

Agency Correspondence

From: [Mixon, Kevin \(DNR\)](#)
To: [Joe Sedarski](#)
Cc: [Benage, Megan \(DNR\)](#); [Joyal, Lisa \(DNR\)](#)
Subject: RE: Bitter Root Wind Project - Calcareous Fen Questions
Date: Friday, June 10, 2016 4:02:21 PM
Attachments: [image001.jpg](#)
[111d_CalcareousFensIdentification-Plants.pdf](#)
[Calc fen fact sheet_Feb08-nr.pdf](#)
[CalcFen_Tech Criteria_rev april05.pdf](#)

Joe:

I inserted some quick answers to your questions (red) into your email. I will be in the office Monday-Wednesday of next week if you have additional questions. If I am not in or if you have very technical questions concerning calcareous fens you can contact Megan Benage of our staff. Megan is the Region 4 Regional Ecologist who has worked extensively with calcareous fens in recent years.

Attached are a few reference documents for your use.

Thanks,

Kevin

From: Joe Sedarski [<mailto:jsedarski@merjent.com>]
Sent: Friday, June 03, 2016 12:58 PM
To: Mixon, Kevin (DNR)
Cc: Sean Flannery; Jeff Jackson; tmattson@west-inc.com; Brie Anderson; Anne-Marie Griger
Subject: Bitter Root Wind Project - Calcareous Fen Questions

Dear Kevin,

Thanks for sending the MnDNR Preliminary Review Letter (dated May 3, 2016) regarding the Bitter Root Wind Project (Project). Regarding calcareous fens (CFs) (see bottom of page 2 in the letter) and your comments during the April 29, 2016 meeting, we have the following questions:

1. We have the current listing of 7 known CFs located within the Project boundary in Yellow Medicine County (attached pdf, page 8) and MnDNR data for such (see <https://gisdata.mn.gov/dataset/biota-nhis-calcareous-fens>), which includes CF Point Location Dataset (points on map) and MnDNR Native Plant Communities Dataset (polygons). Can you confirm this is the most current data and maps for the 7 CFs or send us the most current data/maps?
2. With the locations and boundaries of known CFs within the Project boundary, we assume there is no need to conduct further work regarding re-delineation of these known CFs. Can you confirm that?

Correct the known CF's do not need to be delineated or surveyed.

3. During the April 29th, 2016, kick-off meeting with you, you mentioned the MnDNR has a list of possible CFs (in addition to the known CFs indicated in item 1 above) within or nearby the Project boundary. After that meeting, you were going to check with your colleagues on making that information available to us for use for this Project. Can you

confirm you will provide any further data to identify possible CFs for our use?

We checked and we do not have any additional locational information for CF's in the Bitter Root project area.

4. The letter indicates avoidance relates to both direct impacts and any type of construction that could alter CF hydrology or degrade water quality. What is the process or criteria we can use to determine how we should evaluate these potential indirect impacts? For your information, generally the construction activities do not extend more than 10-15 feet into the ground for turbine foundations, and much less for access roads, collection lines, etc. Surface water issues during construction will additionally be addressed with NPDES construction stormwater permitting, SWPPP, BMPs, etc.

The MNDNR would review the shapefiles for the preliminary layout of turbines, transmission lines, collector lines, crane paths, substations, access roads, and any other facilities construction in relation to CF's . We would need a map of the preliminary layout that includes the locations of CF's.

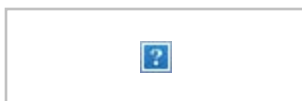
5. The letter indicates that wetland surveys need to be conducted by CF experienced consultants, and that CF identification criteria must be used. Can you clarify if this means that ALL wetlands (or potential wetlands) within the Project boundary need to be evaluated by a CF experienced consultant, or if only those potential CF wetlands (list you have) apply to this work? In other words, will RES need to make determination that any given wetland is not a CF within the Project boundary?

If a wetland has potential as a CF then it needs to be evaluated by a CF experienced consultant. The consultant would need to have direct experience in identifying CF indicator plants in order to score it. The MNDNR would review the consultants work.

You may also want to review the Wetland Conservation Act Chapter 8420.0935 in regards to Standards and Criteria For Identification, Protection, and Management of Calcareous Fens.

RES plans to avoid CFs to the extent possible, and is taking into account MnDNR concerns, data, and requirements in the siting/routing process currently underway. Your responses will assist us with finalizing the scope of work needed to address CFs regarding the Project during this field season. Since June and August are survey months for CFs, we will need your help to clarify what the MnDNR needs for this Project and appreciate your timely response to this email.

Best Regards,
Joe



Joe Sedarski

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From: [Mixon, Kevin \(DNR\)](#)
To: [Joe Sedarski](#)
Cc: [Steinhauer, Suzanne \(COMM\)](#); [Davis, Richard \(COMM\)](#); [Sean Flannery](#); [Anne-Marie Griger](#); [Peter Rood](#); [John Seaberg](#); [Todd Mattson](#); [Norris, Doug J \(DNR\)](#); [Sehl, Jim F \(DNR\)](#); [Joyal, Lisa \(DNR\)](#); [Warzecha, Cynthia \(DNR\)](#); [Benage, Megan \(DNR\)](#); [Andrews, Keylor \(DNR\)](#)
Subject: RE: Bitter Root Wind Project - Calcareous Fen Matters
Date: Friday, December 16, 2016 8:07:42 AM
Attachments: [image002.jpg](#)

Joe:

The Minnesota Department of Natural Resources (MNDNR) has reviewed the Calcareous Fen Survey Report (Report) for the Bitter Root Large Wind Energy Conversion System. We find the protocols outlined in the Report should have identified calcareous fens located within the project boundary. The MNDNR recommends that the Public Utilities Commission Site Permit include a section outlining the process and results from the calcareous fen surveys. A map should be included that shows the calcareous fen locations in relation to all infrastructure (turbines, collector lines, crane paths, access roads, laydown areas, substations, etc.) associated with the project. In addition, the Site Permit should discuss how the calcareous fens will be avoided. Avoidance would include strict adherence to erosion control and assurances that pumping of any water from the construction sites will be directed away from the calcareous fens. If the developer can agree that no direct impacts and no sub-surface soil disturbance will occur within 500 feet of the calcareous fens then the MNDNR will agree that avoidance has been achieved and no further coordination is required. In absence of the prior agreement, the MNDNR will evaluate the final project plans for potential impacts to calcareous fens and will provide a determination on whether a Calcareous Fen Management Plan (CFMP) will be required, per our authority under Minnesota Statutes 103G.223. Keep in mind that the development of a CFMP may require additional survey work and it can take a considerable amount of time to complete.

A response to this email indicating what direction will be taken would be appreciated. Please contact me if you need to further discuss how to address the presence of the calcareous fens.

Thanks,

Kevin
507-359-6073

From: Joe Sedarski [mailto:jsedarski@merjent.com]
Sent: Wednesday, November 30, 2016 8:17 AM
To: Mixon, Kevin (DNR) <kevin.mixon@state.mn.us>
Cc: Steinhauer, Suzanne (COMM) <suzanne.steinhauer@state.mn.us>; Davis, Richard (COMM) <Richard.Davis@state.mn.us>; Sean Flannery <Sean.Flannery@res-group.com>; Anne-Marie Griger <Anne-Marie.Griger@res-group.com>; Peter Rood <Peter.Rood@res-americas.com>; John Seaberg <jseaberg@merjent.com>; Todd Mattson <tmattson@west-inc.com>
Subject: RE: Bitter Root Wind Project - Calcareous Fen Matters

... and here is the second with the last 37 pages of said report.

Thanks,

Joe

merjent

Joe Sedarski

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800 Washington Avenue N. 612.924.3981 direct
Suite 315 612.214.6658 cell
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jsedarski@merjent.com

From: Joe Sedarski

Sent: Wednesday, November 30, 2016 8:13 AM

To: 'Mixon, Kevin (DNR)' <kevin.mixon@state.mn.us>

Cc: 'Steinhauer, Suzanne (COMM)' <suzanne.steinhauer@state.mn.us>; 'Davis, Richard (COMM)' <Richard.Davis@state.mn.us>; 'Sean Flannery' <Sean.Flannery@res-group.com>; 'Anne-Marie Griger' <Anne-Marie.Griger@res-group.com>; 'Peter Rood' <Peter.Rood@res-americas.com>; John Seaberg <jseaberg@merjent.com>; 'Todd Mattson' <tmattson@west-inc.com>

Subject: RE: Bitter Root Wind Project - Calcareous Fen Matters

Good morning Kevin and all – apologies for multiple emails on this matter. We tried emailing the referenced report yesterday (about 23 MB), but it did not get through to you, Suzanne and Richard (limit appears to be around 25 MB and notice said the message was 30 MB).

Attached is the first 20 pages and I'll send the second 20 pages right after this email.

Please let us know if you have any questions or problems with the attached document.

Best,

Joe

merjent

Joe Sedarski

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jsedarski@merjent.com

From: Joe Sedarski

Sent: Tuesday, November 29, 2016 3:45 PM

To: 'Mixon, Kevin (DNR)' <kevin.mixon@state.mn.us>

Cc: 'Steinhauer, Suzanne (COMM)' <suzanne.steinhauer@state.mn.us>; 'Davis, Richard (COMM)' <Richard.Davis@state.mn.us>; 'Sean Flannery' <Sean.Flannery@res-group.com>; 'Anne-Marie Griger' <Anne-Marie.Griger@res-group.com>; Peter Rood <Peter.Rood@res-americas.com>; John Seaberg <jseaberg@merjent.com>; 'Todd Mattson' <tmattson@west-inc.com>

Subject: RE: Bitter Root Wind Project - Calcareous Fen Matters

Dear Kevin,

This e-mail is follow-up to the August 11, 2016 e-mail that I sent you regarding the early season phase of the calcareous fen field survey for the Bitter Root Wind Project (Project). Subsequent to the early season survey work, we have completed the late season survey as required by MN DNR. The attached Calcareous Fen Survey Report includes the results of both the early and late season surveys. The late season field survey was conducted for sites that were determined to be potential calcareous fens in the early season field survey, as well as new potential calcareous fen sites that were not previously surveyed based upon the results of the early season field survey and updated site layout revisions of the Project. Please let us know if you have any questions or comments on the attached Calcareous Fen Survey Report.

Also, please note that we also conducted wetland/waterbody surveys for the project this fall, and are currently summarizing the results in a report that we anticipate submitting to you for review in the near future. We would like to schedule a meeting with the MN DNR shortly thereafter to review both the calcareous fen and wetland/waterbody data.

If you have any questions or comments, please contact me. We appreciate your assistance and involvement with the Project.

Best,
Joe

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jsedarski@merjent.com

From: Joe Sedarski

Sent: Thursday, August 11, 2016 11:41 AM

To: Mixon, Kevin (DNR) <kevin.mixon@state.mn.us>

Cc: Steinhauer, Suzanne (COMM) <suzanne.steinhauer@state.mn.us>; Davis, Richard (COMM) <Richard.Davis@state.mn.us>; Sean Flannery <Sean.Flannery@res-group.com>; Anne-Marie Griger <Anne-Marie.Griger@res-group.com>; Jeff Jackson <Jeff.Jackson@res-group.com>; John Seaberg <jseaberg@merjent.com>; Todd Mattson <tmattson@west-inc.com>

Subject: Bitter Root Wind Project - Calcareous Fen Matters

Dear Kevin,

Please find attached the preliminary Calcareous Fen (CF) Survey Report for the Bitter Root Wind Project (Project) for your review. Note this work was conducted on a preliminary site layout and that follow up CF desktop and field review is being conducted on a revised site layout.

We are planning to conduct the 2nd round/late season CF plant surveys this coming week on Aug. 15-16, 2016, and are completing the desktop work on the revised Project layout at this time. For the late season field review, we are not planning to revisit sites evaluated during the early season field review that were determined not to be potential CFs. We do plan to revisit sites that were determined to be potential CFs in the early season field review, as well as field review any new potential CF sites based upon the revised site layout of the Project that were not evaluated in the early season effort. We request MN DNR review and concurrence with this approach, to be applied to the late season field work to be done Aug. 15-16 and other subsequent fen evaluation that may be necessary.

Upon completion of the 2nd season field review, a report will be prepared (similar to the attached report) and submitted to the MN DNR. Wetland/Waterbody surveys are being scheduled for this month. Once that work is completed, we would like to schedule a meeting with the MN DNR in early September to review CF and wetland/waterbody data and provide updates to the MN DNR on those matters. We would appreciate it if you could let us know some dates/times you are available for a meeting in early September.

If you have any questions or comments, please contact me or respond to all on this email. We appreciate your assistance and involvement with the Project.

Best,
Joe



Joe Sedarski

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From: [Mixon, Kevin \(DNR\)](#)
To: [Joe Sedarski](#)
Cc: [Anne-Marie Griger](#); [Sean Flannery](#); [Michelle Matthews](#); [Jim Arndt](#); [Benage, Megan \(DNR\)](#)
Subject: RE: RES Bitter Root Wind Project - Calcareous Fen Follow Up
Date: Tuesday, August 22, 2017 8:51:56 AM
Attachments: [image002.jpg](#)

Joe:

The MNDNR is in agreement with your methods and desktop review for calcareous fens in the areas that were not reviewed in 2016. Please proceed to review the 10 potential calcareous fens in the field. We appreciate the high level of coordination that has occurred on this issue.

Thanks,

Kevin

From: Joe Sedarski [mailto:jsedarski@merjent.com]
Sent: Thursday, August 17, 2017 2:52 PM
To: Mixon, Kevin (DNR) <kevin.mixon@state.mn.us>
Cc: Anne-Marie Griger <Anne-Marie.Griger@res-group.com>; Sean Flannery <Sean.Flannery@res-group.com>; Michelle Matthews <Michelle.Matthews@res-group.com>; Jim Arndt <jarndt@merjent.com>
Subject: RES Bitter Root Wind Project - Calcareous Fen Follow Up

Good afternoon Kevin,

On behalf of RES Americas, we are following up with you on the calcareous fen review for the Bitter Root Wind Project following the meeting on July 26th, 2017.

First of all, thanks for your email on July 31, 2017, indicating that the MnDNR has further reviewed the existing calcareous fen across 210th Avenue from the proposed Project access road, and that the MnDNR agrees that the access road in this location should not impact the fen, and avoidance of potential impacts to the fen has been achieved.

Also, please see attached kmz regarding culvert locations to address question during the July 26th meeting – RES America confirms there are two culverts on 201th Avenue in this area.

Secondly, as discussed during the July 26, 2017, meeting, RES/Merjent conducted a desktop review of potential calcareous fens in areas associated with the current Project site layout which were not reviewed in 2016. Jim Arndt with Merjent conducted a desktop review the same protocols used in 2016. We request your review of the attached information and summary of the desktop data and response to our recommendations for conducting late season calcareous fen field review by the end of August.

A brief summary of the desktop review follows:

- 50 wetland areas were examined within the 500 foot buffer areas of the current 2017 Project site layout construction corridors.
- No areas were double counted with the exception of “Site 13 FenCheck++ 0817” which, though portions of which are outside of the 2016 footprint, was checked by MNR during the 2016 field survey (referred to as BR32 in 2016 report). Because this was reviewed in 2016, no further review of Site 13 is recommended.
- Merjent looked at everything except for obvious farmed wetland. All wetland areas were examined for offsite fen indicator features, including topographic anomalies (based on 2’ contour interval LiDAR Data) indicative of the presence of sloping peatland, peat domes, and groundwater spring heads and spring runs, national wetlands inventory (NWI) data, and air photo interpretation of a number of photo years from 1991 to 2015 to assess land use and surface water hydrology. If an area had any indicators of potential calcareous fen regardless of how subtle the expression, it was included as an area requiring field assessment.
- A total of 10 areas were identified as new areas within the 2017 footprint requiring a field survey; however, only two sites (15 FenCheck 0817 and 50 FenCheck 0817) are anticipated to have significant potential for calcareous fen. These ten areas include Sites 7, 10, 12, 15 (three locations), 17, 18, 22, and 50, as indicated in the attached kmz and shapefiles.
- The remainder do not have any offsite evidence of calcareous fen, e.g. sloping peatland, peat domes or topographic anomalies, spring head spring run discharge, etc.

Based upon this information, we recommend that ten identified locations be field reviewed for calcareous fens. Field survey protocols for this effort will be the same as we used in 2016. After the field survey is completed, we will prepare a report with the findings and provide to the MnDNR. This information will also be used, as necessary, for possible changes to the site layout.

Because the late season survey window for calcareous fens is closing at the end of August, we appreciate your review and response to this email so that we can get this done if you are in agreement with this recommendation.

Best Regards,
Joe



Joe Sedarski

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To: [Joe Sedarski](#)
Cc: [Anne-Marie Griger](#); [Sean Flannery](#); [Michelle Matthews](#); [Jim Arndt](#); [Benage, Megan \(DNR\)](#); [Scott A. Milburn](#); [Warzecha, Cynthia \(DNR\)](#)
Subject: RE: RES Bitter Root Wind Project - Calcareous Fen Follow Up
Date: Wednesday, September 6, 2017 2:17:17 PM
Attachments: [image002.jpg](#)

Joe:

Thanks for the update and coordination on this issue. We have no comments or concerns at this time and we look forward to receiving the combined report.

Kevin

From: Joe Sedarski [mailto:jsedarski@merjent.com]
Sent: Wednesday, August 30, 2017 10:44 AM
To: Mixon, Kevin (DNR) <kevin.mixon@state.mn.us>
Cc: Anne-Marie Griger <Anne-Marie.Griger@res-group.com>; Sean Flannery <Sean.Flannery@res-group.com>; Michelle Matthews <Michelle.Matthews@res-group.com>; Jim Arndt <jarndt@merjent.com>; Benage, Megan (DNR) <megan.benage@state.mn.us>; Scott A. Milburn <scott.milburn@mnrinc.us>
Subject: RE: RES Bitter Root Wind Project - Calcareous Fen Follow Up

Good morning Kevin, and all:

Quick update – on this past Monday (Aug 28, 2017) Scott with MNR conducted field review of the potential sites flagged by Jim Arndt in current site layout areas that are new/updated for the Bitter Root Wind Project. None of the sites had indication of calcareous fens.

Note that we did not field review 7 FenCheck (it is located in South Dakota and Project is no longer in SD), nor 15 FenCheck sites located at USFWS lands (Project will not impact these lands), or 17 FenCheck site (landowner has not signed up for the Project and Project will not impact this parcel).

We are preparing a report that will compile applicable 2016 and 2017 desktop and field review information relative to the current site layout which will correspond to the site layout to be included in the Site Permit Application.

Please let us know if any questions or comments regarding this update.

We appreciate your assistance with these matters.

Best Regards,
Joe

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From: Mixon, Kevin (DNR) [<mailto:kevin.mixon@state.mn.us>]
Sent: Tuesday, August 22, 2017 8:52 AM
To: Joe Sedarski <jsedarski@merjent.com>
Cc: Anne-Marie Griger <Anne-Marie.Griger@res-group.com>; Sean Flannery <Sean.Flannery@res-group.com>; Michelle Matthews <Michelle.Matthews@res-group.com>; Jim Arndt <jarndt@merjent.com>; Benage, Megan (DNR) <megan.benage@state.mn.us>
Subject: RE: RES Bitter Root Wind Project - Calcareous Fen Follow Up

Joe:

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Thanks,

Kevin

From: Joe Sedarski [<mailto:jsedarski@merjent.com>]
Sent: Thursday, August 17, 2017 2:52 PM
To: Mixon, Kevin (DNR) <kevin.mixon@state.mn.us>
Cc: Anne-Marie Griger <Anne-Marie.Griger@res-group.com>; Sean Flannery <Sean.Flannery@res-group.com>; Michelle Matthews <Michelle.Matthews@res-group.com>; Jim Arndt <jarndt@merjent.com>
Subject: RES Bitter Root Wind Project - Calcareous Fen Follow Up

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On behalf of RES Americas, we are following up with you on the calcareous fen review for the Bitter Root Wind Project following the meeting on July 26th, 2017.

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Also, please see attached kmz regarding culvert locations to address question during the July 26th meeting – RES America confirms there are two culverts on 201th Avenue in this area.

Secondly, as discussed during the July 26, 2017, meeting, RES/Merjent conducted a desktop review of potential calcareous fens in areas associated with the current Project site layout which were not reviewed in 2016. Jim Arndt with Merjent conducted a desktop review the same protocols used in 2016. We request your review of the attached information and summary of the desktop data and response to our recommendations for conducting late season calcareous fen field review by the end of August.

A brief summary of the desktop review follows:

- 50 wetland areas were examined within the 500 foot buffer areas of the current 2017 Project site layout construction corridors.
- No areas were double counted with the exception of “Site 13 FenCheck++ 0817” which, though portions of which are outside of the 2016 footprint, was checked by MNR during the 2016 field survey (referred to as BR32 in 2016 report). Because this was reviewed in 2016, no further review of Site 13 is recommended.
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- A total of 10 areas were identified as new areas within the 2017 footprint requiring a field survey; however, only two sites (15 FenCheck 0817 and 50 FenCheck 0817) are anticipated to have significant potential for calcareous fen. These ten areas include Sites 7, 10, 12, 15 (three locations), 17, 18, 22, and 50, as indicated in the attached kmz and shapefiles.
- The remainder do not have any offsite evidence of calcareous fen, e.g. sloping peatland, peat domes or topographic anomalies, spring head spring run discharge, etc.

Based upon this information, we recommend that ten identified locations be field reviewed for calcareous fens. Field survey protocols for this effort will be the same as we used in 2016. After the field survey is completed, we will prepare a report with the findings and provide to the MnDNR. This information will also be used, as necessary, for possible changes to the site layout.

Because the late season survey window for calcareous fens is closing at the end of August, we appreciate your review and response to this email so that we can get this done if you are in agreement with this recommendation.

Best Regards,
Joe



Joe Sedarski

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From: [Scott A. Milburn](#)
To: megan.benage@state.mn.us; kevin.mixon@state.mn.us
Cc: [Joe Sedarski](#)
Subject: Bitterroot Fen data
Date: Wednesday, September 20, 2017 4:32:20 PM
Attachments: [BitterrootFens_DNRFormat.zip](#)

Hi Megan,

This is the fen data for the Bitterroot Project. I am working directly with Jason Johnson to incorporate this into the overall database. The attached is just for your reference.

Two of the five sites are revisits to known sites. You will see in the notes that I updated the condition of the sites that Fred Harris had evaluated. I believe that he had a data entry error based on what I saw in the field and also based on his relevé description.

This would be for BR22 and BR32. He had BR22 as moderate, but this fen is in great shape and dominated by *R. capillacea*. I have not seen anything like that in my experience. BR32 was listed as high quality by Fred, but has issues with cattails and there are no listed species.

Please call if you have questions.

Scott

612.310.6260

From: [Mixon, Kevin \(DNR\)](#)
To: [Sean Flannery](#)
Cc: [Joe Sedarski](#); [Benage, Megan \(DNR\)](#)
Subject: Bitter Root LWECS-Calcareous Fen Shapefiles
Date: Wednesday, September 20, 2017 12:46:25 PM
Attachments: [image001.jpg](#)

Sean:

We were wondering if the polygon shapefiles for the new candidate calcareous fens are available. Our Regional Ecologist needs them so we can load the polygons into our Natural Heritage data. Can you or your consultants provide that information as we would greatly appreciate it.

What is the status of the project?

Thanks,

Kevin

From: Sean Flannery [mailto:Sean.Flannery@res-group.com]
Sent: Monday, July 31, 2017 11:57 AM
To: Mixon, Kevin (DNR) <kevin.mixon@state.mn.us>
Cc: Joyal, Lisa (DNR) <lisa.joyal@state.mn.us>; Warzecha, Cynthia (DNR) <cynthia.warzecha@state.mn.us>; Steinhauer, Suzanne (COMM) <suzanne.steinhauer@state.mn.us>; Davis, Richard (COMM) <richard.davis@state.mn.us>; Joe Sedarski <jsedarski@merjent.com>; Anne-Marie Griger <Anne-Marie.Griger@res-group.com>; Brie Anderson <banderson@merjent.com>
Subject: RE: Bitter Root LWECS-Calcareous Fen

Thanks Kevin,

We will be in touch as we continue to put our materials together from the various surveys efforts in the project area.

Sean

Sean Flannery
Director, Permitting, Americas

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Sean.Flannery@res-group.com | www.res-group.com



From: Mixon, Kevin (DNR) [<mailto:kevin.mixon@state.mn.us>]

Sent: Monday, July 31, 2017 11:48 AM

To: Sean Flannery

Cc: Joyal, Lisa (DNR); Warzecha, Cynthia (DNR); Steinhauer, Suzanne (COMM); Davis, Richard (COMM)

Subject: Bitter Root LWECS-Calcareous Fen

Sean:

Our agency has further reviewed the existing calcareous fen that is across the road (210th Ave.) from the access road leading to the two proposed turbines that we discussed at the July 26, 2017 meeting. We agree that the access road at its current location shouldn't impact the calcareous fen and avoidance of potential impacts to the other calcareous fens has been achieved. The MNDNR appreciates the level of coordination that has occurred and efforts to avoid impacts to calcareous fens. Please contact me directly if you have any further questions.

Kevin

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From: [Mixon, Kevin \(DNR\)](#)
To: [Joe Sedarski](#)
Cc: [Anne-Marie Griger](#); [Michelle Matthews](#); [Sean Flannery](#); [Scott A. Milburn](#); [Jim Arndt](#); [Warzecha, Cynthia \(DNR\)](#)
Subject: RE: Bitter Root Wind Project - Follow up Calcareous Fen Question and Review
Date: Friday, September 29, 2017 9:18:12 AM
Attachments: [image001.gif](#)

Joe:

The MNDNR agrees that locating a collection line on the south side of 180th Avenue would not be considered an impact to the fen located approximately 218 feet north of 180th Avenue.

Thanks

From: Joe Sedarski [mailto:jsedarski@merjent.com]
Sent: Thursday, September 28, 2017 1:14 PM
To: Mixon, Kevin (DNR) <kevin.mixon@state.mn.us>
Cc: Anne-Marie Griger <Anne-Marie.Griger@res-group.com>; Michelle Matthews <Michelle.Matthews@res-group.com>; Sean Flannery <Sean.Flannery@res-group.com>; Scott A. Milburn <scott.milburn@mnrinc.us>; Jim Arndt <jarndt@merjent.com>
Subject: Bitter Root Wind Project - Follow up Calcareous Fen Question and Review

Good afternoon Kevin,

While putting together the compiled calcareous fen report for the Bitter Root Wind Project, we identified a second fen (BR25) located within the 500 foot buffered survey corridor (see attached jpg). As shown in the figure, a proposed collection line would be installed within about 218 feet of fen BR25, which is located on the north side of 180th Avenue. Please note the proposed collection line would be trenched in along the south side of 180th Avenue.

Similar to your earlier previous review of MN DNR fen Fortier 5 (BR32), which is located about 120 from the construction corridor for a proposed access road that would be installed south of 210th Avenue (see attached jpg), could you also review BR25 and let us know if concerns or if potential impacts to this fen has been achieved as well?

Once we have this determination, we'll finalize the fen report and submit to you.

Please contact us with any questions or comments regarding this matter and thanks in advance for your review.

Best,
Joe



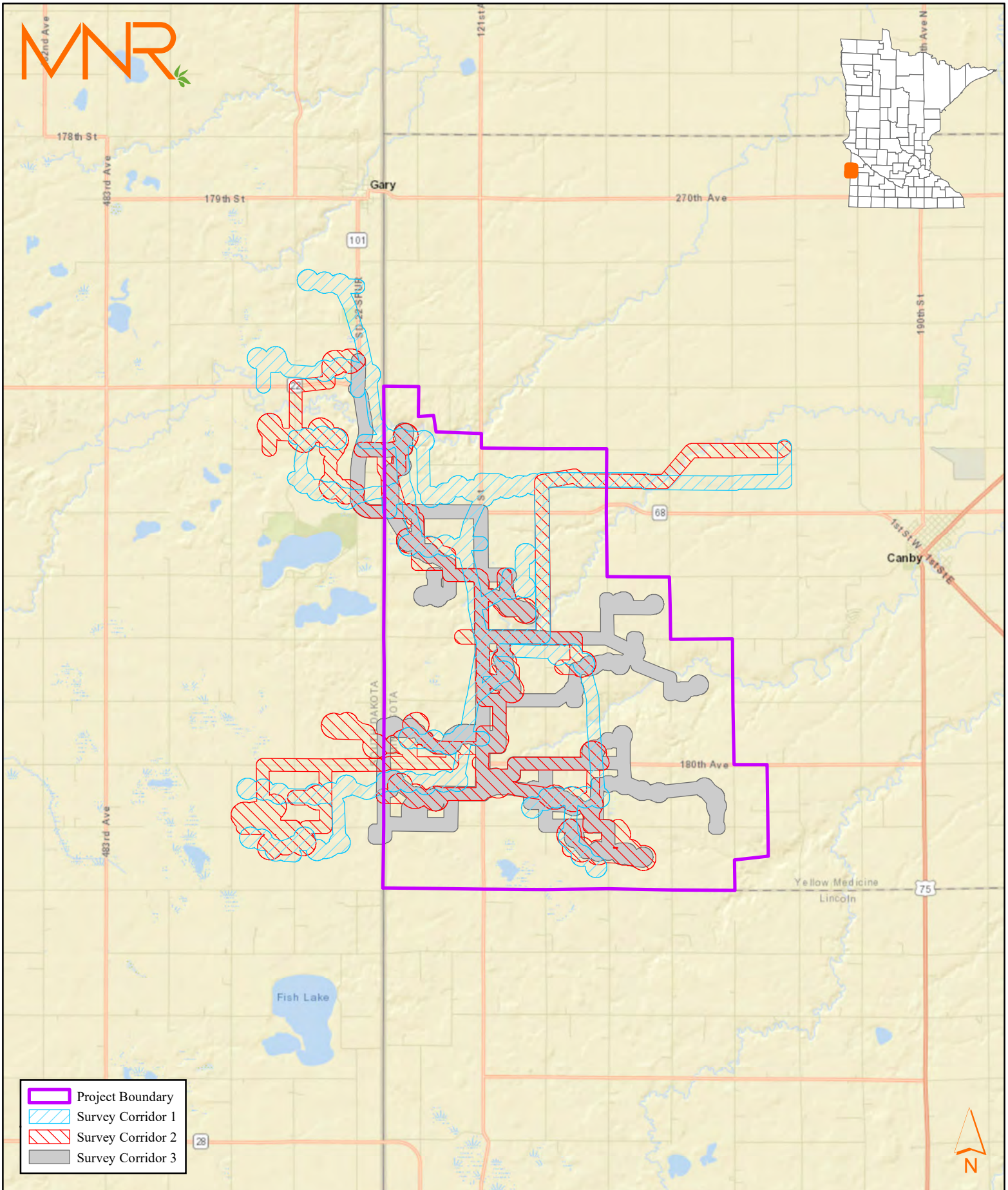
Joe Sedarski

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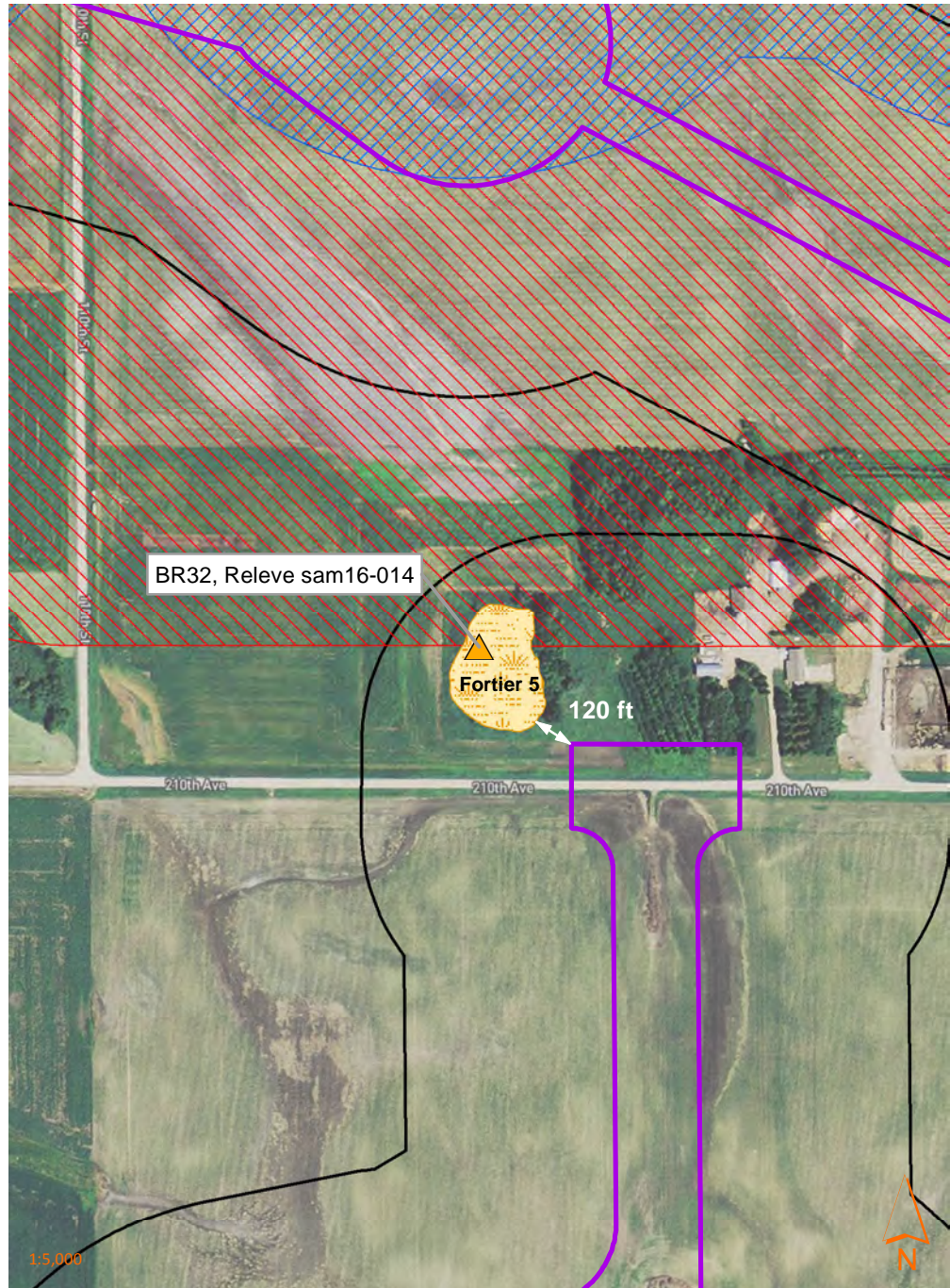
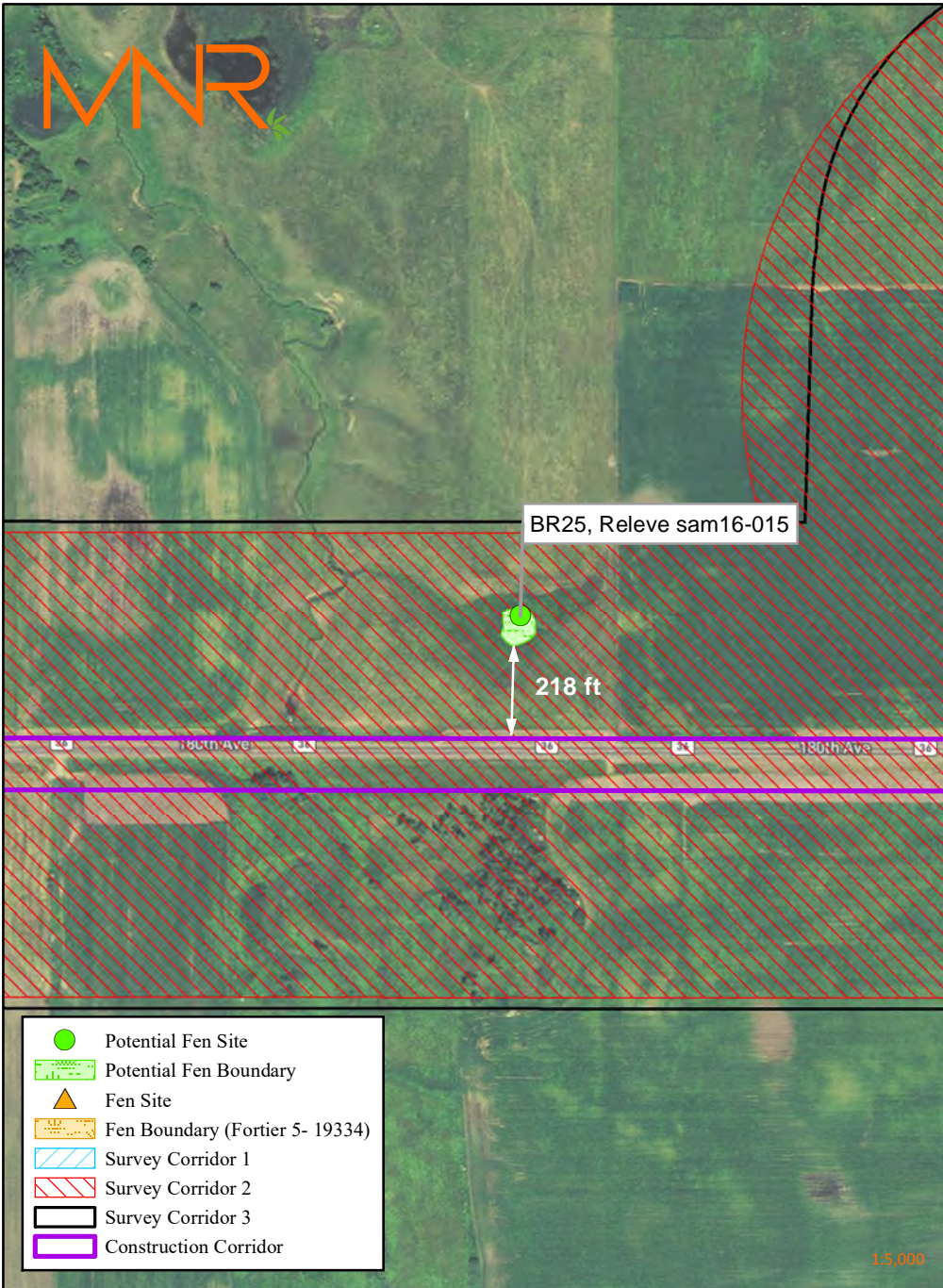


Source: Esri World Street Map, US Census, Date: 8/29/2017

Project Location and Survey Corridor Overview
Bitter Root Wind Project
Calcareous Fen Evaluation
Yellow Medicine County, MN

Figure 1

MNR

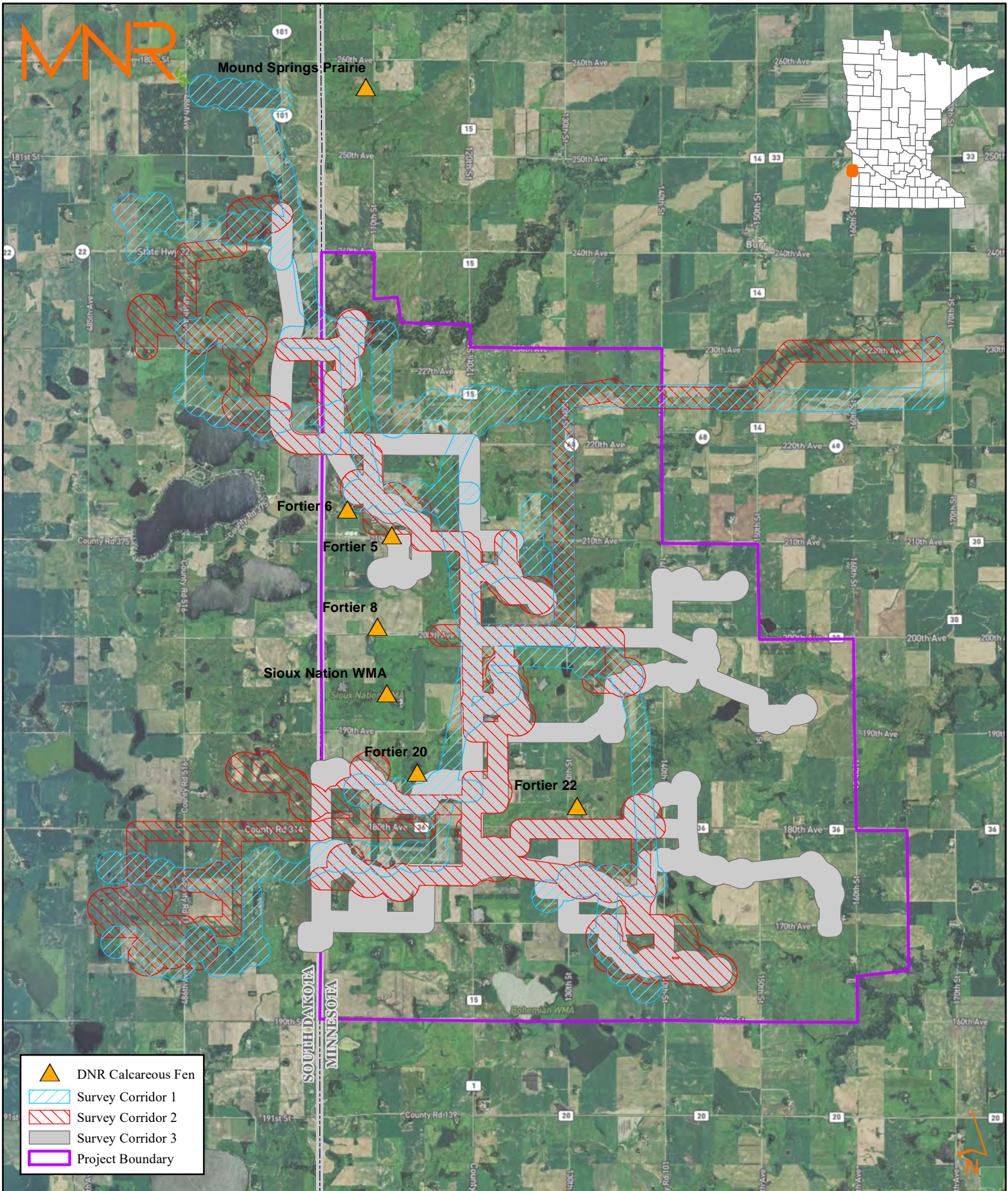


Source: Mapbox Imagery, MN DNR, US Census, Date: 8/29/2017

Close-up of Potential Calcareous Fens Within Survey Corridors
Bitter Root Wind Project
Calcareous Fen Evaluation
Yellow Medicine County, MN

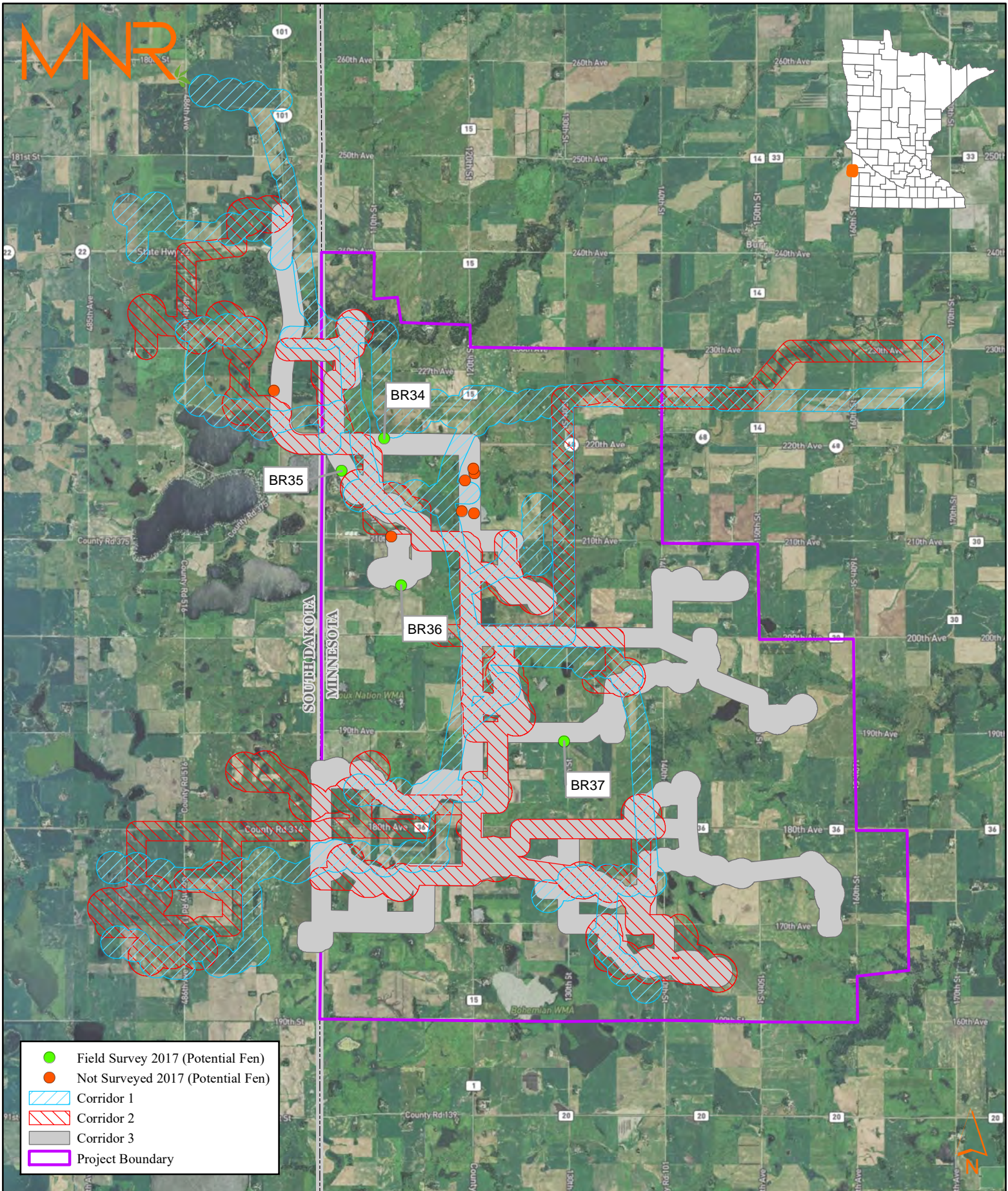
0 0.05 0.1 Miles

Figure 2



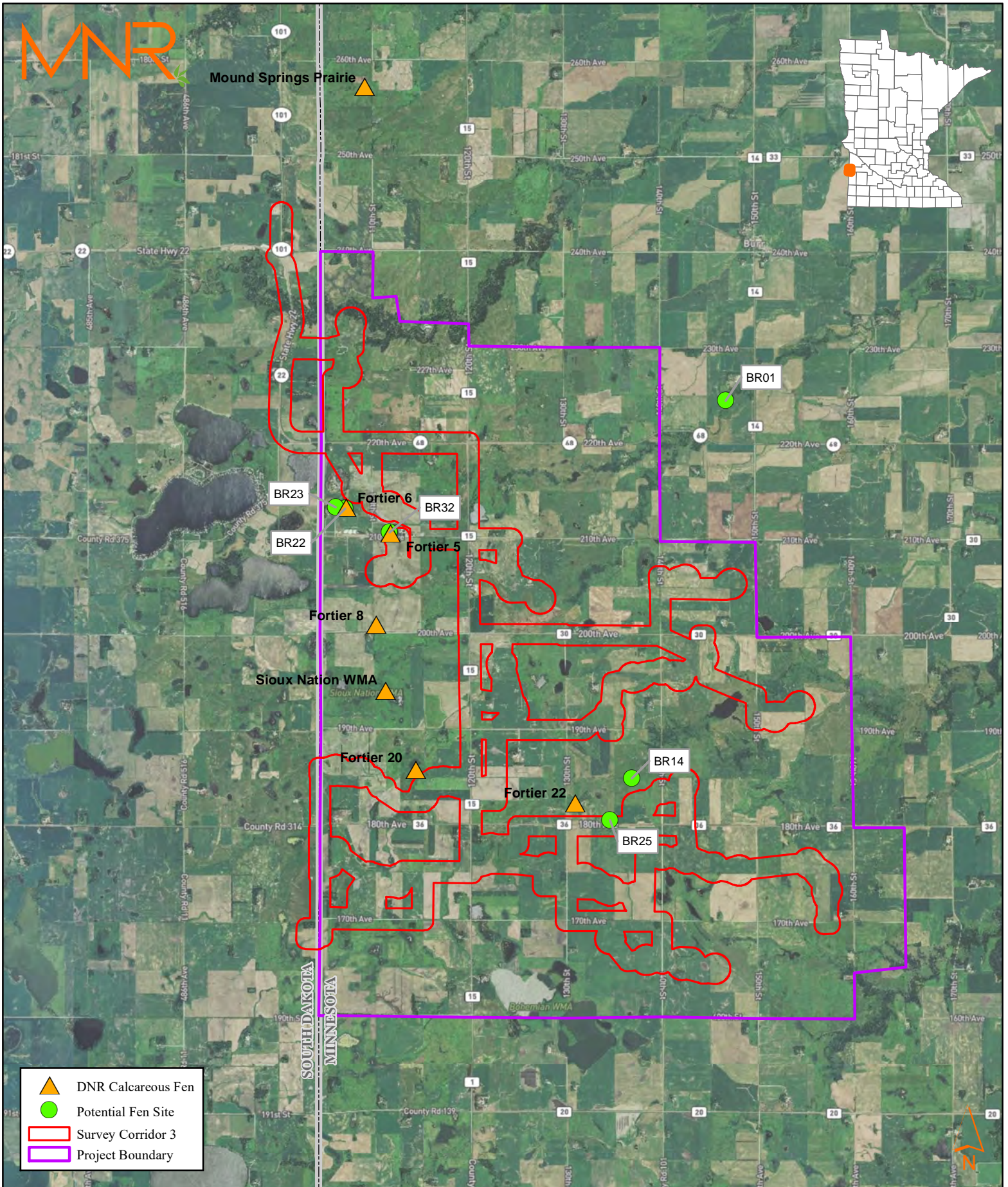
Project Survey Corridors and MN DNR Calcareous Fen Locations
Bitter Root Wind Project
 Calcareous Fen Evaluation
 Yellow Medicine County, MN

0 0.75 1.5
 Miles



Calcareous Fen Evaluation Locations - August 2017
Bitter Root Wind Project
 Calcareous Fen Evaluation
 Yellow Medicine County, MN

Figure 4



Source: Mapbox Imagery, US Census, MN DNR Calcareous Fens, Date: 8/29/2017

Potential Calcareous Fen Areas Within or Near Survey Corridor 3
Bitter Root Wind Project
 Calcareous Fen Evaluation
 Yellow Medicine County, MN

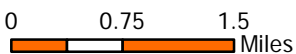


Figure 5