

Sustainability and Resiliency Committee
City Commission Chambers
April 13, 2021
3:00 p.m.

The Sustainability and Resiliency Committee meeting was held in the City Commission Chambers at Fargo City Hall at 3:00 o'clock p.m., Tuesday, April 13, 2021.

Present:

John Strand (chair), Fargo City Commissioner
Tim Mahoney, Fargo Mayor
Bruce Grubb, Fargo City Administrator
Nicole Crutchfield, Fargo Director of Planning and Development
Brenda Derrig, Fargo City Engineer
Ben Dow, City of Fargo Director of Public Works
Brock Morrison, City of Fargo Director of Facilities Management
Jennifer Sweatman (At-Large)
Casey Steele (At-Large) (virtual)
Greta Gramig (At-Large)
Paul Matthys, Cass County Electric Cooperative Representative (Ex-officio)
Blake Mikesell, Fargo School District Representative (Ex-officio)
Dave Leker, Fargo Park District Representative (Ex-officio)

Absent:

Bruce Taralson, City of Fargo Inspections Director
Shawn Paschke, Xcel Energy Representative (Ex-officio)

Chair John Strand called the meeting to order. He reviewed the current agenda and the minutes from the March 9, 2021 meeting. Both were approved unanimously.

Public Transportation System Presentation:

Fargo Transit Director Julie Bommelman gave a presentation highlighting the many green features of the Metro Transit Garage, including rainwater collection basins, auxiliary power supply units, air quality sensors and a roof structure designed to support future solar photovoltaic collection systems. She said all lighting is being replaced with LED which will reduce energy costs about 25 percent annually, and the energy savings will repay the required local match in two years. She said Fargo has also invested in eight diesel-electric hybrid buses. She highlighted some interesting facts about public transportation, including the fact that the use of public transportation reduces fuel use and greenhouse gas emissions and annually in Fargo, 44 buses per day travel over almost 1.2 million miles, which accounts for many single-occupancy vehicles removed from the roadways. She said every \$1.00 invested in public transportation projects generate \$4.00 to \$9.00 in local economic activity, reduces the need for parking, increased the life of a roadway due to less volume of automobile and reduces air pollution. She said technology efforts such as electronic fare boxes, automatic vehicle locators, automated paratransit and fixed route scheduling and automated voice announcement systems increases efficiencies. The City of Fargo U-Pass system at North Dakota State University has vastly reduced the use of personal vehicles and now other colleges and universities in the metro area have joined

the U-Pass program. She said TapRide, an on demand service, is used in the Industrial Park and NDSU area and has been very popular.

In response to a question from Ms. Gramig asking how Transit has been affected by the pandemic, Ms. Bommelman said the last year hit the Transit system very hard with schools and businesses closed and more people working from home. She said the suste, went fare free for a year, masks are required to ride the busses, barriers were installed, airflow and air purification systems on the buses and at the GTC were upgraded. Ridership was down 31 percent for the year; however, those numbers are starting to get better.

In response to a question from Ms. Gramig asking how Transit is funded, Ms. Bommelman said 50 percent local and 50 percent Federal.

In response to a question from Mr. Grubb asking what she thinks is the future of Transit, Ms. Bommelman said the move is toward hybrid buses and more on demand services.

In response to a question from Mayor Mahoney asking about the use of smaller or electric buses, Jordan Smith, Transit Fleet and Facilities Manager, said smaller electric buses is the direction the industry is heading; however, it would be a struggle for MATBUS would be a struggle in this climate due to subzero temperatures, which are hard on batteries. He said smaller buses, which hold 10 to 12 passengers, is something that may be looked at in the future due to the fact that smaller buses means less maintenance. He said the TapRide system utilizes smaller vehicles and if that continues to be popular, he could see a fleet of smaller 10 to 12 passenger vehicles versus the larger 35-40 passenger buses currently used on the fix route system.

In response to a question from Mr. Strand asking is there a way Transit could integrate with schools, Ms. Bommelman said the Federal funding Transit receives stipulates no school services, which would compete with the private sector.

In response to a question from Mr. Leker asking about the use of biodiesel, Mr. Smith said they are no longer using biodiesel any more due to the fact that it was causing issues with the fuel systems in the buses.

In response to a question from Ms. Graming asking what is the cost per passenger mile, Ms. Bommelman she said she did not know off the top of her head; however, that information is included in Transit's annual report which also includes per mile and per revenue hour by route.

In response to a question from Commissioner Strand asking what would be some "wish" items for Transit, Ms. Bommelman said she would like to see free fares become standard and she would like to see some form of the Link FM come back for events such as the Street Fair. She said Link FM was not utilized the way it was intended and she thinks it was ahead of its time.

Sustainable Vegetation Presentation:

City Administrator Bruce Grubb said the City is involved with property acquisitions, flood buyouts, street reconstruction and other projects and he thought it would be interesting to hear from Jennifer Sweatman, Assistant Professor of Biology at Concordia College, and perhaps rethink how the City re-establishes vegetation on City-owned property.

Ms. Sweatman said native plantings and sustainable vegetation are beneficial to all. She said the native prairie ecosystems is the main ecosystem type in North Dakota and the levees and embankments created in association with the Diversion Project could be potential areas that would support native vegetation. She said native plantings can be helpful in these types of habitats due to the complex above ground biomass structure with stems and leaves for taking in more carbon dioxide and a complex network of roots, some

of which go down 15 feet below the soil surface and play an important role in water purification and soil stabilization. In contrast, she said, Kentucky bluegrass, which is what most lawns are, have short above ground structure and a short below ground structure; therefore, does not give much return in terms of ecosystem services. With photosynthesis, she said, plants take carbon dioxide from the atmosphere and produce sugars for their own physiological processes, then emit oxygen as a waste product. Grasslands contain all kinds of different species, she said, including grasses, shrubs and flowering species and they play an important role in capturing carbon and burying it deep into the ecosystem. She explained the native grass ecosystem is more resilient to changes in the climate and to droughts and tallgrass prairies support biodiversity. She said there are hundreds of species of grasses supported by this ecosystem and it is a diverse area. The foundation created by these plant species support wildlife such as deer, fox, snakes and other burrowing species, she said, which help aerate the soil. She said 330 of the 435 birds that breed in North America do so in grasslands and some birds require this habitat in order to survive. She said without grasslands, there would be a stark decline in birds and insects, including pollinator species such as butterflies and bees. She said only about 4 percent of the total North American tallgrass remains, with the most in Canada and Minnesota while North Dakota has a small sliver of tallgrass prairie and further west into North Dakota, there are mixed grass prairies. She said the impacts of lost tallgrass include losses of grassland bird species, including the loss of 75 percent of meadowlarks since the 1970s. In 1997, she said, there was a study published where ecosystem services such as raw materials and recreation were converted to a cost. The economic value to tallgrass prairie and grasslands in general came to an estimate of about \$232.00 per hectare, she said, and the major things that contributed to that cost was food production, fishing and other game species. Grasslands contain grasses, shrubs and forbs and trees are typically sparse across the landscape. The grasses play an important role in capturing carbon dioxide from the atmosphere. While grassland ecosystems are not top ranking ecosystems in terms of carbon sequestration, she said, they are thought to be more resilient to drought and fire than forest ecosystems. Forests also store most of their carbon in above ground tissues making those carbon stores particularly susceptible to wildfires. As the climate continues to warm and droughts and wildfires become more frequent and severe, above ground stores of carbon will be at risk. From a 2016 U.S. Fish and Wildlife report, she said, 86 million Americans identified as wildlife watchers and of that group, 45 million were bird watchers. With the connection of so many bird species to grasslands, she said, that number supports the cause for increasing the amount of grasslands. The report showed the total amount of money spent on wildlife watching was \$75.9 billion. She said if people are buying from local areas, they are supporting the local economy with the purchase of equipment such as binoculars, license fees, other equipment as well as lodging, food and airfare. Money being spent on these wildlife watching adventures were from 2016. She said in 2020 more people were wanting to get outdoors and she expects numbers to increase in the next report which comes out next year. She said prairie restorations or prairie reconstructions are important and significant; therefore, a project such as planting the Diversion levees is going to be a prairie reconstruction and is going to require a lot of management practices in order to make it something that can again support a prairie. She said native seed mixtures composed of multiple prairie species can be planted in an area where land has been significantly disturbed. She said someone could also reconstruct a prairie on private property or have a pocket prairie on personal land. She said the Urban Woods and Prairies Initiative, which is a collaboration between the City, Park District and Audubon Dakota, reconstructs prairies in urban sites where flooded homes were removed. She said after the structures were

removed, the prairie was reconstructed on those areas and some of the sites include Oak Port Prairie which has about 113 acres and some of the others are smaller, usually 20 to 40 acres, which are substantial chunks of land within an urban environment that have been reconstructed as native ecosystems. Some of the other sites include Forest River, Orchard Glen, Iwen Park, River Oakes and North River Drive, each having some type of prairie or wetland ecosystem that supports a lot of bird life and are popular areas in the Fargo-Moorhead area for birding. She said she really enjoys seeing that level of organisms being supported in these areas that just a few years ago were residences. On a smaller scale, she said, Cass County Soil Conservation District has been working with some local residents to plant pocket prairies on their property and do some native plantings and seedings on private property, which is another way that native prairie plantings can be taken into the City to increase wildlife watching. She said there is a pocket prairie at the red river zoo. She said there are also some local guidebooks on how to implement these management programs and how to plant a prairie and would be helpful for the reconstruction of the prairies around the Diversion Project. She said it is a six step process including setting goals, site selection, preparation of the site for seed, seeding management and then management actions and evaluation. She said that does not mean that there are not going to be challenges with managing these sites. She said these would be great sites for outreach and education and the City and County could get school groups out to plant seeds and to collect and harvest seeds to keep the cycle going. She said there are students volunteering with Audubon Dakota to collect seeds used in maintaining some of these urban woods and prairies. She said Forest River also allows for bow hunting of turkeys and there are also experimental conservation management programs in these areas with bow hunting of white-tailed deer. She said hunting and fishing also contribute significantly to conservation dollars generated through an excise tax charged for any equipment for hunting and fishing such as licenses, gear, firearms and fishing rods with all of that money going into to further conservation efforts. She said some of the challenges with reconstructing prairies are the prevalence of invasive species and in order to promote the growth and establishment of native grasses will require a multi-step approach. Smaller scale native plants are also an important way to bring the natural ecosystem into someone's private front or backyard, while increasing habitat for pollinators. She said native plants require less water and less maintenance. Another role that native landscaping can play at the city-wide level is comes from some data that was in a minnesota department of transportation report that came out relatively recently where native prairie ditches have been found to be great at holding more snow and absorb more water as snow melts also helps minimize the amount of maintenance needed. Another recent study concluded that including green spaces in urban planning can improve the overall health and well-being of the population thus reducing the rising global burden of psychiatric disorders.

Public Works Director Ben Dow said his department is doing a lot of these plantings sites becoming available, especially with flood buyouts that allows the City to restore it to natural habitat. He said Public Works will soon start the spring tree planting, with crews planting about 1,400 trees. He said his department is also involved with Reforest the Red every year and do tree planting with many different businesses and charity organizations. Some of the things that Public Works needs to do a bit better is some of the planting or restoration to prairie grasslands. He said a lot of times they let it move back on its own and grow and it is not the right species of grasses or plants that we need to have in that area and some of the things he has been reading over this last year is about pollinators and one of the things he has read most of all is the significant decrease in milkweed and their

habitat is going away and that's the number one issues that is causing pollinators to disappear. He said there are some nice canvases developing across the City along the river corridor; however, we have to work hard to pick the right species to go in the right place due to noxious weeds, Canadian thistle is very common and so as the City does these projects, picking the right locations is important so the City does not invest dollars into places that are going to end up getting taken over not just weeds so i i think we're right for the picking . He said lot of great projects that the City and Park District have partnered with and this is a step forward.

Nicole said there is a a permit process that goes through the Forestry Division that allows someone to turn their front and rear yard into native prairie; however, there has to be plan for it to be successful and communication with the property owner so that when they've gone astray if that so happens there's the way to turn it back around and move forward.

the cass clay food initiative group out of public health working on a new concept lie beekeeping and native prairie food growing in the front yard boulevards things like that and so that a resident would have a user guide if so whether they live in moorhead or fargo or west fargo they would understand those regulations and we partner with the fargo public library as well as they do a lot of initiatives and education in the community

great because that was my next question if you if there was any means of providing support or education to people who might want to do these things but they really don't have any idea how to do it it could be daunting

yeah i think with the public library and fargo parks between those two and they do a lot of community outreach

can there be more or more specific targeted perhaps those two organizations do it based on their own initiative so has anyone done it are there examples that we can go see in town

one of the great examples is in front of Microsoft, that's one of our largest permit holders as far as for a prairie restoration project multiple other players within the city limits that have gone through the process and pulled permits and then that also addresses if if you get a health department complaint for letting your stuff grow over two and a half inches then that that addresses that and allows you to keep moving forward so there is players out there taking part in this

cass soil conservation district has initiatives along with River Keepers, the Fargo Project and parks there's been discussions along the way of get into vegetation management it gets tricky disturbance as you mentioned is the number one issue as you disturb and try to re-establish contextually it's very difficult and we all have stories between forest river unicorn park, fargo project, rabanus, they all are different and and so i know we've been talking about how do we staff up in order to get experts on staff we depend i don't know i can't speak for you

dave but i know we depend a lot on prairie restoration they're one stop shop but they're very getting very distributed so there's again talking about the larger environment we could use more contractors honestly that know how to do this

yeah i know not out of its society has been wonderful i know they accepted one of the most difficult sites and are working forward to try and move forward that with that this next summer is our old snowden facility here right along the river corridor that snow had been hauled into for probably 60 70 years and they've accepted that challenge and we've done some test plottings and stuff like that so that's a partnership that we're doing to help them try and restore that site

Great just on a residential small scale last summer they did a pilot program for boulevard gardens and i took part in that so now i have a couple little boulevard gardens mostly focused on pollinators and i know a lot of folks are focusing on edible gardens for that but i believe it was renewed and that we're still able to apply for those and with city guidance get permits to build out boulevard gardens which is very exciting

dave Leker said a lot of those sites along the river into unicorn park for the woods to prairie initiative we've been working with audubon dakota and they've grown their agency and their fundraising they've helped us contract with prairie restoration. we've had a lot of these demonstration sites over the past 10 years and as it takes three to five years to establish and we've just never been able to fund that and to find experts do it so audubon dakota's done a great job of stepping up to where we can get some of these sites established and a couple good ones we have working on is the old borrow pit site near briarwood. He said one side has been growing for several years, the last one was planted two years ago so that is going to be a nice sight but up and down the river we have great sites out by Scheels arena, urban plains that one came in very well and as we get more of these sites we're actually talking with audubon dakota about co-opting a full-time employee just so we can have those experts on staff and be able to handle a lot of these prairies on smaller site demonstration plots we're actually incorporating these pollinator gardens into the neighborhood park so all this while we're trying to get more in town maybe kids can go to the neighborhood parks and check it's maybe a little kidney bean shaped planting but see some of the native plants and flowers and butterflies and bees out there audubon dakota has increased the awareness and they've done such a good job of fundraising so they've really taken the ball and ran with it

jennifer i'm just curious when you look around the table here you have the city you have the parks and you have the schools i'm just curious if you had a policy recommendation that we could all take home and go that's important we really should aim toward that what would you tell the city and the parks and the schools this is what you need to do start here do some of this i mean i'm just curious what your roadmap for us would be

Jennier starting with corridors around highways would be really important and really helpful and then bringing it in closer into the city and seeing even if we started small with things like bringing education gardens pollinator gardens within like island park for example you've got this massive green space but it's it's largely unnatural so bringing in some little areas that are natural with maybe a little sign that teaches people about that system and how it works and what it does and why it's important could be something that helps to promote that and get people more interested in seeing that in their yards

Strand if anybody has action suggestions don't hesitate putting those ideas forward. We may embrace one soon and then can report back that this is what has been done or we have decided to do this and implement

nicole said she loved the slide on the benefits and the GO 2030 comprehensive plan and that is the connection that go 2030 plan in terms of the planning department we have that earmarked for in probably two to five years for an update and also we talk a lot about how do we update you on what we're working on a lot of these types of programs but the general public wants to know and then we have really there are smart people in our organizations and universities that have a ton of knowledge and so i know that's one of your goals is how do we connect those interest groups with City day-to-day operations a lot of that's done behind the scenes on we go to riverkeeper meetings we go to discussions on that but when we're in our day-to-day operations it's it's we're just nose to the grindstone trying to get it done and so it's like how do we build those communication networks and

i love the inclusion i i think the policy recommendation is how do we include ecosystem services into our financial model and our finance model into the roi study that's getting ready to come forward so how do we include ecosystem services into the way we think i i don't know our first go at it was with the diversion back in 2009 as the core study and that was a huge debate i think that's a really fascinating comment because it takes me back to when i was studying economics and the professor would harp constantly that incentive incentives matter so how do we get into visual i mean we can action some things on via public works but then there's also the private sector and businesses homeowners how do we create incentives for people to do something different because there's a lot of there's a lot of pushback against that so i get calls every day on the fargo project would that be like incentives like put a green roof on uh do you like a tax break if you decided to convert your yard to a prairie that sort of thing to make it more valuable to people and also that's incorporating the value of that ecosystem service into your financial model it's really interesting ben so there there is some credit that can be applied to under your stormwater fees that we do collect for each either a business or a residential or i'm not the expert on that but i sat through the process and so as a residential person if you do decide to create your your yard into that there there's some options in there for not only how you deal with the storm water reduction phase and businesses have that option too so jody beer trend in city engineering is the go-to on that but i think jennifer nailed it where we where we need to be first step is education i mean there's a lot of people that it this prey restoration and projects stuff don't conform right and so when we don't conform and it looks different it's weeds or it's not working how it's supposed to and and the education part is something that i know my group struggles with to the point of veterans boulevard has three roundabouts that are prairie restoration projects and we've put signs up trying to them educate hopefully people can go and read and what's going on and so we're trying efforts but really we're not probably doing a job of pushing the education out of what's going on unless we're called into action about what's going on here so well just just to j p on what ben's talking about education pre-koved we were just starting to think about how we're going to redesign yonker farm we have the children muse up there that we're looking to maybe transition a vet out there is about ready to retire and what our thoughts were is how do how can we turn that 58 acres i think it is into like a conservation learning site so actually just this past week from where we started about a year ago we're going to reinvent this kickoff meeting and we've got several groups we've got river keepers audubon dakota the children's muse northern plains botanical society north dakota game and fish ndsu and try to put this whole out indoor outdoor learning site conservation wildlife and i guess the grand plan if i would say is can we can we build a facility together that has an educational piece an indoor amphitheater offices places to store equipment offices or i already said offices but and then outside you have trail systems native prairies if

riverkeepers gets involved basin watershed education uh northern plains botanic i mean all kinds of things in this 58 acres and it'd be a destination site for north fargo which we always get criticized as the park district everything's going south but this would bring something back to north fargo and it'd be a perfect type of an education site where it's almost yeah i mean you label plants you label trees you have trails and so i mean that's one thing just hopefully we're going to get going here and and get some momentum built up because it would be great i know there's talk out there about a children's science muse and it'd be whether they would like to locate up there but i think it would be a good opportunity for an indoor outdoor science muse so your dinosaurs go ahead mirror well i just think it's good to have a discussion on policy because you had some trees you had to cut down and people were not educated on how much thought goes into that and what has to happen in those regards and it seems sometimes we get a public pushback because they don't know our policy or know what we're trying to do but i think you make an excellent suggestion mr strand that maybe we need to talk about the policy what we're going to attempt to do as a committee of this city and green is really popular right now president's trying to fund some of that so there may be some funding that we can find to help in some of this but i think it is time to do that because with the diversion i think we have 8 000 acres that we have to figure out what to do with and how to maintain it and what to do with it that could be an educational site as well you could have bike trails through that saying here's why we have this here's what's going on great presentation really enjoyed it and i know governor burg really likes the fact that the prairie grass goes so far down and can be utilized as all the things you talked about today so really an education john did two great presentations today thank you anybody else with anything for jennifer i i have something in my mind and i'm not sure it's it's way out there in orbit relative to our local focus but i but it haunts me and when and i'm not sure how many of you are from here this region originally but when i was a kid in the i was born in the mid 50s we saw a disappearance of the wildlife we saw the birds disappear we saw the wolverines disappear we saw the porcupines disappear we saw a complete disappearance and people debated for decades what happened some thought it was radiate radioactive fallout from testing down in in the in the southern part of the country and and then later on some people suggested it was ddt so all in that context and and bretta this gets into your arena but when i go home now i'm inhaling roundup non-stop during certain seasons and there must be some really bigger connections to some of our bigger actions to even at the local level and and i'm not sure how to phrase this but but we're charged and compelled to to act big and small do you have any just initial thoughts on us as how we go forward not just for here and not just for the schools and us in our parks or but for the region i think with something like the the diversion project and what we choose to plant in this area is a way that we can lead by example this is a really great area to specifically to put a tall grass prairie ecosystem where you've got the the services that are provided in soil stabilization we don't have to worry about it washing away so i think that in one sense leading by example on that project because as we know and you mentioned the diversion project is surrounded by quite a bit of controversy so we have the opportunity to promote a native and dying ecosystem bringing in the positive aspects and and using that to promote pollinators which is a hot topic right now promote birds and continue on in that direction i think would be really great and our time is running short but like ben's dealing a lot with pollinators and monarchs but that's a local example right now moment present of a topic that humanity does care about our impacts on other forms of life and there's no doubt about that we've gotten that pretty loud and clear anything else for the good of the order thank you very sincerely and and and julie and and thank you jordan thank you for your presentation uh this is this is really really good start today is there i don't see anybody here for public comment from

the public but we welcome folks to join in and at the end of the meeting we'll always have a moment if somebody wants to show up and and share something with us that's going to be part of every agenda going forward we're going to keep meeting the second tuesday of every month at three o'clock so until further notice that's our booked time anything i'm overlooking today okay suggestions for future topics do not hesitate letting bruce know and me and us ideas for presentations down the road things that we can look at that will fit because we're gonna we're gonna keep learning chairman uh i'll let a couple of weeks go by but i'll send everybody out just a teaser for agenda items if something strikes you over the next couple of weeks always looking for agenda items it's a shot in the dark today these two presentations but i've never been prouder so it's just great just really great so thank you and thank you bruce and one last thought is let's hold ourselves accountable and let's remind ourselves of these topics and hopefully down the road we'll be able to look back and say we did something here we took this discussion and we leveraged it into constructive positive futuristic change so so don't we we can give ourselves permission to advance uh topics and ideas and and and and actions and policies that will have an impact relative to the context of what we're what we're doing here at this table any final thoughts from anybody ben big thank you to brock he brought a grant opportunity for some more lighting over on the public works campus and we we just recently got another twelve thousand dollars in grant funding for to change some lighting over on our campus over there so that's a good one there thanks bro and we appreciate the partners who are at the table the the electric companies utility companies the park district the schools we really value your willingness to to join in in this conversation our next meeting will be may 11th here in this room and on that note we'll adjourn

Next Meeting:

May 11, 2021 at 3:00 p.m.

The time at adjournment was 5:01 o'clock p.m.