

Appendix A – Case Stories

Strengthening Broadband Internet Access in Region Five



WHO:	
Champions of the Connectivity Theme:	Blandin Broadband Community (BBC) Steering Committee
Pam Mahling (former Information Research Specialist with WCTA) currently CEO of Rural Solutions Services; Kevin Larson (CEO)-CTC, Kristi Westbrook (COO)-CTC, Joe Buttweiler-CTC; Janelle Riley (CEO) Syvantis Technologies; Stacey Stockdill (CEO) EnSearch; Sally Fineday (Wireless Telecommunications Business Manager)-Leech Lake Band of Ojibwe; Paul Drange (Director of Regional Programs)-NJPA; Janet Johnson (Instructor)-MN State Community and Technical College; Rick Utech (Executive Director)-Todd Co. Economic Development Corp.	Cheryal Lee Hills (ED) Region Five Development Commission; Anna Gruber (City/County Manager) National Joint Powers Alliance (NJPA); Mary Gottsch (Director) Brainerd Lakes Chamber of Commerce - Bridges Workplace Connection; Maureen Idker (RN, BSN, MBA) Director of Telehealth) Essentia Health; Sheila Haverkam (ED) and Megan Rehbein (Administrator) Brainerd Lakes Economic Development Corporation (BLAEDC); Brenda Thomes (Administrator) City of Long Prairie

WHAT: The Connectivity Theme was created because action items on every Resilient Region theme's action plans assumed internet connectivity; for example:

However, there were large gaps in connectivity throughout the region. The Connectivity Champions' mission is therefore to find creative solutions to bridging the connectivity "digital divide", including searching for ways to fund broadband infrastructure in the region.

The Resilient Region goals for Broadband are to increase from the current 40% to 95% served.



Highway 371 Fiber-to-the-Home Project - When the

State of Minnesota announced a new grant for "shovel-ready" fiber infrastructure projects in 2014, the theme members put their heads together to find a project most likely to meet the State's requirements. CTC was in the best position to tackle such a project, but the application required detailed engineering studies, which is a costly (and often prohibitive) first step.

During a Resilient Region Champions quarterly meeting, Connectivity Theme area Champion Paul Drange met with Dr. Chad Coquette, who is a Champion with the Education and Workforce Development Theme. Paul spoke on behalf of the need for broadband access and how it directly links to the success of the Education and Workforce Development Theme area. He shared how students in underserved broadband areas must find access at or outside of local

businesses to complete assignments or homework. The lack of access is directly effecting learning outcomes in the region.

From these meetings a new partnership was formed between NJPA, EnSearch, Region Five Development Commission, CTC in Brainerd, and WCTA in Sebeka/Menahga to expand broadband infrastructure to underserved areas. NJPA pledged \$100K toward the project in 2014. This support allowed CTC to quickly complete the 2014 engineering studies and find a project that met all of the grant requirements. The Champions then worked together on the extensive grant application, with in-kind support from Ensearch, Region Five and WCTA.

The group also wanted to have the story of the region's need for broadband come alive and be less of an abstraction for the State and others. NJPA had in-house video equipment and staff which they donated to the group to create a video testimony. Over 12 hours of moving stories about the need for broadband were edited down to a 9:54 minute video that was shared not only with the State as part of the application, but shown at other broadband-related meetings throughout Minnesota. <https://www.youtube.com/watch?v=2aGx572Juv&feature=youtu.be>

Along with the NJPA support, \$41,300 of in-kind contributions toward the regional planning meetings and grant application process resulted in a \$2 million state grant, matched by a CTC investment of \$2.4 million in building fiber-to-the-home to 391 locations. In addition, with the regional plan in place, the groundwork laid, and lessons learned from the 2014 application process, plus another \$100K from NJPA in 2015 that leveraged an additional \$216,000 for engineering and coordination of regionally prioritized broadband projects (from funders such as Blandin Foundation, Initiative Foundation, City of Long Prairie, Long Lake Township, and Todd County Development Corporation), theme members completed four additional applications in 2015 totaling over \$6.7 million. If funded, local telcos will match with investments of over \$9.6 million more to lay 355 miles of fiber and reach over 2,500 households and businesses, ***and will have sufficient fiber backbone laid to continue expanding out for years to come.***

WHERE: The \$4.2 million CTC 2014 project serves Fairview Township and Fort Ripley areas in rural central Minnesota. Along with the project area's 391 residents and businesses, the township halls now have fiber connections, enabling the fire halls to better handle emergencies. Both the Fairview and Fort Ripley townships halls are also receiving free wi-fi hotspots which can be accessed by visitors and those still lacking reliable internet access. The Fort Ripley project area includes the State's rest area on Highway 371 just outside of Brainerd, Crow Wing State Park, and Crow Wing Lake Campground where wi-fi hotspots have also been installed, providing internet access to the estimated 200,000 tourists who pass through the area annually.

WHY: As stated in the Connectivity Theme goals, *"Extending high-speed internet access to the entire region increases telecommuting opportunities, provides greater access to customers and markets for businesses, and allows all residents access to civic resources and commerce."*

These are no off-the-cuff guesses; extensive research done for the 2014 grant application documented numerous needs for, and benefits from, high-speed internet connectivity, including increases in property values, at least a 1% increase in GDP, 31% business retention and 14% entrepreneurship start-ups, a variety of health-care cost savings such as up to \$84,000 per year for each avoided long-term-care residence, energy savings, and many more.

Additionally, the stories and letters gathered in the grant application process detail the more personal examples of the frustrations and limitations caused by a lack of broadband. Below is just a small sampling of the powerful testimonies received.

Economic:

Lost 251 high-paying FTE jobs because the lack of broadband. *“One of our local businesses had over 500 employees. They are now around 275 with the remainder placed in short-term, temp services. The business relocated out of our area because of the lack of high-speed internet. We also were approached by a business research center that would have employed 12-15 high level researchers and we would have realized spin-off businesses as a result of them locating in Todd County, probably for an additional 12-15 employees. We had the opportunity to attract 2 data centers (with an anticipated 6-12 employees for each business). All of this would have happened if we had had broadband capacity!”¹*

Public Safety:

“During emergencies and trainings, the importance of our country’s communications systems becomes clear ... The Pillager Area Fire Protection Association maintains two fire halls, Station #1 and Station #2 ... There is no internet access currently available at Station #2 ... There is no streamlined way of providing maps, directives, guidelines, or copies of “essential personnel” credentials during emergencies without ... internet access!”² **Chief Randy Less, Pillager Area**

Health Access Needs:

Unable to access medical records. *“When I am on call as an orthopedic surgeon and receive calls from the Hospital/emergency room regarding needs for managing injured patients I am **presently unable to access the digital x-rays and electronic records** to allow me to formulate treatment plans or give directives to Hospital staff or Emergency Physicians.”³* Letter of Support from Dr. Brian T. Briggs

Without Fiber telehealth does not exist:

*“Telehealth uses video conferencing and telecom technology to promote health for people in their typically non-urban, rural homes, hospitals and clinics . **The underpinning of telehealth is to equalize access to specialty care so people in rural environments have the same opportunities to be diagnosed quickly, to be treated more aggressively, using specialist medical care that people in the urban settings have access to. Without broadband telemedicine doesn’t happen.**”⁴*

Government:

“I have to work a lot with our Cass County offices in Walker. They can't download a map to me because I cannot get a long enough internet connection to get a map...I have to go [drive] somewhere else to pick it up...”⁵

TO WHAT END? The regional plan and CTC application were developed during the summer and fall of 2014. Construction on the project began immediately in the spring of 2015, and by fall 2015, CTC was already providing internet access to the residents, businesses, tourist

¹ Rick Utech, Executive Director, Todd County Economic Development Corporation. (2014). Letter of Support, Video Testimony and Email Correspondence. He also serves as the Resilient Region Connectivity Champion and Economic Engines Champion. NOTE: Todd County is one of our next phase priority projects.

² Chief Randy Less, Pillager Area Fire Protection. (2014) Letter of Support Region Five Virtual Highway Project.

³ Dr. Brian T. Briggs. (2014). Letter of Support for Region Five Virtual Highway Project.

⁴ Marueen Ideker, RN, BSN, MBA, Director of Telehealth, Essentia Health. (2014). Letter of Support and Video Testimony for the Region Five Virtual Highway Project.

⁵ Marla Yoho, Clerk, Fairview Township (2014). Video testimony, Region Five Virtual Highway Project.

centers and township halls within the project area. Additional applications to the state program were submitted in fall of 2015. The ones submitted by CTC and WCTA were awarded.

Therefore, with the support from NJPA (\$200,000 over the past 2 years) and now the Minnesota Office of Broadband Development investment in the region of \$3 Million - a total of \$7.72 Million will be invested in the region to expand broadband infrastructure.

CTC was successful again in 2015 in receiving a State of MN Broadband Project Grant.

The broadband infrastructure will be built out in the Fort Ripley area to provide service to 272 households. Total project costs are \$1.6 million. The State grant is for \$759,525 with the remaining \$839,475 (52% local match) provided by CTC and regional and local development agencies.

WCTA received a 2015 State of MN Broadband Project Grant for \$193,515. The project will provide high-speed broadband service to 162 households, 43 businesses and 3 community anchor institutions. Project costs are \$2.12 million. The remaining \$1.93 million (91% local match) will be provided by WCTA and local and regional organizations.

The impact is more than about the money. Other success indicators are these:

Region Helps State of MN Reach High-Speed Internet Goals. The statewide goals for high-speed internet is 10 Mbps download and 5 Mbps upload.

- Fairview Township – 146 drops/contracts out of 206 establishments passed.
- Fairview Township – 123 active ONT's as of 12/31/15.
- Fort Ripley – 265 drops/contracts out of 510 establishments passed.
- Fort Ripley – 175 active ONT's as of 12/31/2015.
- Total Installs Complete as of 12/31/2015: 298
- Penetration Rate installed as of 12/31/2015: 41.6%
- Penetration Rate sold/scheduled as of 12/31/2015: 57.4%

Increased Access to High-Speed Internet. 298 houses have subscribed to the high-speed internet service available now through CTC.

\$4,422,100 (73.5%) for labor: High-Skill telecommunications company strengthened and high-skill employees retained in the region.

Fairview Township Able to Respond to Emergencies.

<http://mn.gov/deed/newscenter/social-media/blogs/deed-developments/blog-entry.jsp?id=466-176519>

Fairview Township, located in Cass County, is better equipped to face down an emergency now that broadband service is available.

In July 2015, a supercell thunderstorm storm tore through the Brainerd Lakes area, causing millions of dollars of damage throughout the township and surrounding area.

Local law enforcement and emergency agencies communicated with each other via the statewide 800 MHz radio system. However, township officials were stymied by the lack of broadband when it came to sharing emergency information with residents, said Fairview Township Clerk Marla Yoho.

"Our Internet access was so slow, it would often take 20 minutes to send an email. Posting an update to our website was almost impossible because we couldn't keep a connection to the server long enough to get the information posted," she said.

“We had to rely on the phone, taking calls and returning messages from 6:45 a.m. to 9:45 p.m., day after day, telling our frantic residents what to do with storm debris,” Yoho said. “Our lack of reliable internet service, which was frustrating in normal day-to-day operations, was useless in this chaotic and stress-filled disaster.”

“What we didn’t have was broadband.”

For the last year and a half, Fairview Township worked with Consolidated Telephone Cooperative (CTC) through the Border-to-Border Broadband grant program application process. CTC was awarded a \$2 million grant in 2014, and all through the devastation and broken trees, CTC installation crews kept busy laying the infrastructure for Fairview Township’s future.

Recently, Fairview Township moved into the 21st century. “Our broadband service was spliced in at town hall, and my computer jumped to life,” Yoho said. “It was a dream come true.”

Yoho understood the educational, governmental and economic need for broadband. Aside from emergency situations, second-home owners wanted to telecommute. Doctors had to be able to access X-rays and records as they dispensed medical advice while out of the office. Students lacked access to online research and college opportunities. She wasn’t able to connect with Cass County officials in Walker, over 60 miles away.

“We just didn’t realize how essential having reliable, high speed Internet would be in an emergency,” she said.

“If we are faced with another emergency situation, we have the broadband in place to allow our fire department and township officials to interact with our residents on a timely basis.”

Internet Users. High-Skill/High-Wage Jobs Retained in the region. *“I’ve shared many of our success stories, but there is a recent event that happened which was really appreciated by our team. One of the customers in Fairview Township that took a Gig of service from us (our first Gig residential customer) telecommutes for Microsoft. He is now doing all of his work from his home in Fairview Township. He was paying over \$600 a month for wireless data through AT&T. He now pays \$200 for our Gig Internet. He is thinking he might buy another Gig sometime soon.” Kristi Westbrook, COO, CTC.*

Work remains to help low-income seniors and students gain access. Although through the support from the Blandin Foundation low-income families will gain access to 100 PC4People computers, the need remains to help low-income seniors and students gain access.

Other impacts of our work:

LLOB Wireless Telecommunications Business

Increased Access & Skills: 50 LLBO Low Income Families

The Shop (Youth Defined Space in Brainerd, MN)

Increased Access & Skills: 72 Low Income Families

Reduced Electronic Waste: 3000 pounds of electronic waste were recycled in 2015

Workforce Development in High-Tech Skills: 1 VISTA member, 2 youth from Rural MN CEP Youth Services and 7 youth from alternative schools who participate each semester on Thursday from 9 to 11 developing workplace skills and learn how to refurbish computers

HOW: Champion Dr. Stacey Stockdill has agreed that the fiber project has definitely influenced other theme areas and shares that all of the Resilient Region Champions were instrumental in supporting, and thus obtaining, the state grant. Expertise and testimonies from Healthcare, Affordable Housing, Changing Populations, Education and Workforce Development, Economic Engines, Efficiencies in Government, and others enabled the group to fortify the application with solid research as well as moving human impact stories. New relationships with the 50+ Champions and the Blandin Broadband Community Steering committee have strengthened with the fiber network project. <http://www.njpacoop.org/statewide-regional-solutions/cities-and-counties/newsletter/broadband/>

Links for Connectivity:

Virtual Highway Whitepaper:

http://www.resilientregion.org/cms/files/Presenting_the_Virtual_Highway_Project_September_13_2013_new_logo.pdf

Thank You to the Region:

<http://www.resilientregion.org/cms/files/FINAL%20R5DC%20CTC%20Press%20Release.pdf>

Making Affordable Housing Available in the Region: Sprucewood



WHO:

Central Minnesota Housing Partnership (CMHP) <http://cmhp.net/>

Bill Reinke, former Executive Director, worked with the project until Spring 2012. **Deanna Hemmesch**, who had worked with CMHP since 1999, became the Executive Director in 2012 and a key partner in the Core Team and Lead Champion for the Housing Theme group.

Bill and Deanna were instrumental in bringing to the planning and implementation work – Minnesota Commissioner, Mary Tingerthal, (Minnesota Housing Finance Agency) and Warren Hanson, President and CEO of Greater Minnesota housing Fund. They helped coordinate a “Housing Dialog” in St. Cloud and one, after the plan was completed, in Brainerd where Colleen Landcamer, State Director, Rural Development, United States Department of Agriculture.

Cheryal Hills, Executive Director, R5DC had been a member of the CMHP board of directors. She knew of the skills and talent that CMHP would bring to the table and invited staff, in the very first meeting to decide if the region should pursue the HUD/DOT/EPA Sustainable Communities grant.

University of Minnesota Regional Sustainable Development Partnerships. The U of M Regional Development Partnerships, formed by the Minnesota Legislature in 1997, is a research and outreach partnership between Minnesota citizens and University of Minnesota faculty, staff and students who work to sustain Minnesota’s natural resource based communities and industries by addressing community-identified agriculture, natural resources, and tourism issues.

Dr. Kathy Draeger, Statewide Director, U of M Regional Sustainable Development Partnerships, provided oversight of the connection between the U of M and the resilient region planning work and brought the “university assisted” part of the project’s tag line to life. She provided leadership and methods for the scenario work, was an active member of the project core team, and served on the project advisory committee.

Jean Coleman, Jean Coleman, Sustainability Organizer, U of M Regional Sustainable Development Partnerships, assisted with the coordination of the project and leveraged staff and student resources from the University of Minnesota. This work was instrumental in the development of the scenarios, data analysis for the FHEA, The Central Minnesota Sustainable Development Plan creating a Resilient Region Reviews of the Comprehensive Plans, and development of the Policy Toolkit. Jean also coordinated work with the William Mitchell Law School.

Phil Hunsicker, Lakes Regional Program Director, Envision Minnesota, (formerly 1000 Friends of MN) was formed to address citizen concerns about sprawling growth patterns. The organization was launched in 1993 as a program of the Land Stewardship Project, and in 1998 was incorporated as a separate non-profit. Envision Minnesota promotes development that enhances the best of Minnesota’s thriving small towns and cities, healthy natural resources and a growing economy. Phillip Hunsicker was the author of the Conservation Design Scorecard. For the Resilient Region project he was a member of the core team, identified key issues in land use, facilitated the Land Use Workgroup, assisted with preparation of materials and facilitation of all the consortium meetings, and prepared the Land Use Tab.

Molly Zins, Executive Director, University of Minnesota Sustainable Development Partnership (Central Region), joined the Resilient Region team as the planning phase was coming to a close. She agreed to become the lead champion for the Energy Theme area.

Jason Edens, Director, Rural Renewable Energy Alliance, participated throughout the planning process and then became a Champion for the Energy Theme. With the help of a small group of dedicated volunteers, Jason started RREAL in his basement and garage in 2000. Under his leadership, RREAL has grown out of the basement and has performed over 400 low-income installations and hundreds of market rate installations. Jason holds his Masters in Environmental Studies from Bemidji State University. jason@rreal.org

Commissioner Tingerthal engaged with the Resilient Region work a number of times: a) providing access to an affordable housing planning meeting – Fall of 2011 in St. Cloud – where initial goals and action steps from affordable housing professionals were obtained, b) presenting at one of the Community meetings where more than 150 from the region heard her speak about affordable housing in Minnesota and were able to ask questions about the value of this work, c) bringing her staff to the region after the plan was completed to ask, “How can we at MHFA help you implement the plan?”, d) convening a meeting at her office with the Commissioner of Minnesota Transportation (MNDOT) and Commissioner of the Minnesota Department of Employment and Economic Development (DEED) with Resilient Region Champions to determine how to move the Connectivity goals forward, and f) writing letters of support for various Resilient Region implementation projects.

WHAT: Sprucewood Townhomes

The Sprucewood Townhomes project is an example of how when a region operates from the frame of “inclusion” instead of from the traditional standards of “silos” that amazing things can happen!

During the time of the Resilient Region project:

- An estimated 10,214 people were homeless in Minnesota.
- Housing foreclosures were at a .51%-.75% rate.
- Pressure was being placed on our natural resources because of rapid construction. In fact, in the Brainerd/Baxter area a moratorium had been placed on construction to figure out a way to balance the need for business and housing expansion with the preservation of our natural resources – the very reason so many want to spend time in our region (as tourist or seasonal homeowners) and why so many of us want to live in this special place.



Although the concept of Sprucewood was in place, multiple applications to Minnesota Housing Finance Agency (MHFA) had not been approved. According to Deanna Hemmesch it was from what she learned as part of the Resilient Region Planning process and the partnership with many of the Resilient Region Champions, specifically – Jason Edens, Phillip Hunsicker, Cheryal Hills -- that an award winning application was prepared.

Specific changes included: Solar panels, location change to add a foreclosed piece of property, back-to-back townhomes and other adjustments to meet low-impact design standards. The application was submitted to State and Federal agencies, because it was part of the Resilient Region Plan we received one priority points on the application and were then awarded Low Income Housing Tax Credits to leverage funds in the amount of \$6.2 Million dollars to build Sprucewood.

Sprucewood Townhomes consists of 34 units of newly constructed, general occupancy, back to back townhomes. The buildings are wood frame with some brick. They have attached single car garages, gable roofs with shingles and include photovoltaic panels. There are three (3) buildings with 1 Tot lots (playgrounds). The design was similar to Grand Oaks and Grand Oaks Court projects, two highly successful projects in Baxter. In these projects all three townhomes were

financed utilizing Low Income Housing Tax Credits, they had to contain a certain amount of rock/brick, and open space and green standards that had to be followed.

Homelessness. Four (4) units were set aside for Long Term Homeless, with Mid-Minnesota Women's Center, who provides services for victims of domestic violence, acting as the service provider.

New Use for Foreclosure. The property proposed for Sprucewood Townhomes was bank owned. CMHP had a purchase agreement with the Black Ridge Bank to purchase the property. Black Ridge Bank provided a letter for the application stating that the property was part of a foreclosure action.

Use of Existing Sewer and Water Lines without Substantial Extensions. Sewer and water are available at the proposed site. The city letter provided evidence of threshold requirements to verify that substantial extensions were not required.

Efficient Use of Public Resources. The project used Housing Tax Credit. It only asked for the amount to make the project feasible. The project met three of the State of Minnesota's Strategic Priorities: 1) It will finance additional affordable housing opportunities, 2) it will seek to end or prevent long-term homelessness for 4 families, and 3) it will utilize a foreclosed property.

Efficient Use of Public Resources - Cost Reasonableness/Cost Containment and Balance with Environmental Vitality. The development team has worked together on several similar projects. Additional items have been included in this project, but were not anticipated to create any problems. The team strived to find efficient methods of cost saving: an efficient floor plan, allowing for adequate living space while not "overdesigned" in terms of square footage. The 3 buildings consisting of 8, 12 and 14 units, were designed in a similar fashion so that there would be efficiency in construction, i.e. repetitiveness and familiarity with the design on the part of subcontractors – this in turn saved money and time.

- **Site Work, SWPPP Plan, and Landscaping:** Careful planning and coordination ensured that site work done during construction for the Storm Water Prevention plan coordinated with final grades and landscaping to achieve the long term storm water management needed for the site. The first lift of asphalt was put down as quickly as possible to ensure that there was a stable site for crews to work from.
- **Concrete:** There was concerted effort to schedule foundation work to be seamless from building to building to maximize crew size and decrease unnecessary mobilization. Concrete slabs were poured as soon as possible to allow for easier framing conditions.
- **Framing:** Penalization specialist crews were used to compress the timeline and maximize productivity. Just in time material delivery eliminated unnecessary moving and mobilizations on site.
- **Finish:** Using specialized teams focused on tasks, i.e. one doing cabinets, one doing trim, one doing doors and hardware, eliminated learning time and unnecessary starts and stops.
- **General:** The project manager and job supervisor were the same person to achieve maximum communication and efficiency.
- **Alternative Energy Option.** Sprucewood Townhomes incorporated a Solar Electric System Module Yingli YGE series, or photovoltaic panels on the south side of each building. This assisted with lowering electrical costs at the property.
- **High Efficiency Heating.** Sprucewood Townhomes includes a high efficiency forced air gas furnace.
- **Return on Investment for Alternative Energy System.** Sprucewood Townhomes worked with Rural Renewable Energy Alliance (RREAL), a local company out of Pine

River, MN. The feasibility study, conducted by RREAL, estimated that the photovoltaic system would show an estimated payback time of 10 to 12 years. The initial report showed a longer payback but did not include the additional “Green Criteria” included in the Sprucewood Townhomes. With the additional improvements, it was anticipated the payback would be less than the report showed.

Photovoltaic systems have no moving parts and perform reliably. The major components (modules and inverters) carry a 25 year warranty and have a 35 to 50 year service life. RREAL only uses the highest quality products and materials; anodized aluminum, tempered glass, stainless steel hardware and appropriately rated electrical equipment are RREAL’s minimum standards. These products are virtually indestructible and will easily outlast even RREAL’s comparatively conservative performance estimates.

- **Reduction in Electric Bills.** The energy savings is helping CMHP reduce their expenses which has allowed them to keep the rents lower for the tenants.

Target Population: Long Term Homeless. The targeted population for the Long Term Homeless (LTH) units were battered women and their families who were working with the Mid-Minnesota Women’s Center in Brainerd. These are families meeting the Long-Term Housing definition and in need of a permanent place to live to keep themselves and their families safe.

The main organization recruiting clients is the **Mid-Minnesota Women’s Center**. They also work with **Lutheran Social Services, New Pathways, Crow Wing County Human Services Brainerd HRA, Pequot Lakes HRA, Crow Wing County HRA** and other service providers in the area.

Tenants must meet the LTH definition, be referred by a local services provider like Mid Minnesota Women’s Center and meet the income criteria (less than 60% Area Median Income (AMI)). Potential applicants must fill out an application like all other potential tenants. After the application has been submitted, a full time, criminal and credit check is done. The property director, property manager and Mid-Minnesota Women’s Center staff hold a conference call to discuss any items of concern to the owner or Management Company. Considerations are made on a case by case basis.

The **Housing First** model seems to fit the needs of the type of families that Mid-Minnesota Women’s Center (MMWC) work with. MMWC is a 24 hour crisis emergency shelter and community resource for women and children escaping domestic violence, they are always making referrals and providing resources to agencies and programs in the community that will meet or benefit the needs that are expressed by the clients. The Sprucewood Township project expanded MMWC’s resources to gain access to CMHP long-term homelessness units. Recently CMHP has shifted from working with MMWC to Lutheran Social Services to provide the Long Term Homeless (LTH) services.

To What End – More than Bringing 6 Million to the Region:

The project has reached it original Supportive Housing Outcome Goals & Outcomes:

<u>Outcome Goal(s)</u>	<u>Indicators/Measures</u>	<u>Impact Data</u>
LTH clients will maintain permanent housing at Sprucewood.	75% of the clients will maintain housing at Sprucewood for a minimum of 6 months	Families have maintained housing.
LTH clients will remain in a safe environment away from violence.	75% of the households will remain safe for 6 months.	Families have remained safe.

Children will stabilize and attend school.	75% of the clients children will remain stabilized and attend school for the next 12 months.	Children are stabilized and attending school.
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The Resilient Region Goal – to increase affordable housing in the region, and especially in the Baxter area where Zach Tagar estimated that 2,254 Affordable Housing Units were needed – is moving forward. According to Deanna Hemmesch:

At any given time we have 34 families living at Sprucewood Townhomes. This totals: approx. 93 people (including kids, significant others, etc.) with a household size averaging 2.7 people.

Other goals that this project addressed that were covered under the RR plan include:

- 1. Provide housing options to the homeless population. Sprucewood incorporated 4 Long Term Households - these households would truly be stabilized during their tenancy if they followed the rules and were not evicted (which has happened).*
- 2. Assist with the foreclosure crisis. The property purchased for Sprucewood Townhomes was a foreclosed piece of land.*
- 3. Increase energy efficiency and strengthen the emerging renewable energy industry in the region – In the Sprucewood Townhome project solar panels were provided by a local renewable energy nonprofit – RREAL.*
- 4. The project included a city trail along our property as well as the Mental Health Hospital that adjoins our property to complete that trail to the city wetlands behind the buildings.*
- 5. CMHP adopted the Green Standards from MN Housing which was also part of the RR plan.*

Energy Efficiency Results in \$5,808 savings and Lower Rent. *“The system at Sprucewood has generated 72.6 MWh since it was commissioned. If we multiply that by a typical retail rate of \$.08/kWh of net-metered solar electricity, energy savings are approximately \$5808. However, there are significant additional ancillary benefits in that Central Minnesota Housing Partnership is using the savings to further subsidize rent at the affordable housing units and even provide nearly no-cost rent for two-four homeless families that have been victims of domestic abuse.”* Jason Edens, Director, RREAL



Additional Information regarding the Resilient Region work in Affordable Housing:

Affordable Housing

<http://www.resilientregion.org/affordable/>

Affordable Housing Model: The model and the analysis.

<http://www.resilientregion.org/cms/files/Resilient%20Region%20Affordable%20Housing%20Location-Allocation%20Model.pdf>

<http://www.resilientregion.org/cms/files/Mapping%20the%20Process%20for%20the%20Scenarios%20and%20FHEA.pdf>

Service Member Housing Done Affordably: Our story

<http://www.resilientregion.org/cms/files/Affordable%20Housing-FINAL.pdf>

Addressing Energy Poverty, Clean Energy and Renewable Energy Development in the Region



WHO:

Champions of the Energy & Affordable Housing Themes:

Jason Edens, Director, Rural Renewable Energy Alliance (RREAL)
Molly Zins, Executive Director, University of Minnesota Sustainable Development Partnership (Central Region)
Jennifer Bergman, Executive Director, Brainerd Housing Redevelopment Authority
Keith Olander (Dean of Ag)-Central Lakes College
Sarah Hayden (Coordinator)-CERTS

Jason Edens, President, The Rural Renewable Energy Alliance (RREAL) in Pine River exists to make solar energy accessible to people of all income levels. As a non-profit we focus on serving low-income families that live in fuel poverty. <http://www.rreal.org/>

Jennifer Bergman, Executive Director, The Brainerd HRA provides redevelopment and affordable housing opportunities to strengthen its neighborhoods. <http://brainerdhra.org/>

Sarah Hayden, Coordinator, CERTS The Clean Energy Resource Teams—or CERTs—are a statewide partnership with a shared mission to connect individuals and their communities to the resources they need to identify and implement community-based clean energy projects. <http://www.cleanenergyresourceteams.org/about>

Molly Zins, University of Minnesota Sustainable Development Partnership (Central Region). The Central Regional Sustainable Development Partnership (CRSDP) fosters community sustainability through citizen-driven University partnerships and sustainable development projects in agriculture, clean energy, natural resources, and tourism and resilient communities. <http://www.extension.umn.edu/rsdp/central/>

Keith Olander, Dean of Agriculture, Central Lakes College. The CLC Agricultural and Energy Center has a rich history of research and demonstration efforts to support new opportunities for economic development in greater Minnesota. The center has been in operation since 1968. It includes a ten-acre site owned by CLC and a 420-acre farm leased from the Staples Motley School District and Staples Economic Development Authority. <http://www.clcmn.edu/>

WHY: In the fall of 2010 the Region Five Development Commission received a HUD grant. The last two years were spent building a regional plan, **The Resilient Region Plan**. We are now working towards implementation of this plan!

Energy in our region: Not all of the jobs that were lost in the past ten years were to developing countries with lax regulatory oversight and low wages, many jobs were lost to advancements in technology and related productivity gains. Because the region has many companies that are working within energy related fields, developing breakthrough technology in energy production will be critical for advancing the industry cluster and the region.

Energy Issue I Goal

Increase energy efficiency: Create a more energy efficient region through working with utilities and emphasizing energy efficiency. Employ education and outreach to capitalize on technological advancements in energy including smart grid technologies and renewable energy conducive to our region such as geothermal, solar, wind, biomass, energy storage and hydro power.

The energy Champions have been successful in using their combined resources to leverage additional resources and to see savings for low-income households. Their work also with Community Solar Gardens has the potential to provide region-wide savings and address fuel poverty throughout the region.

WHAT: Local Solar Non-profit installs Solar Electric System on a Low-income Home

LOCAL PARTNERSHIP PROVIDES SOLAR POWER ENERGY SAVINGS TO BRAINERD

FAMILY Brainerd, Minnesota---A Brainerd family will benefit from solar power energy savings through a partnership among Brainerd Housing and Redevelopment Authority (HRA), Rural Renewable Energy Alliance (RREAL), Region 5 Development Commission (R5DC), and Brainerd Public Utilities (BPU). The collaborative effort began when RREAL and Brainerd HRA partnered to install solar electric panels on a house owned by the Brainerd HRA. RREAL is a private nonprofit corporation that makes solar energy accessible to people of all income levels.

Local Family Moves from Fuel Poverty – to Fuel Efficiency/Stability. Together, along with a grant from R5DC and BPU's Renewable Incentives Program, they were able to provide the solar electric system at no cost to the family or the HRA. It is anticipated that **the family will save approximately \$25 per month on their electric bill.** Installation of the solar electric Enphase System took place at the Brainerd residence the week of February 1st. The Enphase System includes a monitoring and analysis system that provides useful information and real-time performance tracking.

“Through the use of this solar electric system, we’re able to off-set about 70,827kW of energy. This equates to a savings of \$11,219 over the 30-year life of the system,” explains Jason Edens, Director of RREAL. Jennifer Bergman, Executive Director of Brainerd HRA, added, “This project is a win/win. We are conserving energy and our low-income family will pay less on their monthly electric costs.”

Retained and Expanded the Capacity of RREAL. Working in partnership with the Brainerd Housing Redevelopment Authority (HRA), RREAL's *Solar Assistance* program delivered a 2.16kW photovoltaic (PV) system to a low income rental property in Brainerd. This flush roof mounted system is intended to be a pilot project to illustrate how RREAL's mission to deliver solar technology to people of all income levels can easily evolve to include photovoltaic projects. Traditionally RREAL's *Solar Assistance* program has helped deliver supplemental heat through a solar powered furnace. There are specific requirements a site must have in order for it to be suitable for different solar technologies. Being able to offer PV as part of our *Solar Assistance* program broadens our audience and those we can help through this innovative program. We look forward to learning how to best incorporate PV through this installation and are grateful for the partnership.

WHAT: Community Solar Gardens

There have been many partners engaged in the Community Solar Garden project, most of which are tied in through the Resilient Region Plan. This project aligns with the Resilient Region plan goals to improve energy efficiency and adoption of affordable clean energy.

The Energy Champions have been focused on establishing a community solar garden in the region with a particular interest on Community Solar for Community Action agencies who serve low income residents. A “conventional” Community Solar Garden allows rate payers of a utility to “subscribe” to a solar installation that is centrally located without having to install the system on their home. The credits from the production of their subscription shows up on their utility bill. For example, if someone rents, they would be unable to put solar panels on the roof. However, anyone can subscribe to this program and still reap the benefits of solar. The conventional community solar garden model is being promulgated and deployed statewide, but the Community Solar for Community Action project is a unique “twist” on the model that is specific to the Resilient Region which makes the model appropriate for low-income energy assistance applications. Resilient Region Energy www.resilientregion.org

The basic premise is rather than simply paying a low-income family’s energy bills through energy assistance, this program can provide long-term subscriptions to low-income households in lieu of energy assistance to provide a long-term, clean and domestic solution to fuel poverty. The energy assistance payments would be used to purchase the subscription rather than a one year temporary fix.

The project is important because it represents a transformative model that can reform the federal energy assistance program and create a nationally relevant model that can easily be replicated nationwide. Energy assistance is delivered in all 50 states, and this model is relevant throughout the U.S. Building a community solar garden is important for the region as it aligns with several theme areas including Housing, Economic Engines, and Changing Populations, which increases the impact area for this work.

The first Community Solar array for Community Action agencies in will begin in 2016.

Numerous relationships have developed with power companies, non-profit entities, RREAL, R5DC and private consulting companies such as Creative Energy Services, and the UofM Clean Energy Resource Team. Rural Renewable Energy Alliance (RREAL) has been a major partner for the community solar garden project. RREAL has been working with a community action agency to develop the solar garden, in partnership with Minnesota Power to launch and build out the solar garden. Clean Energy Resource Teams and a private consulting company; Creative Energy Services applied for and received support from the University of Minnesota RSDP on adding value to the effort of RREAL.

WHAT: Solar Schools Project - addressing energy poverty

Region Five has been awarded a grant of \$1,993,660 from Xcel Energy to develop solar energy projects at multiple school sites in the five counties served by Region Five. The total amount of solar to be developed in these projects is 1,493.76 kilowatts of DC nameplate capacity, using equipment made in Minnesota by tenKsolar. These systems would produce at least 1,858,000 kilowatt-hours (kWh) of clean energy in the first year and 42 million kWh over 25 years. Participating schools have also expressed strong interest in using these solar facilities as “living laboratories” that would be integrated into their STEM curricula.

Project Goals and Objectives

- Install total of 1,493 kilowatts of solar capacity
- Demo coordinated regional strategy for solar development
- Build regional capacity for further solar development

- Save schools money on energy costs over time
- Create “living labs” for STEM-based curriculum
- Strengthen relationship with Utility providers where possible

Specific benefits to school districts

Important to not understate the intent of this project with all of the participating schools is to deliver STEM based curriculum that will add value at the K-12 sites and build upon the already fantastic energy related programs at the Leech Lake Tribal College and K-12 participating schools.

- Turn-key solar facility for \$5,000 capital cost
- Solar energy at discounted rate for 20 years
- Platform for future renewable energy projects

LLBO Tribal College added value

HIRE college students from the Leech Lake Tribal College who have graduated from the renewable energy courses onto the Rural Renewable Energy Alliance (RREAL) ...our design, engineering and construction firm.... crews. Well paid jobs that will build a resume and potential opportunities for LLTC students. R5DC and other partners are committed to additional efforts that reduce barriers to LLTC students to participate in this program such as transportation, day care etc.

Community impacts

Given that between 40-60% of the children in K-12 schools are eligible for free and reduced lunch and poverty rates within the region continue to be high we anticipate that the energy savings to schools will have a direct impact to schools budgets and ripple effect to tax payer residents.

Collaborative Planning, Policy Development and Implementation Partnerships



WHO:
Champions of the Transportation Theme: Tim Houle (Engineer)-Widseth, Smith and Nolting Jarrett Leas (Engineer)-Kadrmass, Lee and Jackson Tad Erickson (Regional Development Planner)-R5DC

WHAT/WHERE: In the Transportation theme area, Champion Tad Erickson, has been a part of several regional transportation efforts in the areas of planning, policy and implementation for several modes throughout the region.

Planning

In the area of planning, R5DC staff facilitate the Transportation Advisory Council (TAC), a group of 19 local officials including highway engineers from each of the five counties and the three state aid cities from throughout the region. This group also has representation from special interest groups and all modes of transportation.

The TAC is charged with addressing issues of local and regional significance; reviewing and guiding the development of various transportation plans and studies effecting the region; providing input to the Minnesota Department of Transportation (MNDOT) in planning , policy and project development; and recommending a prioritized list of transportation projects seeking federal aid through the Central Minnesota Area Transportation Partnership (ATP).

Additionally, R5DC and several members of the Region Five TAC participate and are members of the ATP. Minnesota has established a decentralized investment process relying upon the input and recommendations of eight Area Transportation Partnerships (ATPs) throughout the state. ATPs bring together the transportation recommendations of MnDOT and other transportation partners into an integrated list of transportation investments called the DRAFT ATIP. ATIPs are prepared annually by each ATP and cover a minimum of four-year time frame.

These groups meet annually and develop an integrated list of competitive road, bridge, highway, and trail projects to be submitted to the state for funding from throughout the MnDOT District.

Policy

In addition to statewide, regional and local planning, the Resilient Region Transportation theme champions are very active in innovation and best practices for the development of transportation policy. Perhaps one of the most dramatic changes in transportation policy is taking place in the area of active transportation policy. **The Resilient Region Transportation theme Champions commissioned an Active Transportation Policy study which reviewed the current active transportation policies for each of the five county seat cities throughout the region. The**

study compared and contrasted the cities active transportation policies and made observations as well as recommendations regarding policy changes.

Additionally, the Resilient Region Transportation theme Champions, commissioned a second study regarding rural rideshare programs.

This study was conducted by the William Mitchell School of Law and focused on best practices surrounding the most sustainable models of rideshare programs including the best legal structure of organizing and operating such a program.

Implementation

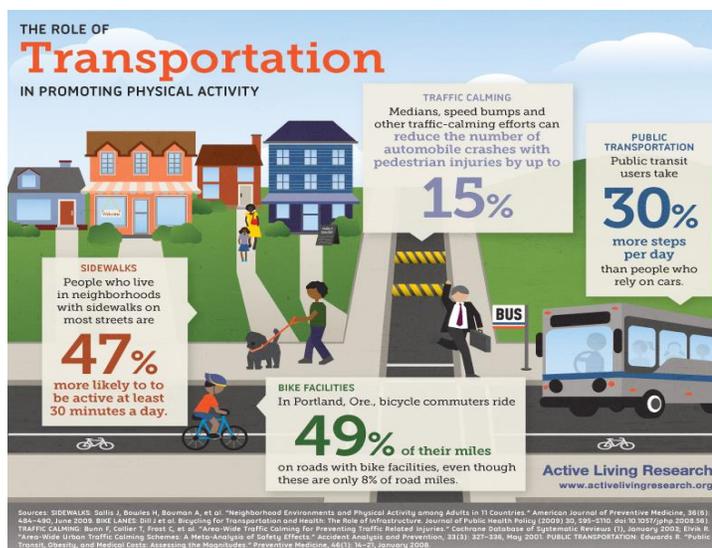
Just as in planning the Resilient Region Transportation theme

Champions are active in coordinating with state and local partners to bring transportation plans to the point of implementation expeditiously. One way the Resilient Region Transportation theme Champions are doing this is by working as a liaison between MnDOT and local units of government to review the MnDOT Districts 10 Year plan to identify any potential changes to the projects planned in years 5-10 of the 10 year plan. By doing this review in years 5-10 we can avoid changes to projects in years 1-4 when project changes are more apt to lead to project cost overruns and or time delays.

WHY: These types of collaborative planning, policy and implementation partnerships provide a cohesive mechanism by which to deliver high quality transportation outcomes to the region quicker and more efficiently than would otherwise have happened. By engaging in a highly collaborative planning process, that includes the state, regional and local partners, we have created an atmosphere of communication, trust and respect that allows local input into a process that is regionally managed and centrally directed.

HOW /WHEN: Each year, MNDOT opens solicitation for several federal funding opportunities, and conveys the appropriate information to the regions. The regions then disseminate the information to their local partners who in turn respond via letters of intent and or applications. From there the process works its way back through the TAC, ATIP, and ATP process described earlier, until the ATP has its annual list of projects to submit to the State Transportation Improvement Program (STIP).

Additionally, the studies commissioned or done by the Resilient Region Transportation theme Champions are done as needed throughout the calendar year.





Additional Benefits – Safe Transit for Children. The Transportation Champions have been instrumental in developing Safe Routes to Schools plans for schools within the Region Five area. **Plans for four communities that included 8 schools have been written since 2012, which has indicated how 2727 students travel to and from school.** These plans are designed to improve the health and well-being of children by enabling and encouraging them to walk and bicycle to school through planning efforts that improve safety and access for children. Schools, in partnership with cities or counties have the opportunity to qualify for funding to make these improvements under the Safe Routes to School infrastructure grant.

Links for Transportation:

Minnesota Department of Transportation <http://www.dot.state.mn.us>

William Mitchell College of Law <http://www.wmitchell.edu>

National Center for Safe Routes to School <http://www.saferoutesinfo.org/>

National Highway Traffic Safety Administration <http://www.nhtsa.gov/>

Choose Health – Addressing the Missing Meal Gap with Local Foods



WHO:	
<p>Champions of the Economic Engine Theme: Arlene Jones, Owner, Sprout Marketplace Sandy Voigt, Regional Business Specialist, R5DC Vicki Chepulis, Grants Program Manager, Five Wings Arts Council</p>	<p>Partners: A health and hunger project funded by Hunger-Free Minnesota, in partnership with: Region Five Development Commission, Lakewood Health System, Sprout, Todd County Public Health, University of Minnesota Extension, Prairie Bay, and EnSearch, Inc.</p>

What: Central Minnesota’s Choose Health program is an innovative pilot program that is growing the region’s local food economy and increasing access to healthy options for food-insecure residents through a unique regional partnership of a health care system and food hub. Choose Health is one of several regional initiatives that is growing the region’s local food economy and increasing access to healthy food options for disadvantaged populations.

Why: Food insecurity, reduced food intake and disrupted eating patterns due to families lacking money or other resources for food, is a common problem across the U.S. and within our own communities. Between 10-14% of the population in Cass, Morrison, Todd, and Wadena Counties at any given time is food insecure. According to the Centers for Disease Control and Prevention (CDC), hunger and food insecurity increase the risk for under-nutrition. In turn, under-nutrition can negatively affect school performance, behavior, and social skills, as well as overall health, including both physical and cognitive development.

About one-fifth (19%) of the Staples population is at or below the federal poverty line, and many are marginally above this line. Additionally, the unemployment rate in Staples is 9%, which is higher than Minnesota’s unemployment rate of roughly 5%. These factors are contributing to the growing concern of food insecurity in Staples. Many individuals do not know where they will find their next meal, leading to high levels of stress and anxiety in families.

According to Hunger-Free Minnesota, 14% of the Staples population is food insecure, which is higher than Minnesota’s food insecurity rate of 11.4% (Feeding America). Good nutrition is a critical part of living a healthy life. Particularly in a child’s first three years of life, vital nutrients play an essential role in proper growth and development. Therefore, even temporary food insecurity for a young child can negatively affect a child’s future physical and mental health, academic achievement, behavior, social skills, and economic productivity. With one-quarter of the Staples population 18 years and younger, it is crucial that the community has effective screening tools, referral processes, and resources in place to help alleviate food insecurity.

Where: Lakewood Health Systems, Staples, MN

When: Participants received one free Community Supported Agriculture (CSA) share bi-monthly through Sprout from June-October, 2014. In addition, cooking demonstrations were offered by UMN Extension educators and local chefs on how to prepare meals from locally

grown commodities. Additional classes such as Simply Good Cooking and I CAN Prevent Diabetes were offered by U of M SNAP-ED Educators.

Participants in the program met with the program coordinator (a student intern with Todd County Public Health) and completed a pre- and post-survey, assessing health topics, such as daily fruit and vegetable consumption; family meal behaviors; and planning, preparation, and cooking skills. Participants' blood pressure, height, weight, and diabetes risk was also completed at the pre and post screening to monitor health status over the course of the program. Additionally the program coordinator contacted families weekly to remind them of the food pick-ups and met monthly with all participants to review the program successes and barriers.

How: Choose Health is one of the Hunger and Health projects funded by Hunger-Free Minnesota. It was designed and is implemented by a unique public/private partnership: Region Five Development Commission (R5DC), Lakewood Health System, Sprout, Todd County Public Health, University of Minnesota Extension, and Prairie Bay. EnSearch, Inc. serves as project evaluator through a Hunger-Free Minnesota contract.

- The Choose Health project expands access to locally grown foods in ways that address food insecurity through an innovative partnership.
- Funded by Hunger Free Minnesota, physicians from Lakewood Health System refer families for a Community Supported Agriculture (CSA) membership. Families receive locally grown/raised commodities bi-monthly from Sprout, (a 5-county regional food hub of 40+ local growers).
- The program includes an extensive in-take process of pre & post health care screenings from Lakewood, and nutrition education, cooking and preparation demonstrations, and recipes from the University of MN Extension, alongside a concentrated community referral process and ongoing support for food insecure individuals offered by Todd County Public Health. Additionally, cooking demonstrations are offered by local premier chefs from Prairie Bay restaurant with participants of the program receiving small food prep supplies for those in need.
- The program is administered by R5DC.
- There were 339 families screened; 66 were food insecure
- 51 agreed to participate in the program.
- 40 families participated on a regular basis.
- 31 families completed and will continue into Phase II
- 19 new families quickly recruited for Phase II

Outcomes to Date (brief summary)

- 5,725 Meals for food insecure families (Phase I)
- \$8,000 Revenue for 40 small regional farmers.
- Through a partnership with Todd County and the Statewide Health Improvement Program (SHIP) provided \$552.00 for Market Bucks (an additional 235 meals).
- Thought a partnership with the Staples Community Foundation provided kitchen tools – based on the needs identified by a participant survey.

- A model has been developed with print and video materials that will aid in replication.
- Nation-wide discussions about the program (see NADO Webinar).
<http://www.nado.org/choose-health-webinar/>

Phase II Program expansion to cover the winter months.

- SPROUT providing first ever winter CSA for 50 families
- 31 of the original cohort were retained
- 19 new families quickly recruited; providers were surprised about the level of food insecurity and response/desire to participate in Choose Health
- First Winter CSA delivery of 3,12.5 pounds for 2,244 meals in November
- The second delivery will take place on December 23. It will engage the Staples High School FFA students in repacking the sacks. A turkey challenge by Lakewood Health System staff will provide each family with a holiday turkey.

Health/Behavior Outcomes:

The health care professionals cautioned that health and healthy behavior changes were unlikely in the few short months of this pilot; however, gains were evident for the 28 with both a pre and post survey:

- There was an increase in the percentage who rated their health as good or better Pre = 57% Post = 71%.
- The average number of servings consumed increased for Fruit and Vegetables.
- The average number of days of physical activity did not change.
- Data regarding eating habits for those with and pre and post survey (pairs) show two promising behavior changes: a decrease in average number of meals eaten while watching TV and an improvement in the percentage eating dinner at a table with family and friends 3 time or more.

Health/Behavior Outcomes from Pre/Post Survey (Pairs = 28), continued

- There were improvements in their assessment of their skills to plan a healthy meal, prepare a healthy meal, and shop for healthy foods.
- The changes in Blood Pressure were: 29% Improved BP, 21% Worsened BP, 46% No change in BP.
- One improved their BMI going from Obese to overweight.
- 6 of the 7 who participated in Choose had diabetes. Both measures went in the desired direction (an increase in the number of days the participants followed their providers' recommendations regarding meals/snacks and testing their blood sugar).
- 13 (46%) gained access to resources such as MNCare, Energy Assistance Program, SNAP, WIC, Earned Income Tax Credit (EITC).
- Satisfaction with care provided at Lakewood Health Systems remained high.

How can the program be improved? Six did not respond and 6 with a pre/post survey wrote "nothing". A few offered suggestions regarding more help with food preparation of foods that were new to them.

Two suggestions are already being addressed in Phase II:

1. The program is now for an entire year and
2. Central Lakes College is going to provide in the spring irrigated land for participants to grow their own gardens. They will also implement a gleaning component next year.

In addition, Lakewood Health Systems is:

1. Adding the food insecurity questions to forms for both the well child visit and diabetes visit forms.
2. Working with Hunger Solutions SnapRx (another HFMN pilot project) to explore ways to support patients/families who are identified as food insecure.
3. Exploring options to manage the EBT system next year for the farmers market.
4. The value ... in their continuation grant to HFMN, Lakewood Health System staff described how this grant has led to a new way of doing business:
5. The Choose Health team has addressed sustainability of the program through the strategic approach within this submittal.
6. Hunger Free MN has been the partner that has fostered new relationships and provided opportunities for our region to work in new ways.
7. It has been refreshing for private/public health care professionals to work alongside economic development practitioners and farmers, in new ways that achieve our collective goals.
8. This new way of doing business will no doubt evolve this program and benefit our region..”
9. Even further testimony of how the partners have benefited may be found on the soon-to-be-released video. An extended draft version may be found at:
<https://www.youtube.com/watch?v=HdudNW3zbsc&feature=youtu.be>

The value ... 100% would recommend the program to others. Nothing is more profound, then the voices of the food insecure:

“It gives families another food option. I have never been able to use a CSA and it was a great experience.”

“I loved it all.”

“Any program that provides recipes for healthy meals is an excellent idea for families and young children, in my ECFE classes we are always trying to find healthy recipes that are quick and easy.”

“It is awesome trying new things and having fresh veggies to eat.”

“Especially the poor, every little bit helps.”

“Helped to have fresh veggies I may not have been able to afford.”

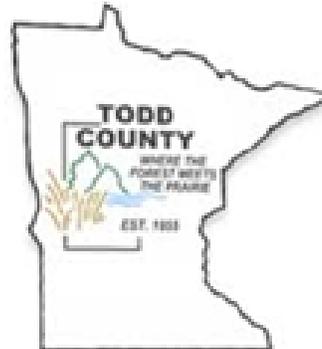
“It encourages healthy eating and helps those who may not have the means to buy fresh foods to have some.”

“It was such a relief to know that we would be getting fresh local produce biweekly.”

For more information, see Sprout case study.



Food Hub



A Central Minnesota Rural Food Hub Case Study – Sprout: Past, Impact, Lessons Learned, and Aspirations

Past:

Food is at the heart of every community. It brings families and neighbors together, defines and blends culture, nourishes health, and fuels life. And the system of producing, processing and distributing food creates jobs, engenders opportunity, drives innovation and productivity, and facilitates creative expression, especially in underserved rural and urban areas.

In the face of resource scarcity and growing local demand, Sprout is a regional model for our food system capable of building community resilience.

Sprout is helping entities that spend millions on food — including school cafeterias, hospital institutions, long-term care facilities, and regional restaurants — buy local. We coordinate the development of scale-appropriate aggregation, processing, and distribution infrastructure to move food within regions. We support family-scale farmers, ranchers, and food processors to access markets, capital and technical assistance needed to feed their communities and steward their land. And we inspire eaters to choose and champion homegrown.

Using industry standard descriptions, a regional food hub is a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand.

By working with numerous regional partners, Sprout is filling a niche not only in local foods, but is building capacity within market channels of value with processing and education demonstration fully licensed kitchen facilities within a warehouse destination marketplace where artisans, regional chefs, growers, producers and the public come together in an infusion of art and food, retail sales and community building.

History:

Built on the history of building economic development through the value chain of local foods on her own farm, Arlene Jones spearheaded the first Farm to School efforts in Central Minnesota with the largest school district in the region, Independent School District 181 (Brainerd, MN). Realizing that one farm could not provide enough volume to satisfy institutional demand, Arlene organized a consortium of growers to begin to scale up to fill this demand. Moving from one district to three, and adding numerous institutional and restaurant accounts, Sprout was established on the grassroots efforts of numerous visionary growers, economic development professionals, personal consultants, and educational institutions within the region to identify growers/ranchers and distribution channels to collaborate in order to fill institutional orders for Farm to School, Farm to Institution, Restaurant and Direct to Consumer demand for local foods. Specifically, the planning and implementation spurred by the Resilient Region recognized that there should be a focus on developing land use plans that keep farm lands in production and to promote local agriculture and affordable food production (<http://resilientregion.org/cms/files/Economic%20Engines%20Goals.pdf>). By recognizing there were gaps and bottlenecks in physical infrastructure and value added processing capacity, and that agricultural production is an important economic sector for this rural, agricultural region, Sprout was founded by:

Arlene Jones – The Farm on St. Mathias; Cheryal Lee Hills – Region Five Development Commission; Julie Anderholm – Central Lakes College Small Business Development Center; Sharon Wetteland – Consultant; Janelle Riley – Syvantis Technologies; Carol Anderson – Morrison County Development Commission; BJ Allen – BJB World, LLC; Dr. Stacey Stockdill, EnSearch, Inc.

Currently, Sprout is in midst of developing an underutilized warehouse facility in a rural area in Central Minnesota, listed by USDA as a food desert. This designation was considered when choosing the physical site for Sprout, as it contributes to capacity for impact, access to funding, and also because of its trunk highway proximity for distribution capacity.

Core to the concept of building the food system, founders were committed to working to be inclusive in building capacity in the consortium of growers. In recent years, numerous communities have seen a culture shift in its residents and growers, including Amish, Latino and Tribal growers. While these pockets of growers have had moderate success in gaining access to market channels, they had largely been excluded from traditional large scale participation in wholesale institutional models. In addition, buyers had long expressed concerns with working with numerous independent growers, citing potential complications with multiple transactions and verification of independent growers' compliance with food safety rules and regulations.

In 2013, Arlene Jones applied for and received a two year Bush Foundation Fellowship. Briefly, her fellowship focused on building sustainability of food systems in Central Minnesota by engaging growers of all backgrounds; gender, age, geographical region, ethnicity, and race. While the network of farmers includes female farmers, teenage farmers, and those with very diverse backgrounds, she realized that there are many groups of farmers who had not been able to access markets. These key stakeholders brought with them the diversity of language, culture, community history, a sense of place, and an opportunity to build local communities by engagement, storytelling, and putting a face to the food. For the Central Minnesota team, inclusivity meant that when human stories are told, emotional connections are made, and communities are built.

Impact:

From one grower and one farm, Sprout is now working with 70 (61 in financial transactional relationships through the food hub and 17 in training opportunities only). While growers earning market share through the food hub waxes and wanes, it is noted that successful relationships have been forged with 70 small family farms within 15 counties throughout Minnesota. Historical grower demographics can be broken down as follows:

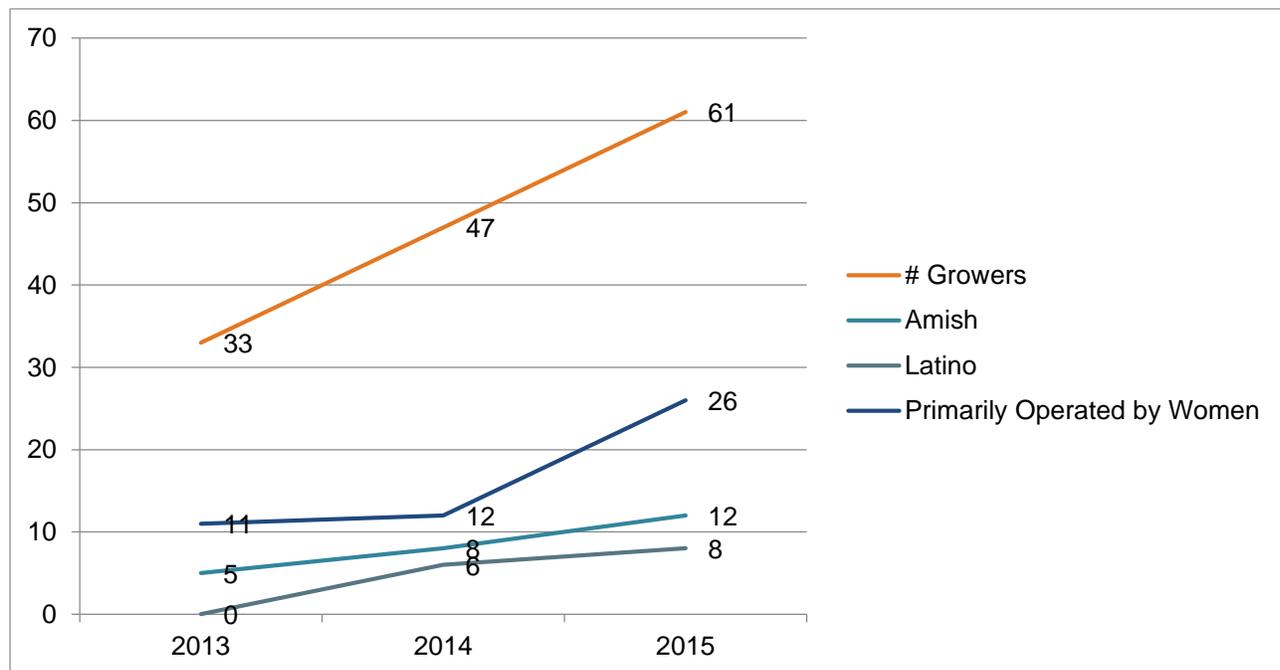


Figure 1 Sprout Grower Demographics

In addition, to the extent that can be known, many growers, particularly Amish growers, are reporting that their participation in the Sprout food hub model, has raised their household incomes by as much as 10% per year.

To meet food safety standards, Sprout has hosted numerous grower trainings in collaboration with the University of Minnesota Extension, Renewing The Countryside, and Minnesota Institute for Sustainable Agriculture. Within the framework of these trainings, growers participate in order to increase their intellectual capital and compete in a market ever changing by food safety standards. Most growers (32) have participated in the “Post Harvest Handling” trainings.

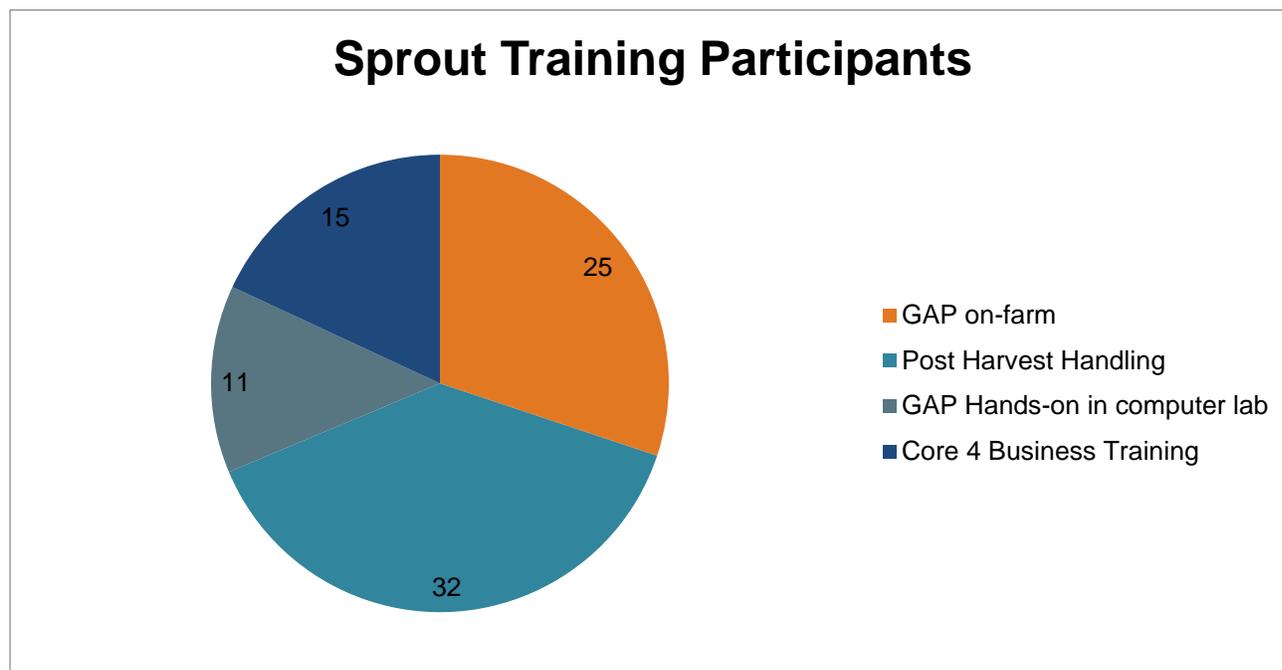


Figure 2 Sprout Grower Training Demographics

Growers who attended these trainings come from numerous social and cultural backgrounds. Specific focus was made to provide transportation arrangements for Amish growers, and to work with cultural leaders in the Latino communities, who attended the training with Latino growers. Providing the structure for these training sessions includes organizing training, obtaining sponsorships to offset/subsidize the cost of the training for growers (Regional Development Partnerships and Central Lakes College), site logistics, transportation, and communication. The goal for all is how on-farm food safety is critical in building and maintaining market channels for Sprout’s grower consortium.

In addition to the work of aggregation and distribution of locally grown foods, Sprout Grower & Makers Marketplace has cultivated new relationships with food entrepreneurs and artists, continuing to add value to the local foods market channels instituted in Central Minnesota. With an initial opening in late 2015, market opportunities have been widely expanded within the direct to consumer model for numerous growers and makers as follows:

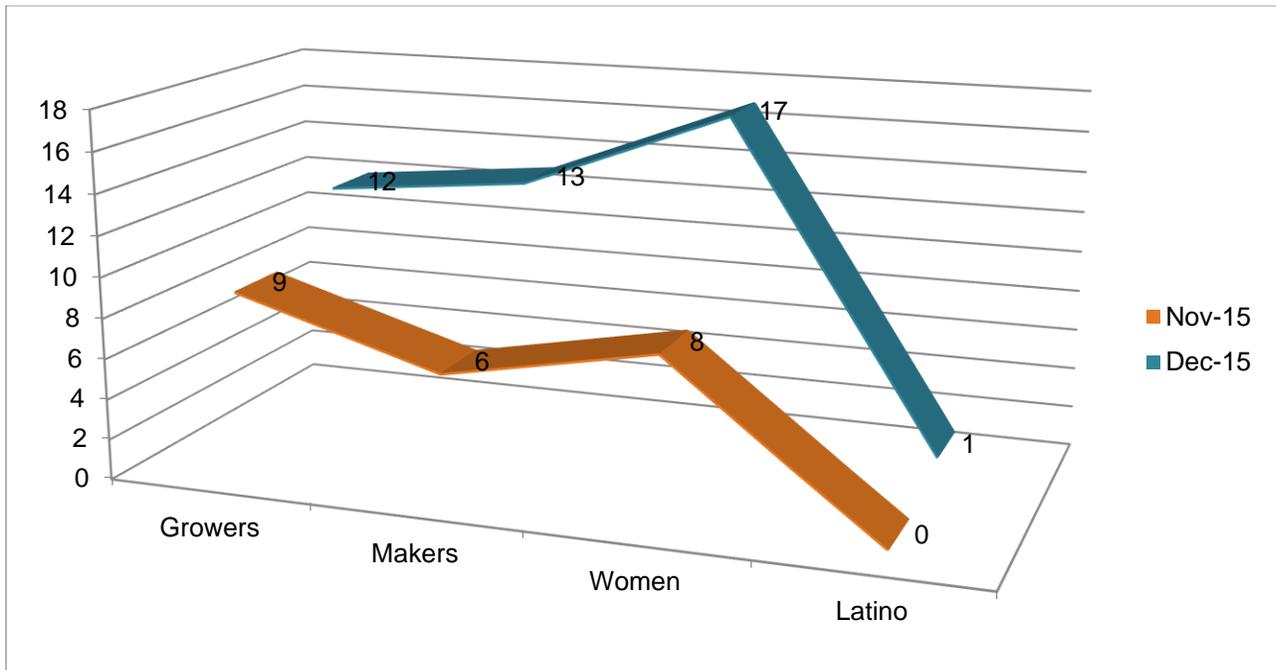


Figure 3 Demographics of Initial Growers & Makers Marketplace

Lessons Learned:

Sprout was formed by, and is led by a team of women. Gaining linkages and connections in Central Minnesota as a singular or team of females leading the farming community to a new model of local food production and marketing, has not always been an easy task. Additionally, when the commitment to creation of equitable markets for all growers was made, these linkages and connections, have, at times, faded away. While we've established the grower participation in this market model will ebb and flow, it has been clear that some growers have not, will not, and discontinued to participate due to our engagement with numerous diverse cultures. These shifts in participation will likely continue as we continue to diversify our grower collaborative.

Many demographics for this five county Central Minnesota region are simply data generated by the color of our skin. This data does not begin to tell the story of our cultures, belief systems or values. However, it is worth revealing:

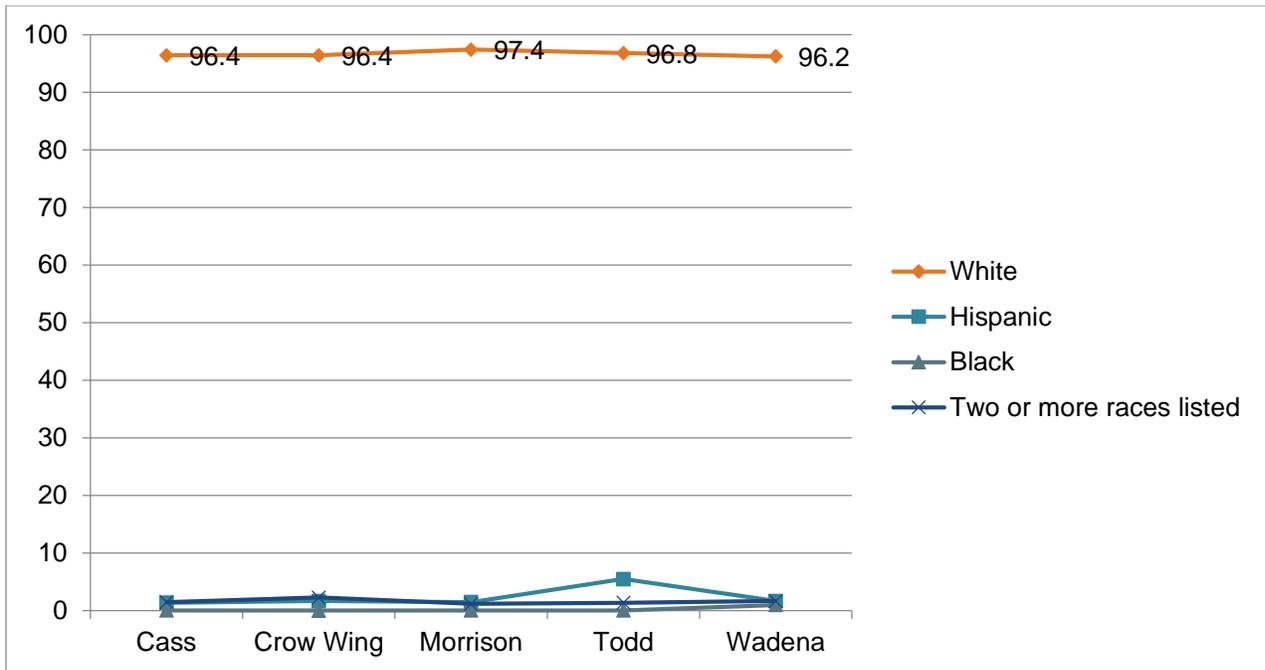


Figure 4 - County total % of population by race 2014 - Source: quickfacts.census.gov

According to Elizabethtown.edu, the total Amish population in Minnesota in 2013 is 4,160.

The Sprout team knew there were numerous Amish Settlements in the Todd and surrounding county areas. And, like any relationships to form and flourish, there must be connections. Additionally, these growers were known to have great potential for production and were also looking for additional markets. Initial relationships were formed through area farmer’s markets (Staples) and through the local food cooperative.

The Sprout team traveled to Clarissa, Minnesota on a windy and wintery day in April, 2013. We were invited into our grower’s warm wood heated home, and sat among the table with numerous multi-generational farming family members. A special treat was offered with wood fired cinnamon rolls and old-fashioned cook stove coffee. From this initial meeting, we’ve grown the Amish community of growers from 1 to 12 Amish families who have worked to build the local food initiative in Central Minnesota.

The honor of this work includes the privilege of trust, honoring of culture and belief systems, and the handshake of financial transactional relationships. The Sprout team has been enculturated. When we first met the Amish community, we were very careful to ask only pertinent questions related to the financial transactions, communication and transportation logistics, and items necessary to have a business relationship.

Observational interviewing, listening, and even asking questions have helped us learn. We learned photography was forbidden, and that the chosen dialect for their small children was German. So we smiled and waved. Children finish school when they are 16. We did not ask for assimilation. We understood and demonstrated capacity to identify with situations, to put ourselves in their positions in a limited and very restricted way – with a mutual understanding that is a financial transactional relationship, coupled with friendship and humor in a very finite way. Metered self-disclosure, on both sides of these relationships, has proven to be very beneficial in truth. The truth of knowing each other’s stories, sharing small glimpses into our own familial structure, how we came to these moments, has begun to bridge the gaps between cultures. It is now more than just a financial transaction.

At one point, there was counter motivation from the prevailing culture to add Amish to the guest list for a very public event. Conscious motivation simply could not allow Amish presence due to

the potential of media, thereby violating their cultural belief system regarding photography. Not honoring this belief system would have been exploitation and could have very well jeopardized relationships. Self-aggrandizement is just not worth it.

Humorously, it became clear that not wearing jewelry or makeup, which was thought to be a cultural consideration, was fake and counterfeit. The reality is that they also have grown within this relationship, have begun to also know who we are, and changing our appearances could be considered inauthentic.

It is true that we carry their voices. When we represent our collaborative work, the underlying motivation to build food systems includes their voices – because we have established mutual trust.

In speaking with Amish growers for the 2016 annual meeting, one grower has dropped out. The produce production component of their small family farm could not support them. The husband has since found a job working in the horseshoe business. The wife indicates that she simply could not keep up with the gardens, a high tunnel, and raising their family. She is continuing in the market channels of shelf stable, high quality, homemade salves, which we have been able to market.

The remaining growers are eager to continue with the 2016 growing season. One grower, who is operating a certified organic high tunnel with ancillary businesses on his farm, continues to be the lead Amish grower. His family has added infrastructure to their farm, and continue to build their homebased business. With two years of business relationships, it is a delight to watch the children develop, and become more vocal in their communication with Sprout team members.

The Sprout Growers & Makers Marketplace, along with the potential utilization of the licensed kitchens presents a conundrum. Transportation is the biggest issue and traditional models employed by the Amish population of “car hire” are not financially feasible. In addition, as stated above, Amish culture forbids photography. This is an issue that cannot be entrusted to the general public. We continue to pursue strategies to overcome these barriers, including Amish growers and makers offsetting the cost of staff support for a booth at the marketplace.

Our work with tribal and Latino growers has not experienced as much success. Much of this is directly related to cultural barriers, a mutual trusted point person, language barriers, and geography.

Our relationships with our tribal neighbors has been extremely limited with Leech Lake Band of Ojibwe due to an inability to establish initial relationships, geography (large distance between actual locations), but also has to do with understanding financial transactional relationships. We are working to build networks and relationships within the Mille Lacs Band of Ojibwe. We have successfully established relationships with both tribal leaders and community food system entrepreneurs and are experiencing some initial successes between tribal leaders, local growers, and community educators.

Our work with our Latino growers has been limited, but has experienced some successes. We have mutual relationships with economic development professionals and local educators. We have entered into financial relationships with the largest collaborative of Latino growers in Todd County, and have had initial meetings with the public school district food service director. Additionally, we are expanding the highly successful prescriptive CSA program into the most concentrated area of our region (Long Prairie) in collaboration with the local healthcare system. It is our hope that with some additional programming in this rural region, we will see successes in these geographic areas with our Latino growers, students and general population. With successful and established relationships with numerous multilingual educators who are currently working in the Long Prairie area, we are excited to begin this new realm of work in this region.

Aspirations:

We continue to pursue funding to build the marketplace in a way that honors all cultures in this region. We know we are continuing to see rises in our Latino and Somalian communities. We strategically chose Little Falls, Minnesota because of its location to accentuate not only trunk highway transportation, but to be closer to the communities who are underrepresented in this Central Minnesota region (see figure 4).

The culture and history of Little Falls, and the building where Sprout will be headquartered, is core to building inclusive opportunities, honoring our past, present and future:

The past: Paul Larson began a lifetime career at the age of eleven when he built his first boat. The founder of Larson Boat Works and Crestliner, Inc., Paul was born in 1894 to Swedish immigrants. When he built his first boat, he was living on a farm near Little Falls, Minnesota. A pond on the farm served as the testing site for his boat. (Morrison County Historical Society). Historically, Little Falls has been defined equally by boat building and the Mississippi River, on whose banks this central Minnesota town of about 8,000 sits. Crestliner has been in Little Falls since the 1950s. The facility closed in 2010, laying off 180 employees and shifted operations to New York Mills (sources: Morrison County Historical Society and StarTribune article).

The present: Currently, there are 17 businesses located within the campus complex including Department of Economic Development, Tri County Community Action and numerous manufacturing companies.

The future: Sprout is the founder of a Grower and Maker's Marketplace which is also the headquarters of a rural, regional food hub, with licensed kitchens for value added processing, education, demonstration, and building the economy for food entrepreneurs. In unique, collaborative private and public partnerships, this endeavor will create not only a niche in local foods, but in building the hub into a destination year-round grower and maker's marketplace where artisans, regional chefs, growers, producers and the public come together in an infusion of art and food, retail sales and community building. Utilizing the premises of creative placemaking, we actively pursue a guiding philosophy to build resilient communities through education, building practical skills, imagining, adapting and creating communities with the natural bridges between agriculture, art, culture and local foods.

The warehouse capacity of the site in Little Falls will allow Sprout to continue bring together products from numerous local growers. By aggregating and storing this produce across multiple farms, the aggregation center is an attractive supplier for wholesalers who purchase in large quantities. In addition, with the development of the warehouse, Sprout will have the capacity to diversify its product line – lending itself to advancing local food procurement and distribution by diversification of its product lines to include meats, dairy, other MN Grown shelf stable products and value added agricultural products.

It is well documented that up to 40% of all grown produce is either sold at or below cost or wasted altogether. There are many buyers looking for processed or preserved produce they can use throughout the year. Additionally, there is a growing market for artisan, locally made food products such as jams, salsas, dry goods, canned and/or frozen items. Sprout is leading the way and addressing many key issues in the utilization of “cosmetically challenged” or grade B fruits and vegetables. Because infrastructure needs among small growers and entrepreneurs are relatively consistent, a single shared-use commercial kitchen or contract processor can meet the needs of many local businesses and growers. Sprout has the necessary equipment, infrastructure and food safety qualifications necessary for food manufacturing **and** for users to create and market value-added products. This facility will bridge a gap by addressing the high startup cost of equipment and facilities, daunting certification and licensing requirements that prevent many growers and food entrepreneurs from producing and selling processed food items

Facility utilization is projected to begin as of April 1, 2016. Facility utilization will be targeted to growers, chefs, food entrepreneurs, food artisans, and educators to allow for potential stabilization of Sprout's cash flows and diversification by increasing local foods inventory.

Product diversification will allow Sprout to add additional small family farms through proteins, cheese, dairy,

Sprout is positioned to embark on these potential business models:

- Contract processing (purchasing commodities from growers and processing for an institution – e.g., washed and bagged carrots, frozen green beans)
- Private labeling with each grower/profile on their own product, thereby promoting individual farms, farmers, and growing practices in line with consumer demand
- Brand labeling – Sprout brand with a subsection of the grower’s profile
- Shared use kitchen – used primarily by farmers who are producing their own value added products
- Shared use kitchen – used by other food entrepreneurs for value added (i.e., baked items, catering)
- Shared use facility – use by other food hubs for fee for service storage and holding capacity
- Food business incubator – within the warehouse facility, there are currently 17 small businesses in operation. At least two growers are considering the economic vitality of scaling up within the facility in year-round indoor operations and/or food manufacturing with wholesale and retail market channels
- Workforce development - provide training and professional development for targeted groups such as adults with disabilities, adults transitioning after prison, or at risk youth. Sprout and its business partners/management team are already actively engaged in these populations
- Ancillary services – nutritional education for SNAP/WIC recipients in partnership with extension educators and hospital dietitians; culinary education to food service staff, kitchen staff, through community education and in collaboration with chambers, CVB and tourism; recipe development in collaboration with extension educators, agricultural and food safety regulatory institutions; community events such as fairs, festivals, and through the marketplace

Figures for 2015 include the following:

- 64% of all revenue generated was total cost of goods sold or income which is returned to local growers
- Three of the top five growers are Amish
- One of the top five growers is a farm primarily operated by a woman
- 61 small family farms have increased their revenue
- Sprout participated in Farm to School with seven school districts, two hospital systems, one-long term care center, numerous restaurants and food cooperatives
- Sprout provided technical assistance to 83 small farms and/or start-ups through training
- Sprout provided a sales outlet through the marketplace for 30 growers or makers, financially impacting these vendors ~\$7,000 (collectively) in two initial markets

Targeted Goals 2016 – 2017

- Continue to advance the economic vitality of small family farms in Central Minnesota:
 - With the growth of the prescriptive CSA model, we forecast increasing procurement for this program by 75%. These dollars are direct payments to our growers and recirculate through our community.
 - Long Prairie, with an estimated 30% Hispanic population (as stated on city-data.com), a new farmer’s market is being created as a direct result of the partnership between CentraCare and Sprout. This market will continue to advance revenue for small family farms in the Long Prairie area, and in particular, Latino growers through the Agua Gorda Cooperative.
 - Continue work to build capacity within Tribal communities.

- Increase value added capacity to \$25,000 in year one with a 25% growth in year two.
- Increase small family farm incomes by expanding grower base by 50%.
- Advancing health outcomes through local foods:
 - With the growth of the prescriptive CSA model, we are now impacting 175 low income families by offsetting food costs, nutrition education, greater healthier food access, and building community through food.
 - Educational opportunities through the value added and demonstration kitchens (nutrition education, cooking skills (selection, preparation, processing, storing), stretching food dollars, food sovereignty and production practices.
- Advancing education through:
 - Providing food safety education, good agricultural practices, post-harvesting practices, licensing requirements, MN Statute education, FSMA education, business development and education, and workforce education through Sprout partnerships with University of Minnesota, Land Stewardship Project, Renewing the Countryside, Central Lakes College, and others.

Additional information on Sprout and its community partnerships:

Choose Health short video: <https://www.youtube.com/watch?v=EZ72rPKgOAw>

Choose Health Year One Evaluation:
<http://resilientregion.org/cms/files/Choose%20Health%20Project%20Update%202%20FINAL.pdf>

Sprout "In The News": <http://sproutmn.com/in-the-news/>

Sprout Training Opportunities: <http://sproutmn.com/training-2/>