

## Broadband USA Applications Database

**Applicant Name:** Blackhawk Hills Resource Conservation & Development

**Project Title:** Blackhawk Hills Fiber Optic System

**Project Type:** Middle Mile

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### Executive Summary

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a) Opportunity This network will provide middle-mile dark fiber infrastructure system to the unserved agricultural areas within the six county area. Links will be provided to the bandwidth centers located in the Quad Cities, Rockford and Rochelle. This will be an open system available to all providers, government entities, education, businesses and any others that are willing to provide Internet access to these communities. b) Description We propose a dark fiber middle mile project that will link the unserved agricultural areas around our communities. This fiber will be open to all businesses, governments, schools, public safety and healthcare that desire to purchase an Indefeasible Right to Use (IRU) for two fibers at our cost. These entities may develop a network using this dark fiber in any manner that meets the needs of their user community. Blackhawk RC&D and our partners will actively promote this system to all vendor communities. c) Households/businesses passed 93,917 households 17,996 businesses d) Anchor institutions The Community Anchor Institutions (in no specific order) are: Blackhawk Hills RC&D, City of East Dubuque Northern Illinois University Computer Dynamics (Wireless ISP) Aero, Inc (Wireless ISP) Stephenson County Ogle County Village of Nora Village of Stockton Jo Daviess County Jo Carroll Depot Jo-Carroll Energy Forster Products Seiver Equipment Company of America Riverport Railroad Illinois International Trade Centers Shanks Veterinary Equipment TCEDA Northwest Illinois Development Alliance Sauk Valley Community College Carroll County Village of Lee Lee County Village of Tampico Whiteside County Jo Daviess County CEDS Committee Prophetstown-Lyndon-Tampico Community Unit School District 3 Village of Chadwick Chadwick Public Library Village of Milledgeville Chadwick - Milledgeville CUSD #399 City of Lanark Lanark Public Library Eastland CUSD #308 City of Mount Carroll Mt. Carroll Township Public Library West Carroll School District #314 City of Savanna Savanna Public Library Village of Shannon Village of Thomson Whiteside County Village of Albany City of Chadwick Sauk Valley Community college Village of Erie Erie Public Library Erie CUSD 1 City of Fulton River Bend School District Fulton High School Western Illinois University City of Morrison Morrison City Hall Morrison Morrison Police Department Odell Public Library Morrison Community Hospital (MCH) City of Prophetstown City of Rock Falls Rock Falls Public Library District Montmorency CCSD 145 East Coloma School District 12 Rock Falls Elementary School District 13 Rock Falls Township High School District 301 Riverdale School District 14 Quad-Cities Graduate Center City of Sterling City of Amboy Pankhurst Memorial Library Village of Ashton Amboy CUSD 272 Village of Compton Compton Fire Protection District City of Dixon Dixon Public Library Katherine Shaw Bethea Hospital Dixon Public School District Village of Franklin Grove Ashton-Franklin CUSD 275 Village of Lee Nachusa School Village of Nelson Village of Paw Paw Paw Paw CUSD 271 Polo School District 222 City of Polo Village of Steward Steward Elementary School District 220 Village of Sublette Village of West Brooklyn Freeport School

District 145 Highland Community College Freeport Healthcare Centers Dakota School CUSD 201 Village of Cedarville Village of Dakota Village of Davis Durand CUSD 322 Village of German Valley Forrestville Valley School District #221 Village of Lena Village of Orangeville Orangeville Community School District 203 Village of Pearl City Pearl City School Dist 200 Village of Ridott Town of Rock City Village of Winslow Lena-Winslow School District #202 East Dubuque Unit School District 119 Village of Elizabeth River Ridge CUSD 210 Galena Unit School District 120 Scales Mound CUSD 211 Stockton CUSD 206 Village of Warren Community Unit District 205 Village of Woodbine Village of Adeline Village of Byron Village of Creston Village of Davis Junction Village of Forreston Village of Hillcrest Village of Leaf River Village of Monroe Center Village of Mt. Morris Village of Oregon Village of Polo City of Rochelle Village of Stillman Valley Byron CUSD 226 Creston CCSD 161 Eswood CCSD 269 Forrestville Valley CUSD 221 Kings CSD 144 Meridian CUSD 223 Chana Schools Oregon CUSD 220 Rochelle Elementary School District 231 Rochelle Township High School District 212

We have approached our two major vendors, MediaCom and Frontier Communications. Their participation is verbally positive, but still in legal review.

e) Services/applications The one application of this system is the IRU for two point-to-point dark fibers.

f) Approach to non-discrimination This fiber will be open to all businesses, governments, schools, public safety and healthcare that desire to purchase an Indefeasible Right to Use (IRU) for two fibers at cost. These entities may develop a network using this dark fiber in any manner that meets the needs of their user community. Blackhawk RC&D will actively promote this system to all businesses, government agencies and individuals that have need for dark fiber over a long period of time. This same model has been successfully implemented by the Illinois Toll Highway Authority for the 175 mile dark fiber system that they have installed over the past ten years. We have based our business approach on the Tollway's model to lease dark fiber.

g) Type broadband Unlimited bandwidth over dark fiber.

h) Qualifications of applicant Blackhawk RC&D is partnering with Northern Illinois University (NIU) to implement this project. The board of Blackhawk RC&D has a wealth of management experience as our members are leaders in the community holding positions in local business, as-well-as local and county governments. NIU provides the technical depth needed to implement and operate this system. Some of their experience comes from projects in the following areas:

1. NIU maintains and supports a user community of 40,000 people with a wide diversity of a applications and hardware systems.
2. NIUnet, a dark fiber network, reaches from downtown Chicago to Iowa linking campus locations and providing Internet 1 and 2 access to local government, education and healthcare in addition to their internal needs. This network uses DWDM technology and can support almost 3 terabits of traffic.
3. NIU provides technical assistance to local communities that install fiber optic and wireless systems. Recent projects include School District 300, Village of Hoffman Estates, and City of Elgin as examples.
4. NIU provides technical guidance to the City of Chicago (Office of Emergency Management & Communications), Cook County, and City of Rockford for the design & implementation fiber optic based projects such as citywide video surveillance systems built on fiber optic and wireless based infrastructures.

i) Overall cost \$72,158,710 j) Overall expected subscriber projections This network will support the needs of all the community anchor institutions in the six county area. There are currently 142 participating organizations with over 500 facilities making this a self sustaining enterprise. We encourage our commercial participants to use our fiber resources to provide last mile services within our communities and surrounding unserved agricultural areas. As an organization, we will provide focus to those providers who will propose broadband services for our community anchor institutions and the unserved rural agricultural areas that

make up the majority of our six county area. k) Jobs created or saved The majority of the new network costs are related to engineering, construction and professional services. These services will be provided by local firms that will create jobs and serve as an economic stimulus to the region, while providing much needed high speed communication capabilities. We estimate that this network has the potential to directly create between 95 – 100 professional services and construction jobs per county (about 600 total), and indirectly a significant number of additional jobs related to the network components.