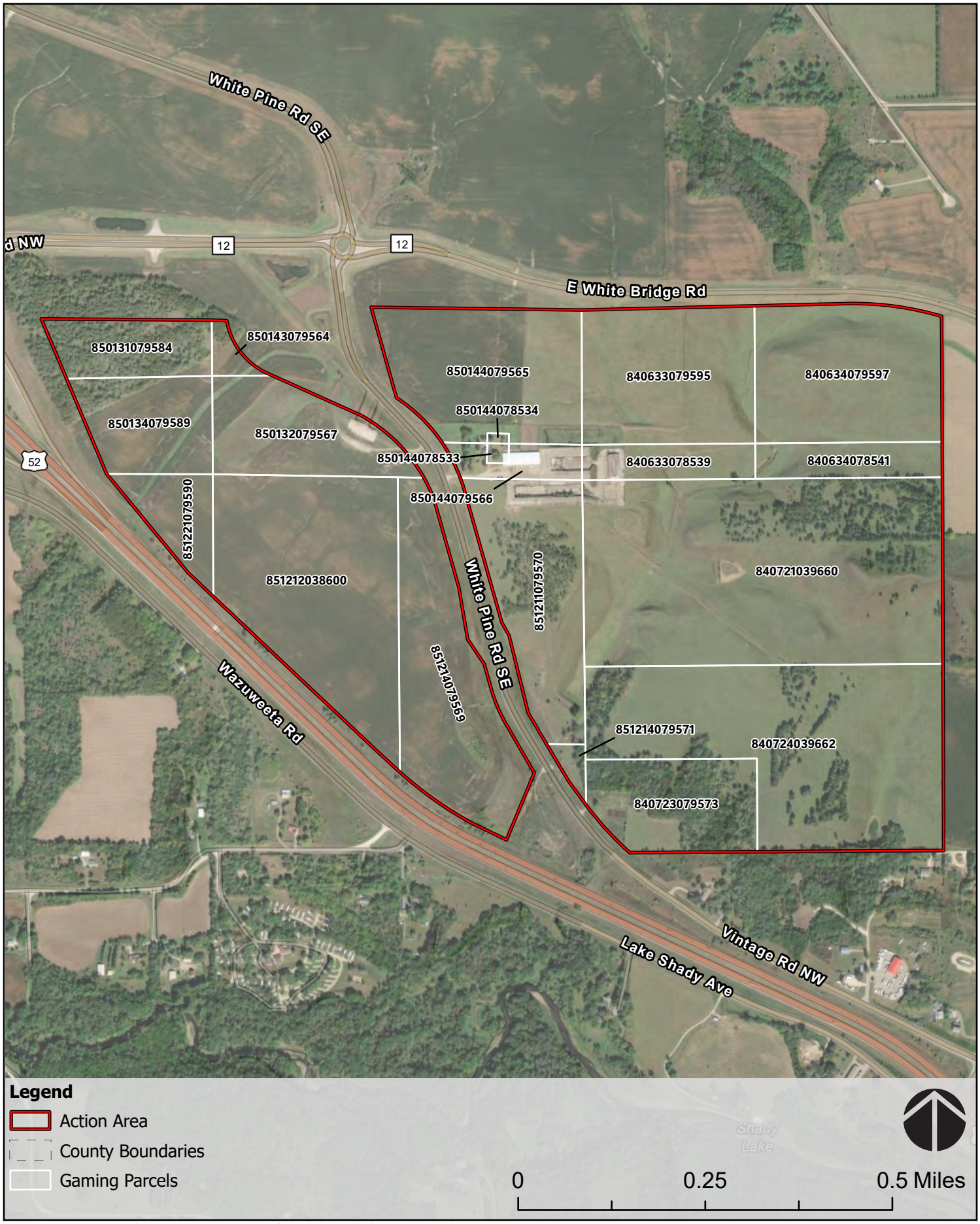

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FIGURE 3
AERIAL OVERVIEW

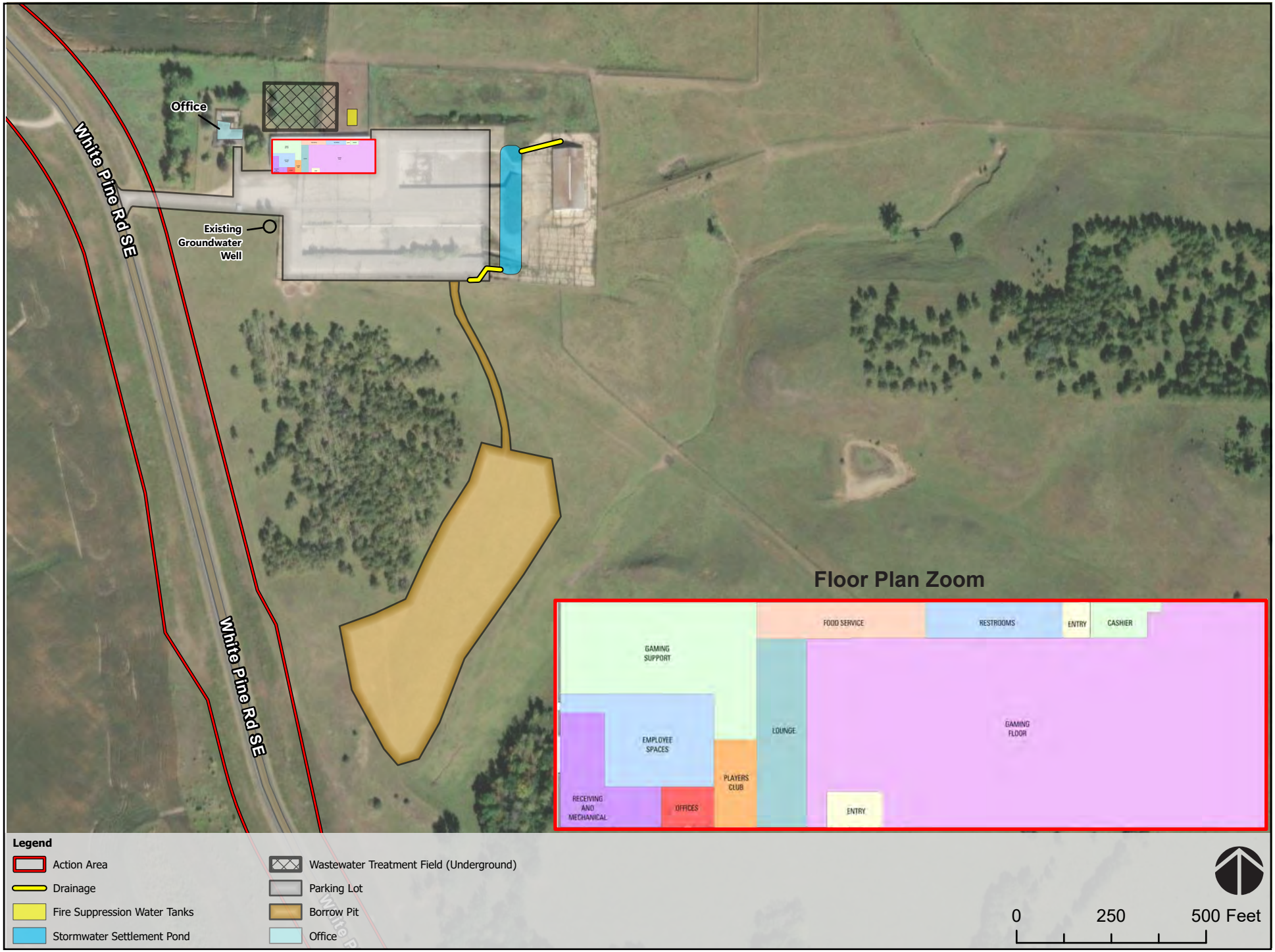

FIGURE 4

SITE PLAN

Table 1: Development Components

Area	Number of Units	Square Footage
Casino		
Gaming Floor	500 Slots	12,123
Restaurants		
Food Service	45 Seats	834
Lounge	25 Seats	1,276
Back/Front of House/Support		
Gaming Support	-	2,730
Players club	-	514
Employee Spaces	-	1,504
Receiving and Mechanical	-	1,012
Cashier	-	303
Offices	-	292
Entries	-	409
Restrooms	-	670
Total	-	**21,667**
Parking		
Valet	30 Stalls	-
Surface Parking	445 Stalls	-
Employee	45 Stalls	-
Total	520 Stalls	-
Office Renovation	-	-

Source: RSP Architects, 2023

Should a catastrophic event occur that would result in closure of the existing Casino, the existing barn structure on the Project Site would undergo renovations to serve as an emergency gaming facility. The facility would not exceed the existing barn footprint, and as such would consist of approximately 21,667 square feet. Additionally, although specific plans have not been developed, should the Tribe determine additional Tribal economic income and employment opportunities are needed, the Tribe would have the flexibility to renovate the barn structure for the permanent operation of an optional gaming facility, secondary to the Treasure Island Resort & Casino. If developed, it is anticipated that the optional secondary gaming facility would be identical to the proposed emergency gaming facility, however it would not open prior to 2031 at the earliest, if at all.

Preparations and improvements to the Project Site would begin immediately after trust acquisition. The Project Site would initially be improved such that the emergency gaming facility could be operational within approximately 3 months should a catastrophic event occur. Initial site preparation activities that may occur immediately after trust acquisition are anticipated to take approximately 12 months and would consist of grading and drainage improvements, the installation of water supply and wastewater treatment infrastructure, access and landscaping improvements, and utility connections. Removal and repaving of existing pavement would be required for surface parking, stormwater collection facilities, and access.

Limited landscaping would require minor earth moving activities while trenching and excavation would be required for the stormwater and wastewater storage/treatment facilities. Construction activities, ground disturbance, and staging would be limited to the Project Site.

Existing silage pits in the proposed parking lot area that are currently eroding and were previously used for the storage of livestock feed would require filling. Grading on the Project Site would require approximately 7,200 cubic yards (CY) of cut and 59,300 CY of fill. The majority of fill would be used to level the silage pits. Trenching and excavation would also occur to create a stormwater settlement pond and associated drainage infrastructure to provide volume control, treatment, and rate control. An estimated 852 CY of fill from the stormwater settlement pond would be excavated and utilized on the site. The remaining approximately 52,000 CY of needed fill would be obtained from a borrow pit that would be excavated on the Project Site. The borrow pit area would be graded and contoured in such a manner as to avoid altering drainage patterns within the larger Project Site.

Surface water from impervious surfaces would drain to the southeast and would be collected into a series of catch basins. The catch basins will provide pre-treatment via a sump manhole with preserver devices and skimmer before being piped to an infiltration basin located east of the parking lot. The stormwater collection and treatment system has been designed to accommodate a 24-hour, 100-year flood event (64.7 cubic feet per second) with off-site runoff rates modeled to either equal or decrease from existing conditions.

1.3 LISTED SPECIES AND CRITICAL HABITAT

Critical Habitat

There is no designated or proposed Critical Habitat within or adjacent to the Action Area. There is no designated or proposed Critical Habitat within 10 miles of the Action Area.

USFWS Species List

An official USFWS species list was generated online using the USFWS Information for Planning and Consultation (IPaC) Trust Resource Report System (**Attachment A**). The following protected resources were identified:

Mammals

- Northern long-eared bat (*Myotis septentrionalis*) - Endangered
- Tricolored bat (*Perimyotis subflavus*) – Proposed Endangered

Birds

- Whooping crane (*Grus americana*) – Experimental population, non-essential

Insects

- Monarch butterfly (*Danaus plexippus*) – Candidate

Flowering Plants

- Prairie bush-clover (*Lespedeza leptostachya*) – Threatened

Whooping crane has been listed above as it was returned on the official species list (**Attachment A**). However, whooping crane is listed as endangered wherever found, except where listed as an experimental population. As the Action Area falls within the "experimental population, non-essential" it is not afforded protection under the federal Endangered Species Act. Therefore, this species is not specifically evaluated further within this report.

In addition to the listed and candidate species above, migratory bird species and their nests and eggs that are on the federal list (50 CFR §10.13) are protected under the Migratory Bird Treaty Act of 1918 (16 USC §703-711). The Migratory Bird Treaty Act protects migratory bird species and their nests from injury or death, and project-related disturbances must be reduced or eliminated during the nesting cycle. As discussed above, whooping crane within the Action Area are not afforded specific protections under FESA. However, they would still be protected from take under the MBTA. Bald and golden eagles also receive special protections under the Bald and Golden Eagle Protection Act of 1940.

1.4 HABITAT CONSERVATION PLANS

The Action Area is not located within the covered area of any Habitat Conservation Plan or Natural Community Conservation Plan.

1.5 CONSULTATION TO DATE

This biological assessment will be submitted by the Tribe to the U.S. Bureau of Indian Affairs, who may use it to consult with the USFWS.

Section 2 | Methods

2.1 PRELIMINARY DATA GATHERING AND RESEARCH

Prior to conducting the field survey, the following information sources were reviewed:

- Previous biological resource studies pertaining to the Action Area or vicinity, including a land cover Vegetation Survey Report prepared by Ecological Strategies, LLC (ECOS) in October 2023 (ECOS, 2023)
- United States Geologic Service (USGS) 7.5 degree-minute topographic quadrangles of the Action Area and vicinity
- Aerial photography of the Action Area
- USFWS National Wetlands Inventory (NWI) mapper (USFWS, 2023a)
- USFWS species list (IPaC Report; **Attachment A**)
- Minnesota Department of Natural Resources Conservation Planning Report (**Attachment B**)

2.2 FIELD SURVEY

Vegetative and land cover surveys were completed by ECOS biologists on May 19 and 20, 2023; June 11, 15, and 20, 2023; July 6, 2023; August 9, 2023; and September 8, 11, 22, and 27, 2023. These surveys were completed by selecting sample GPS points, gathering vegetation data within a 10-meter representative circle, and wandering meandering transects throughout the cover type to identify additional plant species. Cover types were classified using the Minnesota Land Cover Classification System (MDNR, 2004).

Consulting biologist Dr. Geo Graening and Acorn biologist Kelli Raymond conducted a general biological resources survey of the Action Area from October 17 through October 19, 2023 and collected data on wildlife and plant species present as well as on habitat types and jurisdictional waters. Variable-intensity pedestrian surveys were performed. Fauna and flora observed were recorded in a field notebook and identified to the lowest possible taxon. Survey efforts emphasized the search for federally-listed species with potential to occur in the vicinity of the Action Area. Habitat types occurring in the Action Area were mapped on aerial photographs, and information on habitat conditions and the suitability of habitats to support listed species was also recorded. The Action Area was also assessed for the presence of potentially-jurisdictional water features, including riparian zones, isolated wetlands and vernal pools, and other biologically-sensitive aquatic habitats.

2.3 MAPPING AND OTHER ANALYSIS

Locations of species' occurrences and habitat boundaries within the Action Area were recorded on color aerial photographs and then digitized to produce the habitat maps. The boundaries of potentially jurisdictional water resources within the Action Area were identified and measured in the field and similarly digitized to calculate acreage and to produce informal delineation maps. Geographic analyses were performed using geographical information system software (ArcGIS 10, ESRI, Inc.). Vegetative communities were classified by identifying distinctive associations of plants described by dominant species and particular environmental setting.

Each vegetative community was assigned a land type association consistent with the Minnesota Department of Natural Resources (MDNR) Native Plant Communities (MDNR, 2023). Wetlands and other aquatic habitats were classified using USFWS National Wetlands Inventory Classification System for Wetland and Deepwater Habitats, or "Cowardin class" (Cowardin et al., 1979; USFWS 2007).

Informal wetland delineation methods consisted of an abbreviated, visual assessment of the three requisite wetland parameters (hydrophytic vegetation, hydric soils, hydrologic regime) defined in the U.S. Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987).

Section 3 | Results of Surveys

3.1 ENVIRONMENTAL SETTING

The Action Area is located within the Rochester Plateau Ecological Subsection of the Paleozoic Plateau Ecological Section, in the Eastern Broadleaf Forest Province of Minnesota's Southern Floristic Region (Minnesota Natural Heritage Program, 1988). Before settlement in the 19th century, the Action Area contained a mosaic of upland prairie, prairie wetlands, oak woodland and brushland, floodplain forest, and maple-basswood forest. Currently, the Action Area contains only remnants of these forest and prairie community compositions. Much of the land has been converted to agricultural enterprises, primarily row crop production of corn, alfalfa, and soy, or left untilled to provide grazing land for animal meat production (historically for elk and currently for cattle). The Action Area is also dissected by regional drainage systems and transportation corridors.

3.2 INVENTORY OF FLORA AND FAUNA

Attachment C contains a list of animals that were either directly observed during the survey, or where definitive sign was observed. Plants observed during surveys are listed in **Attachment D**. No federally-listed plant or animal species were observed during the survey conducted within the Action Area.

3.3 TERRESTRIAL HABITATS

The following terrestrial natural communities occur in the Action Area (**Figure 5**):

- Ruderal/developed
- Row crop agriculture
- Coniferous forest
- Deciduous forest
- Oak savanna
- Oak woodland
- Annual grassland/pasture
- Perennial grassland (native prairie)
- Riparian forest and shrub
- Wet meadow

These habitats are described in detail below along with their associated MDNR land cover types (**Figure 5**). Representative site photographs are included as **Attachment E**.

Ruderal/Developed (17.0 acres)

These areas consist of disturbed or converted natural habitat that are now either in a ruderal state or fully developed. Within the Action Area, this habitat includes a single-family detached residence; a farming complex with two metal barns, two silage pits, silo foundations, a weigh station, and supporting infrastructure; landscaping; and associated infrastructure including the access drive.

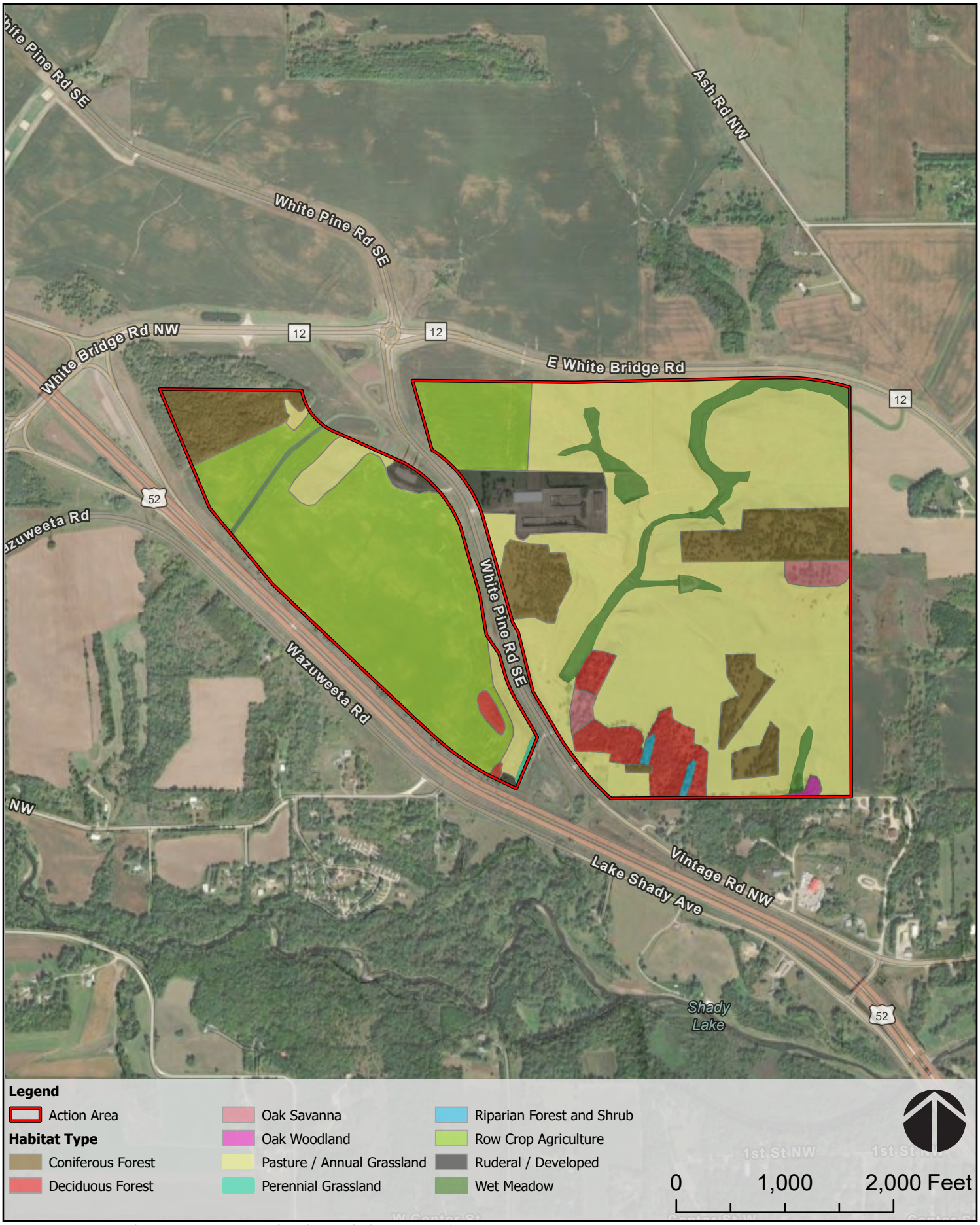

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FIGURE 5

TERRESTRIAL VEGETATION COMMUNITIES

Vegetation within this habitat type consists primarily of non-native weedy or invasive species or ornamental plants lacking a consistent community structure. The disturbed and altered condition of these lands greatly reduces their habitat value and ability to sustain rare plants or diverse wildlife assemblages. However, common, disturbance-tolerant species do occur in the unpaved portions of these areas. This is not considered a native vegetative community and does not have an associated MDNR land cover type.

Row Crop Agriculture (115.4 acres)

This habitat has been converted from its natural state for use as row crop production. These areas at the time of survey had either evidence of recent harvest of corn or soybeans or were either fallow or possibly planted in winter wheat for the winter season. These areas had evidence of continual disturbance by heavy machinery. These areas are considered planted monocultures that did not support other vegetation. This is not considered a native vegetative community and does not have an associated MDNR land cover type.

Coniferous Forest (45.0 acres)

In the Action Area, several isolated stands of coniferous forests were observed. Some of these stands dominated the undulating hills of glacial moraines that are too rocky to till and produce feed crops or be used by grazers. These forests are a mixture of red pine and white pine, with occasional oaks, green ash (*Fraxinus pennsylvanica*), or basswood (*Tilia americana*). The understory is sparse, but contains plants common to deciduous forest understories, such as Virginia creeper (*Parthenocissus quinquefolia*), poison ivy (*Toxicodendron radicans*), goldenrod (*Solidago canadensis*), and honeysuckle (*Lonicera tatarica*). In some areas, farmers have planted tree plantations of red pine (*Pinus resinosa*) or white pine (*Pinus strobus*), with a tree-layer monoculture of either of these species. In areas of plantations, trees were observed to be of a single age class and/or were arranged in straight rows. The natural areas most closely relate to MDNR land cover type FDs27 Southern Dry-Mesic Pine-Oak Woodland, however, as noted above many of these areas are planted areas that include a tree cover monocrop of white or red pine and are not a natural, successional habitat.

Deciduous Forest (15.1 acres)

In the Action Area, deciduous forests cover the terraces between fertile glacial till valleys where feed crops thrive or grazing is common. Bur oak (*Quercus macrocarpa*) is the dominant species in portions of this habitat, but other co-dominant trees are present such as green ash, hackberry (*Celtis occidentalis*), and basswood. The understory often contained a significant shrub component; common species are black cherry (*Prunus serotina*), red maple (*Acer rubrum*), chokecherry (*Prunus virginiana*), American hazelnut (*Corylus americana*), gray dogwood (*Cornus racemosa*), Virginia creeper, and poison ivy.

The associated MDNR land cover types are: FDs37 Southern Dry-Mesic Oak (Maple) Woodland; MHs49 Southern Wet-Mesic Hardwood Forest; and MHs38 Southern Mesic Oak-Basswood Forest.

Oak Woodland and Oak Savanna (5.3 acres)

Areas of oak woodland and oak savanna include those areas dominated by oak at the tree layer with low-density canopy cover (savanna) to higher density cover (woodland). While woodland areas were denser in canopy, these areas were not fully-closed canopies. Other tree species common to deciduous forests were observed scattered within this habitat. The open spaces were dominated by annual herbs such as goldenrods and various native prairie grasses and non-native pasture grasses.

Native grasses were generally outcompeted by annual grasses but appeared to perform slightly better in areas protected from grazing by topography and other factors. Where the sedimentary rock layers are exposed, small cliffs and bedrock outcrops of limestone and sandstone occur. Red cedar (*Juniperus virginiana*) and bush juniper (*Juniperus communis*) were the only trees within these small pockets. Grasses are sparse, but an herbaceous layer is present, and Virginia creeper, poison ivy, honeysuckle, and sand cherry (*Prunus pumila*) were common.

MDNR land cover types UPs24 Southern Mesic Savanna and UPs14 Southern Dry Savanna best describe areas with a lower percentage of tree canopy. More densely canopied areas better described as a Southern Dry-Mesic Oak Woodland (series FDs36, 37, and 38 depending on ancillary species). Minor components of exposed rock within the oak woodland/savanna best fit MDNR land cover types CTs12 Southern Dry Cliff and ROs12 Southern Bedrock Outcrop.

Annual Grassland/Pasture (198.15 acres)

Where livestock grazing is persistent, native prairie has been replaced with annual grassland and pasture. In the Action Area, Kentucky bluegrass (*Poa pratensis*) and smooth brome (*Bromus inermis*) are dominant, although pasture grasses are also present such as oats (*Avena sp*.) and barley (*Hordeum sp.*). Conspicuous plants in the herbaceous layer include asters (*Aster spp*.), goldenrods, and western ragweed (*Ambrosia artemisiifolia*). Tilling, hay harvest, or grazing disturbances, rather than periodic wildfires, typically keep this plant community from undergoing successional changes to woodland or reverting back to perennial grassland. These areas have historically been used for elk grazing but are presently used for seasonal grazing of cattle. Cattle were observed throughout annual grasslands/pastures during the survey. As this is a modified habitat that no longer has a dominant native vegetative community, there is no associated MDNR land cover type.

Perennial Grassland (Native Prairie) (0.25 acres)

Where the land was spared from tilling and grading and intensive grazing, perennial grassland (short and tall grass prairie) still exists. Common species are sideoats grama (*Bouteloua curtipendula*), prairie dropseed (*Sporobulus heterolepis*), and porcupine grass (*Miscanthus sinensis*). This habitat is a remnant of what it once was and was observed in competition with the annual grassland community described above. The remnant observed was an isolated area that was observed terminating shortly off the Action Area to the south. The associated MDNR land cover type is UPs13 Southern Dry Prairie. This area is limited to a small remnant of prairie at the far southwestern end of the Action Area.

Riparian Forest and Shrub (1.0 acres)

This habitat type was dominated by riparian trees such as American elm (*Ulmus americana*), green ash, and cottonwood (*Populus deltoides*). The understory consists of a lower canopy of silver maple (*Acer saccharinum*), sumac (*Rhus glabra*), and box elder (*Acer negundo*), draped in climbing vines of riverbank grape grape (*Vitis riparia*) and Virginia creeper. Thickets were common, and consisted of gooseberry (*Ribes missouriense*, *Ribes cynobati*) and blackberries (*Rubus spp*.). Reed canary grass (*Phalaris arundinacea*) is highly invasive and formed dense stands in these areas. Within the Action Area, this habitat was observed adjacent to manmade collection ponds. While these areas lacked standing water at the time of the survey, earthen impoundments were readily observed and hydrophytic vegetation common to riparian areas was observed.

The Land Type Associations (Minnesota Department of Natural Resources 2023) are: Fs59 Southern Terrace Forest and FFs68 Southern Floodplain Forest.

Wet Meadow (18.4 acres)

This habitat occurred within the annual grassland/pasture habitat in areas where topography or manmade drainages allowed for consistent enough saturation of soils to allow more hydrophytic vegetation than in other areas of the annual grassland/pastureland. This included gentle swales and flat areas created by earthen impoundments or other historical grading activities. While these areas are also heavily grazed as with the annual grassland/pasture habitat, this area is presented as a separate terrestrial habitat due to the vegetative community observed. These areas were heavily dominated by reed canary grass. As these areas are heavily disturbed. It is also noted that these areas are not wetlands. Wetlands observed on site are described in **Section 3.4** below. As this is a heavily modified habitat dominated by invasive grasses, there is no correlating MDNR land cover type.

3.4 AQUATIC HABITATS

Water resource mapping was also conducted during surveys. Surveys determined that the Action Area contains the following water resources:

- Ponds with seasonal wetlands (3.7 acres)
- Ephemeral channels (linear feature) and swales (0.5 acres)

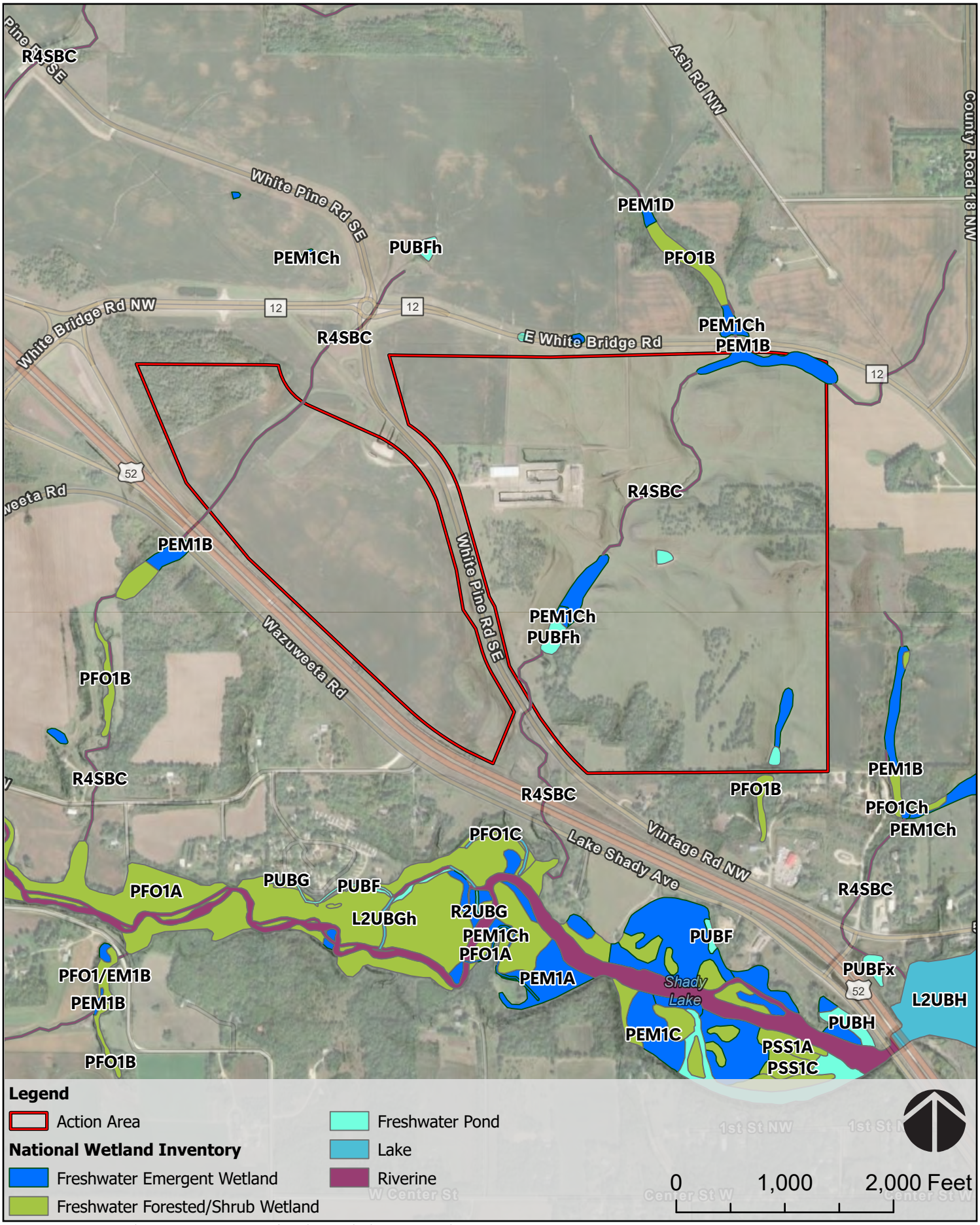
The NWI map of the Action Area is provided as **Figure 6**, and surface water features observed in the field are described in detail below and shown on **Figure 7**.

Ponds

Six ponds were observed within the Project Area. One of these ponds, as shown on **Figure 7**, is a stock pond that was observed holding water for cattle at the time of the survey. Significant vegetation was not observed around the edges of this feature.

Three ponds were observed near the southern border of the Project Area. Each of these ponds are manmade and had an associated earthen dam with a culvert. Seasonal wetlands were observed within and around the fringes of these areas. It appears the dams were constructed in low-lying areas near the property boundary to impound water for livestock before draining off site. As these areas are low-lying, they do collect runoff, however, there were no channels or similar surface water resources connected to these features. The southwestern two ponds were within an area of relatively dense tree canopy and had minimal signs of disturbance from cattle. These areas contained cottonwoods, sumac, and green ash with a ground cover dominated by reed canary grass or dock, but also of cocklebur (*Xanthium sp*.) and other European forbs. A minimal amount of water was observed in the easternmost of these three ponds, and minimal surrounding vegetation was present due to disturbance from cattle. None of these features appear to hold water year-round.

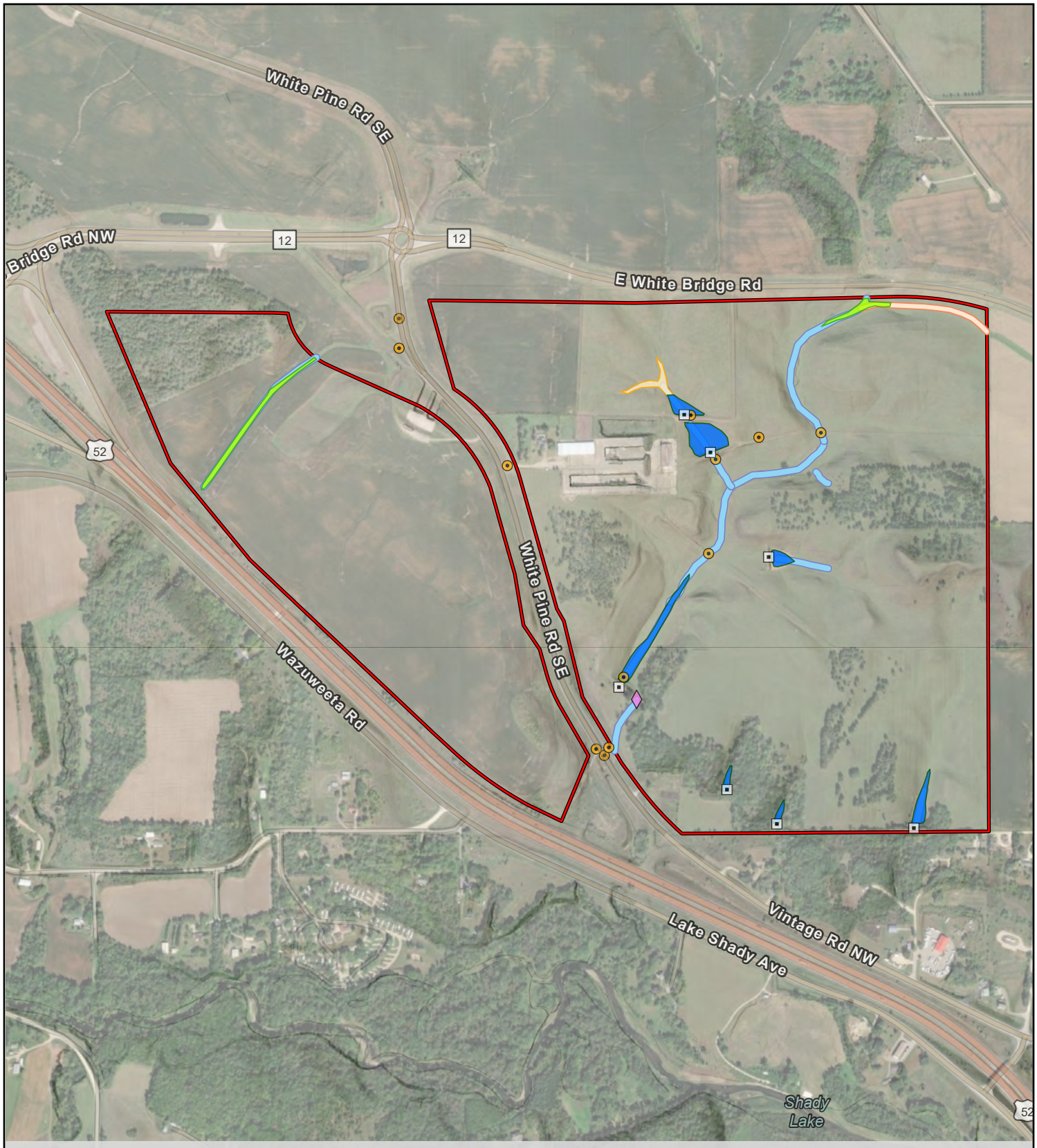
The two remaining ponds are associated with the ephemeral channels observed on site. The northernmost of the two is fed by three culverts that are part of the internal on-site drainage system. This pond was dry at the time of the survey and significant hydrophytic vegetation was not observed. The pond was almost exclusively annual grassland at the time of the survey. The bounds of the pond were mapped based upon the location of culverts, topography, and what vegetative indicators were present.



Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and

FIGURE 6

NATIONAL WETLAND INVENTORY



Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and

FIGURE 7
SURFACE WATERS

This pond is bisected by a fence line and an earthen built-up road with a culvert. The totality of the feature is managed by an earthen dam at the south end of the pond. The second pond is downstream of this feature. As with the three ponds near the southern border, it appears this pond was established via an earthen dam near the property boundary in order to capture water on site for livestock before draining off-site. Minimal seasonal wetlands flanked this pond but were severely degraded due to livestock. A minimal amount of water was observed in this feature as well as the associated ephemeral channel described below.

Ephemeral Channels and Swales

Because the Project Area has undulating hilly terrain and lacks steep drops in elevation, channels are not heavily incised. Instead, most of the channels are broad and vegetated, with little cobble or bedrock exposure. Reed canary grass is the dominant ground cover. Where channels were absent but clear evidence of water conveyance between channels was observed, these areas were mapped as swales. Ephemeral channels and swales within the Project Area were within cattle pasture and were heavily disturbed by livestock. These features were generally dry at the time of the survey, with occasional pools of standing water. These features therefore do not hold water year-round.

Section 4 | Species Accounts

4.1 MAMMALS

Northern long-eared bat (*Myotis septentrionalis*)

Endangered

The Action Area falls within the believed extant range of this species. Northern long-eared bats overwinter (November 1 through March 31) in caves and cave-like analogs such as mines. During their active season, this species will roost in caves, structures, or in forested areas where trunk diameter at breast height exceeds three inches and where trees contain appropriate roost characteristics such as snags, exfoliating bark, or hollows. Breeding occurs during late summer/early fall, and females will congregate in groups of 30 to 60 individuals to form a maternity colony to give birth and raise their young. Maternity colonies generally occur from late May to late July (USFWS, 2023b). Outside of maternity colonies, northern long-eared bats will roost as individuals in individual trees or in colonies in larger stands of trees. Preferred foraging habitat is within forested areas with trees containing suitable roosts (USFWS, 2023c).

There are no known occurrences of this species within the Project Area, and this species was not observed during the survey. The Project Area contains several structures that provide suitable roosting habitat for this species during the active season. Winter hibernacula habitat was not present. Suitable roost trees are present elsewhere in the Action Area and provide suitable active-season roosting habitat but are outside of the Project Area and would not be directly impacted as part of the Proposed Action.

Tricolored bat (*Perimyotis subflavus*)

Proposed Endangered

The Action Area falls within the believed extant range of this species. Tricolor bats overwinter in caves, or cave-like analogs such as mines. During their active season, this species will roost in caves, structures, or in forested areas where leafy deciduous trees are present. This species prefers to roost within the leaves, however, it is also known to roost in evergreens or within structures (USFWS, 2023d). Females are known to have a high site fidelity and will return to a favored roost site each year. Although individuals may have favorite roosting sites, tricolored bats will frequently alter which individual roost tree is used (USFWS, 2022). Tricolored bats mate just prior to hibernation, typically in mid-August to mid-October, with young being born shortly after hibernation, typically in May through July (USFWS, 2022). Females give birth in a maternity roost and will stay with their young at the roost until the young are weaned. Preferred foraging habitat includes over waterways and along forested edges of waterways.

There are no known occurrences of this species within the Project Area, and this species was not observed during the survey. The Project Area contains several structures that provide suitable roosting habitat for this species during the active season. Winter hibernacula habitat was not present. Suitable roost trees are present elsewhere in the Action Area and provide suitable active-season roosting habitat but are outside of the Project Area and would not be directly impacted as part of the Proposed Action.

4.2 INSECTS

Monarch Butterfly (*Danaus plexippus*)

Candidate for Listing

The monarch is a candidate species and not yet formerly proposed for listing. During the breeding season, monarchs lay their eggs on their obligatory milkweed host plant (primarily *Asclepias* species), and larvae emerge after two to five days (USFWS, 2023e). Larvae develop through five molts over a period of 9 to 18 days, feeding on milkweed and sequestering toxic chemicals (cardenolides) as a defense against predators. The larva then pupates into a chrysalis before emerging 6 to 14 days later as an adult butterfly. There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately two to five weeks; overwintering adults enter into reproductive diapause (suspended reproduction) and live six to nine months (USFWS, 2023e). In the fall, monarchs begin migrating to their overwintering sites. This migration can take monarchs distances of over 3,000 km and last for over two months. In early spring (February-March), surviving monarchs break diapause and mate at the overwintering sites before dispersing. The same individuals that undertook the initial southward migration begin flying back through the breeding grounds and their offspring start the cycle of generational migration over again (USFWS 2023e).

There are no known occurrences of this species within the Project Area and this species was not observed during the survey. However, this species only occurs in the area during the summer season and likely would not have been detected due to the timing of the survey. The milkweed host plant was observed in scattered patches within the Action Area, however, there are no occurrence of the host plant within the Project Area, and flowering plants were all but absent within the Project Area. Mapping of monarch sightings show numerous observations in 2023 within Minneapolis and Rochester, with anecdotal sightings recorded as close as the City of Oronoco in 2022 (Journey North, 2023; KROC, 2022).

4.3 FLOWERING PLANTS

Prairie bush-clover (*Lespedeza leptostachya*)

Threatened

Prairie bush clover is a member of the pea family that grows up to three feet in height and produces a pale pink to cream flower. This plant has narrow leaflets that grow in clusters of three with a green top side and a silvery, silky underside. The bloom season for this plant is from mid-July to early September, however, this plant can also produce pods from flowers that never open (USFWS, 2023f). Silvery-green seed pods typically form from early September into early October. Prairie bush clover can self-pollenate but may also rely on cross-pollination via wind or pollinators. Individual plants have been known to persist in their environment for 30 years or more. The range of this species has been reduced to isolated patches of land within Illinois, Iowa, Minnesota, and Wisconsin (USFWS, 2021).

There are no known occurrences of this species within the Project Area, and this species was not observed during the survey, however, the survey occurred outside the bloom window for this species. Although this species occurs within dry prairies, it is limited even within these areas as it does not compete well with other native species common within dry prairies (Minnesota Wildflowers, 2020). A single remnant of a fragmented native prairie was observed near a fence line in between a row crop field, roadway, and landscaping in competition with annual grasslands.

This area is too small, isolated, and degraded to support prairie bush-clover. Therefore, there is no habitat for this species within the Action Area or the Project Area. According to the MDNR, this species only occurs in isolated patches within the State, with the majority of known plants located in the southwestern portion of the State near the Des Moines River valley (MDNR, 2020). While the MDNR maintains that this plant historically occurred within Olmsted County, there are no records available documenting such occurrences (Minnesota Wildflowers, 2020).

Section 5 | Effects Determination

5.1 POTENTIAL ADVERSE EFFECTS ON CRITICAL HABITAT

There is no designated or Critical Habitat within or adjacent to the Action Area. Additionally, there is no designated or proposed Critical Habitat within 10 miles of the Action Area. Implementation of the Proposed Action will have no effect on designated or proposed critical habitat for federally-listed species.

5.2 POTENTIAL ADVERSE EFFECTS ON LISTED SPECIES

The Proposed Action would result in impacts to the following habitats: annual grassland/pasture and ruderal/developed. A discussion of potential impacts by species is included below.

Northern Long-Eared Bat

There is potential for individual northern long-eared bats to roost within the barn structure during their active season (April 1 through October 31). Therefore, should roosting bats be present within the barn structure during renovation impacts, take of individual bats could occur. Avoidance, minimization, and mitigation measures are included in **Section 5.5**. Avoidance measures include timing of the commencement of structure impacts outside of the active season when there is no potential for northern long-eared bats to occur. Should these activities commence during the active season, measures in **Section 5.5** would require that exclusion occur prior to the active season, or that emergence surveys be conducted to determine if the structure is utilized by northern long-eared bats. In the event that individual roosting bats are observed, an avoidance or exclusion plan would be developed with USFWS to ensure activities commence when roosts are unoccupied or after roosts have been properly excluded.

According to the USFWS Standing Analysis for NLEB Determination Key, projects that increase traffic within northern long-eared bat habitat should consider impacts from collision and noise (USFWS, 2023g). The following are considered potentially impactful:

- Construction of one or more new roads (or lanes on an existing road) within 1,000 feet of suitable habitat; and
- New roads or increased traffic through contiguous forest 10 acres in size or greater.

New roads or lanes would not be constructed as part of the Proposed Action. Increased traffic would be generated primarily along Highway 52, where forested habitat is already interrupted and traffic is already considerable. Forested habitat in this area is further fragmented by agricultural development and housing. Based upon this, neither threshold above is exceeded. With consideration of measures presented in **Section 5.5**, implementation of the Proposed Action may affect but is unlikely to adversely affect northern long-eared bat.

Tricolored Bat

There is potential for individual tricolored bats to roost within the barn structure during their active season (April 1 through October 31). Therefore, should roosting bats be present within the barn structure during renovation impacts, take of individual bats could occur.

It is noted that tricolored bat at this time is "proposed endangered" and is not formally protected from take. However, avoidance, minimization, and mitigation measures are included in **Section 5.5**. Avoidance measures include timing of the commencement of structure impacts outside of the active season when there is no potential for tricolored bats to occur. Should these activities commence during the active season, measures in **Section 5.5** would require emergence surveys to determine if the structure is utilized by tricolored bats. In the event that individual roosting bats are observed, an avoidance or exclusion plan would be developed with USFWS to ensure activities commence when roosts are unoccupied or after roosts have been properly excluded. With consideration of measures presented in **Section 5.5**, implementation of the Proposed Action may affect but is unlikely to adversely affect tricolored bat.

Monarch Butterfly

The monarch requires an obligate host plant—milkweed (*Asclepias*)—for feeding, and groves of trees for overwintering. While there were patches of milkweed observed within the Action Area, the Project Area avoids these areas. As the Proposed Action would not impact monarch butterfly habitat, implementation of the Proposed Action will have no effect on monarch butterfly.

Prairie Bush-Clover

Suitable habitat for prairie bush-clover does not occur within the Action Area or the Project Area. Therefore, implementation of the Proposed Action will have no effect on prairie bush-clover.

5.3 INTERRELATED, INTERDEPENDENT, AND CUMULATIVE EFFECTS

Interrelated and Interdependent Effects

Interrelated and interdependent effects are direct or indirect effects that occur as a result of activities that are closely affiliated with a project in areas outside the Action Area. Such actions include road or utility improvements off-site that would not be constructed but for implementation of the Proposed Action. Implementation of the Proposed Action would involve the construction of off-site access improvements and may involve off-site improvements for the extension of additional electrical connections to the Project Area.

Although none of these species occur within wetlands or aquatic habitat, it is noted that, on tribal trust land, the Tribe must enroll in the USEPA's 2022 Construction General Permit. On non-federal land, the landowner must enroll under the State Water Quality Control Board's Construction General Permit prior to the initiation of construction. In conjunction with enrollment under either of these permit programs, a Storm Water Pollution Prevention Plan, Erosion Control Plan, and a Hazardous Materials Management/Spill Response Plan must be created and implemented during construction to avoid or minimize the potential for erosion, sedimentation, or accidental release of hazardous materials. Implementation of these measures mandated by law would greatly reduce potential indirect construction-related impacts to water quality.

Northern long-eared bat: Construction of the access improvements would be limited to paving and widening of the existing access drive within the public right-of-way for Whie Pine Road. This would require removal of existing pavement and widening into an area of sparse weedy forbs within the ruderal road shoulder that is regularly mowed and driven over. This area does not contain features of value to northern long-eared bat.

Similarly, extension of additional electrical connections would either be fully overhead, in which case no ground disturbance would occur, or minimal undergrounding within the road and road shoulder may occur. Neither of these options would require disturbance of trees, structures, or other habitat of value to northern long-eared bat. Additionally, these actions would not indirectly impact suitable habitat through means such as intense use of artificial light or strong vibrations. Therefore, the Proposed Action would generate no effect on northern long-eared bat related to interrelated and interdependent effects.

Tricolored Bat: As with northern long-eared bat, interrelated and interdependent effects would not impact suitable habitat for tricolored bat. Therefore, the Proposed Action would generate no effect on tricolored bat related to interrelated and interdependent effects.

Monarch butterfly: Interrelated and interdependent actions would be limited to minimal work within disturbed road shoulders and would not directly impact habitat suitable for monarch butterfly. Additionally, as discussed above, these actions would not indirectly impact habitat outside of the access improvements and electrical connections. Therefore, the Proposed Action would generate no effect on monarch butterfly related to interrelated and interdependent effects.

Prairie bush-clover: Work related to the access improvements and electrical connections would occur entirely within disturbed road shoulders that do not provide suitable habitat for prairie bush clover. Given the lack of habitat within and around the Project Area, indirect impacts would not occur.

Cumulative Effects

For the purposes of this assessment, cumulative effects consider the full range of a species and whether the Proposed Action, in conjunction with the condition of the species across its range, would imperil the long-term existence of a species. For the purposes of this analysis, the cumulative setting includes growth and development envisioned in the in the City of Pine Island Comprehensive Plan, City of Pine Island Elk Run Concept Master Plan, Olmsted County General Land Use Plan, the Oronoco Planned Future Land Use map, and the Oronoco Township Land Use Plan (City of Pine Island, 2010; City of Pine Island, 2008; Olmsted County, 2022; City of Oronoco, 2020; and Oronoco Township, 2002). The cumulative setting also includes known development projects that are proposed, planned, and/or currently being constructed within one mile of the Project Site as shown in **Table 2**. Aside from the Prairie Island Indian Community North Elk Run Community Development and Fee-to-Trust Project, discussed further below, these projects consist of infrastructure improvements and thus the potential for cumulative effects in combination with the project alternatives would be largely related to construction activities.

Adjacent Cumulative Projects

PIIC North Elk Run Community Development and Fee-to-Trust Project

The Tribe owns parcels surrounding the Project Site within the boundaries of both the City of Pine Island and Olmsted County and anticipates submitting a separate fee-to-trust application for this land. This project, referred to as the PIIC North Elk Run Community Development and Fee-to-Trust Project, is in the planning phases and consists of Tribal housing and community facilities. The site is located within an area previously planned for urban development under the City of Pine Island's conceptual Elk Run Concept Master Plan. This former project included multiple types of residential uses (low-, medium-, and high-density), commercial uses including retail and office space, medical offices, mental and physical wellness centers, schools and sports complex, and various community amenities including parks, outdoor amphitheater, and equestrian center (City of Pine Island, 2008).

These previously planned uses are generally consistent with the Proposed Action and PIIC North Elk Run Community Development and Fee-to-Trust Project.

Table 2: Potential Future Projects within 1 Mile of Action Area Considered in Cumulative Analysis

Project Name	Project Location	Project Description	Project Status	Distance from Project Site
Resident Wastewater Development	Oronoco, MN	Construction of a municipal wastewater collection and treatment system to parallel the existing water system.	Under construction	1.0 mile
Hwy 52 Improvements	HWY 52 from Oronoco to Pine Island	Planned resurfacing of the roadway with potential infrastructure improvements such as a frontage road, flood mitigation improvements, and intersection upgrades.	Planning stages	0.34 miles
PIIC North Elk Run Community Development and Fee-to-Trust Project	Adjacent to Project Site	Tribal housing and community development as well as fee-to-trust.	Planning stages	0.1 miles
Xcel Energy Mankato-Mississippi River Transmission Project	Adjacent to Project Site	Approximately 120 miles of new and upgraded 345 kilovolt (kV) transmission lines between the existing Wilmarth Substation near Mankato and a connection point at the Mississippi River near Kellogg, Mn.	Planning stages	0.1 miles
Sources: KIMT, 2022; City of Oronoco, 2023; Oronoco Township Planning Advisory Commission, 2022; Minnesota Department of Transportation, 2023; Meier Companies, Inc., 2023; ABC6 News, 2022				

Xcel Energy Mankato-Mississippi River Transmission Project

Xcel Energy is implementing the Mankato-Mississippi River Transmission Project. The project includes approximately 120 miles of new and upgraded 345 kilovolt (kV) transmission lines between the existing Wilmarth Substation near Mankato and a connection point at the Mississippi River near Kellogg, MN. The project is organized into four segments that include either new or upgraded infrastructure. Segment 4, the Rochester Connector, is planned adjacent to the Project Site. Segment 4 includes the implementation of approximately 20 miles of new 161 kV transmission lines between the existing North Rochester Substation near Pine Island and an existing transmission line northeast of Rochester, which is being relocated from its existing alignment to install the new 345 kV infrastructure. Segment 4 Owners include Xcel Energy, Dairyland Power Cooperative, Rochester Public Utilities, and Southern Minnesota Municipal Power Agency. The project is anticipated to be in service in 2028. The Project Site is currently not within the service area of Xcel Energy, however Xcel Energy provides electrical services to most of the City of Pine Island in addition to areas immediately north and east, and may be coordinated with to provide additional electrical service to the Project Site (Xcel Energy, 2023).

Cumulative Species Impacts

Northern long-eared bat: **Section 5.5** includes measures that would avoid potential take of northern long-eared bat. As take of northern long-eared bat would not occur with inclusion of the measures in **Section 5.5**, cumulative impacts related to direct injury or mortality would not occur.

While the barn structure may provide active-season roosts, impacts to the structure would not significantly alter the amount of potential active-season roost habitat available to this species across its range. The totality of forested lands within the Action Area that may provide roosting habitat have been preserved and would not be impacted by the Proposed Action. Therefore, even when considering potential cumulative impacts, the Proposed Action may affect but is not likely to adversely affect northern long-eared bat.

Tricolored Bat: **Section 5.5** includes measures that would avoid potential take of tricolored bat. As take of tricolored bat would not occur with inclusion of the measures in **Section 5.5**, cumulative impacts related to direct injury or mortality would not occur. While the barn structure may provide active-season roosts, impacts to the structure would not significantly alter the amount of potential active-season roost habitat available to this species across its range. The totality of forested lands within the Action Area that may provide roosting habitat have been preserved and would not be impacted by the Proposed Action. Therefore, even when considering potential cumulative impacts, the Proposed Action may affect but is not likely to adversely affect northern long-eared bat.

Monarch butterfly: As discussed above, the Project Area does not contain habitat for monarch butterfly and would not indirectly impact areas with sparse or scattered milkweed. The Proposed Action would be contained within the Project Area and would not impact habitat outside of the project footprint. Therefore, even when considering cumulative impacts to monarch butterfly, the Proposed Action would have no effect.

Prairie bush-clover: As discussed above, the Action Area does not contain habitat prairie bush clover, and direct or indirect impacts to this species would not occur. Therefore, even when considering cumulative impacts to prairie bush-clover, the Proposed Action would have no effect.

5.4 POTENTIAL ADVERSE EFFECTS ON MIGRATORY BIRDS

Trees, shrubs, and structures within the Action Area may provide suitable nesting and perching habitat for raptors and/or migratory birds. If construction activities are conducted during the nesting season, nesting birds/raptors could be directly impacted by removal of nesting habitat and indirectly impacted by noise, vibration, and other construction-related disturbance. Implementation of avoidance and minimization measures in **Section 5.5** would reduce potential impacts to migratory birds, and nesting birds in general, to a less than significant level.

5.5 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

The following measures will be implemented:

Federally-Listed Bats

- Timing of impacts to the barn structure shall occur outside the active season of roosting bats (April 1 through October 31) as possible.

  OR

- If impacts to the barn may commence within the active season, bats shall be excluded from the barn structure during the winter hibernation season. Exclusion shall be completed within the winter hibernation season to ensure that there are no active-season roosting bats within the structure during exclusion activities.

OR

- Should commencement of impacts to a barn structure occur during the active season and prior to bat exclusion of the structure, emergence surveys of the impacted barn structure shall be conducted by a qualified biologist consistent with Appendix E: Phase 4 Emergence Surveys of the USFWS Range-Wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines. As tricolored bat can be difficult to detect in emergence surveys, USFWS shall be consulted prior to emergence surveys to approve the surveying biologist as well as the survey methodology and timing. If no bats are observed, data sheets shall be submitted to the USFWS and no further action is necessary.
- If one or more bats are observed emerging from the barn, it shall be assumed that the bat is a listed bat. In this case, an avoidance and exclusion plan shall be developed with USFWS that identifies passive exclusion methods such as one-way doors or timing of disturbance with periods of bat activity in order to confirm bats are absent from the structure(s) prior to impacts.

Nesting Migratory Birds/Other Birds of Prey

- If construction activities (either site preparation or barn conversion) commence during the general nesting season (February 15 to September 1), a preconstruction nest survey shall be conducted by a qualified biologist on and within 100 feet of proposed construction within 7 days of initiating ground disturbance. If active nests are identified, the qualified biologist shall determine a suitable avoidance buffer based on the needs of the species observed.
- Avoidance measures include establishment of a buffer zone using construction fencing or similar, or the postponement of construction until after the nesting season, or until after a qualified biologist has determined the nest is no longer active. Avoidance buffers may vary in size depending on habitat characteristics, project-related activities, and disturbance levels.
- Should work activity cease for 14 days or more during the nesting season, surveys shall be repeated to ensure birds and have not established nests during inactivity.

Section 6 | Conclusions

The Project Area is comprised of ruderal/developed and pasture habitat. The USFWS species list identified four federally-listed species with the potential to occur in the vicinity of the Action Area in addition to migratory birds protected under the MTBA. These species are the northern long-eared bat, tricolored bat, monarch butterfly, and prairie bush-clover. This Biological Assessment is respectfully submitted to USFWS for review and concurrence that the Proposed Action would have **no effect** on prairie bush-clover and monarch butterfly, and that the Proposed Action **may affect but is not likely to adversely affect** northern long-eared bat and tricolored bat with consideration of avoidance and minimization measures.

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Section 8 | Qualifications of Preparers

G.O. Graening, Ph.D., M.S.E.

Dr. Graening holds a Doctorate in Biological Sciences and a Master of Science in Biological Engineering and is a certified arborist (International Society of Arboriculture). Dr. Graening has 26 years of experience in environmental assessment and research, including the performance of numerous wetland delineations and aquatic restoration projects, USFWS permitted work for multiple bat species, and plant surveys. Dr. Graening also served as an adjunct professor of biology at California State University Sacramento for 10 years and was an active researcher in the area of conservation biology and groundwater ecology.

Kelli Raymond, B.S.

Ms. Raymond holds a B.S. in Animal Biology with a focus on Wildlife Ecology. She has approximately 10 years of experience collecting field data and preparing environmental assessments. Ms. Raymond has worked in several states across the U.S. performing biological resources surveys, including plant surveys, bat acoustic and flyout monitoring, and wildlife utilization monitoring. She also has experience live handling numerous wildlife species, including fish, migratory birds, and big game. Ms. Raymond is experienced in the preparation of Biological Assessments and Section 7 consultation with both the USFWS and NMFS under the federal Endangered Species Act.

Appendix A

USFWS Species List (IPaC Report)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
Phone: (952) 858-0793 Fax: (952) 646-2873

In Reply Refer To:
Project Code: 2023-0133317
Project Name: Prairie Island

September 26, 2023

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:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

Threatened and Endangered Species
The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to 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.

Consultation Technical Assistance
Please refer to refer to our Section 7 website for guidance and technical assistance, including step-by-step instructions for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, USDA Rural Development projects, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

We recommend running the project (if it qualifies) through our **Minnesota-Wisconsin Federal Endangered Species Determination Key (Minnesota-Wisconsin ("D-key"))**. A demonstration video showing how-to access and use the determination key is available. Please note that the Minnesota-Wisconsin D-key is the third option of 3 available d-keys. D-keys are tools to help Federal agencies and other project proponents determine if their proposed action has the potential to adversely affect federally listed species and designated critical habitat. The Minnesota-Wisconsin D-key includes a structured set of questions that assists a project proponent in determining whether a proposed project qualifies for a certain predetermined consultation outcome for all federally listed species found in Minnesota and Wisconsin (except for the northern long-eared bat- see below), which includes determinations of “no effect” or “may affect, not likely to adversely affect." In each case, the Service has compiled and analyzed the best available information on the species’ biology and the impacts of certain activities to support these determinations.

If your completed d-key output letter shows a "No Effect" (NE) determination for all listed species, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

For Federal projects with a “Not Likely to Adversely Affect” (NLAA) determination, our concurrence becomes valid if you do not hear otherwise from us after a 30-day review period, as indicated in your letter.

If your d-key output letter indicates additional coordination with the Minnesota-Wisconsin Ecological Services Field Office is necessary (i.e., you get a “May Affect” determination), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of the key; ESA compliance cannot be concluded using the key for “May Affect” determinations unless otherwise indicated in your output letter.

Note: Once you obtain your official species list, you are not required to continue in IPaC with d-keys, although in most cases these tools should expedite your review. If you choose to make an effects determination on your own, you may do so. If the project is a Federal Action, you may want to review our section 7 step-by-step instructions before making your determinations.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain Life History Information for Listed and Candidate Species on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

Northern Long-Eared Bats
Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

This species hibernates in caves or mines only during the winter. In Minnesota and Wisconsin, the hibernation season is considered to be November 1 to March 31. During the active season (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥3 inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
- Trees found in highly developed urban areas (e.g., street trees, downtown areas),
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A monoculture stand of shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or
- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No**

Effect determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

If any of the above activities are proposed, and the northern long-eared bat appears on the user's species list, the federal project user will be directed to either the range-wide northern long-eared bat D-key or the Federal Highways Administration, Federal Railways Administration, and Federal Transit Administration Indiana bat/ Northern long-eared bat D-key, depending on the type of project and federal agency involvement. Similar to the Minnesota-Wisconsin D-key, these d-keys helps to determine if prohibited take might occur and, if not, will generate an automated verification letter.

Please note: On November 30, 2022, the Service published a proposal final rule to reclassify the northern long-eared bat as endangered under the Endangered Species Act. On January 26, 2023, the Service published a 60-day extension for the final reclassification rule in the Federal Register, moving the effective listing date from January 30, 2023, to March 31, 2023. This extension will provide stakeholders and the public time to preview interim guidance and consultation tools before the rule becomes effective. When available, the tools will be available on the Service's northern long-eared bat website (https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis). Once the final rule goes into effect on March 31, 2023, the 4(d) D-key will no longer be available (4(d) rules are not available for federally endangered species) and will be replaced with a new Range-wide NLEB D-key (range-wide d-key). For projects not completed by March 31, 2023, that were previously reviewed under the 4(d) d-key, there may be a need for reinitiation of consultation. For these ongoing projects previously reviewed under the 4(d) d-key that may result in incidental take of the northern long-eared bat, we recommend you review your project using the new range-wide d-key once available. If your project does not comply with the range-wide d-key, it may be eligible for use of the Interim (formal) Consultation framework (framework). The framework is intended to facilitate the transition from the 4(d) rule to typical Section 7 consultation procedures for federally endangered species and will be available only until spring 2024. Again, when available, these tools (new range-wide d-key and framework) will be available on the Service's northern long-eared bat website.

Whooping Crane

Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States."

Other Trust Resources and Activities

Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the

mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed voluntary guidelines for minimizing impacts.

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to guidelines developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's Wind Energy Guidelines. In addition, please refer to the Service's Eagle Conservation Plan Guidance, which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

State Department of Natural Resources Coordination
While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.

Minnesota
Minnesota Department of Natural Resources - Endangered Resources Review Homepage
Email: Review.NHIS@state.mn.us

Wisconsin
Wisconsin Department of Natural Resources - Endangered Resources Review Homepage
Email: DNRERReview@wi.gov

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

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

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:

Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
(952) 858-0793

PROJECT SUMMARY

Project Code: 2023-0133317
Project Name: Prairie Island
Project Type: Commercial Development
Project Description: Commercial
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@44.17791819999999,-92.55807903810327,14z

Counties: Olmsted County, Minnesota

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[1], 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.

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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
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Prairie Bush-clover *Lespedeza leptostachya*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4458

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[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], 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 NO BALD AND GOLDEN EAGLES WITHIN THE VICINITY OF YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 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.

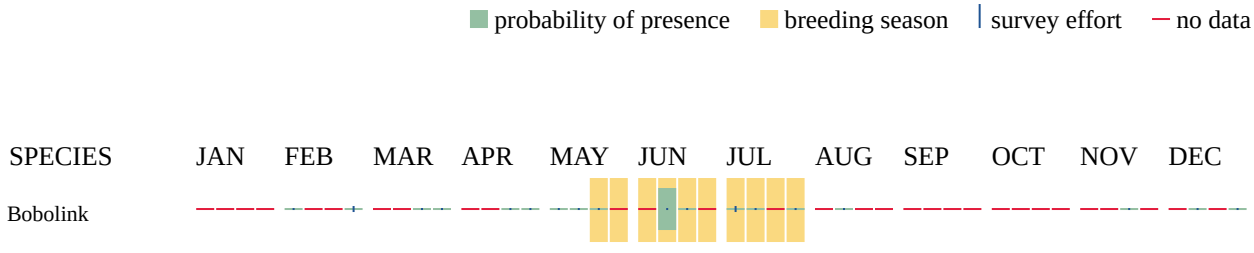
Probability of Presence (▪)

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.



BCC Rangewide
(CON)

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

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R4SBC

FRESHWATER POND

- PUBFh

FRESHWATER EMERGENT WETLAND

- PEM1B
- PEM1Ch

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Kelli Raymond
Address: 5170 Golden Foothill Parkway
City: El Dorado Hills
State: CA
Zip: 95762
Email kraymond@acorn-env.com
Phone: 9162358224

Appendix B

Minnesota Department of Natural Resources Report

DEPARTMENT OF NATURAL RESOURCES

Minnesota Department of Natural Resources
Division of Ecological & Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

October 11, 2023
Correspondence # MCE 2023-00762

Geo Graening
Acorn Environmental

RE: Natural Heritage Review of the proposed Prairie Island Indian Community Elk Run Project, T108N R14W Sects 6-7, T108N R15W Sects 1-2, 11-12, T109N R15W Sects 35-36; Goodhue and Olmsted Counties

Dear Geo Graening,

As requested, the Minnesota Natural Heritage Information System has been reviewed to determine if the proposed project has the potential to impact any rare species or other significant natural features. Based on the project details provided with the request, the following rare features may be impacted by the proposed project:

State-listed Species

- Rare mussels, elktoe (*Alasmidonta marginata*) and fluted-shell (*Lasmigona costata*), both state-listed as threatened, and fish, black racehorse (*Moxostoma duquesnei*) and suckermouth minnow (*Phenacobius mirabilis*), both state-listed as species of special concern, have been documented near the proposed project in the Zumbro River Middle Fork. These aquatic species are particularly vulnerable to deterioration in water quality, especially increased siltation. Drainages in the proposed project area flow into this river so it is important that effective erosion and pollution prevention measures are implemented and continued during construction and maintenance of this project.

- The Natural Heritage Information System (NHIS) tracks bat roost trees and hibernacula plus some acoustic data, but this information is not exhaustive. Even if there are no bat records listed nearby, all seven of Minnesota's bats, including the federally endangered northern long-eared bat (*Myotis septentrionalis*), can be found throughout Minnesota. During the active season (approximately April-November) bats roost underneath bark, in cavities, or in crevices of both live and dead trees. Tree removal can negatively impact bats by destroying roosting habitat,

especially during the pup rearing season when females are forming maternity roosting colonies and the pups cannot yet fly. To minimize these impacts, the DNR recommends that tree removal be avoided from June 1 through August 15.

- Please visit the DNR Rare Species Guide for more information on the habitat use of these species and recommended measures to avoid or minimize impacts. For further assistance with these species, please contact the appropriate DNR Regional Nongame Specialist or Regional Ecologist.

Federally Protected Species

- To ensure compliance with federal law, conduct a federal regulatory review using the U.S. Fish and Wildlife Service's (USFWS) online Information for Planning and Consultation (IPaC) tool.

Environmental Review and Permitting

- Please include a copy of this letter and the MCE-generated Final Project Report in any state or local license or permit application. Please note that measures to avoid or minimize disturbance to the above rare features may be included as restrictions or conditions in any required permits or licenses.

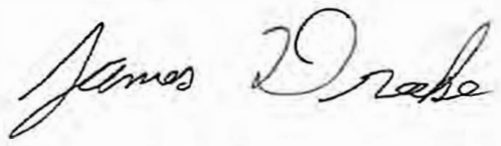
The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location and project description provided with the request. If project details change or the project has not occurred within one year, please resubmit the project for review within one year of initiating project activities.

The Natural Heritage Review does not constitute project approval by the Department of Natural Resources. Instead, it identifies issues regarding known occurrences of rare features and potential impacts to these rare features. Visit the Natural Heritage Review website for additional information regarding this process, survey guidance, and other related information. For information on the environmental review process or other natural resource concerns, you may contact your DNR Regional Environmental Assessment Ecologist.

Thank you for consulting us on this matter and for your interest in preserving Minnesota's rare natural resources.

Sincerely,



James Drake
Natural Heritage Review Specialist
James.F.Drake@state.mn.us

Cc: Melissa Collins

Formal Natural Heritage Review - Cover Page

See next page for results of review. A draft watermark means the project details have not been finalized and the results are not official.

Project Name: Prairie Island Indian Community Elk Run Project

Project Proposer: Prairie Island Indian Community

Project Type: Development, Mixed Use

Project Type Activities: Tree Removal;Other

TRS: T108 R14 S6, T108 R14 S7, T108 R15 S1, T108 R15 S11, T108 R15 S12, T108 R15 S2, T109 R15 S35, T109 R15 S36

County(s): Goodhue, Olmsted

DNR Admin Region(s): Central

Reason Requested: Federal Environmental Assessment/Environmental Impact Assessment

Project Description: Tribal community development will require vegetation removal and grading for building foundations and roads, with the intent to avoid all wetlands and channels if possible

Existing Land Uses: Mixture of pasture, cattle range, row crop, rural residential, transportation corridor, and open space.

Landcover / Habitat Impacted: Some combination of pasture, cattle range, row crop, rural residential, transportation corridor, and open space.

Waterbodies Affected: the intent is to avoid all wetlands and channels if possible; new road crossings may affect channels

Groundwater Resources Affected: New developments will require water supplies, which may come from groundwater wells

Previous Natural Heritage Review: No

Previous Habitat Assessments / Surveys: No

SUMMARY OF AUTOMATED RESULTS

Category	Results	Response By Category
Project Details	Comments	Tree Removal - Recommendations
Ecologically Significant Area	No Comments	No Further Review Required
State-Listed Endangered or Threatened Species	Needs Further Review	State-protected Species in Vicinity
State-Listed Species of Special Concern	Comments	Recommendations
Federally Listed Species	No Records	Visit IPaC For Federal Review

DEPARTMENT OF NATURAL RESOURCES

October 2, 2023

Project Name: Prairie Island Indian Community Elk Run Project
Project Proposer: Prairie Island Indian Community
Project Type: Development, Mixed Use
Project ID: MCE #2023-00762

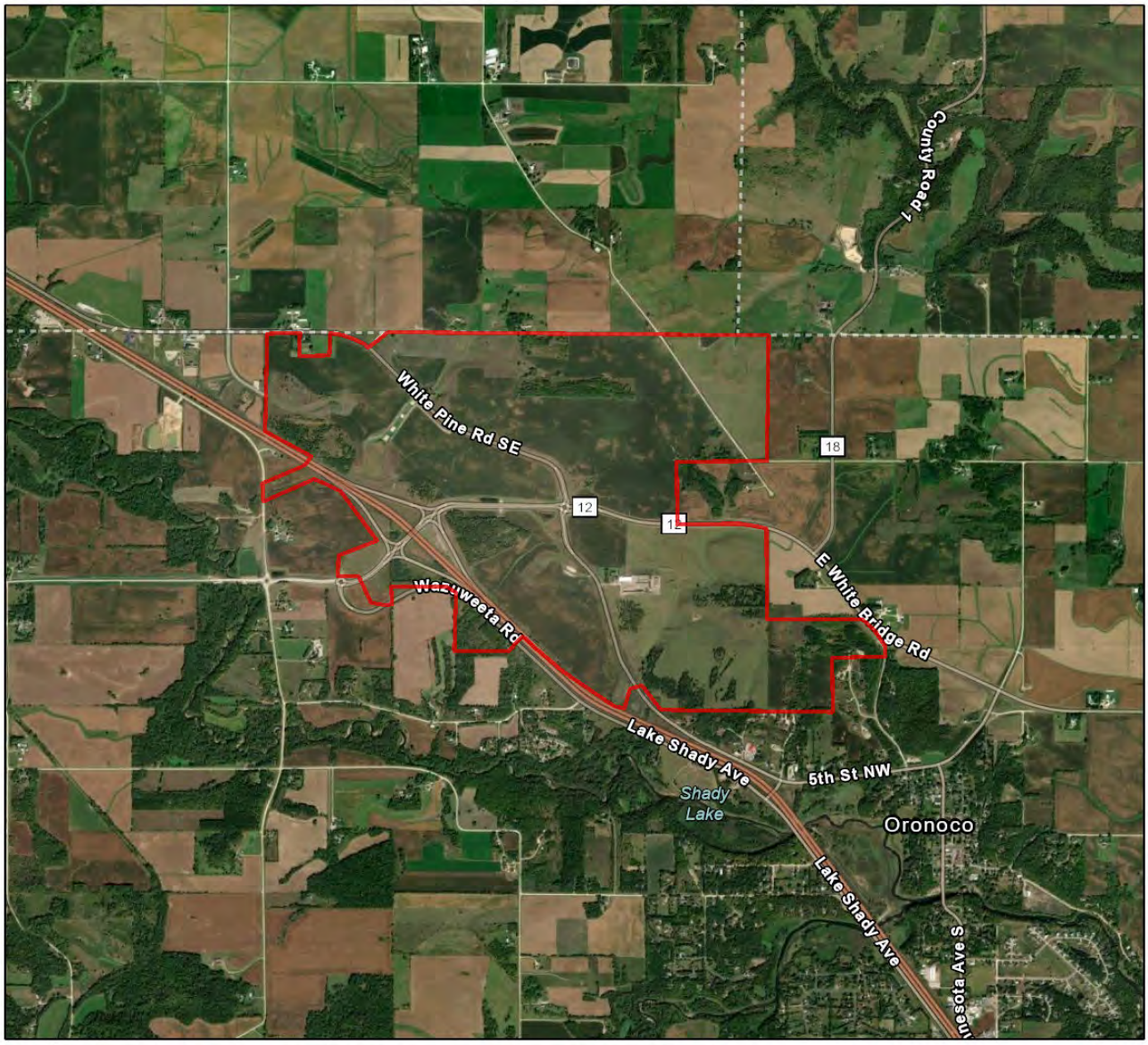
AUTOMATED RESULTS: FURTHER REVIEW IS NEEDED
As requested, the above project has undergone an automated review for potential impacts to rare features. Based on this review, one or more rare features may be impacted by the proposed project and further review by the Natural Heritage Review Team is needed. You will receive a separate notification email when the review process is complete and the Natural Heritage Review letter has been posted.

Please refer to the table on the cover page of this report for a summary of potential impacts to rare features. For additional information or planning purposes, use the Explore Page in Minnesota Conservation Explorer to view the potentially impacted rare features or to create a Conservation Planning Report for the proposed project.

If you have additional information to help resolve the potential impacts listed in the summary results, please attach related project documentation in the Edit Details tab of the Project page. Relevant information includes, but is not limited to, additional project details, completed habitat assessments, or survey results. This additional information will be considered during the project review.

Prairie Island Indian Community Elk Run Project

Aerial Imagery With Locator Map



N
W E
S

0 0.25 0.5 1 1.5 2 Miles

Project Boundary

Project Type: Development, Mixed Use

Project Size (acres): 1,496.26

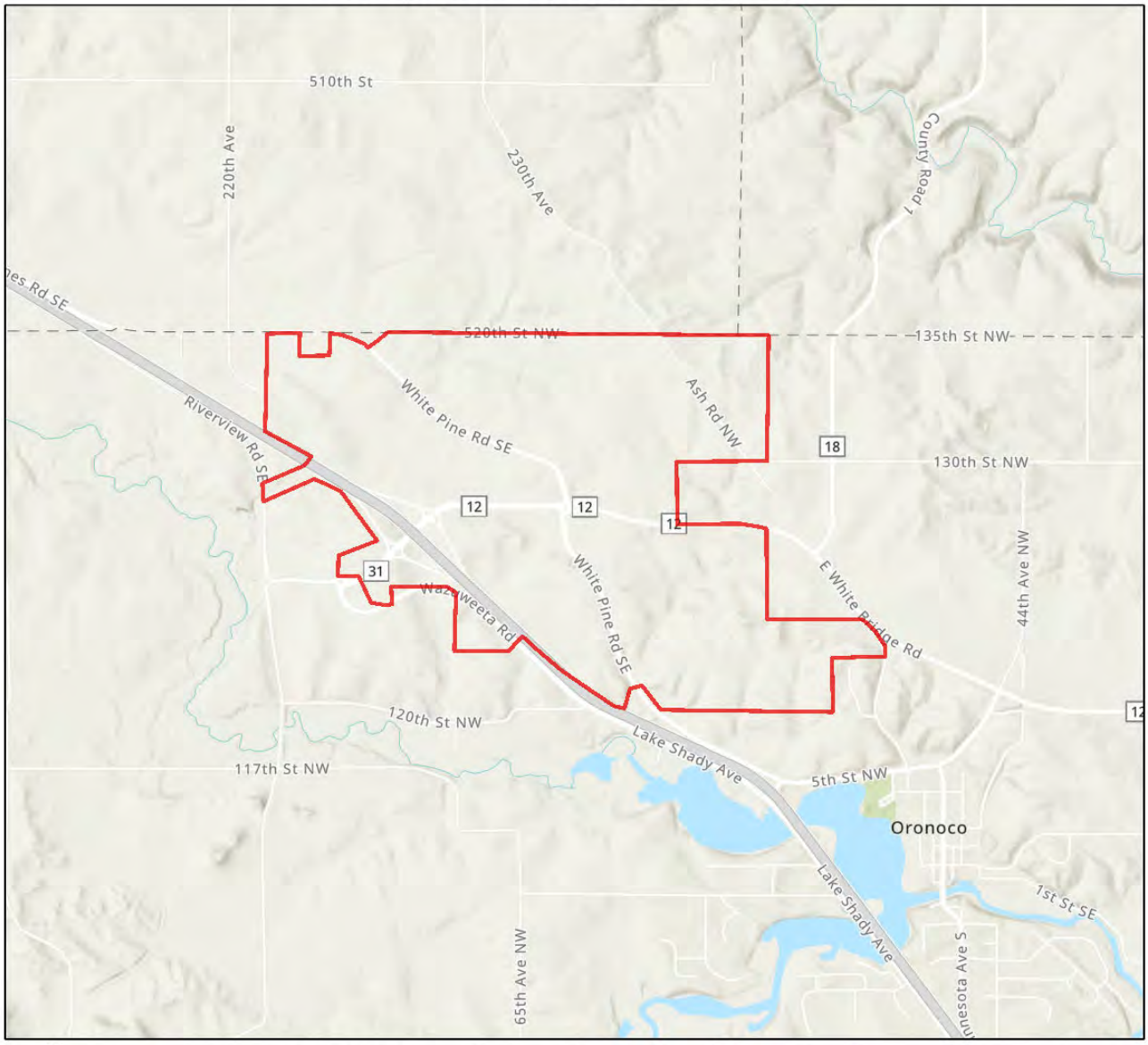
County(s): Goodhue, Olmsted

TRS: T108 R14 S6, T108 R14 S7, T108 R15 S1, T108 R15 S11, T108 R15 S12 +

Earthstar Geographics
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

Prairie Island Indian Community Elk Run Project

USA Topo Basemap With Locator Map



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Esri, NASA, NGA, USGS, FEMA
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

Appendix C

List of Animals Observed

Animals Observed at Prairie Island Indian Community Action Area
on October 17-19, 2023

Common Name	Scientific Name
house cricket	*Acheta domesticus*
cedar waxwing	*Bombycilla cedrorum*
cattle	*Bos taurus*
Canada goose	*Branta canadensis*
red tailed hawk	*Buteo jamaicensis*
grasshopper	*Caelifera sp.*
coyote	*Canis latrans*
northern cardinal	*Cardinalis cardinalis*
kildeer	*Charadrius vociferus*
rock pigeon	*Columba livia*
common raven	*Corvus corax*
blue jay	*Cyanocitta cristata*
horned lark	*Eremophila alpestris*
field cricket	*Gryllus sp.*
house finch	*Haemorhous mexicanus*
bald eagle	*Haliaeetus leucocephalus*
yellowish skipper	*Hesperilla flavescens*
barn swallow	*Hirundo rustica*
dark-eyed junco	*Junco hyemalis*
hairy woodpecker	*Leuconotopicus villosus*
wild turkey	*Meleagris gallopavo*
mouse	*Mus sp.*
white tailed deer	*Odocoileus virginianus*
fox sparrow	*Passerella iliaca*
ring necked pheasant	*Phasianus colchicus*
downy woodpecker	*Picoides pubescens*
black-capped chickadee	*Poecile atricapillus*
sow bug	*Porcellionidae sp.*
raccoon	*Procyon lotor*
golden crowned kinglet	*Regulus satrapa*
eastern grey squirrel	*Sciurus carolinensis*
eastern bluebird	*Sialia sialis*
American goldfinch	*Spinus tristis*
American badger	*Taxidea taxus*
American robin	*Turdus migratorius*

Appendix D

List of Plants Observed

Plants Observed at Prairie Island Indian Community Action Area
on October 17-19, 2023

Common Name	Scientific Name
Common dandelion	*Taraxacum officinale*
black raspberry	*Rubus occidentalis*
yellow toadflax	*Linaria vulgaris*
houndstongue	*Cynoglossum officinale*
saltbushes	*Atriplex*
wild rye	*Elymus*
stinkgrass	*Eragrostis cilianensis*
Whorled milkweed	*Asclepias verticillata*
Bur oak	*Quercus macrocarpa*
Black cherry	*Prunus serotina*
Canada goldenrod	*Solidago canadensis*
Alfalfa	*Medicago sativa*
Wild parsnip	*Pastinaca sativa*
American elm	*Ulmus americana*
Tatarian maple	*Acer tataricum*
Buffelgrass	*Cenchrus ciliaris*
Soybean	*Glycine max*
panicgrass	*Panicum*
vetches	*Vicia*
Tatarian honeysuckle	*Lonicera tatarica*
Sandbar willow	*Salix interior*
Plum	*Prunus*
foxtail	*Setaria spp.*
Prickly gooseberry	*Ribes cynobati*
Velvetleaf	*Abutilon theophrasti*
Maidenfern	*Thelypteris sp.*
Mugwort	*Artemisia vulgaris*
Scots pine	*Pinus sylvestris*
White spruce	*Picea glauca*
Poison oak	*toxicodendron pubescens*
Norway spruce	*Picea abies*
Eastern cottonwood	*Populus deltoides*
Sweet cherry	*Prunus avium*
fleaworts	*Plantago*
water sedge	*Carex aquatilis*
Corn	*Zea mays*
Red maple	*Acer rubrum*
smooth sumac	*Rhus glabra*
riverbank grape	*Vitis riparia*

Eastern red cedar	*Juniperus virginiana*
Green ash	*Fraxinus pennsylvanica*
Prairie rose	*Rosa arkansana*
eastern black walnut	*Juglans nigra*
Boxelder maple	*Acer negundo*
Pear	*Pyrus*
Mullein	*Verbascum*
Virginia creeper	*Parthenocissus quinquefolia*
Apple	*Malus pumila*
hackberry	*Celtis occidentalis*
Common milkweed	*Asclepias syriaca*
Slender wild oat	*Avena barbata*
Norway maple	*Acer platanoides*
Silver maple	*Acer saccharinum*
Green foxtail	*Setaria viridis*
Calico aster	*Symphyotrichum lateriflorum*
Red pine	*Pinus resinosa*
spiny plumeless thistle	*Carduus acathoides*
Yarrow	*Achillea millefolium*
hemp	*Cannabis sativa*
Stinging nettle	*Urtica dioica*
Motherwort	*Leonurus cardiaca*
reed canary grass	*Phalaris arundinacea*
fiddle dock	*Rumex pulcher*
orchard grass	*Dactylis glomerata*
creeping wild rye	*Leymus triticoides*
brickellbush	*Brickellia*
catnip	*Nepeta cataria*
knapweed	*Centaurea spp.*
toadflax	*Linaria sp.*
smooth brome	*Bromus inermis*
ryegrass	*Lolium*
red fescue	*Festuca rubra*
prairie dropseed	*Sporobulus heterolepis*
ground elder	*Aegopodium podagraria*
White pine	*Pinus strobus*
Sulphur cinquefoil	*Potentilla recta*
ground ivy	*Glechoma hederacea*
Sideoats grama	*Bouteloua curtipendula*
smooth oxeye	*Heliopsis helianthoides*
little bluestem	*Schizachyrium scoparium*
purple lovegrass	*Eragrostis spectabilis*
Cocklebur	*Xanthium*

Smartweeds	*Persicaria*
Duckweed	*Lemnoideae*
Umbrella sedge	*Cyperus alternifolius*
Yellow foxtail	*Setaria helvola*
smooth witherod	*Viburnum nudum*
Red oak	*Quercus rubra*
Shumard oak	*Quercus shumardii*
big bluestem	*Andropogon gerardii*
Timothy grass	*Phleum*
common ragweed	*Ambrosia artemisiifolia*
green foxtail	*Setaria viridis*
Aspen	*Populus sp.*
Corkscrew willow	*Salix matsudana*
stickseed	*Hackelia virginiana*
fleabane	*Erigeron ssp.*
beardgrass	*Bothriochloa*
Lady fern	*Athyrium*
switchgrass	*Panicum virgatum*
white heath aster	*Symphyotrichum ericoides*
Alkali sacaton	*Sporobolus airoides*
pigweed	*Oxybasis rubra*
Missouri gooseberry	*Ribes missouriense*
Blackberry lily	*Iris domestica*
white vervain	*Verbena urticifolia*
wild lettuce	*Lactuca sp.*
toadflax	*Linaria sp.*
American basswood	*Tilia americana*
Chokecherry	*Prunus virginiana*
American hazelnut	*Corylus americana*
gray dogwood	*Cornus racemosa*
bush juniper	*Juniperus communis*
sand cherry	*Prunus pumila*
Kentucky bluegrass	*Poa pratensis*
porcupine grass	*Miscanthus sinensis*
Blackberry	*Rubus spp*

Appendix E

Site Photos

View of the barn proposed for renovation.

View of the second barn, no impacts proposed.

Representative photo of annual grassland/pasture with planted stand of red pine in background.

Image of detached single-family residence proposed for conversion to an office.

Pooled water observed in the ephemeral channel/swale drainage system.

Oak woodland habitat with stand of planted red pine trees in background.

Recently harvested row crop bisected by drainage ditch.

Deciduous woodland adjacent to annual grassland/ pasture.

Appendix F

Air Quality Modeling Outputs

Table 1a
Alternative A - Vehicle Miles Traveled per Year

Market Areas	Trip Generation (average daily trips)	Trip Distribution	Average Distance (miles)[1]	Alternative A	
				Trips/Year	VMT/Year (miles)
Twin Cities and surrounding areas	4005	15%	70	219,274	15,349,163
Rochester and surrounding areas		85%	14	1,242,551	17,395,718
				1,461,825	32,744,880

[1] Trip lengths based on weighted aveage of distance to population centers.
Sources: Elk Run, Minnesota Gaming Market Assessment, October 2023

Table 1b
Alternative B - Vehicle Miles Traveled per Year

Market Areas	Trip Generation (average daily trips)	Trip Distribution	Average Distance (miles)[1]	Alternative B	
				Trips/Year	VMT/Year
Surrounding Area	384	100%	25	140,160	3,504,000

[1] Trip lengths based on estimated market area.

Table 2a
2025 Mobile Operations Criteria Pollutant and GHG Emissions

	Alternative A	Alternative B
vmt/yr	32,744,880	3,504,000
Criteria Pollutant Emissions (tpy)		
NOx	18.29	2.62
VOC	4.91	1.29
SO_2	0.08	0.01
CO	140.52	24.14
$PM_{2.5}$	0.58	0.09
PM_{10}	1.81	0.22
Greenhouse Gas[1]		
CO_2	15774.8	1827.4
CH_4	1.3	0.3
N_2O	0.8	0.1
CO_2e	16055.0	1873.7

[1] GHG emissions shown in metric tonnes.
Source: MOVES4

Table 2b
2042 Mobile Operations Criteria Pollutant and GHG Emissions

	Alternative A	Alternative B
vmt/yr	32,744,880	3,504,000
Criteria Pollutant Emissions (tpy)		
NOx	4.66	0.83
VOC	2.01	0.59
SO_2	0.05	0.01
CO	47.45	8.37
$PM_{2.5}$	0.32	0.06
PM_{10}	1.51	0.19
Greenhouse Gas[1]		
CO_2	10619.94	1206.41
CH_4	0.86	0.16
N_2O	0.69	0.10
CO_2e	10846.94	1239.93

[1] GHG emissions shown in metric tonnes.
Source: MOVES4

Table 3a
2025 Operational Mobile Annual Average Emission Factors

Criteria Pollutant	grams per mile
NOx	0.49
VOC	0.11
SO_2	0.002
CO	3.61
$PM_{2.5}$	0.02
PM_{10}	0.05
Greenhouse Gases	
CO_2	476.98
CH_4	0.04
N_2O	0.02
CO_2e	484.98
Source: MOVES4	

Table 3b
2025 Operational Start Annual Average Emission Factors

Criteria Pollutant	grams per start
NOx	0.46
VOC	0.53
SO_2	0.001
CO	6.33
$PM_{2.5}$	0.02
PM_{10}	0.02
Greenhouse Gases	
CO_2	106.74
CH_4	0.08
N_2O	0.03
CO_2e	119.23
Source: MOVES4	

Table 3c
2046 Operational Mobile Annual Average Emission Factors

Criteria Pollutant	grams per mile
NOx	0.12
VOC	0.04
SO_2	0.001
CO	1.21
$PM_{2.5}$	0.01
PM_{10}	0.04
Greenhouse Gas	
CO_2	321.93
CH_4	0.02
N_2O	0.020
CO_2e	328.55
Source: MOVES4	

Table 3d
2046 Operational Start Annual Average Emission Factors

Criteria Pollutant	grams per start
NOx	0.23
VOC	0.26
SO_2	0.000
CO	2.29
$PM_{2.5}$	0.02
PM_{10}	0.02
Greenhouse Gas	
CO_2	53.61
CH_4	0.05
N_2O	0.02
CO_2e	60.68
Source: MOVES4	

Table 4
Fugitive Dust Emissions from Construction

	Alternatives A and B
Construction Area (acres)	18.00
Duration of Construction (months)	15
On-site cut/fill (1,000 cubic yards)	66.5
PM_{10} Emisson Factor (tons PM_{10}/acre-month)	0.011
On-site cut/fill PM10 Emission Factor (tons PM10/1,000 cubic yards)	0.059
Total PM10 Emissions (tons)	**6.89**
Total $PM_{2.5}$ Emissions (tons)	**3.45**

Source: Emission factors from WRAP's Fugitive Dust Handbook (Level 2).

Note: On-site cut/fill estimated based on project description. PM2.5 conservatively estimated to be half of PM10 emissions.

Table 5
Alternatives A & B - Construction Emissions

Construction Equipment[1]	Horsepower	Load Factor	Hours in Use[2] (hours/day)	Emission Factors (g/bhp/hr)[4]						Emission (tons/year)					
				CO	VOC	NOx	SO_2	PM_{10}	$PM_{2.5}$[3]	CO	VOC	NOx	SO_2	PM_{10}	$PM_{2.5}$
Site Grading															
1 Excavator	158	0.38	8	3.08	0.17	1.32	0.01	0.07	0.06	0.07	0.00	0.03	0.00	0.00	0.00
1 Bulldozer	247	0.40	8	1.80	0.40	4.09	0.01	0.18	0.17	0.06	0.01	0.14	0.00	0.01	0.01
1 Grader	187	0.41	8	1.22	0.26	3.07	0.01	0.10	0.09	0.03	0.01	0.08	0.00	0.00	0.00
2 Off-Highway Trucks	402	0.38	8	1.21	0.18	1.24	0.01	0.04	0.04	0.13	0.02	0.13	0.00	0.00	0.00
3 Tractor/Loaders/Backhoes	97	0.37	8	3.53	0.23	2.29	0.01	0.11	0.10	0.13	0.01	0.09	0.00	0.00	0.00
1 Scraper	367	0.48	8	1.92	0.25	2.48	0.01	0.10	0.09	0.12	0.02	0.15	0.00	0.01	0.01
Employee Trips (miles)[3]		15,000		2.86	0.08	0.21	0.00	0.04	0.01	0.05	0.00	0.00	0.00	0.00	0.00
Fugitive Dust														6.89	3.45
Construction															
1 Crane	231	0.29	7	1.50	0.28	2.97	0.01	0.12	0.11	0.09	0.02	0.18	0.00	0.01	0.01
3 Forklifts	89	0.2	8	3.24	0.15	1.91	0.01	0.06	0.05	0.18	0.01	0.11	0.00	0.00	0.00
1 Generator	84	0.74	8	3.34	0.26	2.32	0.01	0.10	0.10	0.22	0.02	0.15	0.00	0.01	0.01
3 Tractors/Loaders/Backhoes	97	0.37	7	1.21	0.18	1.24	0.01	0.04	0.04	0.04	0.01	0.04	0.00	0.00	0.00
1 Welder	46	0.45	8	4.56	0.65	3.78	0.01	0.13	0.13	0.30	0.04	0.25	0.00	0.01	0.01
Employee Trips (miles)[3]		54,000		2.86	0.08	0.21	0.00	0.04	0.01	0.17	0.00	0.01	0.00	0.00	0.00
Paving[4]															
2 Pavers	130	0.42	8	3.00	0.19	1.81	0.01	0.08	0.08	0.06	0.00	0.03	0.00	0.00	0.00
2 Paving Equipment	132	0.36	8	3.07	0.20	1.79	0.01	0.09	0.08	0.05	0.00	0.03	0.00	0.00	0.00
2 Rollers	80	0.38	8	3.45	0.27	2.84	0.01	0.15	0.14	0.04	0.00	0.03	0.00	0.00	0.00
Employee Trips (miles)[3]		7,500		2.86	0.08	0.21	0.00	0.04	0.01	0.02	0.00	0.00	0.00	0.00	0.00
Architectural Coating															
Coating		0.0116									0.25				
Total Project Construction Emissions										**1.70**	**0.42**	**1.45**	**0.00**	**6.95**	**3.50**

Sources:

[1] Construction equipment list from CalEEMod adjusted for on-site borrow pit.

[2] Hours per normal work day.

[3] Based on 25 mile trip length, 15 to 18 trips per day, and EMFAC, 2014 emission factors (grams/mile).

[4] Emission factors provided by EMFAC, 2014, EPA approved offroad emission factors, as sourced from CalEEMod Default Data Tables: http://www.aqmd.gov/docs/default-source/caleemod/caleemod-appendixd.pdf?sfvrsn=2.

[3] Off-Road Emission factors provided from California Air Resources Board OFFROAD2011 emission factors, as sourced from CalEEMod Default Data Tables.

[4] On-Road Emission Factors from MOVES3 for Passenger Truck (31)

Table 6
Alternatives A & B - Construction GHG Emissions

Construction Equipment[1]	Horsepower	Load Factor	Hours in Use[2] (hours/day)	Emission Factors (g/bhp/hr)[3]		Emission Factors (g/mile)	Emisssion (metric tons)
				CO2	CH4	CO2e	CO2e
Site Grading							
1 Excavator	158	0.38	8	472.43	0.15		9.15
1 Bulldozer	247	0.40	8	474.59	0.15		15.13
1 Grader	187	0.41	8	473.67	0.15		11.72
2 Off-Highway Trucks	402	0.38	8	475.22	0.15		46.84
3 Tractor/Loaders/Backhoes	97	0.37	8	476.73	0.15		16.56
1 Scraper	367	0.48	8	472.85	0.15		
Employee Trips (total miles)[4]	15,000					398.85	6
Construction							
1 Crane	231	0.29	7	472.96	0.15		26.83
3 Forklifts	89	0.2	8	473.06	0.15		24.45
1 Generator	84	0.74	8	568.30	0.02		33.95
3 Tractors/Loaders/Backhoes	97	0.37	7	476.73	0.15		43.47
1 Welder	46	0.45	8	568.30	0.06		11.32
Employee Trips (total miles)[4]	54,000					398.85	22
Paving[4]							
2 Pavers	130	0.42	8	472.66	0.15		16.65
2 Paving Equipment	132	0.36	8	470.66	0.15		14.43
2 Rollers	80	0.38	8	474.01	0.15		9.30
Employee Trips (total miles)[4]	7,500					398.85	3
Construction GHG Emissions							**310**

Source:
[1] Construction equipment list from CalEEMod adjusted for on-site borrow pit.
[2] Hours per normal work day.
[3] Off-Road Emission factors provided from California Air Resources Board OFFROAD2011 emission factors, as sourced from CalEEMod Default Data
[4] On-Road Emission Factors from MOVES3 for Passenger Truck (31)

Table 7a
Alternative A

Pollutant/GHG	MMscf/year	Emission Factors (lb/MMscf)	Conversion factor (lb/tons)	Emissions (tons)
VOC	1	5.5	0.0005	0.00
NOx	1	0.64	0.0005	0.00
CO	1	84	0.0005	0.04
SO_2	1	0.6	0.0005	0.00
PM_{10}	1	7.6	0.0005	0.00
$PM_{2.5}$	1	7.6	0.0005	0.00
Greenhouse Gas			**lb/MT**	**MT**
CO_2	1	120,000	0.00045	54

Stationary Sources include boilers, stoves, heating units, and other equipment.
Source: AP 42, Tables 1.4-1 and 1.4-2 (EPA, 1998), USEIA, 2022.

Table 7b
Alternative B

Pollutant/GHG	MMscf/year	Emission Factors (lb/MMscf)	Conversion factor (lb/tons)	Emissions (tons)
VOC	1.1	5.5	0.0005	0.00
NOx	1.1	0.64	0.0005	0.00
CO	1.1	84	0.0005	0.05
SO_2	1.1	0.6	0.0005	0.00
PM_{10}	1.1	7.6	0.0005	0.00
$PM_{2.5}$	1.1	7.6	0.0005	0.00
Greenhouse Gas			**lb/MT**	**MT**
CO_2	1.1	120,000	0.00045	59

Stationary Sources include boilers, stoves, heating units, and other equipment.
Source: AP 42, Tables 1.4-1 and 1.4-2 (EPA, 1998), USEIA, 2022.

Table 8a Indirect GHG Emissions

Alternative A

Sources	Emission Factors			Use	Emissions
	CO_2	CH_4	N_2O		(MT of CO_2e)
	lbs of/MWh			MWh	
Electricity	995.8	0.107	0.015	540	245.55
	MT of CO_{2e}/MT of Solid Waste			MT of Solid Waste	
Solid Waste	0.503			113.15	56.91
Water/Wastewater	MT of CO2e/Million Gallons			Million Gallons	
	6.428			9.13	58.66
Total					**361**

Sources: Electricity based on U.S. Energy Information Administration, 2018 Commercial Buildings Energy Consumption Survey.

Table 8a Indirect GHG Emissions

Alternative A

Sources	Emission Factors			Use	Emissions
	CO_2	CH_4	N_2O		(MT of CO_2e)
	lbs of/MWh			MWh	
Electricity	995.8	0.107	0.015	337	153.19
	MT of CO_{2e}/MT of Solid Waste			MT of Solid Waste	
Solid Waste	0.503			22.63	11.38
Water/Wastewater	MT of CO2e/Million Gallons			Million Gallons	
	6.428			1.83	11.76
Total					**176**

Sources: Electricity based on U.S. Energy Information Administration, 2018 Commercial Buildings Energy Consumption Survey.

Potential To Emit Calculator for Boilers and Emergency Engines

7/1/2016

Facility Profile*

Total Boiler Heat Input -		(MMBtu/hr)	Total of boilers 10.0 MMBtu/hr and greater, unless in extreme ozone nonattainment area then include 2.0 MMBtu/hr and greater.	
Fuels Used				
Natural Gas-	Y	(Y or N)		
LPG	N	(Y or N)	Sulfur %	
Liquid Fuel (distillate, diesel, etc.)	N	(Y or N)	0.0015	Default = 0.0015
Total Small Boilers and Heaters Input -		(MMBtu/hr	Total of boilers less than 10.0 MMBtu/hr, unless in extreme ozone nonattainment area then less than 2.0 MMBtu/hr.	
Fuels Used				
Natural Gas	Y	(Y or N)		
LPG	N	(Y or N)	Sulfur %	
Liquid Fuel (distiallate, diesel, etc.)	N	(Y or N)	0.0015	Defalut = 0.0015
Emergency Generator/Engines -	1609	(hp)		
Fuels Used			Sulfur %	
Diesel-	Y	(Y or N)	0.0015	Default = 0.0015
Gasoline	N	(Y or N)		
Natural Gas/LPG	N	(Y or N)		
Ozone Attainment Status				
Severe or Extreme Ozone Nonattainment	N	(Y or N)		

*The boiler and emergency engine permit and this calculator are not intened for use with non-emergency engines; for non-emergency engines sources should refer to the engines general permit.

Potential To Emit Calculator for Boilers

7/1/2016

Emissions from Emergency Generator/Engine - Criteria Pollutants

Engine Size: 1609 hp

Diesel Used: Y

Purple values are pulled from other worksheet
Blue values are results

Worst Case PTE (ton/yr)	Pollutant									
	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_X	CO	VOC	CO2	Single HAP	Combined HAP
	0.01	**0.01**	**0.01**	**0.00**	**0.31**	**0.07**	**0.01**	**14.80**	**0.02**	**0.05**

Engine Type: **Diesel (> 600 hp)** Used: Y Sulfur Content: 0.00 %

	Pollutant									
	PM	PM_{10}	$PM_{2.5}$[2]	SO_2	NO_X	CO	VOC[3]	CO2	Single HAP	Combined HAP
Emission Factor[1] (lbs/hp-hr)	0.0007	0.0007	0.0007	1.21E-05	0.024	5.50E-03	7.05E-04	1.15	0.00118	0.0038
Limited PTE (ton/yr)	**0.01**	**0.01**	**0.01**	**0.00**	**0.31**	**0.07**	**0.01**	**14.80**	**0.02**	**0.05**

Note:
1. Emission factors are from Chapter 3.4, Tables 3.4-1 and 3.4-2 for Large Stationary Diesel and Dual Fuel Engines (updated 10/96).
2. Assume $PM_{2.5}$ emissions are equal to PM_{10} emissions.
3. Assume TOC (total organic compounds) emissions equal to VOC emissions.
4. Assume 500 hours/yr of operation for an emergency engine

Methodology
PTE (ton/yr) = Engine Capacity (hp) x EF (lb/hp-hr) x 8760 hr x 1 ton/2000 lb

Engine Type: **Gasoline** Used: N

	Pollutant									
	PM[2]	PM_{10}	$PM_{2.5}$[2]	SO_2	NO_X	CO	VOC[3]	CO2	Single Hap	Combined HAP
Emission Factor[1] (lbs/hp-hr)	7.21E-04	7.21E-04	7.21E-04	5.91E-04	0.011	6.96E-03	2.05E-02	1.08E+00	1.18E-03	3.80E-03
PTE (ton/yr)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Note:
1. Emission factors are from Chapter 3.3, Table 3.3-1 (updated 10/96).
2. Assume PM and $PM_{2.5}$ emissions are equal to PM_{10} emissions.
3. Assume TOC (total organic compounds) emissions equal to VOC emissions.
4. Assume 500 hours/yr of operation for an emergency engine.

Methodology
PTE (ton/yr) = Engine Capacity (hp) x EF (lb/hp-hr) x 8760 hr x 1 ton/2000 lb

Engine Type: **Natural Gas/LPG** Used: N

	Pollutant									
	PM[2]	PM_{10}	$PM_{2.5}$[2]	SO_2	NO_X	CO	VOC[3]	CO2	Single HAP	Combined HAP
Emission Factor[1] (lbs/hp-hr)	1.67E-04	1.67E-04	1.67E-04	5.06E-06	1.90E-02	3.20E-02	2.55E-04	0.946	0.00045408	0.0006192
PTE (ton/yr)	**FALSE**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Note:
1. Emission factors are from Chapter 3.3, Table 3.3-1 (updated 10/96).
2. Assume PM and $PM_{2.5}$ emissions are equal to PM_{10} emissions.
3. Assume TOC (total organic compounds) emissions equal to VOC emissions.
4. Assume 500 hours/yr of operation for an emergency engine.

Methodology
PTE (ton/yr) = Engine Capacity (hp) x EF (lb/hp-hr) x 8760 hr x 1 ton/2000 lb

Appendix G

Cultural Resources Study and PIIC THPO Concurrence

Appendix G1

Cultural Resources Study

CONFIDENTIAL - Available upon request

Appendix G2

PIIC THPO Concurrence

TRIBAL HISTORIC PRESERVATION OFFICE
Prairie Island Indian Community, Dept. of Land & Environment
5636 Sturgeon Lake Road, Welch, MN 55089
Phone (651) 385-2554

March 27, 2024

Tribal Council
Prairie Island Indian Community

RE: Phase I Archeological Survey Report of Elk Run

Dear Honorable Council,

The Tribal Historic Preservation Officer has reviewed the Archeological Survey Report for the Elk Run project located in Olmsted County, Minnesota. The THPO concurs with the findings of "No Potential Effect" and makes the recommendation for the project to proceed.

Should you require any additional information, please do not hesitate to contact me at (651) 385-4175.

Sincerely,

Noah White
Tribal Historic Preservation Officer
Prairie Island Indian Community

Appendix H

EJScreen Community Report

EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Oronoco, MN

Blockgroup: 271090019021
Population: 1,924
Area in square miles: 11.00

A3 Landscape

LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	97%
Spanish	2%
Total Non-English	3%

COMMUNITY INFORMATION

Low income: 5 percent
People of color: 5 percent
Less than high school education: 2 percent
Limited English households: 0 percent
Unemployment: 0 percent
Persons with disabilities: 7 percent
Male: 47 percent
Female: 53 percent
84 years
Average life expectancy
$50,244
Per capita income
Number of households: 637
Owner occupied: 98 percent

BREAKDOWN BY RACE

White: 95%
Black: 0%
American Indian: 0%
Asian: 2%
Hawaiian/Pacific Islander: 0%
Other race: 0%
Two or more races: 1%
Hispanic: 2%

BREAKDOWN BY AGE

From Ages 1 to 4	6%
From Ages 1 to 18	33%
From Ages 18 and up	67%
From Ages 65 and up	12%

LIMITED ENGLISH SPEAKING BREAKDOWN

Speak Spanish	0%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	0%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race.
Source: U.S. Census Bureau, American Community Survey (ACS) 2017 -2021. Life expectancy data comes from the Centers for Disease Control.

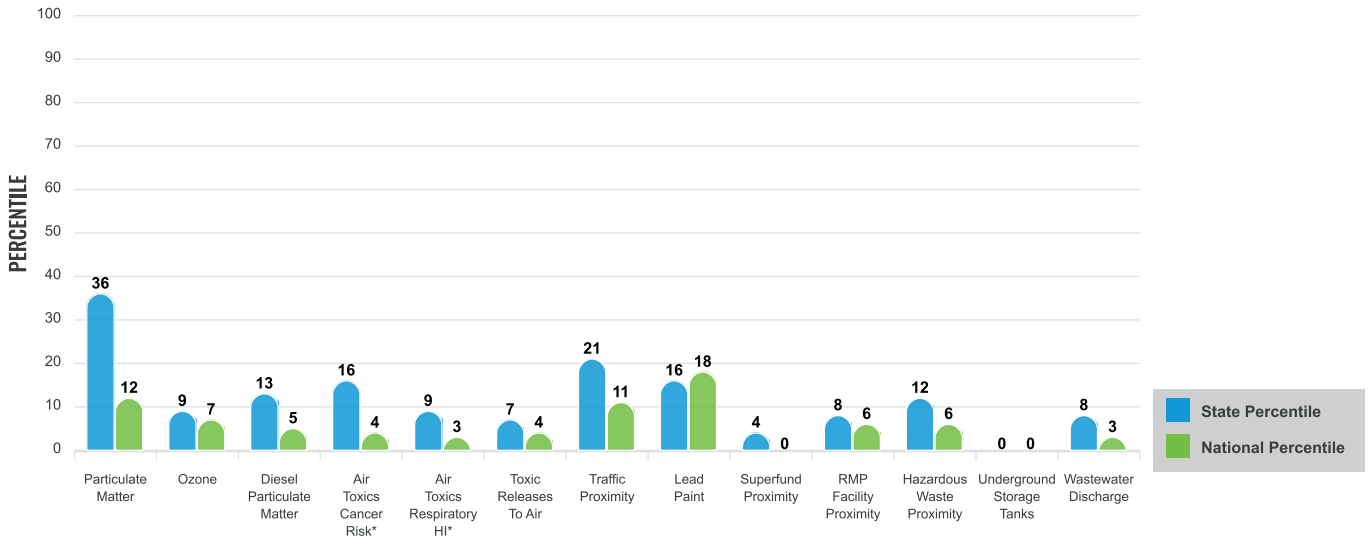
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

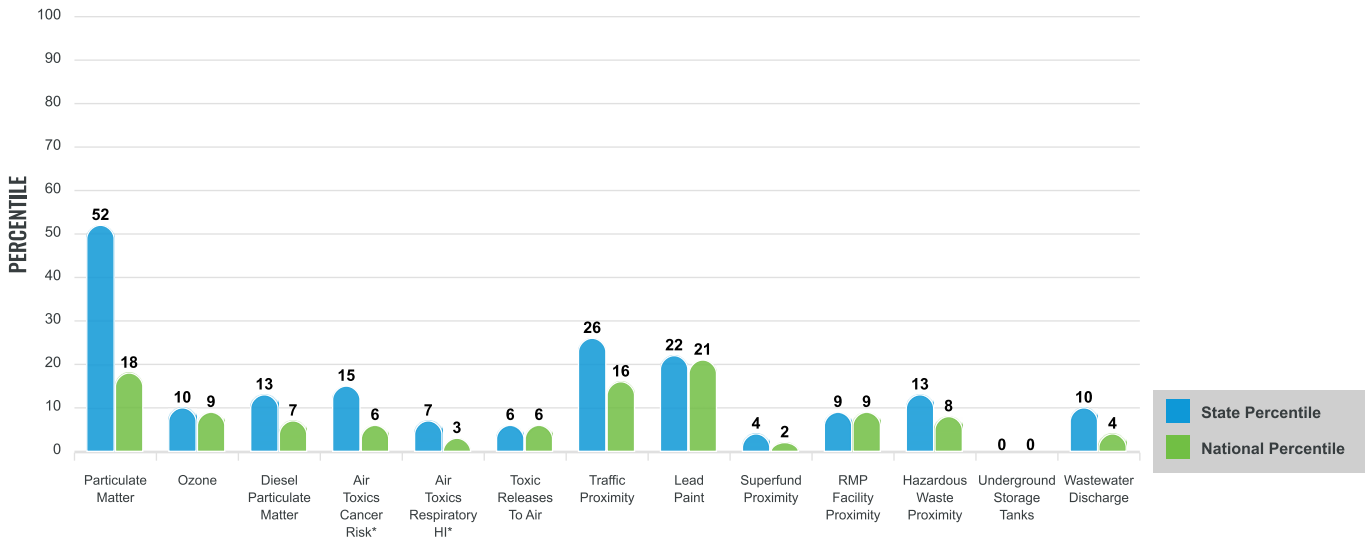
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Report for Blockgroup: 271090019021

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter (µg/m^3)	7.82	6.78	88	8.08	40
Ozone (ppb)	57.7	58.2	20	61.6	21
Diesel Particulate Matter (µg/m^3)	0.103	0.21	29	0.261	17
Air Toxics Cancer Risk* (lifetime risk per million)	20	22	12	25	5
Air Toxics Respiratory HI*	0.2	0.26	7	0.31	4
Toxic Releases to Air	34	1,500	14	4,600	15
Traffic Proximity (daily traffic count/distance to road)	38	140	43	210	34
Lead Paint (% Pre-1960 Housing)	0.15	0.33	36	0.3	42
Superfund Proximity (site count/km distance)	0.011	0.19	8	0.13	4
RMP Facility Proximity (facility count/km distance)	0.082	0.48	18	0.43	22
Hazardous Waste Proximity (facility count/km distance)	0.1	1.3	28	1.9	20
Underground Storage Tanks (count/km^2)	0	1.8	0	3.9	0
Wastewater Discharge (toxicity-weighted concentration/m distance)	9.4E-07	0.19	17	22	8
SOCIOECONOMIC INDICATORS					
Demographic Index	5%	22%	5	35%	2
Supplemental Demographic Index	4%	11%	7	14%	3
People of Color	5%	20%	21	39%	12
Low Income	5%	23%	11	31%	7
Unemployment Rate	0%	4%	0	6%	0
Limited English Speaking Households	0%	2%	0	5%	0
Less Than High School Education	2%	7%	31	12%	20
Under Age 5	6%	6%	55	6%	58
Over Age 64	12%	17%	32	17%	33
Low Life Expectancy	14%	17%	20	20%	8

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund 0
Hazardous Waste, Treatment, Storage, and Disposal Facilities 0
Water Dischargers 2
Air Pollution 1
Brownfields 0
Toxic Release Inventory 0

Other community features within defined area:

Schools 0
Hospitals 1
Places of Worship 2

Other environmental data:

Air Non-attainment ..... No
Impaired Waters ..... Yes

Selected location contains American Indian Reservation Lands* ..... No
Selected location contains a "Justice40 (CEJST)" disadvantaged community ..... No
Selected location contains an EPA IRA disadvantaged community ..... No

Report for Blockgroup: 271090019021

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	14%	17%	20	20%	8
Heart Disease	5	5.6	40	6.1	28
Asthma	8.6	9	27	10	15
Cancer	6.8	6.4	58	6.1	64
Persons with Disabilities	6.3%	11.4%	11	13.4%	9

CLIMATE INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	17%	8%	91	12%	82
Wildfire Risk	0%	4%	0	14%	0

CRITICAL SERVICE GAPS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	8%	11%	41	14%	37
Lack of Health Insurance	2%	5%	26	9%	15
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	No	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Footnotes

Report for Blockgroup: 271090019021

Appendix I

Traffic Impact Study

ENGINEERING, REIMAGINED

TRAFFIC IMPACT STUDY

Prairie Island Indian Community (PIIC) Emergency Gaming Facility and Fee-to-Trust Project

Pine Island, MN

March 2024

TRAFFIC IMPACT STUDY

Prairie Island Indian Community

Welch, MN

March 2024

Prepared for:

Acorn Environmental

Prepared By: **KLJ Engineering**	Date: 03/13/2024

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Approved By:	Date:

Reviewed By:	Date:

Table of Contents

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Appendices

1. Introduction

This Traffic Impact Study (TIS) report is prepared to assess the impacts of the Prairie Island Indian Community (PIIC) Emergency Gaming Facility and Fee-to-Trust Project in accordance with the National Environmental Policy Act (NEPA).

Objective

The objective of this traffic impact study (TIS) is to comprehensively assess the potential impact of the development alternatives on the surrounding transportation network, traffic flow, and safety. The report discusses how future development will affect the volume of traffic in the study area and compares traffic conditions for before and after completion of the development. The study provides recommendations to mitigate any adverse impacts identified such as roadway and intersection improvements, traffic management measures, or transportation demand management strategies.

Project Site

The Project Site is the existing warehouse/barn structure located on the east side of White Pines Road SE, to the south of E White Bridge Road, located just southeast and across US Hwy 52 in the City of Pine Island, MN (see **Figure 1**).

Study Intersections

Three intersections and a proposed future access were identified to be potentially impacted by the proposed development.

- US Hwy 52 and County Rd 31/12 Interchange west ramp (Signal)
- US Hwy 52 and County Rd 12/31 Interchange east ramp (Signal)
- E White Bridge Rd/County Rd 12 and White Pines Rd SE (Roundabout)
- Proposed access along White Pines Rd SE

2. Existing Conditions

Roadways

The roadways within the study area are described below, including roadway classification and cross-section. The posted speed limit of both roadways is 40-mph.

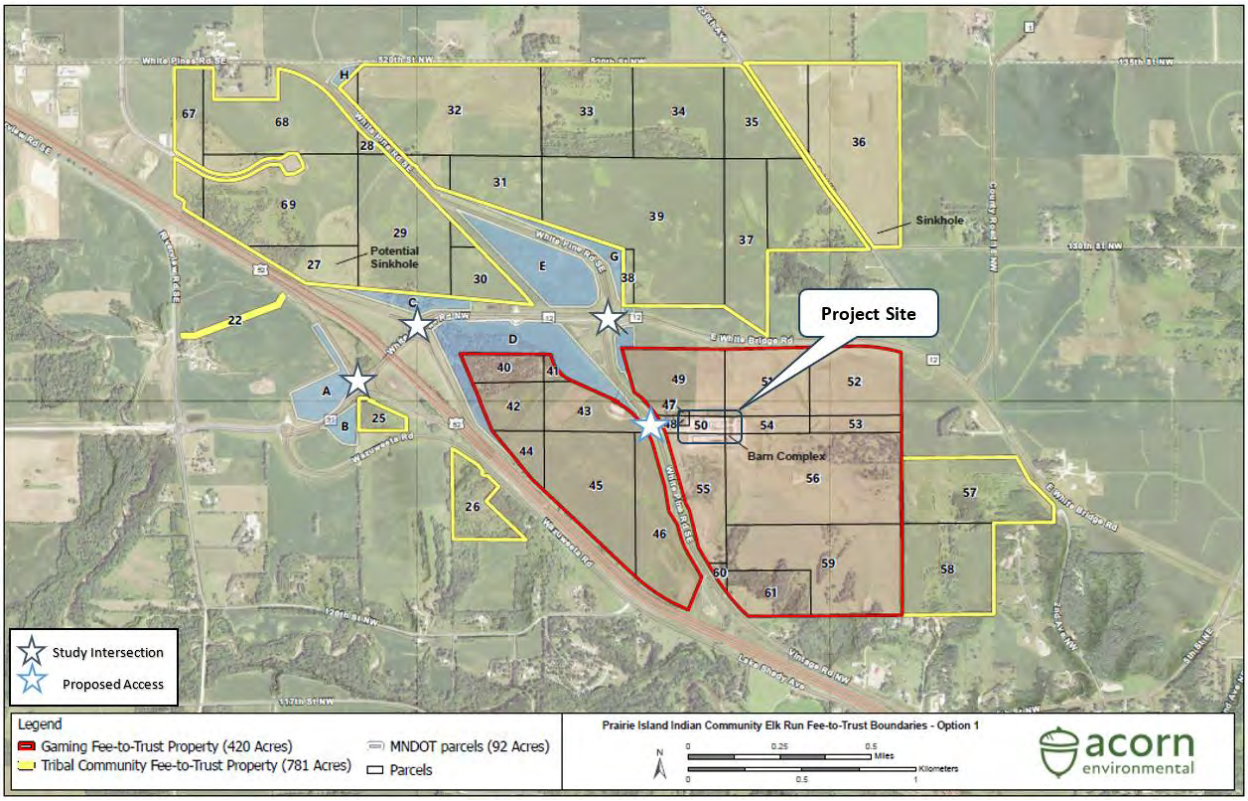
White Pines Rd SE

White Pines Rd SE is predominantly a two-lane undivided north-south roadway that is classified as a secondary arterial in Olmsted County, MN. Respective of both the north and south approaches to the roundabout located at the intersection of White Pines Rd SE and E White Bridge Rd, approximately 250 feet prior to entering the roundabout, the single lane becomes two-lane road. Upon exiting the roundabout in north and south outbound lanes, White Pines Rd SE returns to a single lane configuration.

County Rd 12 / E White Bridge Rd

Within the study area: West of the roundabout at White Pines Rd SE and County Rd 12 / E White Bridge Rd, E White Bridge Rd is a four-lane divided roadway traveling in an east-west direction; East of the same roundabout, approximately 550 feet after vehicles exit the roundabout eastbound, E White Bridge Rd becomes a two-lane undivided roadway continuing in an east/southeast direction. The roadway is classified as a major arterial in Olmsted County, MN.

Figure 1 - Study Area



Source: Acorn Environmental

Study Intersections

US 52 and County Rd 31/12 Interchange ramps

The interchange of US 52 and County Rd 31/12 is a grade separated interchange where the traffic crosses to the other side of the roadway between freeway ramps. This type of interchange is also known as *Diverging Diamond Interchange* (DDI). The crossing allows for vehicles to turn left on and off freeway ramps more efficiently without stopping or crossing opposing lanes of traffic. Right turns on and off the freeway ramps occur either before or after the crossover intersection, when traffic is on the normal side of the roadway. There are two thru-lanes along County Rd 31/12 that transitions to E White Bridge east of the crossover on the east ramp. The thru lanes are controlled by a traffic signal.

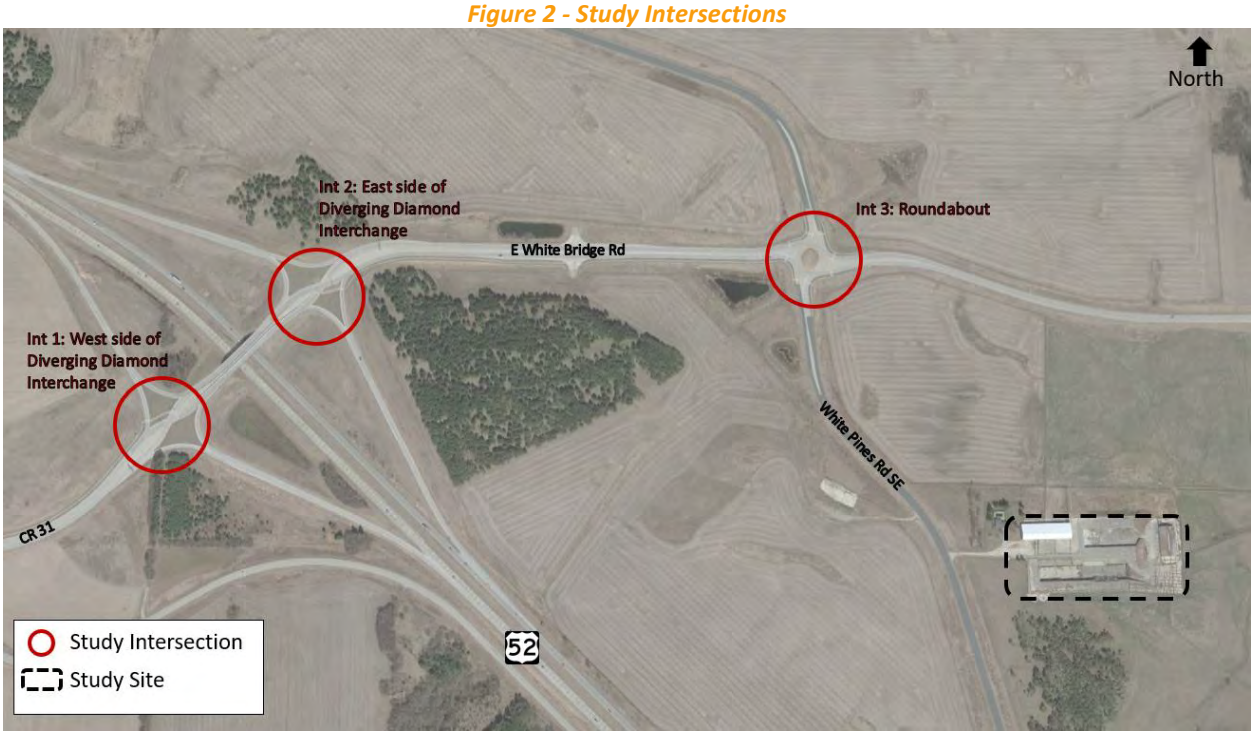
E White Bridge Rd & White Pines Rd SE

The intersection of E White Bridge Rd and White Pines Rd SE is controlled by a multi-lane roundabout. The existing lane configuration of this intersection is:

- Northbound: One dedicated left-turn lane, and one shared thru/right-turn lane.
- Southbound: One dedicated left-turn lane, and one shared thru/right-turn lane.
- Eastbound: One shared left-turn/thru lane and one shared thru/right-turn lane.
- Westbound: One shared left-turn/thru lane and one shared thru/right-turn lane.

All study intersections are shown in **Figure 2**.

Figure 2 - Study Intersections



Source: Google Maps

Traffic Volumes

The accurate measurement of traffic including timely traffic counts is paramount to effective decision making. KLJ collected peak hour turning movement counts (TMCs) at the study intersections from September 27 to September 30, 2023, to depict weekday AM and PM peak hours, Friday afternoon, and Saturday peak hour. The AM and PM peak on weekday was observed from 7am-8am and 4pm-5pm, respectively. The Friday afternoon peak was observed from 3pm-4pm, and the Saturday peak was observed from 12pm-1pm.

The existing traffic volumes in the study area for the Weekday peaks, Friday afternoon peak, and Saturday peak are shown in **Table 1**.

The raw traffic volume profiles of the study intersections are included in **Appendix A**.

Non-Motorized User Facilities

Within the study area, County Rd 12 has a multi-use pathway complete with ADA compliant curb cuts and crosswalks. The pathway spans from the west of the US Hwy 52/County Rd 12 interchange and proceeds easterly along County Rd 12/E White Bridge Rd, terminating at the roundabout at the intersection of E White Bridge Rd and White Pines Rd SE. At the time of this study, there are no pedestrian or bicycle facilities leading south from the roundabout location to the access of the Project Site. The Project Site, if built, will be designed to be compliant with the Americans with Disabilities Act (ADA) regarding walkways and pedestrian ramps for access between the Project Site facility entrances and exits and with its associated vehicular drop off/pick up driveway and parking areas.

Table 1 – Existing 2023 Traffic Volumes

ID	Peak	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Weekday													
I	AM	-	38	77	71	72	-	-	-	-	35	-	31
	PM	-	31	19	33	100	-	-	-	-	72	-	26
II	AM	21	56	-	-	88	64	57	-	18	-	-	-
	PM	22	81	-	-	47	54	86	-	69	-	-	-
III	AM	5	62	8	1	136	12	11	4	1	2	1	5
	PM	18	112	5	1	88	12	11	8	1	7	10	12
Friday													
I	Afternoon	-	44	43	31	52	-	-	-	-	83	-	33
II		21	85	-	-	38	70	65	-	68	-	-	-
III		11	131	11	1	90	8	7	4	1	8	6	8
Saturday													
I	Peak	-	58	19	36	33	-	-	-	-	93	-	12
II		28	124	-	-	45	62	21	-	33	-	-	-
III		11	132	3	2	86	4	6	3	2	14	12	11

L – Left, T – Thru, R – Right

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

3. Future Conditions

Project Site Development

The developer is seeking to develop the Project Site with either:

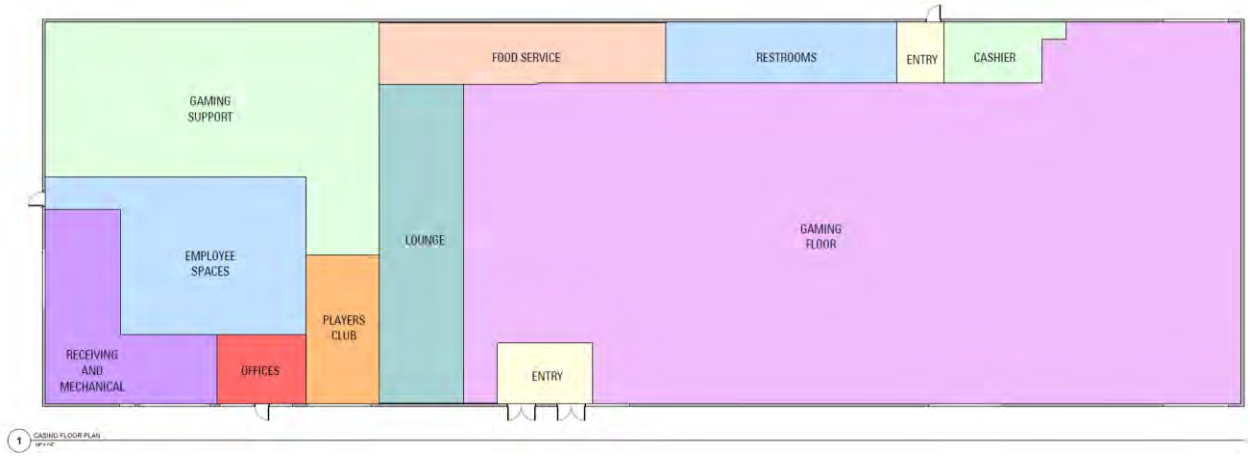
- Alternative A – Proposed Project
- Alternative B – Event Center

Note that either alternative would come to fruition only in the case that the existing Treasure Island Casino, located in Welch, MN, were to close due to a catastrophic event. An opening year of 2026 was assumed for the sake of conducting the study because it is uncertain if a catastrophic event would force the closure of the existing Treasure Island Casino. Alternative A – Proposed Project

Alternative A – Proposed Project

Alternative A consists of the transfer of the Project Site into federal trust and the subsequent renovation of the existing barn structure into a gaming facility, conversion of the existing residence into office space, and construction of parking and support infrastructure. The Project Site floor plan and site plan are shown in **Figure 3** and **Figure 4**, respectively.

Figure 3 – Alternative A: Proposed Project Floor Plan



Components and sizing details for Alternative A are shown in **Table 2** below.

Table 2 - Alternative A - Component and Sizing Details

Component	Units	Gross Floor Area (ft²)
Casino		
Gaming Floor	500 Slots	12,123
Restaurants		
Food Service	45 Seats	834
Lounge	25 Seats	1,276
Front/Back of House		
Gaming Support	-	3,033
Players Club	-	514
Employee Spaces	-	1,796
Receiving/Mechanical/Other	-	2,102
	Total	**21,678**
Parking		
Valet	30 Stalls	-
Surface Parking	445 Stalls	-
Employee	45 Stalls	-
Total	**520 Stalls**	-

.

Figure 4 - Alternative A (Proposed Project) Site Plan

CASINO

1" = 160'-0"

TRUE NORTH

RSP Architects
1220 Marshall Street NE
Minneapolis
Minnesota 55413
612.677.7100
612.677.7499 fax
www.rsparch.com

Project
PIIC - ELK RUN - TEMP CASINO

RSP Project No.
191600148

Client Project No.

Date
10/12/23

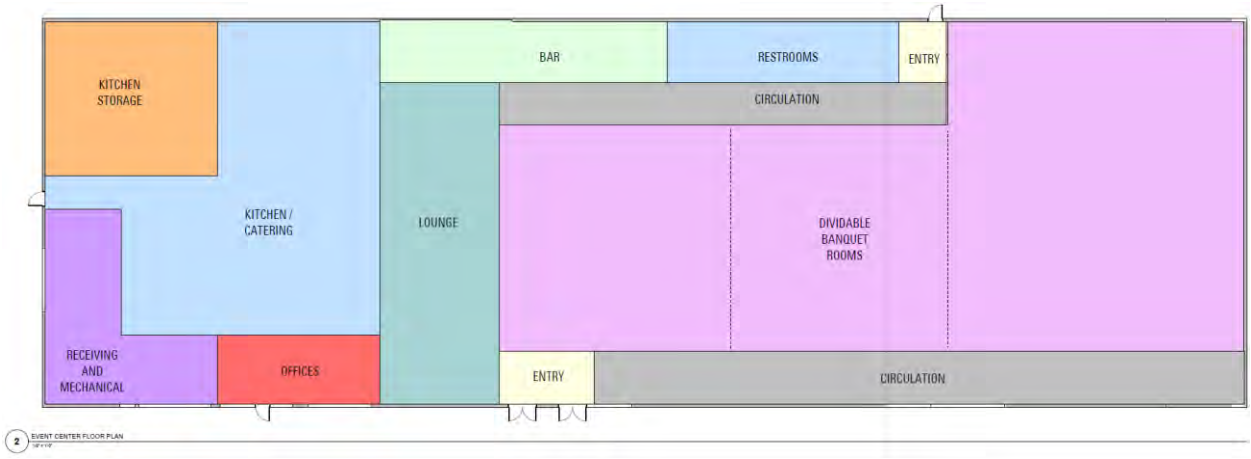
Description
CASINO

Sheet No.
A001

Alternative B – Restaurant and Event Center

Alternative B consists of the transfer of the Project Site into federal trust and the subsequent renovation of the existing barn structure into a gaming facility, conversion of the existing residence into office space, and construction of parking and support infrastructure. Events would include gatherings, trade shows, music performances, meetings, and weddings at an average frequency of approximately four times per week. The Project Site plan for Alternative B is identical to that shown previously in Figure 4. The floor plan for "Alternative B - Restaurant and Event Center" is shown in **Figure 5** below.

Figure 5 - Event Center Floor Plan



Components and sizing details for Alternative B are shown in **Table 3** below.

Table 3 - Alternative B - Component and Sizing Details

Component	Units	Gross Floor Area (ft²)
Event Rooms and Dining Space		
Dividable Banquet Room	585 Seats	9,406
Bar	42 Seats	840
Lounge	35 Seats	1,817
	Total	**12,063**
Front/Back of House		
Circulation	-	2,515
Receiving/Mechanical/Other	-	2,061
Kitchen Storage	-	1,253
Kitchen/Catering /Offices	-	3,786
	Total	**9,615**
Parking		
Valet	30 Stalls	-
Surface Parking	445 Stalls	-
Employee	45 Stalls	-
Total	**520 Stalls**	-

Background Growth (No-Build Traffic Volumes)

"No-Build" refers to the conditions without the proposed development scenario. For analysis purposes, the year 2026 is used as the opening year, but the actual opening year is dependent on a catastrophic emergency that would result in closure of the existing Treasure Island Resort & Casino. Taking that into consideration, this option includes the existing traffic counts projected to the opening year (2026) and

horizon year (2046) of the development. The future non-Project Site related traffic volumes in the study area were estimated using a conservative annual growth rate of two percent (2%).

It should be noted that a desktop review of forecasted population rates contained in the recently adopted 2022 Olmsted County General Land Use Plan was conducted. The conservate annual growth rate of two percent used in this study is reflected by the growth rates presented in the Olmsted County GLUP which covers county growth rates for urban service areas, suburban, small town, and township growth rates in Olmsted County. The GLUP also provides a review of "remaining reserve capacity" for "regional arterial and collector roads" reporting that Olmsted County Rd 12 has a remaining capacity of 71% to accommodate growth, a "low crash risk", a below average "road segment crash rate", and ranks in the highest tier of the County's "seasonal weight limit" within the "10-ton Road" category. [1]

A traffic study that was completed in 2008 for this geographic location (immediately north and west of this current TIS's study area) was reviewed. The traffic study was a joint project of City of Pine Island/Tower Development/MNDOT reconstruction of the US Hwy 52 and County Rd 31/12 interchange (completed) and accompanying planned development of a Bio-Industrial Park which was subsequently abandoned shortly after the completion of the US Hwy 52 interchange reconstruction. Due to the age and variance of dissimilar traffic generation inputs of the previous City/Tower/MnDOT TIS, the information from this study was not a reliable baseline for assumptions regarding conceptual future land uses and related future traffic patterns, trip generation, or LOS.

The average yearly conservative growth rates of 2% were applied to the 2023 traffic volumes to project traffic volumes for the assumed year of opening in 2026 (**Table 4**) and the horizon year in 2046 (**Table 5**).

Table 4 – Projected 2026 Background Traffic Volumes

ID	Peak	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Weekday													
I	AM	-	41	82	76	77	-	-	-	-	38	-	33
	PM	-	33	21	36	107	-	-	-	-	77	-	28
II	AM	23	60	-	-	94	68	61	-	20	-	-	-
	PM	24	86	-	-	50	58	92	-	74	-	-	-
III	AM	6	66	9	2	145	13	12	5	2	3	2	6
	PM	20	119	6	2	94	13	12	9	2	8	11	13
Friday													
I	Afternoon	-	47	46	33	56	-	-	-	-	89	-	36
II		23	91	-	-	41	75	69	-	73	-	-	-
III		12	140	12	2	96	9	8	5	2	9	7	9
Saturday													
I	Peak	-	62	21	39	36	-	-	-	-	99	-	13
II		30	132	-	-	48	66	23	-	36	-	-	-
III		12	141	4	3	92	5	7	4	3	15	13	12

L – Left, T – Thru, R – Right

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

[1] Olmsted County 2022 General Land Use Plan (GLUP). Figure 4-9, pp. 4.11; Figure 4-10, pp. 4.12; Figure 4-12, pp. 4.14

Table 5 – Projected 2046 Background Traffic Volumes

ID	Peak	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Weekday													
I	AM	-	60	122	112	114	-	-	-	-	56	-	49
	PM	-	49	30	53	158	-	-	-	-	114	-	41
II	AM	34	89	-	-	139	101	90	-	29	-	-	-
	PM	35	128	-	-	75	86	136	-	109	-	-	-
III	AM	8	98	13	2	215	19	18	7	2	4	2	8
	PM	29	177	8	2	139	19	18	13	2	12	16	19
Friday													
I	Afternoon	-	70	68	49	82	-	-	-	-	131	-	53
II		34	135	-	-	60	111	103	-	108	-	-	-
III		18	207	18	2	142	13	12	7	2	13	10	13
Saturday													
I	Peak	-	92	30	57	53	-	-	-	-	147	-	19
II		45	196	-	-	71	98	34	-	53	-	-	-
III		18	209	5	4	136	7	10	5	4	23	19	18

L – Left, T – Thru, R – Right

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Cumulative Horizon Growth - 2046

The Tribe's community project is expected to be a significant project in the region and therefore needs to be included in the study. During the time of this study there was unavailability of precise data inputs regarding any potential future land uses immediately adjacent to the Project Site, such as residential, institutional, commercial, potential new roads and/or accesses, or others, which are either incomplete, in planning process, conceptual, or subject to change/unknown. Additionally, no traffic studies were found for future developments or data required for reliable forecasting, which include:

- A regional model or current established Transportation Analysis Zones (TAZ) for this socio-demographic region.
- A separate and current TIS and/or more extensive study such as a Traffic Demand Model (TDM) study that specifically evaluates any potential or conceptual future land uses located immediately adjacent to the Project Site.

Due to the absence of a regional model as well as a pre-existing TIS and/or TDM traffic data, engineering judgement for estimating growth were made for traffic growth to capture both the Tribal community development and known adjacent/micro-regional population growth/development. Based on current available Tribal population growth estimates for Elk Run (based on forecasted housing units and median family unit size), proposed Tribal Community Facilities, and the known population growth rates for adjacent towns and townships (Pine Island, Oronoco, New Haven Township, etc.), the Elk Run "community" development is forecasted to expand the population of the area by approximately 1,000 people by 2046, which represents a population growth increase by 23%, which is in addition to projected non-tribal area population growth based on available data for historic trendlines. To account for this assumed/forecasted additional growth of both the Elk Run community and the adjacent communities, the background traffic volumes in 2046 was increased by 25%.

The cumulative horizon traffic in 2046 is shown in **Table 6**.

Table 6 – Projected 2046 Cumulative Horizon Traffic Volumes

ID	Peak	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Weekday													
I	AM	-	75	153	140	143	-	-	-	-	70	-	62
	PM	-	62	38	67	198	-	-	-	-	143	-	52
II	AM	43	112	-	-	174	127	113	-	37	-	-	-
	PM	44	160	-	-	94	108	170	-	137	-	-	-
III	AM	10	123	17	3	269	24	23	9	3	5	3	10
	PM	37	222	10	3	174	24	23	17	3	15	20	24
Friday													
I	Afternoon	-	88	85	62	103	-	-	-	-	164	-	67
II		43	169	-	-	75	139	129	-	135	-	-	-
III		23	259	23	3	178	17	15	9	3	17	13	17
Saturday													
I	Peak	-	115	38	72	67	-	-	-	-	184	-	24
II		57	245	-	-	89	123	43	-	67	-	-	-
III		23	262	7	5	170	9	13	7	5	29	24	23

L – Left, T – Thru, R – Right

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Trip Generation and Distribution

Trip Generation and Trip Distribution is a critical component of transportation planning that provides essential information about the anticipated transportation demand associated with a specific land use or development, helping inform planning and infrastructure decisions.

General Factors for Trip Generation

Primary Trips

In a traffic study, the term "*primary trip*" typically refers to trips that are generated by a development or land use and are associated with the primary purpose or function of that development. Primary trips are the trips directly related to the activities taking place at the site in question. For example, in a traffic study for an event center, primary trips would include those trips made by attendees traveling to the event center for the purpose of attending the conference. Similarly, for an office building, primary trips would include the trips made by employees commuting to and from work.

Internal and Pass by Trips

The term, "*internal trips*" refer to trips made entirely within the boundaries of the development or property. These are trips generated by activities or businesses within the development that don't involve entering or exiting the site. Example, if a shopping mall has several stores and a restaurant, the trips made by shoppers moving between stores or having a meal within the mall would be considered internal trips.

The term, "*pass-by trips*" are trips generated by the development but include people who were already traveling on the adjacent road and decided to stop at the development as part of their existing trip. Example, if someone is driving home from work and decides to stop at a grocery store located along their route, that trip to the grocery store is a pass-by trip.

Understanding the number and nature of internal and pass-by trips is used for assessing the impact of a development on the surrounding transportation infrastructure. Internal trips typically have a minimal impact on the surrounding road network because they don't add traffic to the adjacent streets. Pass-by trips have a less significant impact on the overall traffic than external trips (trips generated by the

development that wouldn't have occurred otherwise). Pass-by trips are often considered "captured" from the existing traffic flow. **For this study to remain conservative, no internal trips or pass-by trip adjustments were made for this study.**

Carpool Factor

The term "carpool factor" typically refers to the number of passengers carried in a single vehicle as part of a carpool or ridesharing arrangement. This factor is essential for assessing transportation efficiency, traffic management, and environmental impact. It can be expressed in terms of the average number of occupants per vehicle during a specific time period or for a particular route. The typical carpool factor used in a traffic study can vary depending on the specific region, the purpose of the study, and the local transportation context. There is no one-size-fits-all carpool factor, as it is influenced by factors such as the availability of carpooling options, public transportation, local policies, and commuting patterns. In some regions, carpool factors can be as low as 1.1 (indicating minimal carpooling), while in areas with well-established carpooling practices and incentives, factors might be higher, often exceeding 2.0 (indicating an average of more than two occupants per vehicle).

Trip Generation

To account for trips generated by the proposed Project Site development, *ITE Trip Generation Manual,* 11th Edition was utilized to estimate additional trips, based on the land use characteristics that most closely fit the Project Site development.

Alternative A – Proposed Project

The Alternative A - Emergency Casino fits the characteristics of the ITE Land Use Code # 470 used for casino. The ITE manual defines a casino as “a facility that exists for the primary purpose of deriving revenue from gaming operations. The games conducted at these facilities include but are not limited to table games, electronic slot machines, video poker and lottery games, and electronic table games”.

Alternative B – Event Center

The Alternative B – Event Center is expected to have a capacity of 585 seats. It is noted that *ITE Trip Generation Manual, Edition 11* does not provide traffic generation data for this type or similar land use. This is due to the intermittent or seasonal use of event venues and the significant variability in the number of visitors depending on when an event is held and the type of event. Therefore, vehicle trip generation for the event center were estimated based on engineering judgement.

The assumed highest traffic generation potential of event center operation is mostly as a conference or a wedding event destination. A typical professional work conference event was assumed for weekday and Friday, whereas a wedding event was assumed for Saturday. No internal or pass-by trips were used for trip adjustments as the event center is generally expected to attract more primary trip visitors.

Weekday

The following assumptions were made for weekday trips for the event center:

- A typical professional work conference event.
- No carpool factor used to remain conservative.
- Event attracting 30-percent of the facilities capacity of 585 guests on a weekday AM peak. Assume 90-percent entering and 10-percent leaving the event center in the AM peak.
- Event attracting 40-percent of the facilities capacity of 585 guests on a weekday PM peak. Assume 80-percent entering and 20-percent leaving the event center in the PM peak.

Friday PM Peak

The following assumptions were made for Friday PM peak trips for the event center:

- A typical average event could attract 55-percent of the facilities capacity of 585 guests on a Friday PM peak.
- No carpool factor used to remain conservative.
- Event attracting 50-percent of the facilities capacity of 585 guests on a Friday PM peak. Assume 80-percent entering and 20-percent leaving the event center in the Friday PM peak.

Saturday PM Peak

The assumed highest traffic generation potential of event center operation for Saturday was for a wedding event destination. An assumption of 500 guests were assumed for a wedding. It is anticipated that the greatest period of Project Site generated traffic entering or exiting the Project Site will occur prior to the start of a wedding ceremony during the arrival of guests.

Additionally, it is expected that the majority guests will all arrive within one-hour prior to event start and are expected to stay for the duration of the event. A 90-percent to 10-percent split in Project Site generated directional distribution trips is assumed for determining the number of entering versus exiting vehicles during the peak period of generation. The departure rate of guests is expected to be less than the arrival rate, as guests are considered likely to leave the venue at staggered times after the event depending on their preference. However, the inverse of arrival percent split is assumed in this analysis for exiting guests.

On average, it is assumed that many guests attending the proposed venue will carpool. A carpool factor o 1.2 was used for the analysis in this scenario.

Results of Trip Generation

The results of the trip generation based on ITE Trip Generation Manual, Edition 11 and Engineering judgment and assumptions are presented in **Table 7**.

Table 7 – Proposed Development Trip Generation

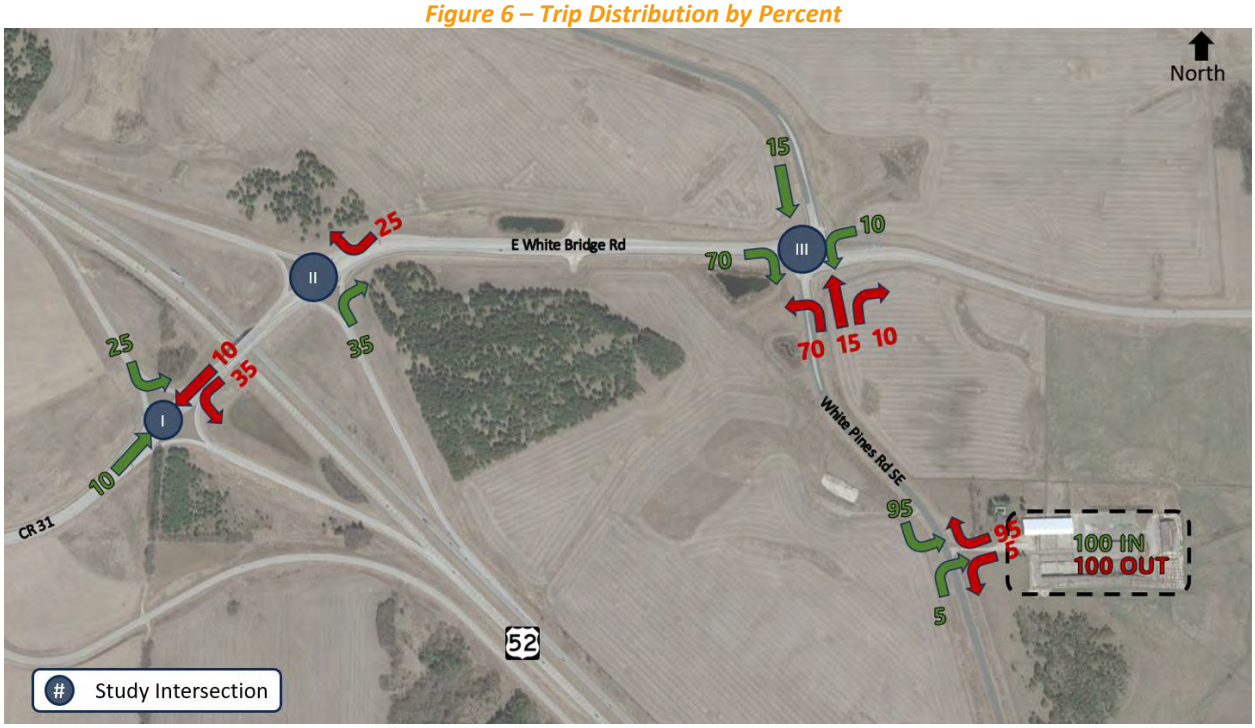
Alternative	Peak	ITE Land Use	Units	ITE Code	In	Out	Total
A: Emergency Casino							
A - Emergency Casino	Weekday AM	Casino	Gaming Stations = 500	473	114	86	200
	Weekday PM				153	142	295
	Daily Weekday				*2163*[1]	*1842*[1]	4005
	Fri PM				*160*[1]	*143*[1]	*303*[2]
	Sat PM				167	143	310
B: Event Center							
B - Event Center[3]	Weekday AM	N/A	Seats = 585	N/A	158	17	175
	Weekday PM				188	46	234
	Fri PM				240	60	300
	Sat PM				378	42	420

1. Distribution of traffic entering and leaving was not available in *ITE Trip Generation Manual, Edition 11*. Instead, the weekday peak hour trip distribution was used to generate the trips.
2. Total trips for Friday PM peak were not available in the *ITE Trip Generation Manual, Edition 11*. Instead, an average of weekday and Saturday peak was used to generate Friday PM peak trips.
3. Assumptions for Event Center is discussed in Alternative B – Event Center under Trip Generation.

Trip Distribution and Assignment

The origins and destinations of Project Site-generated traffic were estimated based on 2024 Elk Run Market Study Estimates provided by Acorn Environmental, prevailing ADT, and travel patterns. Trips generated by the development were assigned to the roadway network using engineering judgment, estimating the most ideal and reasonable route between origins and destinations, as illustrated in **Figure 6**. It is assumed that most traffic to and from the proposed Project Site will use major roadways, as they provide the most efficient route to the Project Site.

Figure 6 – Trip Distribution by Percent



Source: Google Maps

The Projected vehicular trip distribution resulting from development completed for Alternative A and Alternative B is illustrated in **Table 8** and **Table 9**.

Table 8 – Trip Distribution (Alternative A – Proposed Project)

ID	Peak	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Weekday													
I	AM	-	12	0	31	9	-	-	-	-	29	-	0
	PM	-	16	0	50	15	-	-	-	-	39	-	0
II	AM	0	40	-	-	39	22	0	-	40	-	-	-
	PM	0	54	-	-	64	36	0	-	54	-	-	-
III	AM	0	0	80	12	0	0	61	13	9	0	18	0
	PM	0	0	108	16	0	0	100	22	15	0	23	0
Friday													
I	Afternoon	-	16	0	51	15	-	-	-	-	40	-	0
II		0	56	-	-	65	36	0	-	56	-	-	-
III		0	0	112	16	0	0	101	22	15	0	24	0
Saturday													
I	Peak	-	17	0	51	15	-	-	-	-	42	-	0
II		0	66	0	-	65	36	0	-	59	-	-	-
III		0	0	117	17	0	0	101	22	15	0	26	0

*Note: Additional trips **to** the Project Site are indicated in **green**; additional trips **away from** the Project Site are indicated in **red**.*

L – Left; T – Through; R – Right.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Table 9 – Trip Distribution (Alternative B –Event Center)

ID	Peak	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Weekday													
I	AM	-	16	0	6	2	-	-	-	-	40	-	0
	PM	-	19	0	17	5	-	-	-	-	47	-	0
II	AM	0	56	-	-	8	5	0	-	56	-	-	-
	PM	0	66	-	-	21	12	0	-	66	-	-	-
III	AM	0	0	111	16	0	0	12	3	2	0	24	0
	PM	0	0	132	19	0	0	33	7	5	0	29	0
Friday													
I	Afternoon	-	24	0	21	6	-	-	-	-	60	-	0
II		0	84	-	-	27	15	0	-	84	-	-	-
III		0	0	168	24	0	0	42	9	6	0	36	0
Saturday													
I	Peak	-	38	0	15	5	-	-	-	-	95	-	0
II		0	133	-	-	19	11	0	-	133	-	-	-
III		0	0	265	38	0	0	30	7	5	0	57	0

*Note: Additional trips **to** the Project Site are indicated in **green**; additional trips **away from** the Project Site are indicated in **red**.*

L – Left; T – Through; R – Right.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Future Build Traffic Volumes

"Build" refers to the conditions with the proposed development scenario. This includes the existing traffic counts projected to the opening years and 20-year horizon, as well as the additional trips generated by the proposed development.

Year of Opening - 2026

Alternative A – Proposed Project and Restaurant

The Build future traffic volumes in the year of opening (2026) for Alternative A based on background traffic growth and trips generated by the development is summarized in **Table 10**.

Table 10 – Build Traffic Volumes for Alternative A (Year of Opening - 2026)

ID	Peak	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Weekday													
I	AM	-	53	82	107	86	-	-	-	-	67	-	33
	PM	-	49	21	86	122	-	-	-	-	116	-	28
II	AM	23	100	-	-	133	90	61	-	60	-	-	-
	PM	24	140	-	-	114	94	92	-	128	-	-	-
III	AM	6	66	89	14	145	13	73	18	11	3	20	6
	PM	20	119	114	18	94	13	112	31	17	8	34	13
Friday													
I	Afternoon	-	63	46	84	71	-	-	-	-	129	-	36
II		23	147	-	-	106	111	69	-	129	-	-	-
III		12	140	124	18	96	9	109	27	17	9	31	9
Saturday													
I	Peak	-	79	21	90	51	-	-	-	-	141	-	13
II		30	198	-	-	113	102	23	-	95	-	-	-
III		12	141	121	20	92	5	108	26	18	15	39	12

L – Left; T – Through; R – Right.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Alternative B –Event Center

The Build future traffic volumes in the year of opening (2026) for Alternative B based on background traffic growth and trips generated by the development is summarized in **Table 11**.

Table 11 – Build Traffic Volumes for Alternative B (Year of Opening - 2026)

ID	Peak	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Weekday													
I	AM	-	57	82	82	79	-	-	-	-	78	-	33
	PM	-	52	21	53	112	-	-	-	-	124	-	28
II	AM	23	116	-	-	102	73	61	-	76	-	-	-
	PM	24	152	-	-	71	70	92	-	140	-	-	-
III	AM	6	66	120	18	145	13	24	8	4	3	26	6
	PM	20	119	138	21	94	13	45	16	7	8	40	13
Friday													
I	Afternoon	-	71	46	54	62	-	-	-	-	149	-	36
II		23	175	-	-	68	90	69	-	157	-	-	-
III		12	140	180	26	96	9	50	14	8	9	43	9
Saturday													
I	Peak	-	100	21	54	41	-	-	-	-	194	-	13
II		30	265	-	-	67	77	23	-	169	-	-	-
III		12	141	269	41	92	5	37	11	8	15	70	12

L – Left; T – Through; R – Right.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

20-Year Horizon - 2046

Alternative A – Proposed Project and Restaurant

The Build future traffic volumes in the 20-year horizon (2046) for Alternative A based on background traffic growth and trips generated by the development is summarized in **Table 12**.

Table 12 – Build Traffic Volumes for Alternative A (Horizon Year - 2046)

ID	Peak	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Weekday													
I	AM	-	72	122	143	123	-	-	-	-	85	-	49
	PM	-	65	30	103	173	-	-	-	-	153	-	41
II	AM	34	129	-	-	178	123	90	-	69	-	-	-
	PM	35	182	-	-	139	122	136	-	163	-	-	-
III	AM	8	98	93	14	215	19	79	20	11	4	20	8
	PM	29	177	116	18	139	19	118	35	17	12	39	19
Friday													
I	Afternoon	-	86	68	100	97	-	-	-	-	171	-	53
II		34	191	-	-	125	147	103	-	164	-	-	-
III		18	207	130	18	142	13	113	29	17	13	34	13
Saturday													
I	Peak	-	109	30	108	68	-	-	-	-	189	-	19
II		45	262	-	-	136	134	34	-	112	-	-	-
III		18	209	122	21	136	7	111	27	19	23	45	18

L – Left; T – Through; R – Right.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Alternative B – Event Center

The Build future traffic volumes in the 20-year horizon (2046) for Alternative B based on background traffic growth and trips generated by the development is summarized in **Table 13**.

Table 13 – Build Traffic Volumes for Alternative B (Horizon Year - 2046)

ID	Peak	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Weekday													
I	AM	-	76	122	118	116	-	-	-	-	96	-	49
	PM	-	68	30	70	163	-	-	-	-	161	-	41
II	AM	34	145	-	-	147	106	90	-	85	-	-	-
	PM	35	194	-	-	96	98	136	-	175	-	-	-
III	AM	8	98	124	18	215	19	30	10	4	4	26	8
	PM	29	177	140	21	139	19	51	20	7	12	45	19
Friday													
I	Afternoon	-	94	68	70	88	-	-	-	-	191	-	53
II		34	219	-	-	87	126	103	-	192	-	-	-
III		18	207	186	26	142	13	54	16	8	13	46	13
Saturday													
I	Peak	-	130	30	72	58	-	-	-	-	242	-	19
II		45	329	-	-	90	109	34	-	186	-	-	-
III		18	209	270	42	136	7	40	12	9	23	76	18

L – Left; T – Through; R – Right.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Cumulative Horizon Growth - 2046

Alternative A – Proposed Project and Restaurant

The Build future traffic volumes in the Cumulative Horizon Growth (2046) for Alternative A based on Tribe's community project, background traffic growth and trips generated by the development is summarized in **Table 14**.

Table 14 – Build Traffic Volumes for Alternative A (Cumulative Horizon Growth - 2046)

ID	Peak	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Weekday													
I	AM	-	87	153	171	152	-	-	-	-	99	-	62
	PM	-	78	38	117	213	-	-	-	-	182	-	52
II	AM	43	152	-	-	213	149	113	-	77	-	-	-
	PM	44	214	-	-	158	144	170	-	191	-	-	-
III	AM	10	123	97	15	269	24	84	22	12	5	21	10
	PM	37	222	118	19	174	24	123	39	18	15	43	24
Friday													
I	Afternoon	-	104	85	113	118	-	-	-	-	204	-	67
II		43	225	-	-	140	175	129	-	191	-	-	-
III		23	259	135	19	178	17	116	31	18	17	37	17
Saturday													
I	Peak	-	132	38	123	82	-	-	-	-	226	-	24
II		57	311	-	-	154	159	43	-	126	-	-	-
III		23	262	124	22	170	9	114	29	20	29	50	23

L – Left; T – Through; R – Right.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Alternative B – Event Center

The Build future traffic volumes in the Cumulative Horizon Growth (2046) for Alternative B based on Tribe's community project, background traffic growth and trips generated by the development is summarized in **Table 15**.

Table 15 – Build Traffic Volumes for Alternative B (Cumulative Horizon Growth - 2046)

ID	Peak	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Weekday													
I	AM	-	91	153	146	145	-	-	-	-	110	-	62
	PM	-	81	38	84	203	-	-	-	-	190	-	52
II	AM	43	168	-	-	182	132	113	-	93	-	-	-
	PM	44	226	-	-	115	120	170	-	203	-	-	-
III	AM	10	123	128	19	269	24	35	12	5	5	27	10
	PM	37	222	142	22	174	24	56	24	8	15	49	24
Friday													
I	Afternoon	-	112	85	83	109	-	-	-	-	224	-	67
II		43	253	-	-	102	154	129	-	219	-	-	-
III		23	259	191	27	178	17	57	18	9	17	49	17
Saturday													
I	Peak	-	153	38	87	72	-	-	-	-	279	-	24
II		57	378	-	-	108	134	43	-	200	-	-	-
III		23	262	272	43	170	9	43	14	10	29	81	23

L – Left; T – Through; R – Right.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

4. Traffic Operations Analysis

Traffic Operations Methodology

Traffic operational analysis results are described as a Level of Service (LOS), ranging from "A" to "F", with "A" operating with the least delay, and "F" operating with the most delay. LOS is determined based on methodology provided by the Highway Capacity Manual (HCM), which defines the LOS based on control delay. The average intersection control delay is a volume weighted average of delay experienced by all motorists entering the intersections on all approaches. The LOS and its associated delay for unsignalized and signalized intersections, as defined by the HCM, are shown in **Table 16**. LOS "E" or lower is considered to be unacceptable for the study intersections, in accordance with industry standard design objective.

Table 16 – Intersection Delay and LOS Thresholds

LOS	Control Delay Per Vehicle (sec.)	
	Unsignalized Intersection	Signalized Intersection
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Traffic Models

Traffic operations analysis was completed using Synchro/SimTraffic V11 software, which included road geometry, such as number of lanes, storage lengths, link distances, speed limits, and traffic volumes. Following creation of models in Synchro, the files were output to SimTraffic for further analysis. SimTraffic is a companion to Synchro that uses network seeding and microsimulation to predict and analyze traffic operations. Analysis results are generally based on actual observations of the modeled conditions. The results of the Synchro analyses are displayed as Measures of Effectiveness (MOE). The primary MOEs that are used in the study are delay and level of service (LOS).

The following scenarios were modeled:

1. No-Build Scenario – Base Year (2023)
2. No-Build Scenario – Year of Opening (2026)
3. Build Scenario Alternative A – Year of Opening (2026)
4. Build Scenario Alternative B – Year of Opening (2026)
5. No-Build Scenario – 20-Year Horizon (2046)
6. Build Scenario Alternative A – 20-Year Horizon (2046)
7. Build Scenario Alternative B – 20-Year Horizon (2046)
8. Build Scenario Alternative A – 20-Year Cumulative Horizon (2046)
9. Build Scenario Alternative B – 20-Year Cumulative Horizon (2046)

"No-Build" refers to the conditions without the proposed development scenario. This option includes the existing traffic counts, and counts projected to the opening year 2026, 20-year horizon (2046), and 20-year cumulative horizon (2046). "Build" refers to the conditions with the proposed development scenario. This includes the existing traffic counts projected to the opening year 2023, 20-year horizon (2046), and 20-year cumulative horizon, as well as the additional trips generated by the proposed development.

Traffic Operation Results

The traffic operations result for each phase and scenario are discussed below.

No Build Scenario – Base Year (2023)

The results for the No-Build – Base Year (2023) scenario is summarized in **Table 17**. Detailed Synchro results for the No Build – Base Year (2023) scenario can be found in **Appendix B**. All intersections and its approaches are operating with acceptable delay and LOS under the existing 2023 conditions.

Table 17 – No-Build base year Traffic Operations Results (2023)

Int ID	Peak	Intersection Approach Delay in sec/veh (LOS)				Intersection Delay in sec/veh (LOS)
		EB	WB	NB	SB	
Weekday						
I	AM	3.9 (A)	0.9 (A)	- (-)	1.8 (A)	1.9 (A)
	PM	4.6 (A)	0.9 (A)	- (-)	1.6 (A)	1.7 (A)
II	AM	5.5 (A)	1.3 (A)	1.4 (A)	- (-)	3.0 (A)
	PM	5.2 (A)	2.0 (A)	1.4 (A)	- (-)	3.9 (A)
III	AM	3.7 (A)	4.2 (A)	2.5 (A)	0.8 (A)	3.8 (A)
	PM	4.1 (A)	3.9 (A)	2.5 (A)	1.8 (A)	3.7 (A)
Friday						
I	Afternoon	3.5 (A)	0.8 (A)	- (-)	1.7 (A)	2.0 (A)
II		5.1 (A)	1.8 (A)	1.4 (A)	- (-)	4.0 (A)
III		4.1 (A)	4.0 (A)	2.5 (A)	1.4 (A)	3.8 (A)
Saturday						
I	Peak	3.2 (A)	1.3 (A)	- (-)	1.8 (A)	2.2 (A)
II		5.1 (A)	2.7 (A)	1.3 (A)	- (-)	4.4 (A)
III		4.3 (A)	4.1 (A)	2.3 (A)	1.8 (A)	3.8 (A)

EB – Eastbound; WB – Westbound; NB – Northbound; SB – Southbound.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

No Build Scenario – Year of Opening (2026)

The results for the No-Build – Year of Opening (2026) scenario is summarized in **Table 18**. Detailed Synchro results for the No Build – Year of Opening (2026) scenario can be found in **Appendix B**. All intersections and its approaches are expected to operate with acceptable delay and LOS under No-Build scenario – Year of Opening in 2026.

Table 18 – No-Build Year of Opening Traffic Operations Results (2026)

Int ID	Peak	Intersection Approach Delay in sec/veh (LOS)				Intersection Delay in sec/veh (LOS)
		EB	WB	NB	SB	
Weekday						
I	AM	4.1 (A)	0.9 (A)	- (-)	1.6 (A)	2.1 (A)
	PM	4.6 (A)	0.7 (A)	- (-)	1.6 (A)	1.8 (A)
II	AM	5.6 (A)	1.5 (A)	1.4 (A)	- (-)	2.9 (A)
	PM	5.1 (A)	1.8 (A)	1.4 (A)	- (-)	3.8 (A)
III	AM	3.8 (A)	4.3 (A)	2.6 (A)	1.0 (A)	3.9 (A)
	PM	4.1 (A)	4.0 (A)	2.5 (A)	2.0 (A)	3.7 (A)
Friday						
I	Afternoon	3.8 (A)	0.8 (A)	- (-)	1.7 (A)	2.0 (A)
II		5.0 (A)	2.5 (A)	1.4 (A)	- (-)	4.0 (A)
III		4.2 (A)	4.1 (A)	2.5 (A)	1.6 (A)	3.8 (A)
Saturday						
I	Peak	3.2 (A)	0.8 (A)	- (-)	1.8 (A)	2.3 (A)
II		4.9 (A)	2.4 (A)	1.4 (A)	- (-)	4.2 (A)
III		4.3 (A)	4.0 (A)	2.2 (A)	1.8 (A)	3.8 (A)

EB – Eastbound; WB – Westbound; NB – Northbound; SB – Southbound.
I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Build Scenario Alternative A – Year of Opening (2026)

The results for the Build Scenario Alternative A – Year of Opening (2026) is summarized in **Table 19**. Detailed Synchro results for the Build Scenario Alternative A – Year of Opening (2026) can be found in **Appendix B**. All intersections and its approaches are expected to operate with acceptable delay and LOS under the Build Scenario Alternative A – Year of Opening in 2026.

Table 19 – Build Scenario Alternative A – Year of Opening Traffic Operations Results (2026)

Int ID	Peak	Intersection Approach Delay in sec/veh (LOS)				Intersection Delay in sec/veh (LOS)
		EB	WB	NB	SB	
Weekday						
I	AM	3.9 (A)	1.3 (A)	- (-)	1.8 (A)	2.2 (A)
	PM	5.3 (A)	1.1 (A)	- (-)	1.8 (A)	2.3 (A)
II	AM	5.1 (A)	2.4 (A)	1.5 (A)	- (-)	3.6 (A)
	PM	5.3 (A)	3.4 (A)	1.4 (A)	- (-)	4.4 (A)
III	AM	3.1 (A)	4.4 (A)	2.8 (A)	3.3 (A)	3.5 (A)
	PM	3.6 (A)	4.0 (A)	3.1 (A)	3.5 (A)	3.6 (A)
Friday						
I	Afternoon	4.0 (A)	1.0 (A)	- (-)	1.7 (A)	2.2 (A)
II		5.3 (A)	3.1 (A)	1.5 (A)	- (-)	4.2 (A)
III		3.7 (A)	4.1 (A)	3.1 (A)	3.2 (A)	3.6 (A)
Saturday						
I	Peak	3.8 (A)	1.3 (A)	- (-)	1.9 (A)	2.7 (A)
II		5.1 (A)	3.7 (A)	1.4 (A)	- (-)	4.3 (A)
III		3.7 (A)	4.1 (A)	3.2 (A)	3.1 (A)	3.6 (A)

EB – Eastbound; WB – Westbound; NB – Northbound; SB – Southbound.
I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Build Scenario Alternative B – Year of Opening (2026)

The results for the Build Scenario Alternative B – Year of Opening (2026) is summarized in **All intersections** and its approaches are expected to operate with acceptable delay and LOS under the Build Scenario Alternative B – Year of Opening in 2026.

Table 20. Detailed Synchro results for the Build Scenario Alternative B – Year of Opening (2026) can be found in **Appendix B**. All intersections and its approaches are expected to operate with acceptable delay and LOS under the Build Scenario Alternative B – Year of Opening in 2026.

Table 20 – Build Scenario Alternative B – Year of Opening Traffic Operations Result (2026)

Int ID	Peak	Intersection Approach Delay in sec/veh (LOS)				Intersection Delay in sec/veh (LOS)
		EB	WB	NB	SB	
Weekday						
I	AM	3.6 (A)	0.9 (A)	- (-)	1.8 (A)	2 (A)
	PM	4.8 (A)	0.8 (A)	- (-)	1.7 (A)	1.9 (A)
II	AM	5.1 (A)	2.8 (A)	1.4 (A)	- (-)	3.9 (A)
	PM	5.1 (A)	2.7 (A)	1.4 (A)	- (-)	4.2 (A)
III	AM	3.1 (A)	4.2 (A)	2.1 (A)	3.4 (A)	3.5 (A)
	PM	3.7 (A)	4.0 (A)	2.6 (A)	3.2 (A)	3.6 (A)
Friday						
I	Afternoon	3.7 (A)	1.3 (A)	- (-)	2 (A)	2.5 (A)
II		4.9 (A)	3.5 (A)	1.6 (A)	- (-)	4.4 (A)
III		3.8 (A)	4 (A)	2.8 (A)	4 (A)	3.7 (A)
Saturday						
I	Peak	3.3 (A)	1.7 (A)	- (-)	2.6 (A)	2.8 (A)
II		4.8 (A)	4.7 (A)	1.6 (A)	- (-)	4.7 (A)
III		4 (A)	4 (A)	2.5 (A)	4.1 (A)	3.9 (A)

EB – Eastbound; WB – Westbound; NB – Northbound; SB – Southbound.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

No Build Scenario – 20-year Horizon (2046)

The results for the No-Build – 20-year Horizon (2046) scenario is summarized in **Table 21**Table 18. Detailed Synchro results for the No Build – 20-year Horizon (2046) scenario can be found in **Appendix D**. All intersections and its approaches are expected to operate with acceptable delay and LOS under No-Build scenario – 20-year Horizon in 2046.

Table 21 – No-Build 20-year Horizon Traffic Operations Result (2046)

Int ID	Peak	Intersection Approach Delay in sec/veh (LOS)				Intersection Delay in sec/veh (LOS)
		EB	WB	NB	SB	
Weekday						
I	AM	4.6 (A)	1.1 (A)	- (-)	1.7 (A)	2.3 (A)
	PM	5.3 (A)	1.3 (A)	- (-)	1.7 (A)	2.4 (A)
II	AM	5.1 (A)	2.1 (A)	1.5 (A)	- (-)	3.2 (A)
	PM	5.7 (A)	1.9 (A)	1.5 (A)	- (-)	3.1 (A)
III	AM	3.8 (A)	4.6 (A)	2.3 (A)	1.2 (A)	4.0 (A)
	PM	4.4 (A)	4.2 (A)	3.0 (A)	2.2 (A)	4.0 (A)
Friday						
I	Afternoon	4.1 (A)	1.0 (A)	- (-)	2.0 (A)	2.3 (A)
II		4.1 (A)	1.0 (A)	1.4 (A)	- (-)	3.8 (A)
III		4.4 (A)	4.2 (A)	2.7 (A)	1.8 (A)	4.1 (A)
Saturday						
I	Peak	3.6 (A)	1.5 (A)	- (-)	2.1 (A)	2.5 (A)
II		4.7 (A)	3.2 (A)	1.4 (A)	- (-)	4.1 (A)
III		4.6 (A)	4.3 (A)	2.5 (A)	2.1 (A)	4.1 (A)

EB – Eastbound; WB – Westbound; NB – Northbound; SB – Southbound.
I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Build Scenario Alternative A – 20-year Horizon (2046)

The results for the Build Scenario Alternative A – 20-year Horizon (2046) is summarized in **Table 22**. Detailed Synchro results for the Build Scenario Alternative A – 20-year Horizon (2046) can be found in **Appendix D**. All intersections and its approaches are expected to operate with acceptable delay and LOS under the Build Scenario Alternative A – 20-year Horizon in 2046.

Table 22 – Build Scenario Alternative A – 20-Year Horizon Traffic Operations Results (2046)

Int ID	Peak	Intersection Approach Delay in sec/veh (LOS)				Intersection Delay in sec/veh (LOS)
		EB	WB	NB	SB	
Weekday						
I	AM	4.6 (A)	1.5 (A)	- (-)	2.0 (A)	2.6 (A)
	PM	5.2 (A)	1.3 (A)	- (-)	1.9 (A)	2.2 (A)
II	AM	5.3 (A)	3.0 (A)	1.6 (A)	- (-)	4.0 (A)
	PM	5.2 (A)	3.2 (A)	1.7 (A)	- (-)	4.2 (A)
III	AM	3.4 (A)	4.7 (A)	2.6 (A)	3.4 (A)	3.8 (A)
	PM	4.0 (A)	4.3 (A)	3.3 (A)	2.9 (A)	3.8 (A)
Friday						
I	Afternoon	4.5 (A)	1.4 (A)	- (-)	2.1 (A)	2.8 (A)
II		5.1 (A)	3.4 (A)	2.1 (A)	- (-)	4.2 (A)
III		4.3 (A)	4.4 (A)	3.7 (A)	3.1 (A)	4.1 (A)
Saturday						
I	Peak	3.9 (A)	1.6 (A)	- (-)	2.2 (A)	2.8 (A)
II		5.0 (A)	4.6 (A)	1.7 (A)	- (-)	4.6 (A)
III		4.3 (A)	4.5 (A)	3.6 (A)	3.1 (A)	4.1 (A)

EB – Eastbound; WB – Westbound; NB – Northbound; SB – Southbound.
I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Build Scenario Alternative B – 20-year Horizon (2046)

The results for the Build Scenario Alternative B – 20-year Horizon (2046) is summarized in **All intersections** and its approaches are expected to operate with acceptable delay and LOS under the Build Scenario Alternative B – 20-year Horizon in 2046.

Table 23. Detailed Synchro results for the Build Scenario Alternative B – 20-year Horizon (2046) can be found in **Appendix D**. All intersections and its approaches are expected to operate with acceptable delay and LOS under the Build Scenario Alternative B – 20-year Horizon in 2046.

Table 23 – Build Scenario Alternative B – 20-Year Horizon Traffic Operations Results (2046)

Int ID	Peak	Intersection Approach Delay in sec/veh (LOS)				Intersection Delay in sec/veh (LOS)
		EB	WB	NB	SB	
Weekday						
I	AM	4.3 (A)	1.5 (A)	- (-)	1.9 (A)	2.7 (A)
	PM	5.1 (A)	1.3 (A)	- (-)	1.8 (A)	2.4 (A)
II	AM	5.4 (A)	3.0 (A)	1.5 (A)	- (-)	4.0 (A)
	PM	4.9 (A)	3.4 (A)	1.6 (A)	- (-)	4.2 (A)
III	AM	3.4 (A)	4.6 (A)	2.7 (A)	3.3 (A)	3.9 (A)
	PM	4 (A)	4.4 (A)	2.9 (A)	3.3 (A)	3.8 (A)
Friday						
I	Afternoon	4.6 (A)	1.7 (A)	- (-)	2.2 (A)	3.0 (A)
II		5.0 (A)	3.3 (A)	1.5 (A)	- (-)	4.2 (A)
III		4.2 (A)	4.3 (A)	3.0 (A)	3.4 (A)	4.0 (A)
Saturday						
I	Peak	3.7 (A)	1.9 (A)	- (-)	2.6 (A)	3.2 (A)
II		4.6 (A)	5.1 (A)	2.0 (A)	- (-)	4.7 (A)
III		4.4 (A)	4.5 (A)	2.9 (A)	3.9 (A)	4.2 (A)

EB – Eastbound; WB – Westbound; NB – Northbound; SB – Southbound.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Build Scenario Alternative A – Cumulative Horizon Growth (2046)

The results for the Build Scenario Alternative A – Cumulative Horizon Growth (2046) is summarized in **Table 24**. Detailed Synchro results for the Build Scenario Alternative A – Cumulative Horizon Growth (2046) can be found in **Appendix E**. All intersections and its approaches are expected to operate with acceptable delay and LOS under the Build Scenario Alternative A – Cumulative Horizon Growth in 2046.

Table 24 – Build Scenario Alternative A – Cumulative Horizon Growth Traffic Operations Results (2046)

Int ID	Peak	Intersection Approach Delay in sec/veh (LOS)				Intersection Delay in sec/veh (LOS)
		EB	WB	NB	SB	
Weekday						
I	AM	4.9 (A)	1.8 (A)	- (-)	1.9 (A)	2.8 (A)
	PM	6.0 (A)	1.7 (A)	- (-)	1.7 (A)	2.9 (A)
II	AM	5.4 (A)	3.2 (A)	1.8 (A)	- (-)	4.1 (A)
	PM	5.0 (A)	4.0 (A)	1.9 (A)	- (-)	4.6 (A)
III	AM	3.6 (A)	5.0 (A)	3.1 (A)	2.9 (A)	4.1 (A)
	PM	4.4 (A)	4.8 (A)	3.9 (A)	3.5 (A)	4.3 (A)
Friday						
I	Afternoon	5.2 (A)	1.9 (A)	- (-)	2.1 (A)	3.5 (A)
II		5.1 (A)	3.9 (A)	2.0 (A)	- (-)	4.7 (A)
III		4.5 (A)	4.7 (A)	3.8 (A)	3.2 (A)	4.3 (A)
Saturday						
I	Peak	4.0 (A)	1.8 (A)	- (-)	1.8 (A)	3.1 (A)
II		5.0 (A)	4.9 (A)	2.1 (A)	- (-)	4.9 (A)
III		4.5 (A)	4.7 (A)	3.7 (A)	3.2 (A)	4.3 (A)

EB – Eastbound; WB – Westbound; NB – Northbound; SB – Southbound.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Build Scenario Alternative B – Cumulative Horizon Growth (2046)

The results for the Build Scenario Alternative B – Cumulative Horizon Growth (2046) is summarized in **Table 25**. Detailed Synchro results for the Build Scenario Alternative B – Cumulative Horizon Growth (2046) can be found in **Appendix E**. All intersections and its approaches are expected to operate with acceptable delay and LOS under the Build Scenario Alternative B – Cumulative Horizon Growth in 2046.

Table 25 – Build Scenario Alternative B – Cumulative Horizon Growth Traffic Operations Results (2046)

Int ID	Peak	Intersection Approach Delay in sec/veh (LOS)				Intersection Delay in sec/veh (LOS)
		EB	WB	NB	SB	
Weekday						
I	AM	5.1 (A)	1.7 (A)	- (-)	2.0 (A)	3.0 (A)
	PM	6.4 (A)	1.6 (A)	- (-)	1.8 (A)	2.9 (A)
II	AM	5.3 (A)	3.2 (A)	2.3 (A)	- (-)	4.2 (A)
	PM	4.9 (A)	4.0 (A)	2.5 (A)	- (-)	4.5 (A)
III	AM	3.5 (A)	5.0 (A)	2.6 (A)	3.3 (A)	4.1 (A)
	PM	4.4 (A)	4.5 (A)	3.3 (A)	3.3 (A)	4.2 (A)
Friday						
I	Afternoon	4.6 (A)	1.8 (A)	- (-)	2.0 (A)	3.2 (A)
II		4.8 (A)	4.3 (A)	3.0 (A)	- (-)	4.7 (A)
III		4.5 (A)	4.5 (A)	3.1 (A)	3.7 (A)	4.3 (A)
Saturday						
I	Peak	4.0 (A)	2.2 (A)	- (-)	2.3 (A)	3.5 (A)
II		4.6 (A)	5.6 (A)	3.1 (A)	- (-)	4.8 (A)
III		4.8 (A)	4.6 (A)	3.2 (A)	3.8 (A)	4.5 (A)

EB – Eastbound; WB – Westbound; NB – Northbound; SB – Southbound.

I – US 52 & CR 31 Interchange W ramp; II – US 52 & CR 12 Interchange E ramp; III – E White Bridge Rd & White Pines Rd SE

Turn-lane Analysis for the proposed driveway at the Project Site

Turn lane criteria were reviewed based on guidance documents such as the MnDOT Road Design Manual and Access Management Manual to guide the identification of locations where it may be appropriate to construct dedicated turn lanes. Studies have demonstrated the accident reducing potential of exclusive right-turn and left-turn lanes, particularly for left-turns (*5-3.01: Turn Lanes, MnDOT Road Design Manual*). They provide an area for deceleration and storage which reduces the conflict with through traffic. They also increase the capacity and improve the level of service of the intersection.

A left turn is required for a two-lane undivided highway when an access is to a public road, an industrial tract, or a commercial center (*5-4.01.02: Policy on 2-lane Rural Highways, MnDOT Road Design Manual*). The proposed development is expected to be service/commercial land use. For these reasons, a southbound left-turn lane may be required at the driveway access.

Based on MnDOT's Access Management Manual guidelines, an exclusive right turn is generally required for a two-lane undivided highway when the projected ADT is over 1,500 ADT, and the design speed is 45 mph or higher. While a right turn may be beneficial, an exclusive northbound right turn lane at the access is not required as the existing posted speed limit at White Pines Rd SE is 40-mph.

5. Potential Mitigation

An analysis of traffic operations was performed within the study area across different scenarios, considering both the year of opening and a 20-year projection. It is anticipated that all study intersections will maintain acceptable delays and Level of Service (LOS) standards until 2046, with none expected to perform below LOS A during peak hours. As no operational traffic issues were detected, no further alternative analyses are deemed necessary for the intersections in the study area.

6. Summary

This study has been prepared to evaluate the traffic impacts associated with the proposed development alternatives located east of White Pine Rd and south of E White Bridge Rd in Elk Run, near Pine Island, MN. The study investigated the No-Build and Build traffic operations in the surrounding roadway network, and proposed alternatives to address potential unacceptable levels of service and delay. The proposed development is expected to be completed by 2026. The following is the key summary of the study:

Development Alternatives

- The developer is seeking to develop the site with either: Alternative A – Proposed Project, or Alternative B – Event Center.
- Both alternatives consist of the transfer of the Project Site into federal trust and the subsequent renovation of the existing barn structure.
- Alternative A consists of a gaming facility, parking, and other associated infrastructure.
- Alternative B consists of an event center and other associated infrastructure.
- An opening year of 2026 was assumed for the sake of conducting the study because it is uncertain if and when a catastrophic event would force the closure of the existing Treasure Island Casino.

Trip Generation

- To analyze the No Build scenarios, a 2% growth rate was used to be conservative. For both alternatives, the ITE Trip Generation Manual, 11th Edition was utilized to estimate additional trips, based on the land use characteristics that most closely fit the Project Site. The emergency gaming facility fit into Land Use Code # 470. The event center did not fit into a Land Use Code and was estimated using the details of the event center.
- To account for the growth of both the Elk Run community and the adjacent communities, the background traffic volumes in 2046 was increased by 25%.
- The Build future traffic volumes in the Cumulative Horizon Growth (2046) included traffic growth by the Tribe's community project, background traffic and trips generated by the alternative development at the project site.

Traffic Operations

- All study intersections and its approaches are expected to operate with acceptable delay and LOS for the design hour volume with and without the development of the Project Site through 2046.
- No intersection or its approaches are expected to operate with worse than LOS A through 2046.

Turn Lane

- The existing and projected traffic volumes warrant the installation of a southbound left turn lane at the access to the Project Site.
- A northbound right turn lane is not warranted but may be beneficial at the access to the Project Site for better operation and safety.

Non-Motorized User Facilities

- At present time the proposed development has not planned non-motorized user facilities that would provide access to the Project Site from the adjacent access roadway.
- At the time of completion of this TIS, there are no pedestrian or bicycle facilities leading south from the roundabout location to the access of the Project Site.
- The Project Site, if built, is designed to be compliant with the Americans with Disabilities Act (ADA) regarding walkways and pedestrian ramps for access between the Project Site facility entrances and exits and with its associated vehicular drop off/pick up driveway and parking areas.

7. Recommendations

- As no operational traffic issues were identified for the study intersections, **no intersection alternatives are deemed necessary**.
- A left turn is required for a two-lane undivided highway when an access is to a public road, an industrial tract, or a commercial center. The proposed development is expected to be service/commercial land use. For these reasons, **a southbound left-turn lane on White Pine Rd SE is required at the approach to the driveway access to the Project Site**.

Appendix J

Farmland Conversion Impact Rating

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 11/22/2023
Name of Project Prairie Island Emergency Casino Facility	Federal Agency Involved BIA
Proposed Land Use Casino Facility	County and State Olmsted County, Minnesota
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 12/1/2023 / Person Completing Form: Stuart Veith, ARSS

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	NO	Acres Irrigated	Average Farm Size
	☑	☐	133	251

Major Crop(s)	Farmable Land In Govt. Jurisdiction	Amount of Farmland As Defined in FPPA
Corn, Soybeans	Acres: 357315 % 85.16	Acres: 336260 % 80.14

Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS
Crop Productivity Index	N/A	12/8/2023

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	5.7			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	5.7			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	1.3			
B. Total Acres Statewide Important or Local Important Farmland	0			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.00036			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	97.3037			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	33.9824			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	14			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	12			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	10			
6. Distance To Urban Support Services	(15)	10			
7. Size Of Present Farm Unit Compared To Average	(10)	10			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	20			
11. Effects Of Conversion On Farm Support Services	(10)	3			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	94			
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	33.9824			
Total Site Assessment *(From Part VI above or local site assessment)*	160	94			
TOTAL POINTS ***(Total of above 2 lines)***	260	128			

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

Name of Federal agency representative completing this form: Annalee Sanborn	Date: 12/11/2023

(See Instructions on reverse side) **Form AD-1006 (03-02)**

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map**,** or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

Appendix K

Phase I Environmental Site Assessment and Supplementary Environmental Site Assessment

2018 Phase I Environmental Site Assessment

WENCK File #4500-0002
March 2018

Phase I Environmental Site Assessment

1,333 Acres and Improvements
Between Pine Island and Oronoco, Minnesota

Prepared for:

Prairie Island Indian Community

5636 Sturgeon Lake Road
Welch, Minnesota 55089

WENCK
Responsive partner.
Exceptional outcomes.

Prepared by:

WENCK Associates, Inc.
1800 Pioneer Creek Center
Maple Plain, MN 55359
Phone: 763-479-4200
Fax: 763-479-4242

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1.0 Summary

Wenck Associates, Inc. (Wenck) was authorized by Prairie Island Indian Community (PIIC) to conduct this Phase I Environmental Site Assessment (ESA) for the property and improvements described as; approximately 1,242 acres of property and approximately 91.20 acres of excess right of way land currently owned by the Minnesota Department of Transportation (MNDOT), all located between Pine Island and Oronoco, Olmsted County, Minnesota (the Subject Property). The Subject Property location is depicted in **Figure 1**. A Site Detail Map of the Subject Property is included as **Figure 2**.

This was conducted in accordance with the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property Designation E-2247-16 (ASTM Phase I Standard) and satisfies standards and practices set forth in 40 CFR Part 312 – Standards for Conducting All Appropriate Inquiry (AAI Rule) for the purposes of meeting the all appropriate inquiries provisions necessary to qualify for certain landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601(35)(B).

The conclusions contained in this report have been made to assist PIIC in evaluating environmental conditions at the present time at the Subject Property.

This ESA has identified the following *recognized environmental condition* (REC) relative to the Subject Property:

- The presence of floor drains within the tractor barn that discharge to the subsurface is a REC for the Subject Property, because the floor drains represent a risk pathway for surface contamination to reach the subsurface, and the floor drains have presumably been in use since the tractor barn was constructed (at least 47 years ago).

This ESA has identified no evidence of *controlled recognized environmental conditions* (CRECs) or *historical recognized environmental conditions* (HRECs) in connection with the Subject Property.

2.0 Introduction

2.1 PURPOSE

Wenck was authorized by Prairie Island Indian Community to conduct this Phase I ESA for the property and improvements described as; approximately 1,242 acres of property and approximately 91.20 acres of excess right of way land currently owned by MNDOT, all located between Pine Island and Oronoco, Olmsted County, Minnesota; the Subject Property. The Subject Property location is depicted in **Figure 1**. A Site Detail Map of the Subject Property is included as **Figure 2**.

The conclusions contained in this report have been made to assist PIIC in evaluating environmental conditions at the present time at the Subject Property. In addition, the report is intended to satisfy the requirements of "all appropriate inquiry… consistent with good commercial or customary practice" referenced in the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601(35)(B).

2.2 SCOPE

This ESA was prepared in accordance with the ASTM Phase I Standard and AAI Rule to identify, to the extent feasible and in accordance with the processes described herein: recognized environmental conditions, controlled recognized environmental conditions, and historical recognized environmental conditions in connection with the Subject Property.

As defined in ASTM E 2247-16, the term recognized environmental condition (REC) means "the presence or likely presence of any hazardous substances or petroleum products in, on or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of future release to the environment."

As defined in ASTM E 2247-16, the term controlled recognized environmental condition (CREC) means "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls."

As defined in ASTM E 2247-16, the term historical recognized environmental condition (HREC) means "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meets unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls."

A summary of the general scope of work for this project is described in the following tasks:

- **Task I. Records Retrieval and Review of Records:** Wenck obtained publicly available, practically reviewable and reasonably ascertainable federal, state, county and city information about the Subject Property and other properties within minimum established search distances of the Subject Property. These sources were searched for any information about RECs, CRECs, HRECs or business-related environmental risks relative to the Subject Property. This search included a review of Superfund sites; waste treatment, storage and disposal facilities regulated under RCRA; spills or

discharges of hazardous substances, toxic materials, or petroleum products; and known or recorded landfills; and/or well databases.

- **Task II. Site Reconnaissance:** Wenck visually inspected the Subject Property to evaluate the Subject Property for any RECs, CRECs, HRECs and business-related environmental risks. The structures and grounds of the Subject Property were observed for filling, subsidence, unusual land or surface forms, colorations, odors, indications of dumping and evidence of suspect environmental features on the Subject Property such as tanks, drains, drywells, etc. Observations pertaining to adjacent property use were also recorded where such observations pertained to RECs, CRECs, HRECs or business-related environmental risks relative to the Subject Property.

- **Task III. Interviews of People with Knowledge of the Subject Property**: Wenck interviewed people with knowledge of the history of the Subject Property and of the surrounding properties. Interviews were completed in order to obtain information pertaining to RECs, CRECs or HRECs relative to the Subject Property. Interviewees included the Subject Property owner(s) and occupant(s), as well as local government officials.

  Data gathered in the course of performing the above three tasks was used in concert to determine if information from one source indicated the need for additional information from another source.

- **Task IV. Reporting:** Wenck completed this Phase I ESA by combining the information retrieved through data searches with the observations that were made during the Subject Property reconnaissance and interviews. Photographs were taken to document the overall status and current use of the Subject Property and specific areas of concern.

Any deviations from the scope described in the ASTM Phase I Standard are identified in Section 2.3.

2.3 DEVIATIONS

No intentional deviations from the ASTM Phase I Standard were made in preparing this report.

2.4 LIMITATIONS AND EXCEPTIONS

The results of this study, performed by Wenck, are based on the scope of work defined in Section 2.2, subject to any project-specific limitations or project-specific additional non-scope considerations described herein.

- The presence of snow cover on the Subject Property at the time of the site reconnaissance is considered a limitation. Wenck does not anticipate that this limitation materially affects the opinions and conclusions contained in this report. However, the presence of snow prevented Wenck from observing three out of four water supply wells that are reportedly located on the Subject Property.

As is the case with any investigation of finite scope, this review is intended to reduce, but cannot eliminate, the uncertainty regarding the potential for RECs, CRECs or HRECs in connection with the Subject Property. Therefore, the possibility of the presence of some

localized substances that may be classified as hazardous cannot be ruled out completely. However, it is Wenck's opinion that the conditions observed at the Subject Property are representative of existing conditions at the time of the site reconnaissance.

2.5 SIGNIFICANT ASSUMPTIONS

Wenck assumes that PIIC has provided accurate information that will assist Wenck in determining appropriate inquiry, including but not limited to actual knowledge, previously prepared reports, environmental cleanup liens, and title review information. In addition, Wenck assumes, for the purposes of the site reconnaissance, adequate information has been provided to accurately establish the physical boundaries of the real property being evaluated.

2.6 SPECIAL TERMS AND CONDITIONS

The purpose of this report is to aid in the environmental assessment of the Subject Property and not to evaluate the structural condition of buildings or other features of the Subject Property.

Wenck has performed its work in a manner consistent with the care and skill ordinarily exercised by members of the environmental profession. The conclusions contained in this report represent our professional opinions. These opinions were arrived at in accordance with currently accepted engineering practices at this time and location. Wenck does not offer any form of warranty or guarantee that the Subject Property contains no hazardous substances, pollutants or contaminants.

Wenck assumes no responsibility for the accuracy of information that was obtained from other sources, including, without limitation, regulatory and government agencies, persons knowledgeable about the Subject Property, persons knowledgeable about adjacent properties and vendors of public practice.

2.7 USER RELIANCE

This report has been prepared solely for the information and use of Prairie Island Indian Community and Elk Run LLC. Others wishing to rely on the findings of this report, not having a contractual relationship with Wenck, do so without permission and at their own risk. Our professional recommendations made to the addressee(s) are exclusive to that party's disclosed intended or proposed consideration with respect to the Subject Property at the present time.

3.0 Site Description

The Subject Property is located in an agricultural area between the Cities of Pine Island and Oronoco, Minnesota.

Site Address/Location	**Address:** 2137 White Pines Road SE, 12108 59th Avenue NW, 12440 59th Avenue NW and 12708 59th Avenue NW		**City:** Pine Island
	County: Olmsted		**State:** Minnesota
	Township:	**Range:**	**Section:**
	108 North 108 North	15 West 14 West	1, 2, and 12 6 and 7
Property Information	**Size:** 1,333.06 acres **Property Identification Number:** 85.02.42.078994, 85.01.33.080498, 85.12.21.050500, 85.02.41.079586, 85.01.22.079581, 85.01.32.079579, 85.01.34.079577, 85.01.24.079575, 85.01.21.079580, 85.01.12.038408, 85.01.11.038407, 84.06.22.039648, 84.06.24.039647, 84.06.23.079596, 85.01.42.079576, 85.01.41.079578, 85.01.31.079584, 85.01.43.079564, 85.01.34.079589, 85.01.32.097567, 85.12.21.079590, 85.12.12.038600, 85.12.14.079569, 85.01.44.078534, 85.01.44.078533, 85.01.44.079565, 85.01.44.079566, 84.06.33.079595, 84.06.34.079597, 84.06.34.078541, 84.06.33.078539, 85.12.11.079570, 84.07.21.039660, 84.07.11.079799, 84.07.13.039659, 84.07.24.039662, 85.12.14.079571, 84.07.23.079573, 85.02.31.079488, 85.02.21.079300, 85.02.21.079298, 85.02.21.079297, 85.02.24.079301, 85.02.14.079302, 85.02.21.079492, 85.02.14.079304, plus MNDOT parcels with no PID		
Improvements	The Subject Property has one dwelling, a tractor barn and a barn containing a 1-million-gallon capacity concrete pit for liquid silage residue in the southeast portion of the Subject Property. The concrete pit was historically used to collect liquid residue from floor drains at the bottom of two nearby, outdoor concrete silage pits. There is also a livestock shelter on the Subject Property located southeast of the intersection of 520th Street Northwest and 59th Avenue Northwest.		
Building Information	**Size:**		**Year of Construction:**
	Dwelling: Approximately 2,500 square feet		1960
	Tractor Barn: Approximately 21,000 square feet		Between 1964 and 1971
	Silage Barn: Approximately 13,000 square feet		Between 1980 and 1991
	Livestock Shelter: Approximately 2,130 square feet		Between 1964 and 1971

	Description: The single-family dwelling is constructed with a concrete block foundation and wood frame. The tractor barn contains an office with a second level conference room in its west portion, a shop and tractor storage area with a cement floor in its central portion, and a former elk corral with a dirt floor that is currently used for hay and water barrel storage in its east portion. The silage barn is constructed with a 1 million-gallon capacity concrete pit beneath wood slats. The silage barn is currently in seasonal use to shelter calves.
Use of the Property	**Current Use:** The Subject Property is in agricultural use for row crops and seasonal cattle grazing. The portion of the Subject Property containing a dwelling is in residential use. There is also an aggregate mine in the northwest portion of the Subject Property. **Past Use:** According to reviewed sources of information, the Subject Property was developed with a farmstead prior to 1937, which was located in the same general location as the currently existing dwelling. Aerial photographs indicate that the historical structures were razed between 1960 and 1971, as the currently existing structures were built. The Subject Property was primarily agricultural land with limited elk farming until 1985, when the majority of the Subject Property was turned into an elk farm and grazing land. Between approximately 1985 and 2006, the Subject Property accepted silage from a local, offsite source, and used the silage as elk food and the liquid silage residue as fertilizer. In 2009, an elk from the Subject Property tested positive for chronic wasting disease (CWD), and the entire heard of 1,500 elk was subsequently culled with involvement from the United States Environmental Protection Agency (EPA). A total of two elk tested positive for CWD at the Subject Property. Elk and cattle grazing were prohibited for five years following the detection of CWD at the Subject Property, and the Subject Property received a letter from the EPA indicating that grazing could resume in 2014. Since 2014, portions of the Subject Property have been used for seasonal cattle grazing. Some of the Subject Property consists of roadway easements owned by the Minnesota Department of Transportation.
Ownership and Operation of the Property	**Current Ownership & Operation:** The Subject Property is owned by Elk Farm LLC, Tower Elk Farm II, LLC, Tower Elk Farm III, LLC, and the Minnesota Department of Transportation. The Subject Property is currently occupied by a residential tenant, and portions are in agricultural use for row crops and cattle grazing.

The Subject Property location is depicted in **Figure 1**. A Site Detail Map showing the Subject Property is provided in **Figure 2**.

3.1 CURRENT USE OF ADJOINING PROPERTIES

The following land uses were noted on adjoining properties:

Direction	Description
North	Agricultural cropland and associated buildings (beyond 520th Street Northwest)
South	Agricultural cropland and associated buildings
East	Agricultural cropland and associated buildings, including a recreational vehicle (RV) dealership
West	Agricultural cropland and associated buildings beyond Highway 52, and a small area of commercial structures adjoining northwest

3.2 PHYSICAL SETTING

3.2.1 Topography

The Subject Property is generally level and is at an elevation of approximately 1,065 feet above mean sea level. Site surface drainage for the south and west portions of the Subject Property appear to run southward towards the Middle Fork Zumbro River; and the north and east portions of the Subject Property appear to run toward the two ponds located in the northeast corner of the Subject Property. Historic development may have included grading or filling of the Subject Property to improve the location for construction and drainage.

3.2.2 Geology

Published references describe the surficial geology at the Subject Property as a complex intertwining of the following;

- Alluvium – deposits of modern streams, channel sand and gravel, overlain by overbank silt and clay.
- Loess – windblown sediment; uniform unbedded silt mixed with some silt and fine sand.
- Terrace Deposits – deposits of Wisconsinan streams; chiefly clean calcareous sand and gravel; includes minor beds of silt and clay in places.
- Till – unsorted, unstratified drift deposited directly by a glacier, a mixture of sand, silt and clay (typical loam to clay loam) containing subangular to rounded clasts of local and erratic rocks.
- Upland sand and gravel – outwash and ice contact deposits and terrace deposits older and higher than Wisconsinan terrace deposits.
- Bedrock – outcrops and thinly covered bedrock excluding colluvium areas; areas where bedrock is generally within 5 feet of the surface. (University of Minnesota, 1988).

Shallow bedrock in the vicinity of the Subject Property consists of the Prairie du Chien Group (University of Minnesota, 1988).

3.2.3 Hydrogeology

The general direction of regional groundwater flow in the area of the Subject Property is presumed to be to the south toward the Middle Fork Zumbro River (University of Minnesota, 1988). Local conditions may vary due to surface water features, perched groundwater conditions or artificially created drainage systems.

4.0 User Provided Information

4.1 TITLE RECORD INFORMATION

A title commitment record for the Subject Property was not provided to Wenck during preparation of this Phase I ESA, and a title search was not within the scope of this ESA.

4.2 USER QUESTIONNAIRE

User provided information includes a copy of the ASTM User Questionnaire completed by Mr. Dan DeRudder, Tribal Utility and Project Manager of PIIC. The following sections include the information obtained from the completed User Questionnaire, which is included in **Appendix A**.

4.2.1 Environmental Liens or Activity and Use Limitations

No independent review of environmental liens was undertaken by Wenck as a part of this scope of work. No activity and use limitations were disclosed to Wenck during preparation of this ESA.

4.2.2 Specialized Knowledge

Prior assessments regarding the Subject Property were provided by PIIC during preparation of this ESA (See Section 5.4).

4.2.3 Commonly Known or Reasonably Ascertainable Information

Commonly known or reasonably ascertainable environmental information was found relevant to this study including previous environmental reports discussed in Section 5.4.

4.2.4 Valuation Reduction for Environmental Reasons

No valuation reduction for environmental reasons was disclosed at the outset of this study.

4.3 OWNER, PROPERTY MANAGER AND OCCUPANT INFORMATION

The Subject Property is owned by Elk Farm LLC, Tower Elk Farm II, LLC, Tower Elk Farm III, LLC, and the Minnesota Department of Transportation. Portions of the Subject Property are in agricultural use for row crops and cattle grazing, and the dwelling is in residential use. Mr. Geoff Griffin, Civil Engineer at the Subject Property, provided access and a tour of the Subject Property.

4.4 REASON FOR PERFORMING PHASE I ESA

This Phase I ESA is being performed as a component of due diligence activities and to determine whether RECs, CRECs or HRECs affect the Subject Property.

5.0 Records Review

5.1 STANDARD ENVIRONMENTAL RECORD SOURCES

Wenck requested and reviewed a search of files from federal and state databases from GeoSearch for the Subject Property (the GeoSearch Radius Report). Files were searched from Federal and State environmental records databases within minimum search distances as specified in the ASTM Phase I Standard, and the GeoSearch Radius Report included a more extensive database list than those minimally identified as required by the ASTM Phase I Standard. A summary of the sites identified in the GeoSearch Radius Report are discussed below, along with information regarding the significance of the listing for the Subject Property. The GeoSearch Radius Report, which contains more information regarding database descriptions and search distances, is included in **Appendix B**.

5.1.1 Subject Property

The Subject Property **was** identified on the following reviewed regulatory databases in the GeoSearch Radius Report:

- Facility Registry System (FRSMN) – The FRS database includes pointers to other databases and facilities that were entered into the Minnesota Delta Program. These listings are not considered to represent RECs, CRECs or HRECs for the Subject Property based on the type of database.

- Permit Compliance System (PCSR05) – The PCS database tracks enforcement status and permit compliance of facilities controlled by the National Pollutant Discharge Elimination System under the Clean Water Act. The Subject Property is listed due to a milk processing plant listed as Hoehne Brothers Farms. This site has multiple violations and enforcements but has corrected each offense. Based on the current status and type of database; this listing is not considered to represent a REC, CREC or HREC for the Subject Property.

- Registered Storage Tank (UAST) – The Subject Property is listed as having two storage tanks that were removed in 1996; one 3,000-gallon capacity gasoline storage tank and one 10,000-gallon capacity diesel storage tank. Wenck contacted Mr. Dale Boettcher, MPCA Records Management Unit, to request additional information. According to Mr. Boettcher, both storage tanks are identified as underground storage tanks (USTs), and he confirmed that both USTs have been removed in 1996. He stated that there is no related electronic file available, and that the hard copy file only contains a tank removal verification form. The MPCA is not in possession of confirmation soil sampling taken at the time of tank removal. It is Wenck's opinion that if a release were identified by the tank removal contractor at the time of removal, then it would likely have been reported to the MPCA. Because there is no evidence of a release or a material threat of release of petroleum products from these two removed USTs, the UAST listing is not considered to represent a REC, CREC or HREC for the Subject Property.

- Water Discharge Permit (WDP)/ Integrated Compliance Information System National Pollutant Discharge Elimination System (ICISNPDES) – – The WDP/ICISNPDES database tracks various types of water permits. According to the database report, a

wastewater discharge permit was issued to Hoehne Brothers Farms at the Subject Property for discharge of fluid milk. A general permit was also issued to the Subject Property as a minor discharger of non-potable water. No violations or enforcement actions were reported in connection with these permits. Theses listings are not considered to represent RECs, CRECs or HRECs for the Subject Property based on the type of databases and the lack of reported violations.

- What's In My Neighborhood (WIMN) – The WIMN database includes pointers to other databases, and therefore results in duplicate entries for databases described elsewhere. The database was compiled to provide a mapping service for interested parties to review sites of regulatory interest in their area of concern. These listings are not considered to represent RECs, CRECs or HRECs for the Subject Property.

- Enforcement and Compliance History Information (ECHOR05) – The Subject Property is listed on this database because it is subject to inspections for compliance with the Clean Water Act for limestone crushing operations. The Subject Property has no violations or enforcements listed. Due to the lack of reported violations, this listing is not likely to affect soil, groundwater or soil vapor conditions at the Subject Property, and therefore, is not considered to represent a REC, CREC or HREC for the Subject Property.

Wenck did not review regulatory files for these database listings because sufficient information was available from other sources (including an interview with the MPCA) to determine the potential for RECs, CRECs and/or HRECs at the Subject Property.

5.1.2 Surrounding Properties

Additional mapped sites of regulatory interest identified within the search radii defined by the ASTM Phase I Standard, as identified in the GeoSearch Radius Report, include the following:

Number of Sites	Regulatory Database	Comments
8	Concentrated Animal Feeding Operations (CAFO)	CAFO sites have feeding operations of a large number of animals, that are regulated by the government. These listings are not considered to represent RECs, CRECs or HRECs for the Subject Property based on the type of database.
1	Delisted National Priorities List (NPL) site	This DNPL site is located approximately 0.816 miles south-southeast of the Subject Property in a downgradient location with respect to the presumed direction of groundwater flow. The DNPL site identified is the Olmsted County Sanitary Landfill which was discovered to have concentrations of volatile organic compounds in groundwater. After additional investigations it was determined that there was a low-level risk posed by the site and the site was delisted. Based on the site's status, and downgradient location with respect to anticipated regional groundwater flow

Number of Sites	Regulatory Database	Comments
		direction, this listing is not considered a threat to soil, groundwater and/or soil vapor conditions at the Subject Property, and, therefore, is not considered to represent a REC, CREC or HREC for the Subject Property.
1	Registered Leaking Storage Tank (LUAST) sites	The LUAST site identified was the FormerJCS Corner Mark Inc. site (MPCA Leak Site file 116402) located approximately 0.317 miles from the Subject Property in a sode-gradient location with respect to anticipated regional groundwater flows. A release of gasoline was reported in March 2006. The file was granted regulatory closure by the MPCA in January 2008. A closure letter does not eliminate the possibility of residual contamination at the site. Based on the location and regulatory status of the site and the information provided in the GeoSearch Radius Report, this listing is not considered a threat to soil, groundwater and/or soil vapor conditions at the Subject Property, and, therefore, is not considered to represent a REC, CREC or HREC for the Subject Property.
13	What's in My Neighborhood Database (WIMN) sites	The WIMN database includes pointers to other databases, and therefore results in duplicate entries for databases described elsewhere. The database was compiled to provide a mapping service for interested parties to review sites of regulatory interest in their area of concern.
3	MPCA Remediation Sites (REMSITES)	The REMSITES database is a temporary database that includes limited information regarding properties that have enrolled in an MPCA program. Some of these properties contain known or suspected impacts, and other properties in the database do not contain known or suspected impacts. One of these sites is the LUAST site discussed above. The remaining two REMSITES database listings are located over 1/2 mile from the Subject Property in a down-gradient location with respect to anticipated regional ground water flows. These listings are not considered to represent RECs, CRECs or HRECs for the Subject Property based upon their locations with respect to the presumed direction of groundwater flow, their distances from the Subject Property, and/or other information provided by the database report.

No unmapped sites were identified in the GeoSearch Radius Report. Unmapped sites are those where address information is insufficient to allow the sites to be accurately mapped by GeoSearch.

Wenck did not review State/County/City files for these database listings because sufficient information was available from other sources to determine the potential for RECs, CRECs and/or HRECs relative to the Subject Property.

5.2 ADDITIONAL RECORD SOURCES

Additional record sources may be consulted when, in the judgment of the Environmental Professional, such additional records are reasonably ascertainable, sufficiently useful, accurate and complete, and are generally obtained pursuant to good commercial and customary practice. Such records may include local brownfield lists, or other local lists similar to those federal, state and tribal lists. Such sources may include local health or environmental departments, fire departments, planning departments, building permit or inspection departments, and other local pollution, water quality or utility companies.

5.2.1 Olmsted County Tax Information

Olmsted County tax information was obtained and reviewed from the Olmsted County tax assessor's website. Tax records provide publicly available information about the Subject Property. The tax records did not reveal any additional information with respect to the environmental condition of the Subject Property.

The Olmsted County tax information is included as **Appendix C**.

5.2.2 Local Building Records Review

Local building records were not reviewed for the Subject Property. According to reviewed sources of information, the Subject Property was developed with a historical farmstead prior to 1937, which was located in the same general location as the currently existing dwelling. Aerial photographs indicate that the historical structures were razed between 1960 and 1971, as the currently existing structures were built. The Subject Property was primarily agricultural land with limited elk farming until 1985, when the majority of the Subject Property was turned into an elk farm and grazing land. Between approximately 1985 and 2006, the Subject Property accepted silage from a local, offsite source, and used the silage as elk food and the liquid silage residue as fertilizer. Since 2014, portions of the Subject Property have been used for seasonal cattle grazing. Some of the Subject Property consists of roadway easements owned by the Minnesota Department of Transportation.

5.3 HISTORICAL USE INFORMATION

5.3.1 Aerial Photographs

Aerial photographs were reviewed from 1937, 1940, 1951, 1958, 1964, 1971, 1975, 1980, 1991, 2003, 2008 and 2015. The aerial photographs are presented in **Appendix D**.

In the 1937 through 2015 aerial photographs the Subject Property appears to be mainly agricultural cropland with associated agricultural structures and residences. A small silage yard appears to be present in the southeastern portion of the Subject Property. The Subject Property appears to have been developed with a historical farmstead prior to 1937, which was located in the same general location as the currently existing dwelling. Aerial photographs indicate that the historical structures were razed between 1960 and 1971, as the currently existing structures were built.

Surrounding, adjacent sites also appear to be mainly agricultural cropland with associated agricultural structures and residences. In the 1975 through 1980 aerial photographs, additional residential structures are visible adjacent to the west and south of the Subject Property. In the 2015 aerial photograph, there are three commercial structures visible adjacent to the northwest of the Subject Property.

Road infrastructures have improved throughout the years as well. In the 1964 aerial photograph, Highway 52 expanded into a multi-lane divided highway. In the 2015 aerial photograph, considerable road infrastructure, included a new bridge over Highway 52, roundabouts and additional roads are visible near the Subject Property.

5.3.2 City Directories

City directories were researched for the Subject Property and surrounding properties. The streets researched were 5th Street NW, 59th Avenue NW (also known as White Pines Road SE), and Vintage Road NW and directories were available for the years 1993-1994, 1998-1999, 2003, 2009 and 2013. The city directories are included as **Appendix E**. Listings for the address of the Subject Property consist of the following:

Directory Year	Subject Property Listing
1993-1994	12108 59th Avenue NW – No Listing 12440 59th Avenue NW – Sherry Zodrow 12708 59th Avenue NW – No Listing
1998-1999	12108 59th Avenue NW – No Listing 12440 59th Avenue NW – Erica and Eric Shettl 12708 59th Avenue NW –John Hoehne
2003	12108 59th Avenue NW – Victor Stetson 12440 59th Avenue NW – Tammy and Eric Schettl 12708 59th Avenue NW – Agnes and John Hoehne, Hoehne Mining
2009	12108 59th Avenue NW – No Listing 12440 59th Avenue NW – Tammy and Eric Schettl 12708 59th Avenue NW – Agnes and John Hoehne
2013	12108 59th Avenue NW – No Listing 12440 59th Avenue NW – No Listing 12708 59th Avenue NW – Agnes and John Hoehne

Other listings in the vicinity of the Subject Property include Buy RV Sell RV at 614 Vintage Road NW and other residential listings.

5.3.3 Historical Maps

The Oronoco, Minnesota USGS 7.5-minute series topographic maps dated 1965, 1980, 2013 and 2016 show the area of the Subject Property.

There are no structures or other items shown on the Subject Property on the 2013 through 2016 topographic maps. There appears to be 13 structures shown on the Subject Property on the 1965 through 1980 topographic maps. These structures appear to be residential houses and other farmstead structures.

The historical maps are included as **Appendix F**.

5.3.4 Fire Insurance Maps

A search was conducted to determine if fire insurance maps were available for the Subject Property. Fire insurance maps were created for insurance underwriters and often contain information regarding the uses of individual structures and the locations of fuel and/or chemical storage tanks that may have been on a particular property.

According to Historical Information Gatherers, Inc. (HIG), fire insurance map coverage is not available in the research materials searched for the Subject Property. HIG fire insurance map research documentation is included as **Appendix G**.

5.4 PREVIOUS ENVIRONMENTAL REPORTS

PIIC provided Wenck with the following previous environmental report prepared for the Subject Property:

- *Phase I Environmental Site Assessment, Hoehne Elk Farm, Oronoco, Minnesota*, prepared for Mr. Geoff Griffin, GGG Inc. by Omni Environmental and dated September 9, 2003 (2003 ESA Report).

This previous environmental report, as provided to Wenck, is included in **Appendix H**. Wenck was also provided with ALTA surveys, orderly annexation agreements, annexation resolutions, a master development agreement, documentation regarding chronic wasting disease (CWD) at the Subject Property, a general development plan, zoning documents, a reimbursement agreement, MNDOT agreements, a land exchange agreement, a sign easement agreement, a utility extension agreement, leases, parcel maps, soil maps, and additional information that is not relevant to performance of a Phase I ESA in conformance with the ASTM Phase I Standard.

5.4.1 2003 ESA Report

The 2003 ESA Report noted the Subject Property was approximately 1,272 acres in size and consists of five homes and a gravel pit and was mostly used for elk farming/grazing since 1985. Prior to 1985, the land was predominately used for agriculture.

The 2003 ESA report lists two ASTs on the Subject Property; one 1,000-gallon gasoline AST and one 1,000-gallon diesel AST. In addition, historically there were two USTs on the Subject Property; one 3,000-gallon gasoline UST and one 10,000-gallon diesel UST, both of which were removed at an unknown date. The 2003 ESA report identifies two small pits on the Subject Property that were formerly used as silage storage pits, and the report states that the pits were abandoned in 1980. Also, two large concrete silage storage bunkers were present on the Subject Property in 2003, each with a capacity of 50,000 tons of silage, as well as a one-million-gallon underground storage tank used to collect the liquid residue from the silage bunkers. At the time of the 2003 ESA report, the one-million-gallon tank was approximately 15 years old and was constructed of cast in place concrete. This tank is located under a sheet metal barn. These bunkers and tank had not been used extensively used since 2001 according to the owner. The 2003 ESA reports five wells are present on the Subject Property.

The 2003 ESA report identified three RECs for the Subject Property. The previous existence of USTs on the Subject Property is considered an REC. The current ASTs on the Subject Property are considered a REC "based on the potential for impacts to soil and groundwater in the area from the storage and dispensing of petroleum products." And the one million-gallon UST tank is also considered an REC based on contamination potential to soil and groundwater. Wenck has reached different conclusions regarding these items.

6.0 Subject Property

6.1 SUBJECT PROPERTY OBSERVATIONS

Mr. Chad Rogers of Wenck conducted a site reconnaissance on March 7, 2018. Mr. Rogers was accompanied during a portion of the site reconnaissance by Mr. Geoff Griffin, Civil Engineer at the Subject Property. Wenck staff visually observed the Subject Property to identify current land use, obtain evidence of past uses, and to identify surface characteristics of the Subject Property for the presence of RECs, CRECs or HRECs. Subject Property photographs are included in **Appendix I**.

The site reconnaissance consisted of visually observing the interior and exterior portions of the Subject Property. Wenck staff observed (from the Subject Property boundaries) the adjoining properties for evidence of RECs, CRECs or HRECs, and for indications of past and current land use. Snow cover was present at the time of the site reconnaissance.

As noted in Section 3.0, the Subject Property is mostly agricultural land, and it contains a dwelling (photograph 1), a tractor barn (photographs 2-10), a scale house (photograph 11), two silage bunkers (photographs 12 and 13), and a silage barn (photographs 14 and 15) with a one million-gallon capacity concrete pit for collecting liquid silage residue and stormwater that drains from the silage bunkers. The two silage bunkers that drain into the pit in the silage barn were mostly empty at the time of the site reconnaissance. According to Mr. Griffin, the silage bunkers have not been in use since at least 2006. A water supply well was observed near the dwelling (photograph 16).

The Subject Property also contains a livestock shelter in its north portion (photograph 17), near the intersection of 520th Street Northwest and 59th Avenue Northwest. According to Mr. Griffin, a water supply well is located several feet north of the livestock shelter, but Wenck was unable to observe the well at the time of the site reconnaissance due to snow cover.

The Subject Property is accessible from several roads that intersect the Subject Property. A roundabout (not included within the boundaries of the Subject Property) is located in the center of the Subject Property (photograph 18). 520th Street Northwest bounds the Subject Property to the north (photograph 19). Ash Road Northwest bisects the northeast portion of the Subject Property (photograph 20). 59th Avenue Northwest (also known as White Pines Road) intersects the north-central portion of the Subject Property (photograph 21). East White Bridge Road (Photograph 22) intersects the center of the Subject Property from west to east. 59th Avenue Northwest/White Pines Road Southeast/Vintage Road Northwest leads south of the roundabout intersection with East White Bridge Road (photograph 23). Highway 52 bounds the majority of the Subject Property to the west, but there are four MNDOT parcels included in the Subject Property that are located west of Highway 52 (photographs 24-27). 220th Avenue leads south of 520th Street Northwest and reaches a dead end at an aggregate pit (photograph 28).

The dwelling is served by utility electric, natural gas and telephone services. A private septic system serves the dwelling and the restroom located in the tractor barn. Stormwater drains toward low, wet areas on the Subject Property, and generally to the south towards the Middle Fork of the Zumbro River.

6.1.1 Materials Management

Materials managed at the Subject Property include office materials, typical household materials, and agricultural materials and equipment. A tractor, a front-end loader, a riding lawn-mower, two ATVs, and a pontoon boat were observed in the shop portion of the tractor barn at the time of the site reconnaissance (see previously referenced photographs 3-6). Wenck also observed several partially full 55-gallon drums of lubricants, oil, gasoline, and W.R. Meadows™ 2200-WHITE poly-alphamethylstyrene concrete curing compound in the tractor barn (see previously referenced photograph 7). The 55-gallon drums did not show evidence of damage, leaks or spills at the time of the site reconnaissance. Wenck noted chemicals at the Subject Property consist of small quantities of household cleaning and maintenance chemicals.

Several empty, blue water drums were observed in the east portion of the tractor barn (see previously referenced photograph 10). The water drums have reportedly been used to provide water for livestock at the Subject Property. One of the water drums was spray painted with the words "Burn Only." This water drum did not have observable ash or burn marks on its interior or exterior. Hay was also stored in the east portion of the tractor barn. Several empty 300-gallon totes and empty 55-gallon drums were stored in the silage barn at the time of the site reconnaissance (see previously referenced photograph 15). According to Mr. Griffin, the empty drums were delivered to the Subject Property by the son of the residential occupant, and the drums are intended to be used for various storage purposes. According to the labels on the drums and totes, the containers previously held de-icing fluid.

6.1.2 Solid and Hazardous Waste Management

Trash consisted of typical household refuse and was stored in receptacles for regular collection by a solid waste vendor.

No evidence of hazardous waste generation was noted during the site reconnaissance or documented in the GeoSearch™ Radius Map Report.

6.1.3 Aboveground and Underground Storage Tanks (ASTs/USTs)

Wenck observed no evidence of former or existing USTs at the Subject Property. Wenck observed two 1,000-gallon capacity ASTs on the Subject Property at the time of the site reconnaissance (photograph 29). One AST held gasoline and the other held diesel fuel. The dispensers appeared to be in good condition, and no evidence of leaks or staining was observed in connection with the ASTs. Both ASTs were located on concrete pads. The database report documents that the following USTs were removed from the Subject Property:

Tank No.	Size	Contents	Status
1	6,000-gallon	diesel	Removed in 1996
2	3,0000-gallon	gasoline	Removed in 1996

No releases were reported in connection with the USTs at the time of removal.

6.1.4 Interior and Exterior Surface Observations

Wenck observed no evidence of soil subsidence, pooled liquids, stressed vegetation, fill soil piles or debris piles on the Subject Property. Aggregate piles were observed near the aggregate mine on the northwest portion of the Subject Property. Small surface stains that are considered to be *de minimis* were observed on the concrete floor in tractor barn.

6.1.5 Pits, Sumps, Oil-Water Separators and Floor Drains

Wenck noted that there are floor drains in the shop area within the tractor barn (see previously referenced photographs 4 and 5). According to Mr. Griffin, the floor drains are not connected to the private septic system and they discharge to the subsurface. He was unsure of the precise discharge location.

Wenck observed two concrete silage bunkers on the Subject Property at the time of the site reconnaissance. According to Mr. Griffin, the bunkers have not been in use since at least 2006. Prior to 2006, the Subject Property accepted silage from an offsite source, and the silage was used as elk food. Floor drains in the base of each bunker collected "silage juice" consisting mostly of rainwater and decomposing silage, and the liquid drained into a 1-million-gallon capacity concrete pit located beneath floor slats within the silage barn. The liquid mixture was then spread over the agricultural fields and used as fertilizer. At the time of the site reconnaissance, the pit appeared to be partially full with stormwater. No unusual odors were noted in the silage barn. Mr. Griffin stated that he personally performed balancing tests in the concrete pit, and his tests did not identify any leaks in connection with the pit.

Wenck did not observe any sumps or oil-water separators on the Subject Property at the time of the site reconnaissance.

6.1.6 Wastewater and Stormwater Discharge Systems

The dwelling at the Subject Property and the restroom located in the tractor barn are served by a private septic system. Stormwater drains toward low, wet areas on the Subject Property, and generally to the south towards the Middle Fork of the Zumbro River.

6.1.7 Wells, Drywells and Lagoons

Wenck did not observe the presence of drywells or lagoons at the time of the site reconnaissance. According to Mr. Griffin, four water supply wells are located on the Subject Property. Wenck observed one well near the dwelling. The other three wells were not observed by Wenck at the time of the site reconnaissance due to snow cover, but Mr. Griffin pointed out their general locations using a map. There is reportedly a well located southwest of the intersection of Ash Road and 520th Street NW, one near the livestock shelter, and one near a garden where White Pines Road SE becomes Vintage Road NW.

6.1.8 Polychlorinated Biphenyls (PCBs) and Oil-Containing Equipment

Wenck observed several pole-mounted transformers on the Subject Property and on the adjoining roads at the time of the site reconnaissance. The pole-mounted transformers did not show any evidence of leaks or spills at the time of the site reconnaissance. No other potentially PCB-containing equipment was observed on the Subject Property at the time of the site reconnaissance.

7.0 Interviews

7.1 INTERVIEW WITH SUBJECT PROPERTY REPRESENTATIVE

Date of Interview:	**March 7, 2018**
Name:	Mr. Geoff Griffin
Affiliation:	Civil Engineer for the Subject Property
Years familiar with Subject Property:	Since the early 1990's
Telephone Number:	507-269-4039

Wenck interviewed Mr. Griffin regarding the past and current use of the Subject Property. Mr. Griffin stated that the Subject Property was acquired in 2006 by Tower Investments, when the Subject Property was mostly pasture. He provided Wenck with information about the history of CWD on the Subject Property, and with a general understanding of the silage bunkers and liquid silage residue pit. According to Mr. Griffin, the Subject Property ceased accepting silage from an offsite source in approximately 2006. Mr. Griffin stated that he is not aware of any chemical spills, releases, dumps or debris at the Subject Property. He pointed out the locations of four water supply wells on the Subject Property using Wenck's Site Detail Map. Mr. Griffin provided information to Wenck that is included throughout this report.

7.2 INTERVIEW WITH LOCAL GOVERNMENT OFFICIAL

Date of Interview:	**March 14, 2018**
Name:	Mr. Dale Boettcher
Affiliation:	Records Management Unit, MPCA
Years familiar with Subject Property:	N/A
Telephone Number:	651-757-2441

Wenck interviewed Mr. Boettcher regarding the registered storage tank files associated with the Subject Property. Mr. Boettcher confirmed the accuracy of the information contained in the database report, and he stated that both storage tanks are identified as USTs in the MPCA database. After reviewing available records, he stated that there is no electronic file available for the USTs, and that the MPCA is not in possession of confirmation soil sampling documentation related to the UST removal, which occurred in 1996. Mr. Boettcher stated that there is a hard copy file containing only a tank removal documentation record that was submitted by a licensed tank removal contractor. Information provided by Mr. Boettcher was used in Section 5.1.1 of this report.

8.0 Evaluation

8.1 DATA GAPS

Historical information was reviewed back to 1937. Data gaps greater than five years exist from prior to 1937, from 1940 to 1964, from 1965 to 1971, and from 1980 to 1991.

The interviews, historical maps, city directories, aerial photographs and previous environmental reports provide generally good corroborating information that allows an understanding of historical Subject Property use. A research summary is included as **Appendix J**.

Wenck considers the evaluation of the presence of recognized environmental conditions, controlled recognized environmental conditions, and historical recognized environmental conditions to be complete, based on the lack of identified changes in land use during the periods affected by any data gaps of more than five years. Therefore, we do not recommend additional investigation relative to the resolution of those data gaps, as we do not believe it would materially affect our conclusion.

8.2 IDENTIFIED FINDINGS

Wenck was authorized by Prairie Island Indian Community to conduct this Phase I ESA for the property and improvements described as; approximately 1,242 acres of property and approximately 91.20 acres of excess right of way land currently owned by MNDOT, all located between Pine Island and Oronoco, Olmsted County, Minnesota; the Subject Property.

According to reviewed sources of information, the Subject Property was developed with a farmstead prior to 1937, which was located in the same general location as the currently existing dwelling. Aerial photographs indicate that the historical structures were razed between 1960 and 1971, as the currently existing structures were built. The Subject Property was primarily agricultural land with limited elk farming until 1985, when the majority of the Subject Property was turned into an elk farm and grazing land. Between approximately 1985 and 2006, the Subject Property accepted silage from a local, offsite source, and used the silage as elk food and the liquid silage residue as fertilizer. In 2009, an elk from the Subject Property tested positive for chronic wasting disease (CWD), and the entire heard of 1,500 elk was subsequently culled with involvement from the United States Environmental Protection Agency (EPA). A total of two elk tested positive for CWD at the Subject Property. Elk and cattle grazing were prohibited for five years following the detection of CWD at the Subject Property, and the Subject Property received a letter from the EPA indicating that grazing could resume in 2014. Since 2014, portions of the Subject Property have been used for seasonal cattle grazing. Some of the Subject Property consists of roadway easements owned by the Minnesota Department of Transportation.

The Subject Property is in agricultural use for row crops and seasonal cattle grazing. The portion of the Subject Property containing a dwelling is in residential use. There is also an aggregate mine in the northwest portion of the Subject Property.

Floor drains were observed in the shop portion of the tractor barn on the Subject Property. Interview information indicates that the floor drains discharge directly to the subsurface at

the Subject Property, and the precise discharge location is unknown to Wenck. Due to the management of petroleum products and maintenance chemicals in the tractor barn, the length of time that the floor drains have been in use (at least 47 years), and the subsurface discharge of the floor drains, there is a material threat of release of petroleum products and potentially hazardous substances. No other observations at the time of the site reconnaissance indicate the presence of a release or a material threat of release of petroleum products or potentially hazardous substances. Four water supply wells are reportedly located on the Subject Property, but only one well was observed at the time of the site reconnaissance. The water supply wells should be managed in accordance with rules established by the Minnesota Department of Health.

A previous Phase I ESA of the Subject Property identified the historical presence of two USTs on the Subject Property as a *recognized environmental condition*. Wenck disagrees with this assertion based upon an interview with the MPCA and the presumption that a licensed tank removal contractor would have reported a release if one were observed. The same previous Phase I ESA also identified the presence of the currently existing one million-gallon concrete liquid silage residue pit as a *recognized environmental condition*, despite the information which was provided to the previous consultant indicating that the concrete pit passed a balancing test and has not leaked. Wenck disagrees with the opinion that the concrete pit is a *recognized environmental condition* on the basis that Wenck has not been provided with information indicating that there has been a release from the pit, and that the pit is currently retaining stormwater. The balancing test also indicates that the pit was in good condition at the time that the test was performed. The same previous Phase I ESA also identified the presence of the currently existing ASTs on the Subject Property as a *recognized environmental condition*, despite noted observations that "The ASTs are located on a concrete slab, which did not show any staining that would indicate spillage or leakage from the tanks." It is Wenck's opinion that the mere presence of ASTs is not considered a *recognized environmental condition*.

Mapped sites of regulatory interest that were identified in the database report are not likely to affect soil, groundwater or soil vapor conditions at the Subject Property due to their locations with respect to the presumed direction of groundwater flow, and/or other information provided by the database report.

8.3 OPINIONS

We have reviewed the above findings and have come to the following opinions:

- The past and current agricultural and residential use of the Subject Property is not considered to represent a REC, CREC or HREC for the Subject Property, because there is no indication of a release or a material threat of release of petroleum products or potentially hazardous substances, other than the floor drains discussed below.
- The presence of floor drains in the tractor barn that discharge to the subsurface of the Subject Property are considered to represent a REC for the Subject Property, because the floor drains represent a risk pathway for surface contamination to reach the subsurface, and the floor drains have presumably been in use since the tractor barn was constructed (at least 47 years ago).
- Mapped sites of regulatory interest revealed within the GeoSearch Radius Report are not considered RECs, HRECs, or CRECs. Based on the review of the revealed sites of regulatory interest, including unmapped site listings revealed within search radii defined by the Practice, we identified no material threat of release to the Subject Property from adjacent or upgradient properties.

8.4 CONCLUSIONS

Wenck performed a Phase I ESA in conformance with the scope and limitations of the ASTM Phase I Standard and in accordance with the AAI Rule (40 CFR Part 312) of the property and improvements described as; approximately 1,242 acres of property and approximately 91.20 acres of excess right of way land currently owned by MNDOT, all located between Pine Island and Oronoco, Olmsted County, Minnesota. Any exceptions to, or deletions from, the ASTM Phase I Standard are described in Section 2.3 and Section 2.4 of this report.

This ESA has identified the following REC relative to the Subject Property:

- The presence of floor drains within the tractor barn that discharge to the subsurface is a REC for the Subject Property, because the floor drains represent a risk pathway for surface contamination to reach the subsurface, and the floor drains have presumably been in use since the tractor barn was constructed (at least 47 years ago).

This ESA has identified no evidence of CRECs or HRECs in connection with the Subject Property.

9.0 Non-Scope Considerations

Assessments of potential environmental issues or conditions at the Subject Property that may relate to commercial real estate activities, but were not part of this scope of work include the following:

- Asbestos Survey
- Radon Gas Survey
- Lead-Based Paint Assessment
- Lead in Drinking Water Evaluation
- Wetland Delineation
- Regulatory Compliance Audit
- Cultural and Historic Resources Review
- Industrial Hygiene Review
- Health and Safety Assessment
- Ecological Resources Evaluation
- Endangered Species Survey
- Indoor Air Quality Evaluation
- Mold Investigation
- High Voltage Power Lines Assessment

This list is not intended to be all-inclusive and is not intended to imply significance of further investigation into these non-scope items.

10.0 References

American Society for Testing and Materials, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-13,* West Conshohocken, PA, 2013.

University of Minnesota, *Geologic Atlas, Olmsted County, Minnesota*, 1988.

Other materials referenced in this report are included in the Appendices.

11.0 Signature Page

We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in 312.10 of 40 CFR Part 312, and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by:

Chantell Bazewicz
Environmental Scientist

And by:

Chad Rogers
Environmental Analyst

Reviewed by:

J. Joseph Otte
Principal

12.0 Qualifications

Company Experience

WENCK ASSOCIATES, INC. is a full-service environmental consulting firm that specializes in providing comprehensive environmental, regulatory, and safety guidance for our client's real estate asset protection, redevelopment and development needs. Collectively, Wenck offers our clients over 25 years of experience, depth of technical and regulatory knowledge and expertise in the following service areas:

- Environmental Assessment Services (Phase I and II)
- Site Preparation/Planning Services
- Integrated Site Remediation and Risk-based Response Actions
- Storage Tank Removal, Replacement and Compliance
- Stormwater Management Plans and Permitting (NPDES requirements, etc.)
- Wetlands Delineation and Mitigation
- Environmental Permitting and Compliance
- Asbestos and Lead Identification and Abatement
- Voluntary Cleanup Programs and Guidance on Public Funding Mechanisms for Brownfield Redevelopment
- Indoor Air Quality Assessment
- Facility Layout Review for Environmental and Safety Efficiency
- Environmental Impact Assessments (EIA) and Statements (EIS), Environmental Assessment Worksheets (EAW), Alternative Urban Areawide Review (AUAR)
- Traffic Engineering
- Pollution Prevention Plans
- Greenhouse Gas Services

Wenck strives to provide our clients with strategic, high quality and cost-effective services that are customized to their specific needs. For more extensive information on the services we provide please refer to www.wenck.com.

Individual Bios

Chantell Bazewicz

Ms. Bazewicz has over 13 years of experience as an Environmental Scientist on diverse projects including building surveys, abatement oversight for renovation and demolition projects, soil remediation, groundwater investigation, Phase I and Phase II Environmental Site Assessments. She has worked with both public and private industry in Minnesota, Wisconsin, Iowa, Arizona, North Dakota and South Dakota. Specialties include asbestos, lead-based paint, regulated/hazardous materials surveys, abatement oversight, air monitoring and sample analysis, indoor air quality assessments, employee exposure monitoring, soil and ground water investigations/ remediation, project design and contract preparation.

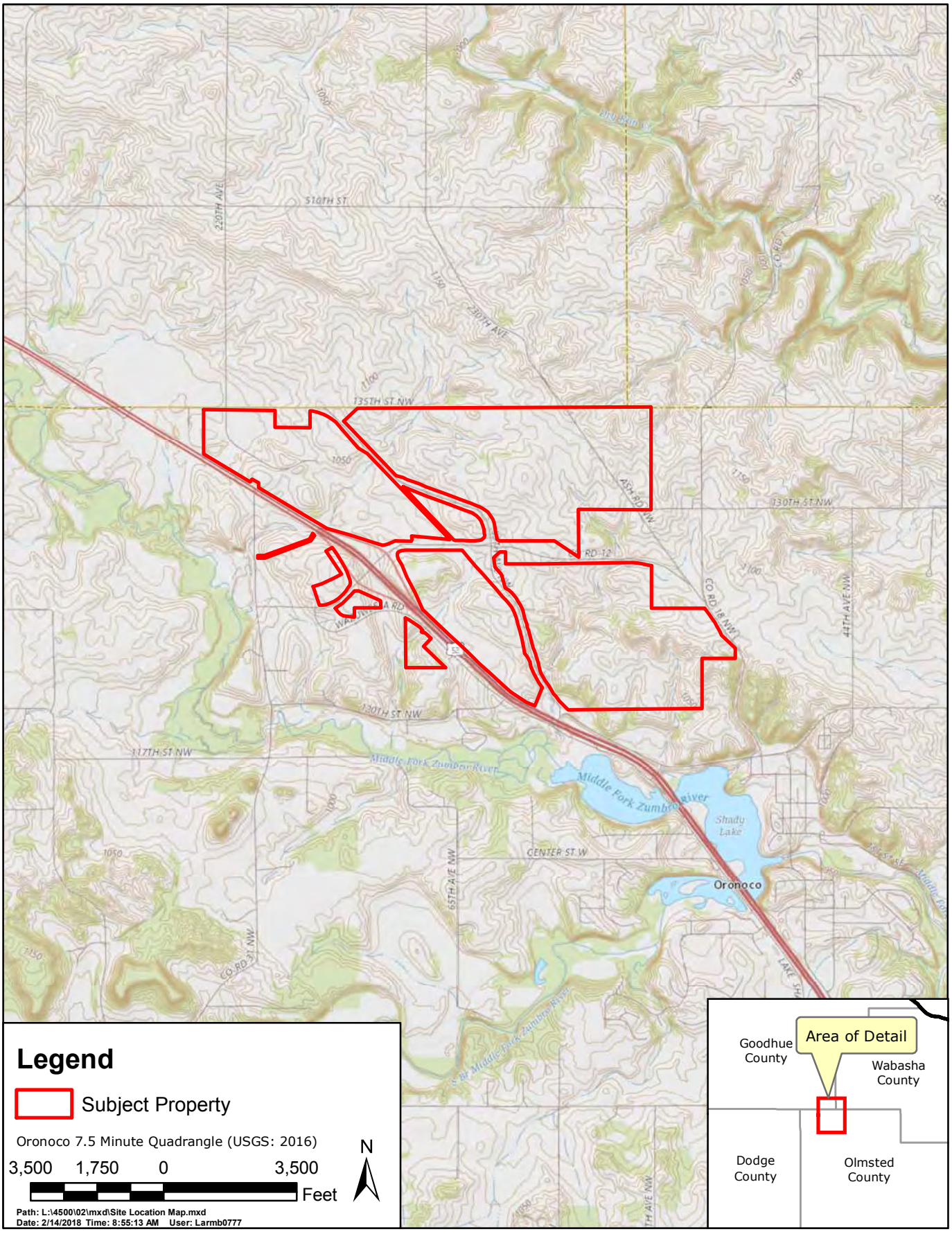
Chad Rogers

Chad Rogers joined Wenck Associates, Inc. as part of the real estate transaction group. As an environmental analyst, he primarily focuses on conducting Phase I Environmental Site Assessments. He also has a background in law and began a role as Wenck's Risk Management Counselor in 2016. Mr. Rogers passed the Minnesota State Bar Examination in 2012, holds a Juris Doctorate from William Mitchell College of Law and a Business Administration Degree from the University of St. Thomas.

J. Joseph Otte

Mr. Joseph Otte joined Wenck Associates, Inc. (Wenck) in 1998 to lead real estate transaction support activities. Since joining Wenck, he has conducted a large number of Phase I Environmental Site Assessments and has been involved in many significant site redevelopment projects. Mr. Otte's past position was as supervisor of the Voluntary Investigation and Cleanup (VIC) Program of the Minnesota Pollution Control Agency (MPCA). He holds a Bachelor of Arts in geology from the College of St. Thomas and a Master of Business Communication from the University of St. Thomas, St. Paul, Minnesota.

Figures



PRAIRIE ISLAND INDIAN COMMUNITY

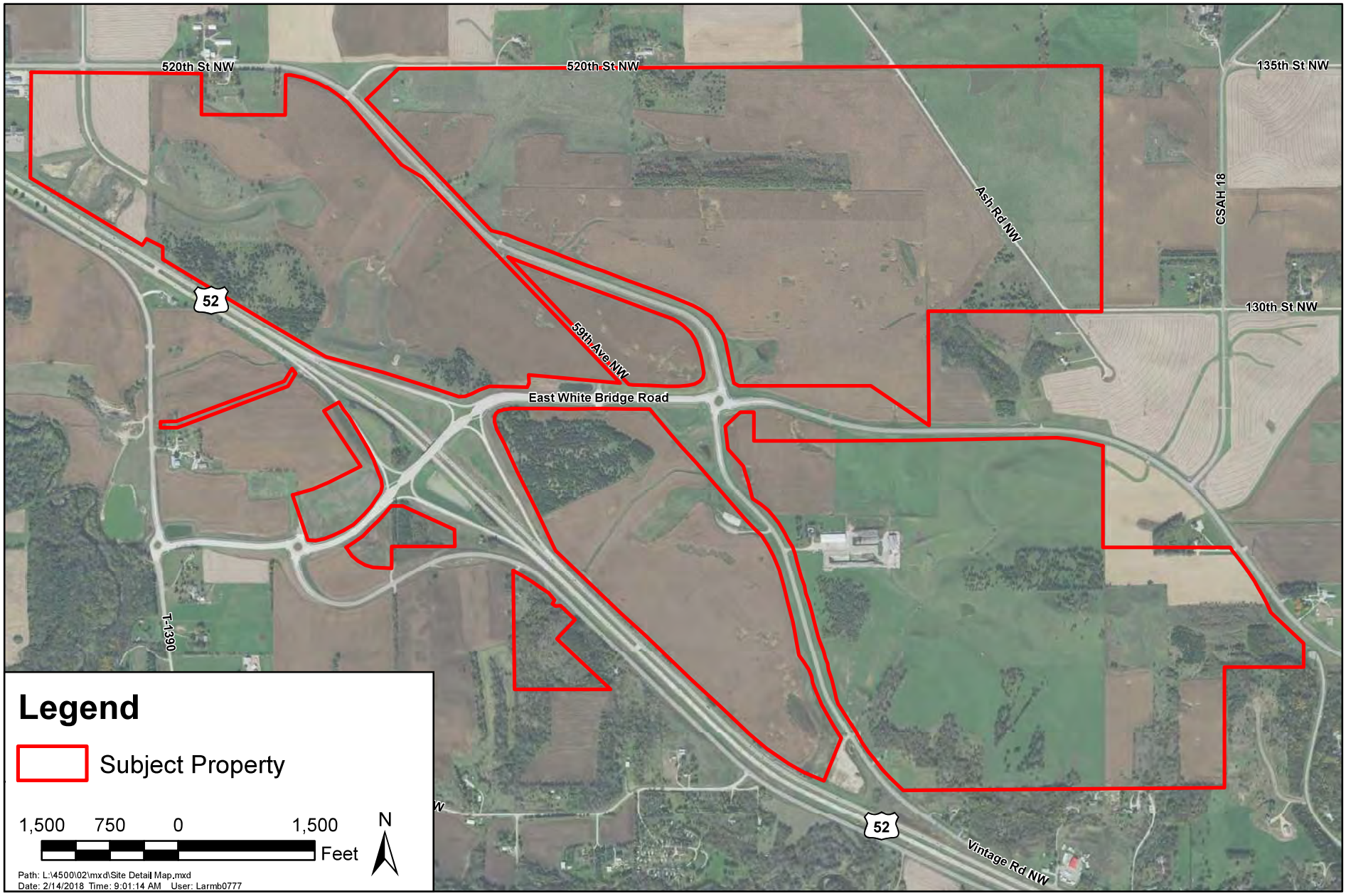
Site Location Map

WENCK

Responsive partner. Exceptional outcomes.

FEB 2018

Figure 1



PRAIRIE ISLAND INDIAN COMMUNITY	WENCK Responsive partner. Exceptional outcomes.	FEB 2018
Site Detail Map		Figure 2

Attachments are available upon request

2019 Supplementary Environmental Site Assessment

Supplementary Environmental Site Assessment

PIIC Community Development
2137 White Pines Road Southeast
Pine Island, Minnesota

Prepared for

Tower Investments, LLC

Prairie Island Indian Community

Project B1904864.00
November 6, 2019

Braun Intertec Corporation

BRAUN INTERTEC
The Science You Build On.

BRAUN INTERTEC
The Science You Build On.

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4210 Highway 14 East
Rochester, MN 55904

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Fax: 507.281.5303
Web: braunintertec.com

November 6, 2019 Project B1904864.00

Mr. John Pierce
Tower Investments, LLC
250 West Main Street, Suite 101
Woodland, California 95695

Re: Supplementary Environmental Site Assessment
PIIC Community Development
2137 White Pines Road Southeast
Pine Island, Minnesota

Dear Mr. Pierce:

On behalf of Tower Investments LLC, Braun Intertec Corporation conducted a Supplementary Environmental Site Assessment (ESA) of the above-referenced site (Site) in accordance with the authorized scope of services described in our proposal dated August 20, 2019. The Supplementary ESA was prepared in association with the sale and potential redevelopment of the Site. For a complete discussion of our assessment, please refer to the attached report.

The objective of the Supplementary ESA was to further evaluate the extent of contamination found during a previous drilling investigation at the former Tank 1 basin (the trench drain tank) and evaluating how soil, groundwater, and/or soil vapor impacts may affect the planned redevelopment of the Site.

This report was prepared on behalf of and for use by Tower Investments LLC and Prairie Island Indian Community. No other party has a right to rely on the contents of this report without the written authorization of Braun Intertec.

We appreciate the opportunity to provide our professional services to you for this project. If you have any questions or comments regarding this report or the project in general, please contact Alex Boecher (507.281.2515 or aboecher@braunintertec.com).

Sincerely,

BRAUN INTERTEC CORPORATION

Alex Boecher
Nov 6 2019 4:11 PM

Alex Boecher, PE (MN)
Project Engineer

Jeremiah R. Hansen
Associate Principal – Senior Scientist

Attachment:
Phase II Environmental Site Assessment Report

Table of Contents

Description **Page**

Table of Contents (continued)

A. Introduction

A.1. Authorization

Braun Intertec Corporation received authorization from Mr. Pierce of Tower Investments LLC to conduct a Supplementary Environmental Site Assessment (ESA) of portion of the proposed Prairie Island Indian Community (PIIC) Community Development located at 2137 White Pines Road Southeast in Pine Island, Minnesota (Site), in accordance with the scope of services described in Braun Intertec's proposal dated August 20, 2019. The Supplementary ESA was prepared in association with the sale and potential redevelopment of the Site.

This Supplementary ESA was prepared on behalf of and for use by Tower Investments LLC and Prairie Island Indian Community in accordance with the contract between Tower Investments LLC and Braun Intertec. No other party has a right to rely on the contents of this report without the written authorization of Braun Intertec.

A.2. Project Objective

The objective of the Supplementary ESA was to further evaluate the extent of contamination found during a previous drilling investigation at the former Tank 1 basin (the trench drain tank) and evaluating how soil, groundwater, and/or soil vapor impacts may affect the planned redevelopment of the Site.

B. Site Background

B.1. Site Location and Description

The Site is located at 2137 White Pines Road Southeast, Pine Island, Minnesota (see Figure 1). The Site is located within the Section 7, Township 108 North, Range 14 West, in the city of Pine Island, Olmsted, Minnesota.

The Site is bordered on the north by cultivated cropland with East White Bridge Road located beyond; on the east by cultivated cropland with cultivated cropland located beyond; on the south by cultivated cropland with cultivated cropland located beyond; and the west by 59th Avenue Northwest with cultivated cropland located beyond. A Site Location Map is included as Figure 1 and a Site Sketch is included as Figure 2.The Site consists of a parcel totaling approximately 24 acres of cultivated cropland and farmland. The Site was previously operated as an elk farm.

B.2. Proposed Development

The PIIC has purchased a tract of land formerly owned by Tower Investments LLC totaling approximately 1,333-acres that includes the Site. The planned redevelopment of the land includes mixed commercial and residential use. This project encompasses a small portion of that larger tract of land.

B.3. Previous Site Investigations

PIIC Development Limited Phase II ESA

Braun Intertec conducted environmental monitoring during drilling of two of the twenty-eight (28) geotechnical soil borings in the vicinity of the known underground storage tank (UST) located near the cultivated cropland, north of the maintenance shop. The drilling was completed at the Site on November 27, 2018. The borings were completed by Braun Intertec using an ATV-mounted drill rig using hollow stem auger drilling techniques.

The soil borings, designated B-27 and B-28, were advanced to depths of 13 to 15.5 feet below ground surface (bgs), respectively. Soil samples were collected continuously from each soil boring using the split spoon sampling method. Braun Intertec monitored the samples for visual and olfactory indications of contamination, and screened the samples for organic vapors using a MiniRAE Lite photoionization detector (PID) equipped with a 10.6 electron-volt lamp.

No debris was observed to be intermixed with Site soils. No other evidence of contamination was observed, including staining, odors, or elevated organic vapor concentrations, as measured with the PID. All recorded soil headspace organic vapor concentrations were less than 1 parts per million (ppm) and were considered to be no higher than background concentrations.

In general, the soil borings encountered fill soil, consisting of sandy lean clay that extended to depths ranging from 0 to 2 feet bgs. The fill soil was underlain by glacial till, consisting of clayey sand and poorly graded sand with silt which extended to depths ranging from approximately 2 to 15.5 feet bgs. Groundwater was observed within the glacial till at depths ranging from approximately 13 to 15 feet bgs in boring B-27. Groundwater was not encountered in boring B-28.

In summary, no impacts were detected in the soil samples collected for laboratory analysis and no groundwater impacts were detected in the groundwater with the exception of diesel range organics (DRO) that was detected in the groundwater sample from B-27 at a concentration of 310 micrograms per liter (ug/L), which exceeded the provisional Minnesota Department of Health (MDH) Health based Value

(HBV) at that time for total petroleum hydrocarbons of 200 ug/L. The previous analytical results are included on Table 2 and 3.

A release was reported to the Minnesota Pollution Control Agency (MPCA) via the Minnesota Department of Public Safety, Division of Emergency Management (DEM) Duty Officer. Based on discussions with the MPCA, a spill or leak number was not assigned to the project since the UST was associated with the trench drains and was not a petroleum storage tank.

2019 General Excavation Report

Braun Intertec was retained by Tower Investments to observe the removal of two petroleum USTs (Tanks 1 and 2) and one non-petroleum UST (Tank 3) installed by the tenant and former owner, John Hoenhe. According to Mr. Hoenhe, the two tanks near the maintenance shop were used to store diesel fuel and later non-potable water and silage slurry. The tank to the north of the maintenance shop received trench drain run-off.

Between July 1 and July 8, 2019, the three USTs were removed by Zahl Petroleum Company. Braun Intertec collected confirmation samples from below each tank and screened excavated soil for evidence of contamination. The petroleum USTs were bedded in clean sand and no soil excavated exhibited field indications of petroleum impacts. Similarly, the trench drain tank was excavated with no signs of impacts in the surrounding soils. Soil samples collected from beneath each tank were analyzed for gasoline-range organics (GRO), diesel-range organics (DRO), and volatile organic compounds (VOCs). The results are summarized in the report titled *General Excavation Report Worksheet* (Project B1904864), dated October 31, 2019. The report identified the following:

- GRO was detected at 906 milligrams per kilogram (mg/kg) beneath Tank 2.
- No other analytes were detected above laboratory reporting limits.

The General Excavation Report recommended a Limited Site Investigation (LSI) to evaluate the extent of impacts related to the release detected beneath Tank 2.

2019 Limited Site Investigation

Braun Intertec conducted a LSI to evaluate the extent of impacts associated with the former UST basin for Tanks 1 and 2. Five soil borings were advanced in the area of the former tank basin. These borings generally encountered glacially-derived clays and silts and glaciofluvial sands. Groundwater was not encountered in any borings. Groundwater direction is unknown, but is likely towards the south.

No field indications of contamination were observed. Analytical soil samples were collected above the bedrock at the depth most likely to encounter migrating contamination. All soil samples collected during

this subsequent LSI were analyzed for VOCs, GRO, and DRO. No analytes were detected above laboratory reporting limits. Groundwater was not encountered and no samples were collected due to refusal on bedrock between 12 and 15 feet bgs. Two soil vapor samples were collected for analysis for VOCs. Several compounds were detected above laboratory reporting limits, but no samples exceeded their respective Residential ISVs. A vapor receptor survey was conducted of the surrounding area. Trench drains in the maintenance shop were examined for petroleum vapors. No receptors appeared impacted.

The LSI report indicated that the risk associated with the contamination appears minimal and recommended site closure.

B.4. Published Geologic Information

B.4.a. Topography

According to the United States Geological Survey (USGS) 7.5-minute topographic map series, Oronoco, Minnesota quadrangle, the Site is located at an elevation of approximately 1080 feet above mean sea level.

B.4.b. Geology

The surficial geology in the vicinity of the Site generally consists of sand, gravel, silt, and clay. The bedrock in the vicinity of the Site is generally Shakopee-Oneota and is consist with that of sandstone, dolomite, and limestone (Hobbs, 2000).

B.4.c. Hydrogeology

The static water level in the vicinity of the Site is approximately 116 feet below land surface (Minnesota Well Index).

According to the USGS 7.5-minute topographic map series, Oronoco, Minnesota quadrangle, the surface gradient in the vicinity of the Site is generally flat. The regional groundwater flow direction within the consolidated deposits in the vicinity of the Site may be generally to the south toward the Zumbro River. The local direction of groundwater flow may be affected by nearby streams, lakes, wells, and/or wetlands and may vary seasonally.

C. Scope of Services

The following tasks were conducted at the Site as part of this Supplemental ESA:

- Subcontracted a licensed drilling contractor to clear public utilities through Gopher State One Call and private utilities for the investigation locations.
- Subcontracted a licensed drilling contractor to complete soil borings, install temporary groundwater monitoring wells, and complete soil vapor probes.
- Advanced four environmental soil borings (GP-06 through GP-09) and collected soil samples.
- Installed four temporary monitoring wells in the four soil borings and collected groundwater samples.
- Completed one temporary soil vapor probe (VP-03) and collected soil vapor samples.
- Conducted environmental monitoring during drilling and screened soil samples collected from the borings for the presence of organic vapors using a PID. Visual and olfactory observations regarding potential contamination were also made and recorded.
- Analyzed representative samples of soil and groundwater for one or more of the following parameters: eight resource conservation and recovery act (RCRA) metals, volatile organic compounds (VOCs), DRO, and Gasoline Range Organics (GRO).
- Analyzed the soil vapor sample for VOCs.
- Evaluated the data and prepared this report.

This investigation work was conducted at the same time as a Limited Site Investigation (LSI) was conducted under a separate contract, which is why the investigation identifiers begin at GP-06 and SV-03.

C.1. Deviations from Work Plan/Proposal

Soil borings were proposed to depths of 15 -20 feet bgs; however, due to encountering refusal on bedrock, soil boring GP-06 was completed to a depth of 14 feet bgs and soil borings GP-08 and GP-09 were only completed to depths of 12 feet bgs.

D. Investigation Methods and Procedures

The field work relating to the investigation was conducted between September 5 and September 6, 2019. Prior to beginning the field investigation, public utilities were cleared through Gopher State One Call and private utilities were cleared through a subcontracted private utility locator.

Field methods and results are discussed in the following sections. Soil boring logs are provided in Appendix A, the laboratory analytical reports are provided in Appendix B, and Braun Intertec Standard Operating Procedures (SOPs) are provided in Appendix C.

The investigation locations are shown on Figure 3.

D.1. Soil Evaluation

D.1.a. Soil borings

Braun Intertec subcontracted Range Environmental Drilling of Hibbing, Minnesota, to advance 4 soil borings, designated as GP-06 through GP-09 at the Site to depths ranging from 12 to 17 feet bgs.

The soil borings were completed with a hydraulically-driven push-probe sampling rig. To collect the soil samples from the borings, a disposable thin-walled PVC liner was placed inside of a 5-foot long sampling tool. The borehole was then advanced using a dual-tube system, which allows for the inner sampling tool to be pushed through a larger outer-diameter rod a total penetration depth of up to 5 feet. After advancing the tooling, the sampler was removed from the borehole, but the outer rod remained, keeping the borehole open, and the soil sample was retrieved from the PVC liner for field screening and classification. The process was then repeated to the termination depths of the borings.

D.1.b. Soil Classification and Monitoring

Soils samples from the soil borings were visually and manually classified in the field by an environmental technician using ASTM D 2487 “Unified Soils Classification System” and ASTM D 2488 “Recommended Practice for Visual and Manual Description of Soils.”

Soil samples retrieved were examined by an environmental technician, who was a certified asbestos inspector by MDH, for unusual staining, odors, and other apparent signs of contamination. In addition, the soil samples were screened for the presence of organic vapors using a PID. The PID was equipped with a 10.6-electron-volt lamp and calibrated to an isobutylene standard. The PID was used to perform

direct measurement and a headspace method of field analyses, as recommended by the MPCA in Petroleum Remediation Program Guidance Document 4-04 (July 2018).

D.1.c. Soil Analyses

Selected soil samples were collected from the soil borings for laboratory analysis. Soil samples were collected from intervals where indications of contamination were observed in the field. If no indications of contamination were observed, the soil samples were collected from the depth most likely to be impacted based on the potential contaminant source.

Samples were submitted to Pace Analytical Services, LLC. (Pace) in Minneapolis, MN and analyzed for a combination of the following parameters:

- VOCs using United States Environmental Protection Agency (EPA) Method 8260
- GRO using the Wisconsin Department of Natural Resources (WDNR) Method
- DRO using the WDNR method

D.2. Groundwater Evaluation

Temporary monitoring wells were installed in soil borings GP-06 through GP-09 to evaluate groundwater conditions at the Site. The wells were permitted with the MDH.

After the soil borings were advanced 5 feet into the water table, temporary monitoring wells were constructed using 1-inch-diameter PVC riser and 5-foot long, 10-slot screens. The temporary monitoring wells were sampled using a length of new polyethylene tubing equipped with a check ball valve. Water samples retrieved were examined by the field technician for unusual odors, petroleum-like sheen, and other apparent signs of contamination. The groundwater samples were placed directly into laboratory supplied containers, preserved appropriately, and submitted to the laboratory for chemical analysis.

D.2.a. Groundwater Analyses

The groundwater samples collected from the temporary wells were submitted to Pace and analyzed for a combination of the following parameters:

- VOCs using EPA Method 8260
- GRO using the WDNR Method
- DRO using the WDNR Method

D.3. Soil Vapor Evaluation

D.3.a. Soil Vapor Probes

One temporary soil vapor probe (VP-03) was completed by Range Environmental. The soil vapor probe was advanced, using a hydraulically-driven push-probe rig, to a depth of 5 feet bgs and then retracted to a depth of 3 feet bgs. New, inert tubing was attached to the top of the downhole sampler, and the sampling point and tubing were purged with a hand pump to remove two volumes of air prior to sample collection. Following purging, organic vapor concentrations were screened with a PID and the value was recorded. The soil vapor samples were then collected using laboratory-supplied negative pressure air-sample collection canisters (6-liter canisters) equipped with 200 milliliter per minute (mL/min) flow restrictors in accordance with the MPCA guidelines. Following sample collection, the temporary sampling point was removed from the borehole, and the borehole was sealed in accordance with MDH guidelines.

The soil vapor samples were submitted to Pace and analyzed for the VOCs using EPA Method TO-15.

E. Investigation Results

E.1. Geologic Conditions

Soil boring logs with descriptions of the various soil strata encountered during the soil boring operations and water level information are contained in Appendix A. The depths shown as changes between the soil types are approximate. The actual changes may be transitional, and the transition depths are likely to be horizontally variable.

Alluvium soils, consisting primarily of clay and sand with gravel were encountered from the ground surface to depths of 1 to 4 feet bgs. Underlying the alluvium soil was apparent native soil consisting mainly of clayey sand, clay, and silt with gravel between depths of 2 to 17 feet bgs.

E.2. Hydrogeology

Groundwater was encountered between 5.5 and 11 feet bgs in all the soil borings. Groundwater was not observed during the tank removal and therefore may fluctuate regularly.

E.3. Field Screening

Soil recovered from the soil borings was screened by the field technician for evidence of contamination, including odors, staining, and the presence of debris. No odors, staining, or debris were observed in the soils recovered from the borings.

PID readings were recorded for soil samples collected from each borings. All PID readings were below 7 parts per million (ppm). Soil screening PID results are shown on Table 1 and included on the boring logs in Appendix A.

Groundwater samples were examined by the field technician for evidence of contamination, including unusual odors, petroleum-like sheen, and other apparent signs of contamination. No odors, petroleum-like sheen, or other apparent signs of contamination were observed.

E.4. Soil Analytical Results

This section provides a discussion of soil analytical results. A summary of the soil analytical results is provided in Table 2. The complete laboratory reports with chain-of-custody forms are included in Appendix B.

The soil analytical results can be compared with the Soil Reference Values (SRVs) and Screening Soil Leaching Values (SLVs) which are also listed on Table 2. SRVs and SLVs are allowable risk-based contaminant concentrations derived by the MPCA using risk assessment methodology, modeling, and risk management policy to guide investigation and cleanup actions. SRVs relate to direct-contact exposure scenarios and SLVs relate to potential leaching of contaminants to groundwater. Concentrations of contaminants in soil, SRVs, and SLVs are expressed in units of milligrams per kilogram (mg/kg).

No VOCs, DRO, or GRO were detected at concentrations greater than or equal to the laboratory reporting limits.

E.5. Groundwater Analytical Results

This section provides a discussion of the groundwater analytical results. A summary of the groundwater analytical results is provided in Table 3. For comparison purposes, Table 3 includes Drinking Water Criteria from the MDH Human Health-Based Water guidance. Drinking Water Criteria include MDH Health Risk Limits (HRLs), MDH Health Based Values (HBVs), MDH Risk Assessment Advice (RAA), and Maximum Contaminant Levels (MCLs) established by the Environmental Protection Agency (EPA).

Concentrations of contaminants in water and Drinking Water Criteria are expressed in units of micrograms per liter (µg/L). The complete laboratory reports with chain-of-custody forms are included in Appendix B.

No VOCs, DRO, or GRO were detected at concentrations greater than or equal to the laboratory reporting limits.

E.6. Soil Vapor Analytical Results

This section provides a discussion of the soil vapor analytical results. A summary of the soil vapor analytical results is provided in Table 4. The complete laboratory reports with chain-of-custody forms are included in Appendix B.

For comparison purposes, Table 4 includes Intrusion Screening Values (ISVs). ISVs were developed by the MPCA in coordination with the MDH as screening values for evaluating vapor intrusion risks from VOCs identified in indoor air. The potential for indoor air to be impacted by soil vapor intrusion can also be assessed using ISVs. Concentrations of VOCs in air or soil vapor and ISVs are expressed in units of micrograms per cubic meter ($\mu g/m^3$).

Per 2017 MPCA Vapor Investigation Document, soil vapor results are compared to 33X ISVs to assess vapor intrusion risk if building conditions are appropriate. According to the guidance, soil vapor concentrations greater than 33X ISVs indicate a vapor source with potential vapor intrusion risk is present. A Site with contaminant concentrations greater than 33X ISVs would typically require either mitigation or additional assessment of potential pathways and receptors to better quantify risks, which might include collection of sub-slab or indoor air samples.

No VOCs were detected at concentrations greater than Residential ISV.

E.7. Quality Assurance/Quality Control

Samples were placed in clean, laboratory supplied containers, preserved, labeled, and transported to the Pace Analytical laboratory under refrigerated conditions using chain-of-custody procedures. Analyses were performed using EPA or other recognized standard procedures.

A quality assessment of field procedures and analytical laboratory reports was performed to evaluate potential effects on data quality used to support project objectives. All applicable Braun Intertec SOPs

were followed as prescribed unless otherwise noted in this report. Notable findings are provided in more detail below and incorporated, where necessary, into this report.

A soil trip blank accompanied the investigative samples and was analyzed for GRO and VOCs. No contaminants were detected in the soil trip blank at concentrations greater than the laboratory method reporting limits with the exception of 1,2,3-Trichlorobenzene was detected in the method blank. Pace indicated that all associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit. A water trip blank accompanied the investigative samples and was analyzed for VOCs and GRO. No contaminants were detected in the groundwater trip blank at concentrations greater than the laboratory method reporting limits.

Pace noted that groundwater samples GP-06, GP-07, GP-08, and GP-09, which were analyzed for GRO and VOCs, had a post-analysis pH measurement that indicated insufficient sample preservation. The field notes indicated that the samples effervesced during collection which is typically due to the sediment in the sample when collecting samples from a temporary well. The field technician followed Braun Intertec SOPs, discarded the samples, rinsed out the vials, and recollected the samples without preservative.

In summary, data quality control items identified during the quality review were evaluated and all data collected are acceptable for use in this investigation for the intended purpose of identifying soil, groundwater, and soil vapor impacts within the Site.

F. Conclusions

Soil and groundwater impacts were not identified during this investigation or during the previously conducted tank removal sampling (B-5 and B-6) that will impact redevelopment. DRO was detected at a low concentration in groundwater in one of the previous soil borings (B-27) completed, however, based on the low concentration, lack of field indications of contamination, and lack of impacts detected in the other soil and groundwater samples collected for analysis, the DRO may be associated with organics and not indicative of petroleum impacts. Various concentrations of petroleum and non-petroleum VOCs were detected in soil vapor samples; however, no impacts were above the Residential ISVs. Based on investigations conducted associated with the petroleum UST basin for Tank 1 and Tank 2, GRO was detected in one soil sample at the top of bedrock below Tank 2.

G. Recommendations

Based on the results of this assessment and the previous investigation conducted at the Site, the following recommendations are provided:

- If a Petroleum No Action letter for the initial DRO that was detected in the water from the 2018 Phase II ESA is desired, Braun Intertec recommends that the Site be enrolled in the MPCA Petroleum Brownfields Program (PBP) to facilitate that request.

- We recommend preparing a Construction Contingency Plan (CCP) for the future development that will provide procedures for the management of impacted soil and groundwater that may be encountered. The CCP document should be submitted to the MPCA for review and approval.

H. Assessment Limitations

The analyses and conclusions submitted in this report are based on field observations and the results of laboratory analyses of soil samples, groundwater, and soil vapor samples collected from the soil borings and soil vapor probes completed for this project.

In performing its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

Appendices Available upon request

MPCA Letters

MINNESOTA POLLUTION CONTROL AGENCY

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

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June 10, 2020

John Pierce (electronic)
Elk Farm LLC c/o Tower Investments LLC
250 W Main St, Ste 101
Woodland CA 95695-3686

RE: Petroleum Tank Release Site File Closure
Site: Former Elk Farm, 2137 White Pine Rd SE, Pine Island, Olmsted County 55963
MPCA Site ID: LS0021034

Dear John Pierce:

The Minnesota Pollution Control Agency (MPCA) is pleased to let you know it has determined your investigation and/or cleanup have adequately addressed the petroleum tank release at the site (Site) listed above. Based on the information provided, the MPCA has closed the petroleum tank release site file.

The closure of the petroleum tank release site file means the MPCA does not require any additional investigation and/or cleanup work at this time or in the foreseeable future. Please be aware that file closure does not necessarily mean that all petroleum contamination has been removed from this Site. However, the MPCA has concluded that any remaining contamination, if present, does not appear to pose a threat to public health or the environment under current conditions.

The MPCA reserves the right to reopen this file and to require additional investigation and/or cleanup work if new information, changing regulatory requirements, or changed land use makes additional work necessary. If you or other parties discover additional contamination (either petroleum or non-petroleum) that was not previously reported, Minnesota state law requires that the MPCA be notified immediately.

You should understand this letter does not release any party from liability for the petroleum contamination under Minn. Stat. § 115C.021, subd. 1 or any other applicable state or federal law. In addition, this letter does not release any party from liability for non-petroleum contamination, if present, under Minn. Stat. § 115B, the Minnesota Environmental Response and Liability Act.

Please note that as a result of performing the requested work you may be eligible to apply to the Petroleum Tank Release Compensation Fund (Petrofund) for partial reimbursement of the costs you have incurred in investigating and cleaning up this petroleum tank release. The Petrofund is administered by the Petroleum Tank Release Compensation Board (Petro Board) and the Minnesota Department of Commerce. To learn more about who is eligible, the types of work, and the amount of reimbursement available, please contact the Petrofund at 651-539-1515 or 1-800-638-0418.

If future development of this property or the surrounding area is planned, it should be assumed that petroleum contamination may still be present. If petroleum contamination is encountered during future development work, the MPCA should be notified immediately.

Thank you for your response to this petroleum tank release and for your cooperation with the MPCA to protect public health and the environment. If you have any questions regarding this letter, please contact me at 651-757-2606 or by email at ryan.lundgren@state.mn.us, or the site's hydrogeologist Victor Henao at 651-757-2204 or by email at victor.henao@state.mn.us. Please reference the above MPCA Site ID in all correspondence. You may also reach the MPCA by calling 651-296-6300 or 1-800-657-3864.

Sincerely,

Ryan Lundgren

This document has been electronically signed.

Ryan Lundgren
Environmental Specialist
Remediation Division

Victor Henao

This document has been electronically signed.

Victor Henao
Hydrogeologist
Remediation Division

RL/VH:jmp

cc: Alex Boecher, Braun Intertec (electronic)
Kara Dennis, Minnesota Department of Health (electronic)

MINNESOTA POLLUTION CONTROL AGENCY

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

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June 18, 2020

John Pierce
Tower Investments LLC
250 Main St, Ste 101
Woodland, CA 95695-3686

RE: Petroleum No Action
Elk Farm, 2137 White Pines Rd SE, Pine Island
MPCA Site ID: BF0001337
MPCA Billing ID: 231602
PIN: 84.06.33.078539, 84.06.33.079565, 84.07.21.039660, 85.01.44.78533, 85.01.44.78534, 85.01.44.79565, 85.01.44.79566, 85.12.11.079570

Dear John Pierce:

The Minnesota Pollution Control Agency (MPCA) Brownfield staff have been requested to provide a review for petroleum release(s) identified at the Elk Farm, located at the address referenced above (Site). The MPCA reviewed the following documents:

- *Phase I Environmental Site Assessment* dated March 2018, prepared by WENCK Associates, Inc.
- *General Excavation Report Worksheet* dated October 31, 2019, prepared by Braun Intertec
- *Supplementary Environmental Site Assessment* dated November 6, 2019, prepared by Braun Intertec
- *Limited Phase II Environmental Site Assessment* dated December 20, 2018, prepared by Braun Intertec

Based on the information reviewed, Brownfield staff have determined that no additional action is required with regard to the petroleum release(s). A Petroleum No Action means that the extent and magnitude of the release(s) have been defined, and the identified contamination does not pose a risk to human health or the environment at this time. Therefore, no further investigation and/or response actions are requested.

You should understand this letter does not release any party from liability for the petroleum contamination under Minn. Stat. § 115C.021, subd. 1 or any other applicable state or federal law. In addition, this letter does not release any party from liability for non-petroleum contamination, if present, under Minn. Stat. § 115B, the Minnesota Environmental Response and Liability Act.

If future development of the Site or the surrounding area is planned, it should be assumed that petroleum contamination is present. Property with petroleum contamination to soil or groundwater may cause risks to future occupants. Brownfield staff can assist with environmental risk and development plan review, and will review and approve and/or modify your plan for property development. If contamination is encountered during future development work, the MPCA should be notified immediately.

This letter is subject to the disclaimers found in Attachment A. If you have any questions about the contents of this letter, please contact Ryan Lundgren, Project Manager, at 651-757-2606 or by email at ryan.lundgren@state.mn.us.

Sincerely,

Ryan Lundgren

This document has been electronically signed.

Ryan Lundgren
Environmental Specialist
Remediation Division

Victor Henao

This document has been electronically signed.

Victor Henao
Hydrologist
Remediation Division

RL/VH:svdw

Enclosure

cc: Alex Boecher, Braun Intertec

Attachment A

Disclaimers
Elk Farm
MPCA Site ID: BF0001337
PIN: 84.06.33.078539, 84.06.33.079565, 84.07.21.039660, 85.01.44.78533, 85.01.44.78534, 85.01.44.79565, 85.01.44.79566, 85.12.11.079570

1. Reservation of authorities

   The Minnesota Pollution Control Agency (MPCA) Commissioner reserves the authority to take any appropriate actions with respect to any release, threatened release, or other conditions at the Site. The MPCA Commissioner also reserves the authority to take such actions if the voluntary party does not proceed in the manner described in this letter or if actions taken or omitted by the voluntary party with respect to the Site contribute to any release or threatened release, or create an imminent and substantial danger to public health and welfare.

2. No MPCA assumption of liability

   The MPCA, its Commissioner, and staff do not assume any liability for any release, threatened release or other conditions at the Site or for any actions taken or omitted by the voluntary party with regard to the release, threatened release, or other conditions at the Site, whether the actions taken or omitted are in accordance with this letter or otherwise.

3. Letter based on current information

   All statements, conclusions, and representations in this letter are based upon information known to the MPCA Commissioner and staff at the time this letter was issued. The MPCA Commissioner and staff reserve the authority to modify or rescind any such statement, conclusion or representation and to take any appropriate action under his authority if the MPCA Commissioner or staff acquires information after issuance of this letter that provides a basis for such modification or action.

4. Disclaimer regarding use or development of the property

   The MPCA, its Commissioner, and staff do not warrant that the Site is suitable or appropriate for any particular use.

5. Disclaimer regarding investigative or response action at the property

   Nothing in this letter is intended to authorize any response action under Minn. Stat. § 115B.17, subd. 12.

6. This approval does not supplant any applicable state or local stormwater permits, ordinances, or other regulatory documents.