

MINUTES FROM AGENCY MEETINGS

Subject: US Fish and Wildlife Early Coordination and Route Planning		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	USFWS Bloomington Office
Meeting Date: January 7, 2008	Notes by:	Paul Fischer

ATTENDEES

Mike Sweet – USFWS
Chris Trosen - USFWS
Laurie Fairchild – USFWS
Rex Johnson – USFWS
Scott Krych – GES

Craig Poorker – GRE
Carole Schmidt – GRE
Angela Piner – HDR
Paul Fischer – HDR

TOPICS DISCUSSED

The meeting began with introductions.

Ms. Piner, Mr. Schmidt, and Mr. Poorker gave a PowerPoint presentation explaining Project background, need, details, permits, and approval process. During the presentation the USFWS asked questions about how the rivers would be crossed, and whether existing right-of-way would be used.

Mr. Sweet advised that communication with the DNR, landowners, utility companies, and FWS regarding activities affecting state-managed lands with federal interests is important. Mr. Sweet suggested that CapX should make sure that Jean Daniels, Federal Aid Coordinator at the USFWS and the DNR are communicating on the potential impacts to these types of lands. Mr. Sweet has a list of parcels with federal interests in the Brookings project area, and will send that data to Ms. Piner. Ms. Piner requested shapefiles if they are available.

Mr. Johnson requested the utilities identify native prairie within the Project area. He stated avoiding prairie should be a priority and the state of Minnesota is a good resource for those locations. Large blocks of native prairie occur in Lincoln and Lyon Counties; be aware of sensitivity of these areas.

USFWS Avian Issues:

- Migratory Birds Treaty Acts (MBTA) - consider the Minnesota River flyway and ways to minimize impacts
 - The project proponent stated that would be something we'd like to have discussions about among all the projects.

- Mr. Johnson suggested the following for minimizing impacts:
 - Minimizing the height of towers at river crossings to minimize bird collisions.
 - Avoid steep slopes along river where updrafts encourage birds.
 - Use markers and deterrent devices to minimize transmission line strikes.
 - Ms. Fairchild recommended for mitigation, to consider organizing and funding a comprehensive study of take rates and monitoring effectiveness of bird flight diverters. Land swaps may also be appropriate.
 - Ms. Piner agreed to send Ms. Fairchild a recent avian collision study by Western Area Power Administration (WAPA).
- Mr. Johnson stated he would send the newest information on grassland bird and HAPET model data as a GIS data layer to Ms. Piner. He reiterated that the “core” area is the most important landscape to consider.
- Members at the meeting suggested Bob Russell, USFWS, as the contact for raptors at river crossing workgroups.
- Additionally, the USFWS suggested using Nexrad to identify key migration times.

Mr. Trosen expressed general concern about the Minnesota River crossings. He stated that the USFWS is buying land for refuge units and WPAs in Sibley, Dakota, and Nicollet Counties, some near Henderson area. HDR stated they would contact Mr. Trosen about the expansion boundary of the refuge. The USFWS stated these new boundaries should be considered in routing decisions. The USFWS suggested Mr. Trosen should be at river crossing work group meetings.

Routing and planning recommendations from the USFWS include co-locating transmission lines with existing utility corridors, double circuit where possible, and plan transmission system to accommodate long-range energy development throughout the state and region.

Ms. Fairchild requested to be the point-of-contact for the USFWS. Send correspondences to the most appropriate person, but courtesy copy her and funnel discussions through her. This includes MBTA and federal interest lands.

Ms. Fairchild sought clarification of what the different components of this Project are and how they are related to the many transmission projects she is currently reviewing. Ms. Piner explained the parts of CapX 2020 and offered to facilitate any meeting to help further clarify any additional questions she may have regarding the various projects across the state. Ms. Piner offered HDR’s help in general to assist in communication through the review process.

Ms. Fairchild and Mr. Johnson discussed using an ecological model the USFWS has been using on wind projects for the transmission line project. Ms. Fairchild stated she would send the model to Ms. Piner.

All parties agreed that finding an acceptable route and deciding on appropriate mitigation before the EIS is finalized is the most efficient process.

Ms. Piner requested that GRE/HDR do biological surveys, as necessary on the back-end of the process, once a route is approved. The USFWS agreed that the approach taken in previous route applications would be applicable for this project.

Ms. Piner gave a CD of Project information to Ms. Fairchild.

Mr. Sweet voiced confusion over scheduling of the Bemidji to Grand Rapids 230 kV transmission line, how it relates to this project, and what its schedule is. Particularly, would it be helpful to that project to get his analysis of lands with federal interest? Ms. Piner explained that the Bemidji to Grand Rapids line is concurrently filing for the Certificate of Need and the Route Permit. Ms. Piner stated she would communicate with the project lead for the Bemidji Project about his concerns, and will make sure they touch base with him about his concerns.

Ms. Fairchild inquired if this Project was developed based on long-term wind energy potential. Mr. Poorker explained that wind energy is location-dependent and described the relationship between wind turbine location and electric transmission line routing.

Contacts:

Mr. Trosen – Minnesota Valley Refuge and Wetland Management District

Mr. Sweet – Federal Aid Lands

Mr. Scott Glup – Litchfield Wetland Management District

Mr. Steve Delehanty – Morris Wetland Management District

Mr. Bob Russell – Raptor specialist

Mr. Johnson – Habitat and species

Ms. Fairchild – Work group contact, main contact for FWS correspondences

ACTION/NOTES

FWS

- Mr. Sweet will send list of land with federal interest to Ms. Piner. The state has the same info.
- Mr. Johnson will send the newest information on grassland bird and HAPET model data as a GIS data layer.
- Ms. Fairchild will send the ecological sensitivity model used for wind farms to Ms. Piner.

GRE/HDR

- Ms. Piner will send the Western Area Power Administration avian collision study to Ms. Fairchild.
- GRE/HDR will coordinate with the USFWS to identify individuals to attend the river crossing work group meetings.
- Piner will check to see if the Bemidji project has obtained federal aid lands from the DNR or USFWS.
- HDR will contact Mr. Trosen about the expansion boundary of the refuge.

GENERAL

- All correspondences with the USFWS should be funneled thorough Ms. Fairchild. Courtesy copy her for communications with appropriate USFWS contacts.

Subject: Early Coordination and Route Planning – Department of Natural Resources		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	DNR Offices St. Paul, MN
Meeting Date: January 09, 2008	Notes by:	Angela Piner, Paul Fischer

ATTENDEES

Mr. Scott Krych, Graham Environmental Services, skrych@grahamenvironmental.com
 Ms. Maryanna Harstad, DNR, maryanna.harstad@dnr.state.mn.us
 Mr. Bob Hobart, DNR, bob.hobart@dnr.state.mn.us
 Mr. Todd Kolander, DNR, todd.kolander@dnr.state.mn.us
 Mr. Wayne Barstad, DNR, wayne.barstad@dnr.state.mn.us
 Mr. Mike North, DNR, michael.north@dnr.state.mn.us
 Mr. Dale Homuth, DNR Water, dale.homuth@dnr.state.mn.us
 Mr. Randy Bradt, DNR Water, randy.bradt@dnr.state.mn.us
 Ms. Lisa Joyal, DNR, lisa.joyal@dnr.state.mn.us
 Ms. Diana Regenscheid, DNR, diana.regenscheid@dnr.state.mn.us
 Ms. Jade Templin, DNR Parks and Rec., jade.templin@dnr.state.mn.us
 Mr. Steven Colvin, DNR Ecological R&S, steven.colvin@dnr.state.mn.us
 Mr. Paul Hansen, DNR FAW, paul.hansen@dnr.state.mn.us
 Mr. Matt Langan, DNR Environmental Review, matt.langan@dnr.state.mn.us
 Mr. Ken Varland, DNR Wildlife, ken.varland@dnr.state.mn.us
 Ms. Carole Schmidt, Great River Energy Permitting Supervisor, cschmidt@GREnergy.com
 Mr. Dan Schmidt, HDR Engineering Project Manager, dan.schmidt@hdrinc.com
 Ms. Angela Piner, HDR Engineering Project Manager, angela.piner@hdrinc.com

TOPICS DISCUSSED

Introductions took place. Ms. Schmidt and Ms. Piner gave a PowerPoint presentation explaining Project background, need, details, permits, and approval process. Following the presentation, the floor was opened to questions and comments.

The DNR would like shapefiles at each stage of the project. GRE/HDR should send the DNR a shapefile of the narrowed corridors and then the route options for their comments. Send any other data that may be useful to the DNR.

A question was asked about the factors in routing. Additionally, the DNR asked when they can comment, in particular would it be too late if their concerns aren't voiced at the Certificate of Need (CON) stage? Matt Langan replied that the DNR has typically been involved at the routing stage only, since the majority of the comments and issues that are raised internally apply to the route and not the need.

CapX was also asked whether undergrounding the line is possible. GRE/HDR explained that it is cost prohibitive and also potentially more damaging to the environment. Additionally, it is more difficult from a reliability perspective, since it's difficult to locate where the problem is when the line is out of service.

The group broke out to discuss the maps. The following is a list of items that were discussed:

- DNR asked whether CapX could manage the right-of-way (ROW) to benefit wildlife. GRE responded that it would be something that would have to be considered on a case by case basis.
- The DNR is concerned about impacts to State Parks and viewsheds, especially in parks managed for cultural resources. Ft. Ridgely State Park and St Lawrence Unit have pre-contact Native American resources. The Wildlife Management Area (WMA) off of Highway 19 has eight burial mounds.
- New DNR-managed land units have been acquired along the Vermillion River. Scott County owns Sections 11 and 12 of Cedar Lake Township. Frances Doyle property is being developed into a Scott County Park as well as Cedar Lake farms. Section 24 of Helena Township may be developed into a Scott County Park.
- Shallow lake resources are being sought for land acquisition and restoration. They are especially important in the eastern portion of the project.
- Pleasant Lake is an important migratory bird feeding and resting area.
- Raven Creek corridor was mentioned as an important area
- Historical resources should be coordinated through the State Historic Preservation Office (SHPO). HDR mentioned we have received data from the SHPO and will be coordinating with them.
- Consider visual resources and viewsheds at Camden State Park.
- The donut-shaped feature on the map at Ft. Ridgely State Park is in fact a solid polygon.
- Consider state waysides.
- Prairie remnants are primarily on the south side of State Highway 19.
- Plan to minimize invasive plant species establishing in disturbed ROW. Consider narrowing ROW. This is a discussion topic for the next DNR meeting.
- Follow existing corridors.

- Is it possible for CapX to buy a trail, and then deed it back to the county as park and recreation area?

ACTION/NOTES

DNR

- Identify Work Group participant
- Send any additional data that would be useful for routing transmission lines (HDR to provide examples)
- Identify areas of interest in the project area.

GRE/HDR

- GRE/HDR should send the DNR a shapefile of the route with a three-mile buffer.
- HDR to provide DNR with examples of additional data that is useful for routing.
- Investigate deeding back land purchases to a county to manage as a park.

Subject: Rice County Early Coordination and Route Planning		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	Rice County Hwy Dept Fairbault, MN
Meeting Date: January 11, 2008	Notes by:	Paul Fischer

ATTENDEES

Dennis Luebbe, Rice County Engineer
 Trent McCorkell, Rice County Planning and Zoning
 Craig Poorker, Great River Energy Routing Lead
 Dan Schmidt, HDR Engineering Project Manager
 Paul Fischer, HDR Engineering Environmental Scientist

TOPICS DISCUSSED

The meeting began with introductions.

Mr. Poorker and Mr. Schmidt gave a PowerPoint presentation explaining Project background, need, details, permits, and approval process.

Mr. McCorkell asked if county conditional use permits would have jurisdiction over this project. Mr. Schmidt replied that since this is a state-regulated project, the state regulations preempt county jurisdiction.

Mr. Poorker recommended that attendees speak with their staff and constituents about work group meetings and open houses in the coming weeks and months.

Mr. Luebbe asked if the Project would parallel public rights-of-way (ROW). Mr. Poorker explained this would happen where possible, with approval of the affected agency. Mr. Luebbe expressed that Greendale and Waterford townships near Northfield would be likely to resist routing the transmission line through that area. The city and townships have development restrictions of which CapX should be aware. Northfield has conducted a study considering upgrading Hwy 19 to be a northwest bypass around the city. Northfield is in the process of developing corridor plans and comprehensive plans.

Future road developments include, according to Mr. Luebbe, reconstruction of three miles of County Highway 86 north of Lonsdale, where Highway 19 turns at the border with Scott County. This work is planned for 2009 and construction would complete in 2010. Scott County is considering a new interchange at the county border with Rice County on I-35 and has begun a

scoping document for this project. MnDOT is considering a new interchange on I-35 at Elko. Mr. Luebbe said that MnDOT has long-range thoughts to upgrade Hwy 19.

Mr. Luebbe said that Rice County has the potential to do a ROW survey for road development along State Highway 13 on the northwest edge of Rice County on the border of Le Sueur County.

Mr. McCorkell called out airports and recommended that CapX consider clear zones in the routing process. Mr. McCorkell also noted that the land in the southern end of CapX Marion Lake Substation location area has peat soils on which building is difficult. CapX was advised to keep routing clear of the Cannon River watershed. Metropolitan Council has planned a sewer project into the northeastern corner of Rice County.

Rice County has 2007 color aerial photos on the county website. Two-foot contour topographic maps will be available soon.

Mr. Schmidt asked about urban development areas. Lonsdale is not expanding currently. Mr. McCorkell recommended looking into the Fundamental Resource Report. In general, urban development is expected to expand from urban centers while maintaining rural areas as rural. Rice County has no special farmland designations. A county easement program prevents certain areas from development. Lands under this easement are very loosely committed. The County has the right to release lands from easement status at any time.

Mr. Schmidt asked that Mr. McCorkell and Mr. Luebbe make the County Commissioners aware of the Work Group meetings scheduled in February. Mr. Luebbe agreed to talk to appropriate commissioners.

ACTION/NOTES

RICE COUNTY

- Mr. Luebbe will talk to appropriate County Commissioners about Work Group meetings in February.

Subject: Yellow Medicine County/Granite Falls Route Planning		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	County Courthouse Granite Falls, MN
Meeting Date: January 14, 2008	Notes by:	Paul Fischer

ATTENDEES

Mr. Randy Jacobson, Yellow Medicine Zoning Administrator – randyj@mvtvwireless.com
 Mr. Andy Sander, Yellow Medicine County Engineer – andrew.sander@co.yellow-medicine.mn.us
 Mr. Ryan Krosch, Yellow Medicine County Administrator – ryan.krosch@co.yellow-medicine.mn.us
 Mr. Bill Lavin, Granite Falls City Manager – bill.lavin@granitefalls.com
 Ms. Jane Remiger, Yellow Medicine County Commissioner – sjremiger@hotmail.com
 Mr. Steve Viring, Granite Falls Utilities Commission - steve.virnig@fagencygf.com
 Mr. Don Reznechek, Electric Dept. of Granite Falls Superintendent – donrez@embarqmail.com
 Mr. Craig Poorker, Great River Energy Routing Lead – cpoorker@greenergy.com
 Mr. Dan Schmidt, HDR Engineering Project Manager – dan.schmidt@hdrinc.com
 Mr. Paul Fischer, HDR Engineering Environmental Scientist – paul.fischer@hdrinc.com

TOPICS DISCUSSED

Introductions, Project Overview, and Process and Schedule

The meeting began with introductions. Mr. Schmidt and Mr. Poorker gave a PowerPoint presentation explaining Project background, need, details, permits, approval process, and schedule. Mr. Sander asked questions clarifying structures to be used, details regarding routing, and project need.

Discussion

Mr. Lavin asked if wind generation delivered on CapX 2020 lines would benefit the City of Granite Falls, and how could Granite Falls be benefited in other ways? Mr. Poorker replied that direct benefits in a monetary way aren't likely. Otherwise, benefits are general system reliability.

Ms. Remiger asked if landowners can gain tax benefits if their land is seized through eminent domain. Mr. Poorker replied that some landowners may prefer going through the eminent domain process, claiming tax benefits, but did not know details.

Ms. Remiger expressed concerns over impacts due to ROW widths. Mr. Poorker replied that 150 feet is standard for 345 kV, and so far he hasn't received many complaints. He also stated that when located along existing corridors, our ROW may overlap, and thereby decreasing the additional ROW width by nearly half. Mr. Poorker and Mr. Schmidt clarified details of line construction, system needs, and routing process.

Mr. Sander voiced trepidation over long-term county road development (20-50) years being impeded by transmission lines, especially considering the 150 foot ROW. Mr. Poorker requested whatever long-term plans that Mr. Sander may have for county road development, and GRE/HDR can work with them as the routing process develops.

Mr. Krosh asked that GRE/HDR consider long-term developments of Granite Falls area airport.

General concerns were raised about the Granite Falls/Yellow Medicine area bearing the burden of an urban energy need. Mr. Jacobson sad that he didn't have any issues at this time.

ACTION/NOTES

YELLOW MEDICINE COUNTY

- Sander will provide long-term highway development plans to GRE/HDR.

Subject: Lincoln and Lyon Counties/Marshall Route Planning		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	Lyon Co Public Works Marshall, MN
Meeting Date: January 15, 2008	Notes by:	Paul Fischer

ATTENDEES

Mr. Shane Waterman, City of Marshall Engineer - shane.waterman@marshallmn.com
 Mr. Lee Amundson, Lincoln County Engineer - leea@lincolnco.us
 Mr. Robert Olsen, Lincoln County Planning and Zoning - roberto@lincolnco.us
 Mr. Kim Jergenson, City of Marshall Planning - kim.jergenson@marshallmn.com
 Mr. Brad Roos, City of Marshall Municipal Utilities - bradr@marshallutilities.com
 Ms. Anita Benson, Lyon County Dept. of Public Works/Engineer - anitabenson@co.lyon.mn.us
 Mr. John Biren, Lyon County Planning and Zoning - johnbiren@co.lyon.mn.us
 Mr. Todd Hammer, Lyon County Assistant Planner - toddhammer@co.lyon.mn.us
 Mr. Craig Poorker, Great River Energy Routing Lead - cpoorker@grenergy.com
 Mr. Dan Schmidt, HDR Engineering Project Manager - dan.schmidt@hdrinc.com
 Mr. Paul Fischer, HDR Engineering Environmental Scientist - paul.fischer@hdrinc.com

TOPICS DISCUSSED

Introductions, Project Overview, and Process and Schedule

The meeting began with introductions. Mr. Poorker and Mr. Schmidt gave a PowerPoint presentation explaining Project background, need, details, permits, approval process, and schedule.

Discussion

Questions were asked about how Big Stone transmission line is related to this project. Mr. Olsen recommended considering pipelines when routing.

Mr. Olsen prefers co-locating transmission lines with existing utilities, but cautioned that crossing state highways could require permits. Hwy 19 could be a good corridor to follow through Lincoln and Lyon counties. Go north from the Brookings substation in South Dakota, and then east along Hwy 19; this would avoid wind development.

Mr. Biren asked if CapX will have condemnation rights. Mr. Poorker explained that CapX will have the right to eminent domain. Public landowners will generally require a permit to cross. Federal lands (such as WPAs) will require federal approval. State lands with federal interests will require state approval with some level of federal approval.

Mr. Roos requested that CapX avoid the City of Marshall. In general, areas south of Marshall are zoned and planned for residential development. Areas north of the city are zoned and planned for industrial development. Routing a transmission line to the north would be the most compatible location. Mr. Jergenson can provide a copy of Marshall long-range plans to GRE/HDR.

Lyon County Road 6, which turns into a dirt Twp Road 35, is planned to be upgraded. Mr. Jergenson recommended considering recently completed and potential future upgrades to the Marshall airport. The runway was recently extended to 7,000 feet. If the clearance zone is 40:1 (this should be confirmed), then a 150 transmission structure must be at least 6,000 feet away. Future developments would be facilitated if transmission line is located farther away than the current minimum required. Refer to Marshall long-term plans.

In general, routing north of Co Road 33 is desired.

Mr. Biren recommended considering FEMA floodplain zones.

Mr. Roos stated that the fourth source power line discussed with GRE at previous meetings, that was originally being considered south of Marshall, no longer has a preferred route and its priority as a city project is lower.

Some housing development is taking place in the Town of Ghent. Long-term development will probably be slow and minor to the south.

No known ethanol or soybean processing plants are being planned or developed.

Mr. Olsen commented that Lincoln County Road 17 might be a good option for routing, or choose a route farther north than that. East River Cooperative owns transmission lines along Co Road 17 going east from Hwy 75; west from Hwy 75 to Hendricks may be Otter Tail Power lines that don't show up on GRE/HDR maps. This route would work continuing into Lyon County. Larger roads with higher load capacity will better accommodate heavy equipment needed for transmission line construction.

MnDOT has plans to develop Hwy 23 in Lyon County from State Hwy 19 north about two miles into a four-lane highway. Passing lanes are planned somewhere between Marshall and Cottonwood on Hwy 23. Hwy 19, going east from Hwy 23, for about one mile will be regraded and widened. MnDOT has considered long term plans to make all of Hwy 23 four-lane.

Mr. Biren offered Lyon County GIS data layers, and recommended getting in touch with Lyon County GIS Specialist Mr. Ryan Wendt. [After the meeting, Mr. Schmidt talked to Mr. Wendt about GIS layers and received a list of Lyon County GIS layers. Mr. Schmidt will send a request to Lyon County in coming weeks for GIS shapefiles]. Mr. Olsen said that Lincoln County will soon have a GIS specialist. He will update the GIS employee when s/he joins the county.

Other groups to invite to workgroup meetings, or with whom GRE/HDR should contact, includes other utility companies, Rural Water District (Lincoln-Pipestone Rural Water) as water lines are shallower than the foundations for pole structures, and gas distribution companies.

Ms. Benson asked what GRE/HDR has done to communicate with small towns, such as those with populations less than 5,000 people. Mr. Poorker replied that city administrators have been contacted and letters to landowners within the notice areas have been sent.

Mr. Olsen offered Lincoln County digital parcel data once the route has been selected.

ACTION/NOTES

YELLOW MEDICINE COUNTY

- Mr. Sander will provide long-term highway development plans to GRE/HDR.

Subject: Early Coordination and Route Planning – Dakota County and MnDOT		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	Dakota County Offices, Apple Valley, MN
Meeting Date: January 16, 2008	Notes by:	Angela Piner, Dan Schmidt

ATTENDEES

George Kinney, Dakota County Environmental Services, george.kinney@co.dakota.mn.us
 Butch McConnell, Dakota County Transportation, gordon.mcconnel@co.dakota.mn.us
 John Mertens, Dakota County Planning, john.mertens@co.dakota.mn.us
 Marilyn Remer, MnDOT, marilyn.remer@dot.state.mn.us
 Ann Driver, MnDOT, ann.driver@dot.state.mn.us
 Stacy Kotch, MnDOT, stacy.kotch@dot.state.mn.us
 Curt Fakler, MnDOT, curt.fakler@dot.state.mn.us
 Al Kramer, MnDOT Program Management, alan.kramer@dot.state.mn.us
 Len Leitner, MnDOT, len.leitner@dot.state.mn.us
 Randy Knippel, Dakota County GIS Manager, randy.knippel@co.dakota.mn.us
 Grant Stevenson – Xcel Energy, grant.stevens@xcelenergy.com
 Carole Schmidt, Great River Energy Permitting Supervisor, cschmidt@greenergy.com
 Craig Poorker, Great River Energy Routing Lead, cpoorker@greenergy.com
 Dan Schmidt, HDR Engineering Project Manager, dan.schmidt@hdrinc.com
 Angela Piner, HDR Engineering Project Manager, angela.piner@hdrinc.com

TOPICS DISCUSSED

The meeting began with introductions.

Mr. Poorker, Ms. Piner, and Mr. Stevenson gave a PowerPoint presentation explaining Project background, need, details, permits, and approval process. Following the presentation, the floor was opened to questions and comments.

Mr. Kramer asked when the construction start date would be. Mr. Stevenson stated that it the start date depends on material availability and personnel availability, but at this time, the CapX utilities are targeting the Fall of 2010.

Ms. Remer suggested contacting MnDOT aeronautics.

Mr. Kinney commented that Dakota County has had to coordinate three pipelines very recently. He also mentioned that if the CapX utilities were working within highway ROW, they would need permits.

Mr. Poorker asked Dakota County officials about more details regarding the farmland he had heard about that cannot be crossed by transmission lines. They explained that the farmland is part of the Farmland Natural Areas Program, which uses federal dollars to obtain the land. They are areas that the County would like to preserve as open space for the future.

Mr. Kramer suggested consulting the 20 year plan for the enhancements planned in the project area. He also stated he had taken some time identifying future projects in the metro area, and gave HDR a copy of the map with his notes.

The subject of following interstates and freeways did arise, and MnDOT provided an outline of their concerns in the project area. Dakota County asked additional questions to MnDOT about suitable corridors for transmission lines. Mr. Mertens questioned whether Highway 52 could be used for the transmission line route and Ms. Remer stated MnDOT would prefer the transmission line would be outside of the highway right-of-way.

Individual conversations following the presentation are summarized as follows: Ms. Piner spoke with Ms. Kotch about the shape file requested of the notice corridors. Ms. Piner cautioned the use of these, as the notice corridors were the first attempt through the CON process at identifying individuals that would likely be affected. She said she could provide the information for their analysis. Additionally, Ms. Piner asked whether there was other data that MnDOT had available that the utilities could use in their analysis such as MnDOT's cultural resources or environmental data. In particular, Ms. Piner was interested in the MnDOT's modeling software for of cultural resource priority areas. Ms. Kotch stated she'd look into providing that information. Additionally, Ms. Piner requested MnDOT check the accuracy of the data HDR had collected to date on the highway system, to make sure the maps of the transportation system were accurate. Ms. Kotch stated she would coordinate that effort.

Mr. Schmidt spoke with Randy Knippel, Dakota County GIS Manager, about the availability of GIS data. Mr. Knippel explained that a number of datasets are available over the net free or for a cost. Also, a number of datasets are available by request through different departments. He indicated he would be happy to help us determine what is available and the method to obtain it. Mr. Kinney volunteered to be a contact person to obtain data since most of the data that CapX would need would come from his department.

Mr. Knippel then asked about possible data sharing opportunities with the utilities. He would like to explore ways that we can work together to share data. Dakota County may be interested in line networks and customer data to support their Homeland Security and emergency preparedness obligations. Mr. Schmidt mentioned that the CapX effort includes 11 utilities around the state including Xcel Energy. Mr. Knippel was very interested in having a discussion with the CapX utilities and the MetroGIS groups (MetroGIS is a group of metro governmental agencies that share and promote GIS data) about data sharing metro-wide. Mr. Knippel is

involved with MetroGIS and said he would bring the idea to the attention on the MetroGIS committee.

Mr. Schmidt agreed to talk with Jim Fritz at Xcel and GIS representatives at GRE to determine if there are ways that the CapX partners would be able to cooperate with the MetroGIS group or Dakota County.

ACTION/NOTES

DAKOTA COUNTY

- Mr. Schmidt will contact Jim Fritz at Xcel and the GRE GIS representatives to discuss a meeting with the MetroGIS group about possible data sharing opportunities.
- Mr. Schmidt will contact George Kinney within several weeks to start the process of determining the types of data that the county may have and how we can obtain it.

GRE/HDR

- Ms. Piner will send MnDOT a CD with the shape file and information from the meeting to Ms. Kotch.

GENERAL

- All correspondences with the MnDOT should be coordinated through Ms. Kotch.

Subject: Redwood Co, Renville Co, Brown Co, and Franklin Route Planning		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	Redwood County Couthouse Redwood Falls, MN
Meeting Date: January 18, 2008	Notes by:	Paul Fischer

ATTENDEES

Mr. Ernie Fiala, Redwood Co Engineer – RCHD@redred.com
 Mr. Partick Rohland, Redwood Co Assistant Attorney – pat_r@co.redwood.mn.us
 Mr. Larrys Kilmer, Brown Co Assistant Engineer – larrys.kilmers@co.brown.mn.us
 Mr. Laine Sletta, Brown Co Zoning Administrator – laine.sletta@co.brown.mn.us
 Ms. Beth Stueven, Redwood Co GIS Specialist – beth_s@co.redowwd.mn.us
 Mr. Mark Erickson, Renville Co Environment and Community Develop. Dir. – mark_e@co.renville.mn.us
 Mr. Marlin Larson, Renville Co Public Works – marlin_l@co.renville.mn.us
 Mr. Craig Poorker, Great River Energy Routing Lead – cpoorker@grenergy.com
 Mr. Dan Schmidt, HDR Engineering Project Manager – dan.schmidt@hdrinc.com
 Mr. Paul Fischer, HDR Engineering Environmental Scientist – paul.fischer@hdrinc.com

TOPICS DISCUSSED

Introductions, Project Overview, and Process and Schedule

The meeting began with introductions. Mr. Schmidt gave a PowerPoint presentation explaining Project background, need, details, permits, approval process, and schedule. Mr. Poorker's arrival was delayed.

Discussion

County conditional use permits will not be required. CapX will work with the counties throughout the routing process, including coordination with highway departments and locating the line along county highway right-of-way (ROW).

Mr. Rohland asked when CapX will contact landowners. Poorker replied that seeking land easements and visits to property owners won't begin until around 2010. Currently, contact via mail is taking place to invite some landowners to work group meetings. Mr. Kilmer cautioned that communities in the area have a negative opinion of the easement acquisition process by utility companies after a negative experience with the Hutchinson pipeline project that recently went through the area.

Poorker and Schmidt provided general clarification of Project details, including the purpose of two notice corridors, ROW size and impacts, and Project schedule.

John Mitchell, Redwood County planner, was recommended to participate in upcoming work group meetings.

A small bridge over the Minnesota River between Brown County Road 8 and Renville County Road 3 may be shut down soon. The bridge has a 66-foot ROW. A map of the Brown County part of the project area was provided to Mr. Sletta and Mr. Kilmer of Brown County.

Mr. Poorker and Mr. Schmidt answered questions about the location and size of a potential new Franklin substation. The substation could be built anywhere in the proposed substation area. Locating the substation nearer to the existing sub will minimize cost, but the existing Franklin Substation is very crowded with multiple transmission lines. A new substation and buffer zone would occupy up to about 20 acres, but a larger land purchase of up to 160 acres would be sought.

GRE/HDR was advised that leadership changes often at the Lower Sioux Community.

GRE/HDR will contact Ms. Stueven for Redwood County GIS information. GRE/HDR should check the location of County Hwy 12 in their GIS files. The maps that GRE/HDR brought show this highway one mile south of where it should be in Redwood Falls Township.

Mr. Schmidt requested that attendees recommend people for work group meetings taking place in the coming weeks.

ACTION/NOTES

GRE/HDR

- Contact Ms. Stueven for Redwood County GIS information.
- Check the accuracy of the location of County Highway 12 in Redwood Falls Township in GIS layers.

Subject: Early Coordination and Route Planning – Scott County		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	Scott Co Gov't Center Shakopee, MN
Meeting Date: January 22, 2008	Notes by:	Angela Piner, Carole Schmidt, Paul Fischer

ATTENDEES

Michael Sobota, Scott County Community Development Dir, msobota@co.scott.mn.us
 Mark Themig, Scott County Parks, mthemig@co.scott.mn.us
 Al Frechette, Scott County Environmental Health, afrechette@co.scott.mn.us
 Craig Jenson, Scott County Public Works, cjenson@co.scott.mn.us
 Joseph Janish, City of Jordan, janishj@ci.jordan.mn.us
 Greg Wagner, Scott County Planning, gwagner@co.scott.mn.us
 Brad Davis, Scott County Planning, bdavis@co.scott.mn.us
 Patricia Freeman, Scott County Parks, pfreeman@co.scott.mn.us
 Mark Nager, City of Elko/New Market, mnagel@ci.enm.mn.us
 Carole Schmidt, Great River Energy Permitting Supervisor, cschmidt@greenergy.com
 Craig Poorker, Great River Energy Routing Lead, cpoorker@greenergy.com
 Angela Piner, HDR Engineering Project Manager, angela.piner@hdrinc.com
 Dan Schmidt, HDR Engineering Project Manager, dan.schmidt@hdrinc.com

TOPICS DISCUSSED

The meeting began with introductions.

Mr. Poorker and Ms. Piner gave a PowerPoint presentation explaining Project background, need, details, permits, and approval process. Following the presentation, the floor was opened to questions and comments.

Questions were asked about pole materials: core 10 vs. galvanized steel. GRE/HDR verified that transmission structures would be single-pole structures, not lattice, which can span 600-900 feet. GRE/HDR explained why double circuiting is used, where it could be employed, and discussed use and limitations of hanging lower voltage lines to the 345-kV structures. The transmission line will be an AC line.

Easement vs. ownership and compensation of landowners was discussed, as was how close transmission lines could be to state road rights-of-way (ROW). The project team stated the

project will acquire easements for the transmission line. Typically the transmission line is placed on private right-of-way.

GRE/HDR explained that substation location will be chosen based on factors including available land and proximity to the intersecting transmission line. About 40 acres will be needed. GRE/HDR described how high structures in the substation will be. Mr. Sobota suggested a buffer of trees or a 30-foot berm as a visual barrier for the New Market area.

Mr. Frechette raised questions about what kind of environmental report takes place for the Certificate of Need (CON). Is this transmission line tied to generation? What kinds of generation will be carried on this line? Poorker explained that all kinds of energy will be transported on the lines. There is no way to isolate energy generation types; all energy generated is blended into the energy transmission system. Energy generated by coal, wind, and other sources may be transported on these lines.

Federal tax issues were discussed, particularly, if there are no or lower federal tax benefits for wind development, how will that affect wind projects in Minnesota? The project team answered it may slow development, but some sort of generation will be required to meet the Renewable Energy Standard described in the presentation. Are turbines still being built in and purchased from Europe? The project team answered that there are several manufacturers overseas that developers utilize, but there are some turbines and parts manufactured in the United States as well.

With the northern alternative configuration, would CapX replace the existing 230 kV line? When will it be accepted or eliminated as an alternative? The project team explained the alternative configuration couldn't replace the existing 230 kV line based on the studies that have been completed. It will be necessary to locate a new line a distance away from the existing line for our proposed project. It will be accepted or eliminated as an alternative through the Certificate of Need process. A decision is expected in February 2009.

Mr. Frechette asked whether the EIS is going to be a generic EIS, and then a specific environmental report will be produced once routing and pole locations are decided? When will CapX know pole locations? How much authority does CapX have in choosing pole placement? Can a landowner stop or change pole placement on his/her land? Mr. Poorker and Ms. Piner explained the state process and the typical ROW and construction process that CapX utilities have used in the past.

Scott County stated they were well equipped to identify issues of concern due to the planning they are doing within the county. They wondered if this may be worthy of an independent Scott County Public meeting.

Scott County 2030 Comprehensive Plan shows lots of new development. Scott County stated the transmission line should be planned to co-locate with planned road developments to potentially share costs. What about post 2030 growth? The project team acknowledged that we should

consider future plans in our routing decisions, and it will be one of the factors we look at when deciding on the route to propose to the PUC.

Below is a list of items that Scott County identified for consideration:

- Cedar Lake and New Market areas have planned new development – Scott County suggested CapX should conduct a cumulative and economic impacts analysis. GRE/HDR stated the analysis of socioeconomic impacts is one of the items the state requires the utilities to evaluate.
- Neither County Highway 2 nor the pipeline are good routes. It would be better to route the transmission line farther south, closer to County Hwy 86. Minnesota Highway 19 west of New Prague, and then south along County Hwy 86 is a preferred route. The county suggested CapX should be proactive and develop a trail within the transmission ROW, and begin to acquire easements. Mr. Poorker stated that co-locating facilities would be preferable, however the utility only has the ability to get an easement for the construction, operation and maintenance of the transmission line. Any additional uses would need to be obtained by the county or other government agencies.
- Areas have been identified for urban expansion in the 2030 plan. They will be held in lower density in the interim so the county can grow into these areas as needed. Most of the county will be developed in the future and the 2030 plan shows how they plan to do this.
- Metropolitan Council is developing plans for new Waste Water Treatment Plants in Louisville Township and Jordan.
- Areas identified as rural residential are the only areas where county is not urbanizing.
- Blakely Bluffs Regional Park and surrounding area is an important natural and public resource.
- Smaller recognized communities like Union Hill should be considered during routing. Hamlets, like Union Hill, are a cultural feature.
- Consider Cedar Lake Park – it is a county park, and not identified on the maps.
- The Ney Nature Center is east of Henderson, along the Minnesota River and has strong public support. The county suggested adding them to our mailing list.
- Scott County asked whether the line would go north or south of New Prague. GRE/HDR answered that the location of the line is yet to be determined, and the work groups will help us make those decisions.
- Intersection improvements are planned along County Hwy 86 south of Elko/New Market.
- County Hwy 86 and I-35 interchange improvements are planned.
- A regional trail development is under consideration, as is a regional park in the southwest corner of Dakota County, per Metropolitan Council.
- MLCCS data is available for the area.
- Storm water management plans would be needed for substation sites.

- The county would like to protect visibility from the highway.
- Vermillion River headwaters are north of Elko New Market.
- Potential locations of substations were discussed.
- Sand Creek Township may be concerned about the transmission line and stray voltage effects to dairy operations.

What will be the interaction with the Farmland Preservation program? Pete Beckius, SWCD, is a contact regarding CREP and RIM.

County Board has interest in the process. Scott County staff time is limited and needs money for escrow agreement to get data and time that CapX needs from Scott County. Scott County Land Use has authority for townships. The Scott County website has 2007 aerials.

Mr. Sobota had a long conversation with Mr. Pooker about how the county and CapX can work together. This included discussion on a potential escrow account that would pay the county staff time for providing data to CapX and possibly doing analysis. Also discussed was the Scott County's desire to have a very active role in the workgroups. Scott County suggested that they host one of the workgroup meetings and help to run and staff the meeting. Mr. Sobota stated he would forward a "proposal" to Angela Piner about how Scott County can help. Mr. Pooker stated that CapX would review and decide how to go forward.

ACTION/NOTES

GRE/HDR

- Email PowerPoint to the county
- Send the factors considered in routing to the county
- Add the Ney Nature Center to the mailing list.
- Locate contact information for Pete Beckius at the SWCD.

Subject: McLeod and Sibley County Route Planning		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	Sibley Co Courthouse Gaylord, MN
Meeting Date: January 23, 2008	Notes by:	Paul Fischer

ATTENDEES

Mr. Marcus Flygare, MnDOT District 7 Traffic Engineer and Permitting,
marcus.flygare@dot.state.mn.us

Mr. Al Herschman, Sibley County Environmental Services

Mr. Larry Gasow, McLeod County Zoning Administrator, larry.gasow@co.mcleod.mn.us

Mr. Craig Poorker, Great River Energy Routing Lead, cpoorker@grenergy.com

Ms. Angela Piner, HDR Engineering Project Manager, angela.piner@hdrinc.com

Mr. Paul Fischer, HDR Engineering Environmental Scientist, paul.fischer@hdrinc.com

TOPICS DISCUSSED

Introductions, Project Overview, and Process and Schedule

The meeting began with introductions. Mr. Poorker and Ms. Piner gave a PowerPoint presentation explaining Project background, need, details, permits, approval process, and schedule.

Discussion

Mr. Flygare asked about GRE's setback rules and authority to limit activities on the right-of-way (ROW). Mr. Poorker responded that the 150-foot easement only prevents objects that would interfere with the transmission lines, such as houses, tall trees, and antenna structures. Other activities including agriculture and road use are permitted.

Mr. Gasow asked about stray voltage. Mr. Poorker explained that stray voltage is usually due to poorly maintained distribution lines, and is usually not a transmission line issue. Mr. Flygare asked about effects of transmission lines on TV, cell phone, and radio reception. Mr. Poorker replied that effects are minimal to none for well-built and maintained transmission lines. There are no significant impacts to GPS as well.

Poorker stated that CapX is not required to get county conditional use permits. Road use permits may be required for any utility in county road ROW. Counties should get involved if they wish during the PUC approval process.

Mr. Gasow asked about compatibility of co-locating transmission lines with railroad corridors, and the potential to use CapX lines to power possible light rail or commuter trains in the future.

Poorker replied that railroad corridors are being considered, but energy from the CapX lines would have to be stepped down through a substation before it could be distributed to such uses as light rail. Mr. Gasow stated that the single pole design will be favorable among farmers and in sensitive viewsheds.

Mr. Flygare clarified that MnDOT would require the utility companies to move structures from MnDOT ROW should road expansion takes place in the future.

McLeod County has one-foot interval contour maps available. McLeod County Road 7 from Hutchinson to the southwest is in the process of being widened and straightened. Paving and final completion will take place this summer 2008. Mr. Gasow said that Pheasants Forever bought about 300 acres near Biscay in addition to the Pheasants Forever WMA that is shown on the map. Hutchinson long-range land use includes residential development to the west of town and somewhat to the south. Glencoe is expected to develop to the south. Otherwise, little development is expected.

Mr. Flygare noted that the Hutchinson pipeline does not appear on GRE/HDR's map.

Mr. Herschman requested that CapX co-locate or combine smaller existing transmission lines with the CapX 345 line. A small transmission or distribution line along Sibley County Rd 56 may be replaced soon. He also noted that wind energy projects have been proposed in Sections 10, 11, 14, and 15 in Cornish Twp (T112, R30). The developers are proposing permits this summer 2008.

A map on the wall showed zoned areas of Sibley County. GRE/HDR should speak with John Peterson to get information used for that map and for county GIS data. One house/5 acres is density threshold for areas zoned for conservation.

Mr. Flygare said that MnDOT long-range plans include considering improvements around Henderson on Highway 19. This development wouldn't be likely for many years. Near the City of Le Sueur, industrial, residential, and highway developments are anticipated along Hwy 169 to the northeast of town. Mr. Flygare suggested that MnDOT should have a coordinated, unified effort when dealing with CapX across all aspects of the project and across all MnDOT districts.

Ms. Piner asked what the big issues in this area are. Gasow replied that water and ethanol are big concerns among the people, and highways such as Hwy 5 and 19 are not. Ms. Piner sought input for where to cross the Minnesota River. No clear recommendations were brought up. Mr. Poorker asked for names of people who would be interested in attending the work group meetings.

Sibley County would like to have a copy of the maps used today sent to their office.

ACTION/NOTES

GRE/HDR

- Send Sibley County a pdf or paper copy of the map used for today's meeting.

Subject: Early Coordination and Route Planning – Carver County		
Client: Great River Energy	Project No:	64620
Project: CapX 2020 Brookings to Twin Cities	Meeting Location:	Carver Public Works Cologne, MN
Meeting Date: January 25, 2008	Notes by:	Angela Piner, Carole Schmidt, Paul Fischer

ATTENDEES

Bill Weckman, Carver County Public Works, bweckman@co.carver.mn.us
 Dave Drealan, Carver County Land and Water Services Director, ddrealan@co.carver.mn.us
 Paul Moline, Carver County Watershed Administrator, pmoline@co.carver.mn.us
 Andrew Lisua, Carver County, alisua@co.carver.mn.us
 Tracy Bade, Carver County, tbade@co.carver.mn.us
 Craig Peterson, Metropolitan Council, craig.peterson@metc.state.mn.us
 Amy VanEps, Carver County, avaneps@co.carver.mn.us
 Jason Mielke, Carver County Planner, jmielke@co.carver.mn.us
 Jay Molnau, Carver County Public Works, jmolnau@co.carver.mn.us
 Jim Uttley, Metropolitan Council, jim.uttley@metc.state.mn.us
 Lisa Barajas, Metropolitan Council, lbarajas@metc.state.mn.us
 Craig Poorker, Great River Energy Routing Lead, cpoorker@greenergy.com
 Carole Schmidt, Great River Energy Permitting Supervisor, cschmidt@greenergy.com
 Angela Piner, HDR Engineering Project Manager, angela.piner@hdrinc.com
 Dan Schmidt, HDR Engineering Project Manager, dan.schmidt@hdrinc.com

TOPICS DISCUSSED

The meeting began with introductions.

Mr. Poorker and Ms. Piner gave a PowerPoint presentation explaining Project background, need, details, permits, and approval process. Following the presentation, the floor was opened to questions and comments.

Mr. Uttley asked if 345 kV was the highest voltage line available. GRE/HDR responded that no, transmission lines can be built much larger, such as 765 kV but the majority of those lines are located east of Minnesota.

The question was raised if West Waconia Substation could be used, or would a new substation be required. Mr. Poorker stated that that has not been determined at this point. Depending on

the amount of land available and the potential routing options, a new substation may be needed if that system configuration is chosen. GRE responded the existing West Waconia site would be the first choice for the location of the substation, if the alternate configuration were chosen. The existing substation would likely need to be expanded, but the layout and existing fenced area would need to be looked at, as to whether it could accommodate the 345 kV facilities with its current design. A new substation will be required along the route in several locations, including the I-35 corridor and other locations farther away.

The question was asked how project need is determined. What is distributed generation? Poorker replied that distributed generation is locating smaller power plants or other generation facilities nearer to load centers. How do utilities know that there will be enough power to feed existing lines plus the new infrastructure? Is interaction with utilities formal or informal? GRE explained that the electrical system is a highly complex network, and the planners at the utilities have a challenging job of identifying all the new power sources and in turn trying to identify what kind of transmission lines are needed and where they should be located to make sure the network continues to operate efficiently.

The comment was made that Metropolitan Council (METC) has been doing more energy planning in the past six months. The Metropolitan Energy Task Force (recently renamed the Metropolitan Energy Policy Coalition [MEPC]) represents six metro counties not including Carver County. The CapX utilities are aware of this group and have attended some of their meetings.

Questions were asked about the easement acquisition process. Concerns were raised about how natural resource areas and existing easements are addressed. Mr. Poorker explained the easement process and stated that the utilities try to identify all existing easements when the easement acquisition process begins.

Is CapX required to comply with local permitting and zoning ordinances? GRE/HDR replied that since this project is under State regulation, CapX is not regulated by county conditional use permits. CapX will consider permits such as local roadway and sewer permits in the routing process and will need to obtain highway crossing permits and easements from public entities if public land is used for the ROW

Is CapX bound by state building codes? Will building inspectors have to inspect the structures? GRE/HDR replied that poles are exempt, but substation buildings have to comply with local ordinances.

Will CapX work with BWSR at a statewide level or will they work with each LGU individually? GRE/HDR responded that right now CapX is unsure how all the permitting will play out. At this time, we are assuming we will have to work with each LGU. However, we hope to continue to have conversations with BWSR and the LGUs to potentially streamline this process moving forward.

Are agency meetings being conducted separately or in conjunction with county and city staff? GRE/HDR responded that at this time, we are meeting with each agency separately, but some joint meetings have been held. The work groups are the point where we hope to have joint agency discussions about transmission line routing challenges.

Under what conditions would CapX use the alternative corridor over the preferred route? When will the route be decided? GRE/HDR explained the route permit process and that the PUC ultimately chooses the route. GRE/HDR is planning on an approval of the Certificate of Need in February 2009. The route will be decided approximately one year from the file date, which we anticipate will be in the fall of 2008.

What kind of expansion is planned for the West Waconia Substation? Depending on the amount of land available and the potential routing options, a new substation may be needed if that system configuration is chosen. Lakeshore lots are proposed on the north side of the lake in Section 5, Benton Township just south of the substation.

METC is considering one or two new wastewater treatment facilities at Belle Plaine and Jordan. Jordan's facility is likely to be constructed before Belle Plaine, and joint ROW use with the sewer interceptors is possible.

There are lots in agricultural preserve program; however, there are no federal interests involved. There are some restrictions on condemnation.

Carver County has good natural resource data. Mr. Uttley suggested that Carver County would be able to supply GRE with various different types of data to help in the routing analysis phase. Dave Drealan stated that the county would be happy to assist in providing data. HDR will contact the county GIS staff to facilitate the collection of county data.

Does CapX ever co-locate along trails? This is possible; however, the easement for the trail would need to be obtained by another entity. The easement that GRE would obtain would only cover construction, maintenance and operation of a transmission line. CapX has received this question from other individuals. It is something we will look at when deciding on a route to apply to the state.

ACTION/NOTES

CARVER COUNTY

- Contact HDR with natural resource GIS data.

GRE/HDR

- HDR will contact the county GIS staff to facilitate the collection of county data.
- HDR will contact Mr. Uttley about a meeting with Met Council staff.

Subject: Early Coordination and Route Planning – Le Sueur County		
Client: Great River Energy	Project No:	64620
Project: CapX 2020 Brookings to Twin Cities	Meeting Location:	Le Sueur City Hall Le Sueur, MN
Meeting Date: January 29, 2008	Notes by:	Paul Fischer, Angela Piner

ATTENDEES

Ms. Tana Nereson, City of Le Sueur Planning Director, tnereson@cityoflesueur.com
 Mr. Greg Drent, City of Le Sueur Assisstant Electric Dir, gdrent@cityoflesueur.com
 Mr. Rick Almich, Le Sueur City Administrator, ralmich@cityoflesueur.com
 Mr. Brian Skok, City of Le Sueur Water/Wastewater Dir, bskok@cityoflesueur.com
 Mr. Dean Kunze, City of Le Sueur Public Works, dkunze@cityoflesueur.com
 Ms. Kathy Brockway, Le Sueur County Zoning Administrator, kbrockway@co.le-sueur.mn.us
 Mr. Darrell Pettis, Le Sueur County Engineer, dpettis@co.le-sueur.mn.us
 Mr. Craig Poorker, Great River Energy Routing Lead, cpoorker@GREnergy.com
 Ms. Angela Piner, HDR Engineering Project Manager, angela.piner@hdrinc.com
 Mr. Paul Fischer, HDR Engineering Environmental Scientist, paul.fischer@hdrinc.com

TOPICS DISCUSSED

Mr. Poorker and Ms. Piner gave a PowerPoint presentation explaining Project background, need, details, permits, and approval process. Following the presentation, the floor was opened to questions and comments.

Introductions took place.

Mr. Almich expressed surprise and concern that no township representatives were present at this meeting. Townships are important groups to include in the routing process. Mr. Poorker replied that CapX has contacted townships with letters and townships are invited to attend. Townships often prefer that communication first goes through the township boards. Mr. Almich added that utility routing tends to be better when the line follows section lines and with the utility works with land owners. He advised keeping the easement compensation within a compressed price range. He also said that landowners for previous transmission lines (circa 1978) felt as though the utility right-of-way (ROW) agents were pitting neighbor against neighbor, and advised against such an approach. Mr. Poorker replied that easement acquisition is in a different era and landowner concerns are a priority. GRE will follow existing corridors and section or fence lines as much as possible. Payments are likely to be more robust than with previous projects, which were smaller, and it will be a good investment for GRE.

Mr. Almich asked if there was any connection between the recently proposed Outland transmission line and CapX. Mr. Poorker replied that the two projects are completely independent. Mr. Almich noted that people are supportive of renewable energy, and that the Brookings line transports wind energy is favorable for CapX.

Mr. Drent asked for how long the CapX lines will be adequate to meet the state's energy needs? Mr. Poorker replied that the line was designed for anticipated energy needs for 15-20 years into the future. However, due to growing wind energy generation in southwest MN, more lines are likely in coming years. Mr. Drent asked if customer rates would increase as a result of the new lines. Poorker replied that rates will go up about \$1.50 per meter per month.

The question was asked if there would be key points or a threshold of cost or other limiting factors where the project would no longer be feasible? Mr. Poorker replied that need will likely force this project through no matter the cost. There are many components that could affect project budget and schedule completion such as world-wide steel availability, labor, and land values.

Mr. Drent asked if the line will be able to pick up wind energy as wind generation develops in southwestern MN? Mr. Poorker explained that yes, it will; energy generated by wind is first transmitted to a substation, and then the voltage is stepped up to the CapX line. Mr. Drent asked if CapX can bury lines. Poorker replied that it is a possibility for short sections. It is usually cost-prohibitive, and line maintenance and repair are very expensive and difficult once the line is in the ground. Land impacts can be greater because a wide trench must be dug to install the line.

A county park is located south of County Hwy 19, east of Henderson. Art Straub is a local landowner who is very involved in maintaining natural areas. He is a very knowledgeable environmentalist and he should be involved in the routing process. Perhaps invite him to workgroup meetings next month.

An industrial park is being developed northeast of Le Sueur along Hwy 169. The area is scheduled for commercial and industrial development.

The City of Le Sueur boundary shapefile is out-of-date on the GRE/HDR map. Tyrone, Derrynane, Sharon, and Lexington Twps are agricultural and no development is planned. Section 9 of Lanesburgh Twp (T11 R23) near New Prague is planning a park.

Unimin Mines are proposing to mine silica and sand into Section 14 in Ottawa Twp (T11 R26). An EIS is in process.

Ms. Piner asked what plans are being considered for the sewage treatment ponds northwest of Le Sueur. Mr. Almich and Mr. Skok replied that a new treatment plant is being constructed, and the ponds will no longer be used as of next year. The ponds will probably be restored but there are no firm plans that they know of at this time.

Mr. Pettis recommended Hwy 169 as a potential river crossing. The City owns the land on the north side of the highway and there is one landowner on the south side. Mr. Almich said that the east side of the river is problematic because of residential property and land use issues. Growth pressure will be more north than east. Mr. Pettis offered that staying within Hwy 169 ROW could minimize land use issues, and then go east along Hwy 28. It would also be feasible to cross along Hwy 169 and then follow the railroad corridor north beyond city development. However, the railroad company Union Pacific can be difficult to deal with.

There were no suggestions for substation locations.

Ms. Nereson said that Le Sueur is lacking for GIS data. A GIS specialist is scheduled to start work in March. Ms. Nereson will email the city GIS boundary. Ms. Piner requested zoning location information as well, if available.

ACTION/NOTES

LE SUEUR CITY

- Ms. Nereson will send the city outline boundary and zoning information to HDR, as available.

GRE/HDR

- Contact Art Straub, local landowner and environmentalist. Perhaps invite him to workgroup meetings.
- Consider a river crossing due east of where Hwy 19 turns southeast into Henderson.

GENERAL

- Ms. Nereson will be out on medical leave until mid-march.

Subject: Early Coordination and Route Planning – MnDOT District 6			
Client: Great River Energy		Project No:	64620
Project: CapX 2020 Brookings to Twin Cities		Meeting Location:	Conference Call
Meeting Date: January 31, 2008		Notes by:	Paul Fischer

ATTENDEES

Chris Moates, MnDOT District 6 Planner, chris.moates@dot.state.mn.us
 Carole Schmidt, Great River Energy Permitting Supervisor, cschmidt@greenergy.com
 Craig Poorker, Great River Energy Routing Lead, cpoorker@greenergy.com
 Angela Piner, HDR Engineering, Project Manager, angela.piner@hdrinc.com
 Dan Schmidt, HDR Engineering, Project Manager, dan.schmidt@hdrinc.com
 Paul Fischer, HDR Engineering, Environmental Scientist, paul.fischer@hdrinc.com

TOPICS DISCUSSED

The meeting began with introductions.

Mr. Poorker and Ms. Piner asked whether that Mr. Moates was familiar with the project. Mr. Poorker gave a general overview of the need.

Mr. Moates inquired about whether we've heard much about the stray voltage issue. Mr. Poorker responded it was something we've heard at public meetings, but hasn't been much of an issue to date, and is more related to electric distribution.

Mr. Moates asked about future CapX meetings, including a March 6 workgroup meeting that he is interested in attending in Lakeville. GRE/HDR will send the invitation to Stacy Kotch at MnDOT and request that she distribute it to Mr. Moates. Mr. Moates should also talk to Ms. Kotch to get her approval.

Mr. Moates asked about meetings for the Twin Cities–Rochester–La Crosse CapX transmission line. Ms. Piner said that Pam Rasmussen from Xcel Energy will be getting a hold of him soon.

Ms. Piner asked if there are MnDOT road upgrades, plans, or other considerations in the CapX project area of which GRE/HDR should be aware. Mr. Schmidt said that routing may go farther south than originally considered, but we're still looking at a variety of options. Mr. Moates said that Hwy 19 from Northfield eastward has no planned expansion for the next 20 years, nor does Hwy 19 between New Prague and I-35. MnDOT will be doing a study for an expansion of Hwy 19 from I-35 to Northfield from two to four lanes. MnDOT may not use the existing Hwy 19 for

the expanded Hwy 19 corridor. MnDOT may consider using County Road 86 along the Rice/Scott county line and into Dakota County. A northern bypass around Northfield is also being considered. No work in the City of Northfield is being considered. This project may move forward within the next 10 years, and Mr. Moates would be apprehensive to see a transmission line follow the existing Hwy 19 ROW at this time.

A roundabout is to be planned at Hwy 19 and Co Rd 86 on the Scott and Rice County border. It will only partially be funded with state money. Also, an interchange at I-35 and Hwy 86 is being considered. The I-35 interchange at Dundas will be improved some time in the future. There are no plans currently for expanding I-35. Some day it will expand to six lanes, but not in the foreseeable future. Mr. Moates was not sure how much ROW would need to be purchased for that expansion. Mr. Moates will look into how much ROW would be needed and will give that information to Ms. Piner.

Hwy 3 may expand to four lanes sometime in the future. There are no plans or studies being considered at this time. This road is under MnDOT Metro District jurisdiction from the Dakota/Rice county line north.

No plans are being considered for Hwy 56, Hwy 246, or new rest stops along I-35. Existing rest stops are found at the Northfield and Fairbault exits off I-35. A park-and-ride is located in the NW quadrant of the I-35 and Hwy 19 intersection and may be enlarged at some point in the future.

Hwy 21 may be considered for upgrade to 10-ton load capacity some time in the future. No plans or studies are being considered now.

ACTION/NOTES

MnDOT

- Mr. Moates will give information regarding ROW widths for I-35 expansion to 6 lanes to Ms. Piner.

GRE/HDR

- Send an invitation for the March 6 work group meeting in Lakeville to Stacy Kotch, MnDOT, to be distributed to Mr. Moates.

Subject: Early Coordination and Route Planning – State Historic Preservation Office		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	Historical Center, St. Paul
Meeting Date: February 6, 2008	Notes by:	Angela Piner, Carole Schmidt, Paul Fischer

ATTENDEES

Mr. Dave Mather, SHPO Nat'l Register Archaeologist
 Mr. Dennis Gimmestad, SHPO Review and Compliance Officer,
 Mr. Mike Justin, HDR Engineering Senior Archeologist, michael.justin@hdrinc.com
 Mr. Craig Poorker, Great River Energy Routing Lead, cpoorker@GREnergy.com
 Ms. Carole Schmidt, Great River Energy Permitting Superintendent, cschmidt@GREnergy.com
 Ms. Angela Piner, HDR Engineering Project Manager, angela.piner@hdrinc.com

TOPICS DISCUSSED

Introductions took place. Mr. Poorker and Ms. Piner gave a PowerPoint presentation explaining Project background, need, details, permits, and approval process. Following the presentation, the floor was opened to questions and comments.

At present, no state review process takes place with SHPO. GRE/HDR need only be concerned with the federal process. SHPO is still refining how to coordinate with the Department of Commerce (DOC). Agencies play variable roles with tribal consultations. SHPO will be involved if historic sites are found off reservations, or on reservations without a Tribal Historic Preservation Office (THPO). SHPO will concur if sites and findings are eligible for listing on the National Register of Historic Places (NRHP). SHPO is not responsible for and cannot conduct government-to-government consultations.

SHPO recognizes three classes of resources important for the project:

- Historic Landscapes (state law only covers things listed on the state and national register)
- Archeological Sites (covered under state law)
- Architectural Sites (state law only covers things listed on the state and national register)

SHPO suggested GRE/HDR do a literature review of the route corridor once the corridor has been narrowed down, and then a more targeted investigation should take place. SHPO suggested the investigation include an inventory survey so a comparison of potential impacts to cultural resources for the alternative routes could be conducted.

SHPO suggested using a probability model for historic landscapes and archeology resources. Many are available with varying levels of usefulness. A probability model like MnModel could also be used to identify archaeological resources. HDR isn't authorized to obtain Mn/DOT's MnModel data; Mn/DOT will only release the data to archeologists on staff at state agencies. The data GRE/HDR has is only what is known – it is likely the areas the project crosses have not been surveyed. GRE/HDR asked what probability models have been used in the past that worked well. Mr. Mather stated that water pipeline projects in Iowa have used models with some success.

GRE/HDR asked what triggers ground surveys. SHPO stated that the DOC has an obligation to conduct ground surveys but that obligation is not specific. SHPO suggested getting their concurrence regarding DOC's requirements for ground surveys. Statue regarding surveys is found in Chapter 138 (Minnesota Field Archaeology Act).

GRE/HDR suggested it may be helpful to hold a meeting with staff from all three CapX projects and the DOC to clarify their involvement. Other federal agencies could be invited depending on how each project has federal agencies involved.

Architectural History sites should be looked at once the route is determined. Under state law, buildings are not evaluated unless the project is defined as a federal undertaking under Section 106 of the National Historic Preservation Act. SHPO recommends GRE/HDR should identify structures currently listed on the NRHP and evaluate impacts.

Historic landscapes are an issue and should also be addressed as a visual resource issue. One such landscape is located along the TRL line in Goodhue County. It includes 32 farms as a rural agricultural landscape from the late 18th and 19th century. GRE/HDR asked how they could identify historic landscapes to prevent impacts to them. SHPO suggested a historian identify/evaluate landscapes and seek concurrence so that issues do not arrive at the 11th hour in federal review. A probability model for historic landscapes could be used.

No rules prohibit showing cultural resources on maps. However, SHPO requests that GRE/HDR be sensitive to these resources. Perhaps label cultural resources as “sensitive resources.”

GRE/HDR would be viewed as having put forth a reasonable effort if they search the cultural resources database and identify known sites for architectural history and historic landscapes. If they want to meet the level of review necessary for Section 106 federal review, then GRE/HDR would need to develop a survey strategy for SHPO to offer suggestions specific to the project.

ACTION/NOTES

GRE/HDR

- Organize a meeting with SHPO, DOC, and the other projects in CapX to discuss cultural resources, surveys, and CapX's approach to these resources.

Subject: Coordination and Route Planning - USFWS		
Client: Great River Energy	Project No:	64620
Project: CapX 2020 Brookings to Twin Cities	Meeting Location:	USFWS Field Office, Bloomington, MN
Meeting Date: 04/25/2008	Notes by:	Anita Corrigan, Paul Fischer

ATTENDEES

Laurie Fairchild, USFWS
Chris Trosen, USFWS
Carole Schmidt, GRE
Craig Poorker, GRE
Angela Piner, HDR
Paul Fischer, HDR

TOPICS DISCUSSED

Project Update

Poorker described Project activities since last meeting, including narrowed corridors and possible river crossing areas. Public hearings for Certificate of Need will be in late June. A preferred route should be selected by the end of June, followed by open houses at the end of the summer. The Route Permit Application to the Public Utilities Commission will be submitted in September or October 2008.

Data Discussion

- HAPET data can be sent to Darrin. GRE/HDR should communicate directly with Rex Johnson, but cc Fairchild.
- Location and availability of Nexrad data
 - Fairchild will check with one more person and get back to GRE/HDR.
- Ecological sensitivity model used for wind farms
- USFWS trust land in areas west of Henderson
 - NWR land acquisition is taking place south and north of Henderson with little land acquired west of Henderson.
- National Tall Grass Prairie Refuge boundaries
 - Piner will send our data of parcel locations to Fairchild (shapefile or map). This area could be a naming remnant in GIS, or managed by the Bigstone USFWS office. GRE/HDR should ask them.
- Prairie chickens
- Data needed from USFWS

Perception of involvement with COE permit

- The USFWS has commitments under CWA. If the Project needs a Corps permit for filling of wetlands, the USFWS will comment on public notices.
- Communicate with USFWS equally with the Corps
- Let USFWS know if GRE foresees mitigation as part of a Corps permit
- Wetland banking is part of a federal review team
- USFWS involvement with routing and river crossing location regarding a Section 10 permit allows a 'back door' relationship with the USFWS as input would already be provided.
- USFWS will need involvement in a Section 404 permit. Impacts to wetlands should be evaluated using construction impacts, not just the permanent footprint.

Surveys

Federal nexus – This is not a trigger yet, but the topic hasn't been narrowed down enough to tell. It will be difficult or not possible to obtain a compatibility determination across refuge land. The project probably would not need a compatibility determination in the same way to cross a USFWS easement. Mitigation would be required, such as trading land for a new easement. Fairchild will send Piner descriptions of easements including wetlands, uplands, refuges, and private land, and include a sample easement agreement

- Timing and location
- Native prairie
- It will be hard to get compatibility deformation to cross refuge land. Mitigation would be required.

River crossings

NWR expansion areas –

New land acquisition efforts are taking place north and south of Henderson. The goal is to create a conservation buffer lining the Minnesota River. This transmission line should avoid these new land acquisitions. Not much land acquisition is taking place west of Henderson.

Crossings (Lower Minnesota River) –

Avian collision impacts are the USFWS primary concern.

Any crossing along a road or pipeline would be considered a new crossing. Paralleling an existing transmission line may reduce impacts, but due to the size difference between the existing transmission lines crossing the river here (69kV and 115kV), a new 345kV will add new impacts. Any alternatives to overhead crossings should be considered. Replacing an existing transmission line would be the option with the least new impacts for an overhead crossing. Using H-frame structures across the river crossing would reduce the number of lines in cross section by one set, probably from four sets of lines to three. GRE should investigate structure designs to consolidate conductors as much as possible. Lines would be marked with flight diverters or comparable device.

Significant mitigation could be involved with a new overhead transmission line crossing.

The southern river crossing areas in the Le Sueur area are probably better. -have not started to acquire land to south, are near Blakely Bluffs

Other discussion topics

Some groups have suggested the CapX should build the line bigger now, such as 500kv. What would 500kv structures look like with current technology? How would these structures impact birds and wildlife resources compared to the 345kV line?

ACTION ITEMS

- GRE/HDR will let the USFWS know if upgrading the line to 500kV becomes a viable possibility. Information about 500kV structures and ROW needs would also be sent to Fairchild.
- GRE/HDR should visit with USFWS Morris & Litchfield offices about Redwood Falls/Franklin/Granite Falls crossings
- GRE/HDR will send National Tall Grass Prairie Refuge boundaries to Fairchild (shapefile or map).
- Fairchild will send HDR descriptions of easements including wetlands, uplands, refuges, and private land, and include a sample easement agreement.
- Fairchild will look into availability of Nexrad data and get back to HDR.

Subject: BWSR Route Coordination & WCA Meeting		
Client: BWSR	Project No:	64620
Project: CapX 2020 Brookings to Twin Cities	Meeting Location:	DNR Office, St. Paul, MN
Meeting Date: 5/7/2008	Notes by:	Anita Corrigan

ATTENDEES

Ken Powell, BWSR Senior Wetland Specialist, Metro, ken.powell@state.mn.us
 Jeremy Maul, BWSR Senior Wetland Specialist- South, jeremy.maul@state.mn.us
 Tim Fredbo, BWSR Easement Specialist, tim.fredbo@state.mn.us
 Craig Poorker, Great River Energy Routing Lead, cpoorker@GREnergy.com
 Carole Schmidt, Great River Energy Permitting Supervisor, cschmidt@GREnergy.com
 Angela Piner, HDR Engineering Project Manager, angela.piner@hdrinc.com
 Paul Fischer, HDR Environmental Scientist, paul.fischer@hdrinc.com

TOPICS DISCUSSED

Introduction and Project Update

Poorker described Project, including narrowed corridors and possible river crossing areas. Public hearings for Certificate of Need will be in late June. A preferred route should be selected by the end of June, followed by open houses at the end of the summer. The Route Permit Application to the Public Utilities Commission will be submitted in September or October 2008.

RIM Conservation Easements

Lots of RIM is located in the Minnesota River valley area. Tim will try to get most recent easement acquisition info. Release from easements will probably be required for permanent structures. Releases have to be brought before the board. The board needs to have them 30 days before the board meeting.

Release of easements where there will be permanent structures will require repayment of land costs plus fees plus restoration costs. BWSR can probably allow transmission line easements as compatible use. Areas that have had money investments into habitat improvement will probably have to be purchased back from BWSR. This is called an "ultimate release." This process takes a few months to complete.

CREP easements are in partnership with USDA/FSA. After 15 years, these easements typically go to RIM. Most easements were acquired in 1998 or later. RIM easements are usually perpetual. Wetland impacts and removal of CREP easements will need approval from FSA & BWSR.

Utilities will be responsible for keeping ROW clear. Silver maples and other species on RIM easement areas are common. RIM can accommodate access across easements.

WCA Coordination

GRE/HDR should work with SWCDs individually, but have general meetings once route and potential impacts are known and when the route permit has been issued. This process involves a lot of interaction with SWCDs. Describe how wetland impacts were minimized. It is not worthwhile to meet with LGUs before route and impacts are known. If GRE/HDR sets up a meeting with LGUs before route permit is submitted, their comments can be considered. At these meetings, GRE/HDR should come prepared with: locations of pole placement, staging areas, substations, construction footprint, estimated wetland impacts, and aerial photo maps of the Project alignment. Coordinate LGU meetings around fall harvest.

Participants of this meeting should meet again once preferred and alternate routes have been determined, in the August or September timeframe.

WCA will have new rules by 2010. The current utility exemption for wetland impacts is ½ acre of cumulative impacts on a project-wide basis. LGUs will need to take a role in monitoring erosion control and wetland impacts. The DNR may choose to waive protected waters wetlands to the LGU for approval under WCA instead of the additional DNR process. This is separate from the permit needed for public utilities crossings of DNR waters.

Other Discussion Items

Consider pole spacing and construction footprint. Access roads, staging areas, substations, and construction areas all can have significant impacts to wetlands. Expect to minimize wetland impacts by using temporary bridges, winter construction, and other methods.

De minimus is based on total sum of wetland impacts project-wide. De minimus is based on wetland type, location, and building setback zones. This project should plan to exceed de minimus. Start planning replacement of wetlands. Look at wetland banks and bank boundaries. New WCA rules will be in play by the time construction impacts are known in 2010. DM&E is focusing on large, regional wetland replacement with approval from most LGUs.

ACTION ITEMS

GRE/HDR will set up a meeting with BWSR once preferred and alternate routes have been determined, in the August or September timeframe.

Tim Fredbo will get most recent easement acquisition info to HDR.

Subject: Early Coordination and Route Planning – Department of Natural Resources		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	DNR Offices St. Paul, MN
Meeting Date: May 14, 2008	Notes by:	Paul Fischer

ATTENDEES

Ms. Trina Zieman, DNR Regional Operations Supervisor, trina.zieman@dnr.state.mn.us
 Mr. Bob Hobart, DNR, bob.hobart@dnr.state.mn.us
 Ms. Lisa Joyal, DNR Endangered Species, lisa.joyal@dnr.state.mn.us
 Ms. Jade Templin, DNR Parks and Rec., jade.templin@dnr.state.mn.us
 Mr. Paul Hansen, DNR FAW, paul.hansen@dnr.state.mn.us
 Mr. Matt Langan, DNR Environmental Review, matt.langan@dnr.state.mn.us
 Mr. Ken Varland, DNR Wildlife, ken.varland@dnr.state.mn.us
 Peggy Booth, DNR SNA, peggy.booth@dnr.state.mn.us
 Steve Hirsch, DNR Ecological Rsrc Management, steve.hirsch@dnr.state.mn.us
 Janell Miersh, DNR Region 3 Hydrologist, janell.miersh@dnr.state.mn.us
 John Schladweiler, DNR Wildlife Manager, john.schladweiler@dnr.state.mn.us
 Ben ____, DNR
 Ann Gysen, DNR Shallow Lakes Program, ann.gysen@dnr.state.mn.us
 Mr. Craig Poorker, Great River Energy Routing Lead, cpoorker@GREnergy.com
 Ms. Angela Piner, HDR Engineering Project Manager, angela.piner@hdrinc.com
 Mr. Paul Fischer, HDR Engineering Environmental Scientist, paul.fischer@hdrinc.com

TOPICS DISCUSSED

Project Update

Poorker described Project activities since last meeting, including narrowed corridors and possible river crossing areas. Public hearings for Certificate of Need will be in late June. A preferred route should be selected by the end of June, followed by open houses at the end of the summer. The Route Permit Application to the Public Utilities Commission will be submitted in September or October 2008.

Data Discussion

Big woods plan: Big Woods Heritage Forest in existing state parcels, such as AMAs, WMAs, SNAs, Nostrand Big Woods. Private landowners can voluntarily enroll in registry if they own lands with big wood forests. Not much is taking place on these parcels currently. No staff are assigned to work on it, there is no formal plan, and the committee that had managed it in the past is not currently functional. Dick Peterson, DNR, would know if more is going on.

Shallow lakes program: Over 40 lakes are established under statute, no motorized craft are allowed. The program includes shallow lakes, wild rice, wildlife habitat, and feeding and resting sites. Lakes are managed primarily for migratory waterfowl. Lakes are typically 50 acres or larger and less than 15 feet deep. Some water control devices may be used, and these lands are targeted for land acquisition. These are often Migratory Waterfowl Feeding and Resting Areas.

State game refuges are often Migratory Waterfowl Feeding and Resting Areas. These can be public or privately owned.

Important wildlife habitats and wildlife corridors can include many features public and private. Any body of water, wetland, or natural area can meet the needs of wildlife. Collision fatalities with transmission lines can be a risk near any water system. Botulism can be spread from dead bird carcasses. CREP in the Minnesota River watershed has improved wildlife habitat on more than 50 acres.

Non-game wildlife including neotropical migratory songbirds could be a concern. Liz Harper has more information. Matt Langan will follow up with her to see if she has concerns. Mainly, the DNR is concerned about the Minnesota River corridor and to a lesser extent the Redwood River corridor. Avoid clusters of lakes to avoid daily wildlife movements.

Roadsides for Wildlife are aimed at upland birds, which are not as much of an issue as waterfowl. Matt Langan will follow up with Carmelita Nelson to see if she has concerns about impacts to the Roadsides for Wildlife program.

There is not much authority for visual resource plans for State Parks and SNAs, but visual impacts may occur if the line is routed in proximity to one of these. GRE/HDR should take photos from Cedar Mountain SNA and do a visual simulation of what the transmission lines would look like if the line was routed near there. Since no state parks are near the potential routes, no impacts are expected.

GRE/HDR should contact Jeannie Daniels for questions about conflicts between USFWS data and DNR data about state lands with federal interests. HDR will send the electric list in their files to Langan. Include Mike Sweet in this discussion. Langan will talk to Jane Norris and Joe Hillard about state lands with federal interest.

Blue Devil and Cedar Mountain SNAs should be avoided. Native Prairie Bank conservation easements should be avoided. A new NPB is currently being acquired. Avoid rock outcrop and rock outcrop/wetland complexes. Rock outcrops are common near the Morton area, especially north and east of there. SWCDs in Redwood and Renville Counties have land conservation programs. Fred Harris, DNR, has the Minnesota River Valley Plan. GRE/HDR should contact him for it.

Future Mines: Most mines are on private land. Mining reviews are found in the Environmental Resource Data Base (ERDB). The Minnesota River Valley Report has data on mining in that

area. Bob Hobart has more information on lands and minerals aggregate mining. Dan Martin, minerals person at DNR, is another good resource and should have some shapefiles.

Langan will include the Wild and Scenic River managers in the CapX project discussion. GRE/HDR should talk to Scott Hadelka, the Minnesota River Watershed Coordinator, about a Wild and Scenic River plan.

DNR Concerns and Other Discussion

At river crossings, reduce the number of conductor lines in cross section to minimize bird collisions. Mark lines with bird diverters.

Historic and tribe interests are being considered. GRE has met with SHPO and that discussion is underway. GRE/HDR does not have data for tribal trust lands but are interested in obtaining that data.

New routes may be considered based on work group, public, and agency comments. Generally, routes will be selected from within the original notice corridor as much as practicable.

Prairie and grasslands should be considered, prairie banks should be avoided. Lisa Joyal has new native plant community shapefiles and will email them to Dan Schmidt, HDR.

DNR Division of Waters Critical Waters Program - no areas appear to be a concern.

ACTION/NOTES

DNR

Matt Langan will follow up with Lisa Joyal to see if she has concerns about neotropical migratory songbirds.

Matt Langan will follow up with Carmelita Nelson to see if she has concerns about impacts to the Roadsides for Wildlife program.

Langan will include the Wild and Scenic River managers in the CapX project discussion.

Langan will talk to Jane Norris and Joe Hillard about state lands with federal interest.

Lisa Joyal has new native plant community shapefiles and will email them to Dan Schmidt, HDR.

Langan will contact appropriate counterparts in the Fisheries department to ensure that they are involved.

GRE/HDR

Work with Langan to contact Fred Harris, DNR, for the Minnesota River Valley Plan.

GRE/HDR should work with Langan to contact Jeannie Daniels for questions about conflicts between USFWS data and DNR data about state lands with federal interests.

GRE/HDR will send the electric list of state lands with federal interests in their files to Langan.

GRE/HDR will talk to Scott Hadelka, the Minnesota River Watershed Coordinator, and Wild and Scenic River Plan.

Send work group meeting locations, dates, and times to Langan.

Contact Langan if GRE/HDR develops new routes.

Subject: USFWS Routing Meeting			
Client: Great River Energy	Project No:	64620	
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	USFWS Visitor Center	
Meeting Date: September 4, 2008	Notes by:	Paul Fischer	

ATTENDEES

Ms. Laurie Fairchild, USFWS Biologist, laurie_fairchild@fws.gov
 Mr. Chris Trosen, USFWS Minnesota Valley NWR, chris_trosen@fws.gov
 Ms. Jeanne Holler, USFWS Minnesota Valley NWR, jeanne_holler@fws.gov
 Ms. Carole Schmidt, Great River Energy Permitting Supervisor, cschmidt@GREnergy.com
 Mr. Dan Schmidt, HDR Engineering Project Manager, dan.schmidt@hdrinc.com
 Mr. Paul Fischer, HDR Engineering Environmental Scientist, paul.fischer@hdrinc.com

TOPICS DISCUSSED

Route selection process and status

Fischer described the route selection process, explained the location of the current routes, and outlined the upcoming final stages of route selection. Comments included that direct routes tend to have fewer impacts. Also, it is strongly recommend that the lines be routed on the opposite side of the road from FWS easements. While routing lines through these easements is possible, given that GRE has the flexibility, routing through the easements would not likely be worth the fight. The FWS will provide preliminary written comments on the Project and the Minnesota River crossing options in the next month or two.

Coordinated State and Federal permitting process

Ms. Schmidt described the coordinated state/federal route permit application process. The goal of this coordination is to ensure that the State approves a route that is permitable by the Corps and the FWS. This process will be different from the joint state/federal application being pursued by the Bemidji to Grand Rapids CapX2020 Project. Because this Project does not have a full Federal nexus to NEPA, Minnesota River crossings and wetland impacts are the only issues to coordinate with Federal agencies, minimizing workload. GRE asked if the FWS could provide comment on the state process before Corps letter comes out. Fairchild agreed, saying that the FWS can and would like us to use the letter for our application to the state. GRE recommended that Fairchild or her delegate talk with Tamara Cameron at the Corps.

FWS easements, WPAs and lands with Federal interest

Fischer asked for a description of Farmer's Home Administration (FmHA) easements. This agency provides loans for rural farmers and homeowners. Borrowers can enroll land purchased through this loan in easements to help repay debt. These lands were originally taken by the

NRCS and then managed by the FWS. On FWS easements, if the landowner grants permission to a utility to route across his or her easement property, then the landowner will have to take that land out of easements and owe FWS money. Habitat easements are typically managed for birds, and transmission lines generally aren't considered compatible. GRE/HDR should look for Fairchild's forwarded email about information on easement types from the Fargo to Monticello CapX2020 project.

It may be difficult to obtain new ROW across WMAs with Federal funding. The State managing agency must obtain approval from the Federal agency that provided funds. Mike Sweet is the FWS contact person. Transmission line easements across National Wildlife Refuges and WPAs are not compatible and would not be allowed. If collocating with existing transmission line ROW, new transmission lines could be permissible, but is strongly discouraged. Routes collocating with existing corridors must be evaluated first.

FWS asked what the procedures are for mitigation when RIM and CREP easements are terminated due to a transmission line easement?

River Crossings

The FWS asked if GRE would consider undergrounding at river crossings? Undergrounding is not viable. Cost of construction can be 10 times greater, an oil cooling system is used to keep lines cool enough to operate effectively, maintenance is more intensive, failures more likely, and repairs more difficult and invasive. GRE will look into ROW and maintenance requirements for buried transmission line. FWS requests that all wires be put on one structure at river crossings. Forest clearing has large impacts, including to songbird migration.

Above-ground river crossings and wetland complexes would need to be very well marked. GRE follows APLIC guidelines and line marking across water bodies is standard procedure.

Trosen asked about any issues with smoke and prescribed burns on prairies underneath lines. GRE will look into what safety issues may occur such as arcing potentially causing fires or electrocution, damage to lines or structures, or any other issue.

Future Coordination

Fairchild will write comments on the Project for GRE before her position change. These comments can be used during the Corps process. September 29th will be Fairchild's first day at her new position at the Rydell-Crookston NWR. Trosen will take over many responsibilities from Fairchild, particularly regarding NWR issues. Laurie will try to assign someone to take over her responsibilities in this Project.

ACTION/NOTES

GRE/HDR:

- HDR will send CDs or an email of maps with routes including NWR acquisition areas
- GRE/HDR will look into what risks with fire and smoke may occur such as arcing potentially causing fires or electrocution, damage to lines or structures, or any other issue.

FWS:

- Fairchild will forward an email regarding info on easements across WPAs for the Fargo-Monticello CapX2020 line
- Fairchild will write a letter with FWS comments before she begins her new responsibilities in early October
- Fairchild or delegate at FWS will coordinate with Tamara Cameron at the Corps

Subject: MN DNR Routing Meeting		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	MN DNR
Meeting Date: September 8, 2008	Notes by:	Paul Fischer

ATTENDEES

Matt Langan, DNR Environmental Review, matt.langan@dnr.state.mn.us
 Randy Bradt, DNR Waters – Rochester, randy.bradt@dnr.state.mn.us
 Jade Tenglin, DNR State Parks Principal Planner, jade.tenglin@dnr.state.mn.us
 Diana Regenscheid, DNR Wildlife Area Manager, diana.regenscheid@dnr.state.mn.us
 Wayne Barstad, DNR Environmental Assessment, wayne.barstad@dnr.state.mn.us
 Ken Varland, DNR New Ulm Regional Wildlife Manager, ken.varland@dnr.state.mn.us
 Lisa Joyal, DNR End Sp. Environmental Coordinator, lisa.joyal@dnr.state.mn.us
 Trina Ziemann, LAM Regional Supervisor, trina.ziemann@dnr.state.mn.us
 Benjamin Schaefer, LAM Realty Specialist, benjamin.schaefer@dnr.state.mn.us
 Ann Geisen, DNR Shallow Lakes Program, ann.geisen@dnr.state.mn.us
 Carole Schmidt, Great River Energy Permitting Supervisor, cschmidt@greenergy.com
 Craig Poorker, Great River Energy Brookings Route Lead, cpoorker@greenergy.com
 Angela Piner, HDR Engineering Project Manager, angela.piner@hdrinc.com
 Paul Fischer, HDR Engineering Environmental Scientist, paul.fischer@hdrinc.com

TOPICS DISCUSSED

Route selection process and status

Mr. Poorker described the route selection process, explained the location of the current routes, and outlined the upcoming final stages of route selection. He included a brief overview of the Project.

Maps of the river crossing locations were distributed and examined. Eagle activity is common on a small lake north of the Le Sueur wastewater treatment pond crossing. The FWS has a list of all eagle nests; GRE/HDR should obtain that information. Henderson promotes bird watching as a tourist activity and transmission lines would be disruptive. Avian collisions are a concern of the DNR. A shapefile of the routes, or at least of the river crossing locations, would be helpful to the DNR staff to assess possible impacts. GRE/HDR should provide a list of all river crossings. GRE/HDR should send out the link to PDF maps of the routes on the CapX2020 website.

(Route maps are available online here: <http://www.capx2020.com/routemaps/BTC-routemaps.html>. Also, GRE/HDR emailed preliminary shapefiles of routes to Mr. Langan on September 17, 2008)

It was commented that it is better to collocate with existing transmission lines on the same pole structures. Underbuilding is better than running transmission lines in parallel. Ms. Piner will send examples of underbuilt transmission structures to Langan to distribute to the DNR.

Coordinated State and Federal permitting process

Ms. Piner described the coordinated state/federal route permit application process. The goal of this coordination is to ensure that the State approves a route that is permitable by the Corps and the FWS.

State lands and waters: WMAs, PWIs, shallow lakes

A WMA acquisition is in process near the Minnesota River crossing north of Redwood Falls. Contact Mr. Ken Varland for this information. The DNR asked what impacts to RIM & CREP easements would be, and to consider these. Ms. Giesen asked for a list of shallow lakes.

The Marsh WMA is being expanded to the west such that it would be within the route. Trout streams should be considered. Water temperature is an important factor and tree clearing could affect this as well as water clarity. Chub Lake and the Chub Lake WMA are important drainages to the Cannon River. Consider sedimentation and water quality when dewatering during drilling holes for poles. Look into Aquatic Management Areas (AMAs).

River Crossings

Maps of the river crossing areas were viewed. River crossing site visits are being scheduled and GRE/HDR will email dates and times in the coming week. Eagle activity is common near the Le Sueur waste treatment ponds. Check the NHIP database for nest locations. The Henderson bird watching group is very active and promotes bird watching tourism in the area.

ACTION ITEMS

GRE/HDR:

- Send shapefile with existing lines if possible
- Send shapefiles of river crossing areas so DNR can comment
- Angela Piner will send examples of underbuilt transmission lines to DNR
- Provide list of shallow lakes to Ann Giesen
- Check with Lisa Joyal for all bald eagle data
- Add list of all river crossings in Excel spreadsheet format
- Get list of eagle nests from FWS
- Email / include in minutes CapX2020 website link to online mapbook PDFs.
- Send PDF of comparative transmission line info to DNR
- Look into AMAs.

DNR:

- Matt Langan to provide written comments responding to a letter from GRE that will be sent in late September.
- Matt Langan will send out river crossings info to DNR

Subject: Lower Minnesota River Crossing Site Visits		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities	Meeting Location:	Belle Plaine, MN; Le Sueur, MN
Meeting Date: September 19, 2008	Notes by:	Paul Fischer

ATTENDEES

Chris Trosen, USFWS MN Valley NWR, chris_trosen@fws.gov
 Jeanne Holler, USFWS MN Valley NWR and WMD, jeanne_holler@fws.gov
 Janell Miersch, DNR Waters, janell.miersch@dnr.state.mn.us
 David Studenski, Corps of Engineers, david.a.studenski@usace.army.mil
 Benjamin Schaefer, DNR LAM Realty Specialist, benjamin.schaefer@dnr.state.mn.us
 Joel Anderson, DNR Wildlife, joel.anderson@dnr.state.mn.us
 Tana Nereson, City of Le Sueur Planning, tnereson@cityoflesueur.com
 Brian Skok, City of Le Sueur Utilities, bskok@cityoflesueur.com
 Carole Schmidt, Great River Energy Permitting Supervisor, cschmidt@greenergy.com
 Dan Leshner, Great River Energy ROW Agent, dlesher@greenergy.com
 Devang Joshi, Great River Energy Transmission Engineer, djoshi@greenergy.com
 Jim McGuire, Great River Energy Engineer, jmcguire@greenergy.com
 Rich Samec, Great River Energy Substation Engineer, rsamec@greenergy.com
 Dan Schmidt, HDR Engineering Project Manager, dan.schmidt@hdrinc.com
 Paul Fischer, HDR Engineering Environmental Scientist, paul.fischer@hdrinc.com

**Photo naming convention example: "belleplaine_west_0." This photo was taken at the Belle Plaine crossing, on the west side of the river, facing 0 degrees (north).

BELLE PLAINE AREA CROSSING

Northwest Side of the Minnesota River

Photo: belleplaine_west_0.jpg; belleplaine_west_180.jpg

After meeting in Belle Plaine, the group drove to the northwest side of the Minnesota River to see the existing double circuit 69 kV transmission line corridor which the proposed line would parallel. The existing line cuts through deciduous trees and agricultural land on the bluffs and into the river valley. The nearest road access to the river crossing was not close and the river itself could not be seen, but much of the land area leading up to the river was visible. Wetlands are located in proximity to the river.

The possibility of combining the existing wires (conductors) with the proposed double circuit 345 kV conductors on one transmission structure was discussed in detail. Combining conductors onto one structure and minimizing widening the existing corridor is preferred by all meeting

participants over routing the proposed line parallel to the existing line. Due to the highly congested nature of the existing line, and the size of the proposed line, combining all conductors onto one structure may not be possible. GRE engineers will study the crossing to see if it is feasible to do this.

USFWS is actively acquiring land in the crossing area. This crossing would be in the middle of the area of the Minnesota River where they have identified National Wildlife Refuge (NWR) expansion. Lands on either side of the proposed route have not yet been acquired by the USFWS.

Avian collisions with transmission lines is a prominent issue with crossing the Minnesota River at all locations, including this potential crossing. Minimizing the number of conductors in cross-section across the river would help minimize impacts to migratory birds. Using an H-frame structure instead of a monopole structure at the river crossings would eliminate one horizontal plane of conductors. GRE is willing to construct H-frame structures for short distances where appropriate, and will consider using H-frames at river crossings. GRE will send the avian collision fact sheet to meeting participants, and they can be downloaded at:

<http://www.capx2020.com/learn.html#factsheets>.

The Avian-Power Line Integration Committee (APLIC) developed guidelines for transmission line design to minimize impacts to bird species, including a 2006 report on raptor electrocution available for free download on their website at <http://www.aplic.org/>. Of more relevance is the APLIC and Edison Electric Institute (EEI) 1994 report on avian collisions with power lines titled "Mitigating bird collisions with power lines: the state of the art in 1994." This is available for purchase only from EEI at:

http://www.eei.org/products_and_services/descriptions_and_access/mitigating_birds.htm.

Marking only the topmost non-conducting wires, called shield or ground wires, is the standard practice for avian collision avoidance. Marker balls are required where regulated by the Federal Aviation Administration (FAA), and other devices are designed specifically for avian aversion. Markers are not put on the conductors because the conductors are larger and thought to be visible enough by birds so that they may avoid them. Perhaps more significantly, no avian diverter devices are in use that won't damage the conductors but can withstand the high operating temperatures. Avian diverter devices on conductors usually fail. However, the CapX representatives will research products and other projects to see if such devices are available (See summary of APLIC 1994 regarding marking conductors at the end of these notes).

The height of the conductors from the ground level was discussed in the context of bird migration habits. GRE will send Mr. Trosen and the DNR (via Matt Langan) diagrams of typical conductor height for monopole and H-frame 345kV structures. Migratory birds tend to fly within a certain height range above ground level. Mr. Trosen will send this information to GRE when the design phase of the project approaches so that GRE can consider the feasibility of constructing the river crossing structures to avoid having conductors within this height range. While the design phase will not likely take place until approximately early 2010, GRE will accept this information at any time.

Spring construction avoids impacts to the fish-spawning season. CapX can modify the construction schedule to minimize impacts to particular sensitive species.

It was discussed what the process for routing lines across land conservation easements such as the state Re-Invest in Minnesota (RIM) or federal Conservation Reserve Enhancement Program (CREP). CapX coordination with MN Board of Water and Soil Resources (BWSR) and the federal Natural Resource Conservation Service (NRCS) indicates that if the managing agency determines the transmission line structures or transmission line wire overhang to be a non-compatible land use with the objectives of the reserve program, then the land owner will be required to purchase the easement back from the managing agency, including fees and costs of restoration. CapX would pay for the buy-back and advise the land owner in this situation. The USFWS and DNR would be interested to see some kind of mitigation for removing land from conservation easements, such as placing other land in a similar easement.

Bald eagle activity is known in this area, and active nests have been recorded in the past ten years.

Southeast Side of the Minnesota River

Photo: belleplaine_east_0.jpg

The group drove to the nearest road access to the proposed crossing location. Again, the river was not visible, but the existing transmission corridor showed the resources in the river valley. A large open water wetland and wetland complex is located on this side of the river.

Wetland impacts were a concern here. Right-of-way (ROW) maintenance schedule and procedures were discussed. Wetland vegetation in ROWs are usually conducted in winter as clearing crews cannot access the ROW in wet and saturated soils. Mechanical clearing is the norm for woody vegetation, and herbicidal management is also used. ROW management techniques can be tailored to promote land management goals as long as obstructions are kept clear per federal regulation.

DNR and USFWS asked about burning as a prairie management technique under and near transmission line structures. The high particulate matter in smoke can allow arcing to occur, where electricity travels from the wires to the ground. Electrocutation could result if a human were under the lines in this condition. Habitat managers need to know if burns that take place away from structures, but whose smoke may be dense near the structures, are allowable. While prairie fires are typically low intensity and would be unlikely to damage concrete and steel transmission structure, it is unlikely that a utility company would allow prescribed burns near transmission structures on easements. GRE will research prairie management techniques in transmission ROW, and risks of arcing due to smoke from prescribed burns.

The DNR commented that the Helena Substation search areas are located in prairie pothole habitat, and none of the search areas are good.

The USFWS commented that the Belle Plaine crossing would likely have more impacts to natural resources and the resources that they manage than would the Le Sueur crossing.

LE SUEUR CROSSING

Photo: lesueur_west_90.jpg

The group drove to Le Sueur, where they met Ms. Tana Nereson and Mr. Brad Skok with the City of Le Sueur, and Mr. Joel Anderson, the DNR area wildlife biologist. The group then drove to the west side of the river valley.

Mr. Skok described the City of Le Sueur's plans to decommission the waste water treatment pond that CapX proposes to use as a crossing. The city plans to decommission the ponds in three to five years. They do not have final plans for what to do with the area at that time, although making the area a park has been discussed, and selling the land is another possibility. The ponds will be dredged back to original depths. Clay liners in the ponds will be left in place, and dikes will remain but will not be maintained.

Le Sueur City concerns include the following: the park on the east side of the Hwy 169 crossing, placement of pole structures in city land and resources, residential development on the top of the eastern river bluff, the industrial area on the northeast side of the city along Hwy 169 including the Cambria plant and visual impacts to the front (highway side) of that building, that CapX be considerate of the existing landscape and the viewshed of the city and Hwy 169, and the MnDOT rest stop.

Bald eagles nest in the area. Many species of mussels live in the mud of the river. Transmission line structures would not be placed close enough to the river to directly impact mussel species. Lines would have to be marked, as discussed at the Belle Plaine crossing. Structures at the Highway 169 bridge allow the river channel to meander and change over time. Transmission structures would need to be able to avoid this or accommodate it.

Meeting attendants asked if MnDOT been approached about using or paralleling their ROW along 169? CapX has been in contact with MnDOT since January. That discussion is ongoing. If CapX routes the lines outside of existing MnDOT ROW, then MnDOT has no jurisdiction.

ACTION ITEMS

CapX:

- Send Chris Trosen (USFWS) and DNR diagrams of conductor height for monopole and H-frame 345kV structures.
- CapX representatives will research markers design for use on conductors to see if such devices are available.
- CapX will research if prescribed burns that take place away from structures, but whose smoke may be dense near the structures, are allowable.

USFWS:

- Chris Trosen will give migratory flight heights to GRE to consider in the design phase of the river crossing structures.

AVIAN COLLISIONS AND MARKING OF CONDUCTORS

Information in the following paragraph has been taken from the publication “Mitigating Bird Collisions with Power Lines: The State of the Art In 1994” (APLIC 1994) This is the most recent version of this publication and is considered the leading source for guidelines relating to avian collisions

Research presented in APLIC 1994 indicates that the overhead static wires are the wires that are “most often struck by birds in flight.” Nearly all the research referenced in APLIC 1994 relates only to marking static wires. Industry-wide, marking only static wires is the accepted standard.

Bird flight diverters of all designs commonly used to mark static wires are almost exclusively made of PVC. PVC weakens and becomes brittle to the point of breaking on conductors due to the detrimental effects of ozone gas that is formed at the conductors. APLIC 1994 states that PVC devices cannot be used on conductors carrying greater than 230kV for this reason. Metal swinging plates that would be resistant to ozone have been used on static wires for diverting birds; however, these devices damage aluminum conductors. An aluminum flight diverter manufactured by Preformed Line Products (PLP) and used in South Africa was mentioned in APLIC 1994. This device was suitable for high voltage transmission conductors; however, no research was available to indicate its success at reducing avian collisions. HDR researched PLP’s website. While other standard PVC wildlife markers were available, the aluminum device was not shown in the online products catalog. While not addressed directly in APLIC 1994, the text indicated that aluminum marker spheres can be installed on conductors.

Reference:

Avian Power Line Interaction Committee (APLIC). 1994. Migrating Bird Collisions with Power Lines: The State of the Art in 1994. Edison Electric Institute. Washington, D.C.

Subject: Upper Minnesota River site visits		
Client: Great River Energy	Project No:	64620
Project: CapX2020 Brookings to Twin Cities 345 kV	Meeting Location:	Redwood Falls and Franklin, MN
Meeting Date: September 18, 2008	Notes by:	Paul Fischer

ATTENDEES

Benjamin Schaefer, DNR LAM Realty Specialist, benjamin.schaefer@dnr.state.mn.us
 Leroy Dahlke, DNR Wildlife, leroy.dahlke@dnr.state.mn.us
 Joe Stangel, DNR Wildlife, joseph.stangel@dnr.state.mn.us
 Ethan Jenzen, DNR Waters, ethan.jenzen@dnr.state.mn.us
 Lucas Youngsma, DNR Waters, lucas.youngsma@dnr.state.mn.us
 Carole Schmidt, Great River Energy Permitting Supervisor, cschmidt@greenergy.com
 Dan Leshner, Great River Energy ROW Agent, dlesher@greenergy.com
 Devang Joshi, Great River Energy Transmission Engineer, djoshi@greenergy.com
 Jim McGuire, Great River Energy Engineer, jmcguire@greenergy.com
 Rich Samec, Great River Energy Substation Engineer, rsamec@greenergy.com
 Dan Schmidt, HDR Engineering Project Manager, dan.schmidt@hdrinc.com
 Paul Fischer, HDR Engineering Environmental Scientist, paul.fischer@hdrinc.com

**Photo naming convention example: "belleplaine_west_0." This photo was taken at the Belle Plaine crossing, on the west side of the river, facing 0 degrees (north).

REDWOOD FALLS CROSSING

Photos: redwood_east_315.jpg, redwood_west_25.jpg

The group met in Redwood Falls and then drove to the western side of the Minnesota River approximately one mile from the river crossing. An existing 115 kV line runs on the opposite side of the road from the Klabunde Wildlife Management Area. CapX may be able to design structures that would allow the existing 115 kV wires plus the 345 kV wires on a single structure; however, this is not preferred for engineering reasons. GRE engineers will study the feasibility of collocating all wires on one structure for limited distances. The CapX lines would most likely be placed about 75 to 125 feet apart from the existing transmission line away from the road, or on the edge of the WMA land.

Mr. Dahlke expressed concern regarding impacts to the WMA including mature hardwood trees. GRE described how vegetation within the ROW would be regularly maintained to keep vegetation from growing too high and potentially interfering with the transmission lines.

The group drove to the river crossing at a public water access site on the west side of the river. The river is designated “scenic” and is protected by state statute. Setbacks and clearing restrictions could apply to transmission line crossings. This route may be feasible because CapX proposes paralleling an existing transmission line. GRE is studying the feasibility of combining all wires from the existing 115 kV and the proposed 345 kV onto one structure across all Minnesota River crossings. The DNR favored combining wires onto one structure across the river. Additionally, designing structures to minimize the number of wires in cross section would reduce avian collisions. GRE is looking into using H-frame structures at river crossings, which would cluster the wires horizontally instead of vertically, which would reduce the number of wires in cross section by one. The existing 115 kV transmission line feeds a rendering plant and would be difficult to take an outage on that line to build a new transmission line on the same ROW.

Several native prairie remnants, restored prairies, and rock outcrops occur on the east side of the river. Transmission lines could affect these resources, and GRE/HDR should consider these areas as they develop routes. Bedrock is shallow in this area. A river crossing where the floodplain is narrow is preferred, and this crossing would be good for that. An illegal aggregate mine is found on the east side of the river. Avoid that mine and the area because of rock outcrops and sensitive habitats.

A new prairie bank easement is located near the Granite Falls crossing north of the proposed alignment. Mr. Stangel will provide contact information to GRE/HDR so they can consider the easement.

FRANKLIN CROSSING

Photos: franklin_east_90.JPG, franklin_east_270.JPG

The group drove to the Franklin crossing where an existing 69 kV transmission line crosses the river. There is a RIM Emergency Wetland Reserve (EWR) easement on the north side of the river. A bald eagle nest is also thought to occur at this crossing; GRE/HDR should check the NHIS database, and Mr. Stangel also will look into it. There are more wetlands here than at the Redwood Falls crossing. Outside of the 1,000-foot route there are sensitive habitats including a RIM rock outcrop easement, and the Cedar Mountain WMA and SNA. The Cedar Mountain WMA is being expanded to the west side of the SNA. This expansion is outside of the proposed 1,000-foot route.

It could be feasible to build a single structure that can accommodate the 69 kV lines with the 345 kV lines for short distances. An outage on this 69 kV line to rebuild it with the 345kV line would be possible.

In general, there are fewer environmental issues here than at the Redwood Falls crossing.

SOUTH FRANKLIN/BROWN COUNTY CROSSING

Photos: sfranklin_east_270.JPG, sfranklin_west_90.JPG

The group drove to the west bluff of the South Franklin crossing. This crossing follows a county road across a single lane, 10-ton weight limit bridge that is planned to be removed from service once the bridge does not meet structural standards. North of the river crossing approximately

three quarters of a mile, there is a dry prairie near the probable ROW. With appropriate construction practices and vegetation management, transmission line construction could be compatible with the prairie habitat as transmission corridors exclude tree encroachment. CapX should ask for a wider route in this area to allow for more routing options out of the east side of the river valley. Few wetlands are found at this crossing. Those that do occur are small and can be spanned.

Meeting attendees discussed which side of road would be better to route the line. The west side of the road would minimize visual impacts, but the east side of the road would allow easier crossing of the existing 115 kV line north of the river crossing.

The group drove across the bridge to the floodplain on the east side of the river.

Although there are few environmental impacts at this crossing, once the bridge is removed from service, there will be no disturbance to the river. Adding this transmission line corridor will impact an area that would otherwise in the future have no corridor across it. GRE should minimize impacts to trees on the bluffs on either side of the river. Keep the maintained ROW as narrow as possible, especially on the west bluff where there is no existing corridor.

Because the river is not protected under the Minnesota Wild and Scenic classification at this crossing, getting approval to cross may be easier. However, because there is no existing transmission crossing, the DNR may undertake a more rigorous review of this crossing once they get the Route Permit application through the state process, which may take longer than if there was an existing crossing. A more rigorous review does not mean that the crossing can't be approved.

DNR representatives asked about prairie management techniques under transmission lines. CapX should consider this for RIM and CREP/CRP easements. GRE/HDR will look into vegetation management techniques under transmission lines to accommodate prairies. In the context of prescribed prairie burns, arcing under the wires in smoke is possible, and safety risks exist. GRE/HDR will look into the risk of arcing under the wires in smoke.

GRE answered questions about the timing and process of the route permit application submittal, review process, public involvement, easement acquisition, and construction. It was agreed that the Granite Falls river crossing meeting would be held on September 30th at 3:30pm, starting at the museum in Granite Falls.

Meeting attendees agreed that this crossing appeared to have the fewest impacts to natural resources of the three upper Minnesota River crossing locations, and recommended this crossing most favorably of the three. The Franklin crossing would be the second best option, and the Redwood Falls crossing would have the greatest impacts.

ACTION ITEMS

CapX

- GRE engineers will study the feasibility of collocating all wires on one structure for limited distances at the Redwood Falls and Franklin crossings.
- GRE/HDR should check the NHIS database for bald eagle nests at crossing locations.

- GRE/HDR will look into vegetation management techniques under transmission lines to accommodate prairies.
- GRE/HDR will look into the risk of arcing under the wires in smoke.

DNR

- Mr. Stangel will provide contact information to GRE/HDR regarding the new prairie bank easement near Granite Falls.

Subject: Upper Minnesota River site visit – Granite Falls		
Client: Great River Energy	Project No:	64620
Project: CapX 2020 Brookings to Twin Cities 345kV	Meeting Location:	Granite Falls
Meeting Date: September 30, 2008	Notes by:	Dan Schmidt

ATTENDEES

Mr. Lucas Youngsma, DNR Waters, lucas.youngsma@dnr.state.mn.us
 Mr. Randy Bradt, DNR Waters, randy.bradt@dnr.state.mn.us
 Mr. Craig Poorker, Great River Energy Routing Lead, cpoorker@GREnergy.com
 Dan Schmidt, HDR Engineering Project Manager, dan.schmidt@hdrinc.com

GRANITE FALLS CROSSING

The group met at the Yellow Medicine County Museum in Granite Falls. Mr. Poorker and Mr. Schmidt explained the project and the potential route. This route would replace an existing 115 kV transmission line. This project would eliminate the electrical need for the existing 115 kV line, so this project would remove the existing 115 kV H-frame structures and replace them with single pole double circuit 345 kV structures in the same ROW. This project would require additional ROW to widen the existing easement to 150 feet. GRE isn't sure how wide the existing easement is, but speculates that it is about 70 to 100 feet wide.

Mr. Bradt asked how many planes of wire there will be in cross section, and asked about what the utilities will do to minimize bird strikes. Mr. Poorker and Mr. Schmidt showed the typical structure diagrams and talked about the types of structures and heights that may be used in the area compared to the existing structures in the area. For the single-pole double circuit 345 kV structure that is proposed, there would be four planes of wires. Using H-frame structures at the river crossing would reduce the planes of wires to three. Marking the static wires at the top of the structures is standard at river crossings, and Mr. Poorker described the bird diverters that the utilities often use. A fact sheet about avian impacts is available at: <http://www.capx2020.com/learn.html#factsheets>.

Mr. Bradt asked if there were any other DNR lands that the project crosses. Mr. Poorker and Mr. Schmidt said that the open house maps show where the potential routes are located and show DNR lands. At this crossing, there are no DNR lands in CapX's GIS database, and none are thought to exist. RIM and CREP lands do occur at the crossing, and are common throughout the route. Mr. Bradt expressed that the proposed steel poles are better for burn areas and would be more compatible in state lands where vegetation is managed to promote prairie species.

The group drove to where the potential route crosses Hwy 23. Mr. Bradt mentioned that this area was once a pasture and the DNR has been doing some work to control cedar trees that have been encroaching on the prairie. Rock outcrops are common in this area and should be avoided. Mr. Bradt and Mr. Poorker discussed ROW width and the construction process.