

Loess Hills Development and Conservation Authority

712 S. Hwy. 6 & 59 Oakland, Iowa 51560-0189 Phone (712) 482-3029 Fax (712) 482-5590

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December 14, 2016

Vince Sitzmann Division of Soil Conservation Wallace State Office Building Des Moines, IA 50319

Dear Mr. Sitzmann,

This report is being submitted pursuant to Iowa Code Section 161D.8.

The Loess Hills Development & Conservation Authority passes state funds appropriated from the Environment First and General Funds to the Hungry Canyons Alliance and the Loess Hills Alliance. Copies of their reports are enclosed for your review.

The Hungry Canyons Alliance is concerned with stream stabilization projects in 19 western Iowa counties. Stream stabilization projects protect bridges and other infrastructure including roadways, utilities and pipelines. The focus of the Loess Hills Alliance is to protect special natural and cultural resources in the seven counties of deep loess bordering the Missouri River.

If you need further information, please contact myself or Michelle Wodtke Franks at Golden Hills RC&D, 712-482-3029 or michelle@goldenhillsrcd.org.

Sincerely,

Bernie Bolton Chairman

Bernie Bolton

Loess Hills Development and Conservation Authority



Hungry Canyons Alliance

712 S. Hwy. 6 & 59 Oakland, Iowa 51560-0189 Phone (712) 482-3029 Fax (712) 482-5590 Email: john@goldenhillsrcd.org

December 12, 2016

Vince Sitzmann
Division of Soil Conservation
Wallace State Office Bldg.
Des Moines, IA 50319

Dear Mr. Sitzmann:

The purpose of the Hungry Canyons Alliance (HCA) is to focus attention on the problems of, and develop solutions related to, stream channel degradation in the loess soil region of western Iowa. The primary goal of the HCA is to provide financial and technical assistance for streambed stabilization, protecting bridges and other infrastructure.

Enclosed are the following documents:

- A short written narrative describing the HCA program.
- A list of accomplishments for FY2016 and projected activities for FY2017.
- A list of projects that have been approved by the HCA and are in progress, including project number (the first two digits indicates the fiscal year during which the project was approved), county, location by stream, total cost of each project, and funds obligated for the project.
- A list of small structure projects, funded with interest earned on state and county funds, including project number (the first two digits indicates the fiscal year during which the project was approved), landowner name, county, location by stream, total cost of each project, and funds obligated for the project.
- The approved HCA budget for FY2017.
- A list and graph of federal, state, and local funds given to the HCA.

<u>Each dollar</u> invested in an HCA project <u>protects</u> on average more than <u>\$4.25</u> of <u>property value</u> and <u>0.9</u> tons of <u>sediment</u>. The HCA appreciates the funding received from the Environment First Fund and the opportunities it provides in the protection of public and private property.

We hope the governor and general assembly remain aware of the stream erosion problem that is globally unique to western Iowa and continue to place a priority on appropriating funds each year to the HCA. In order to have a chance of securing federal funds in the future, the federal government needs to see that the state of Iowa supports this program by providing matching funds.

We will be happy to provide additional information at your request.

Sincerely,

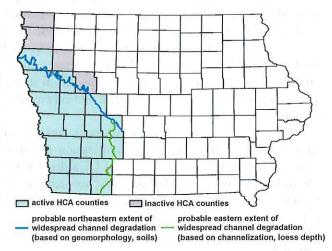
John T. Thomas, Project Director Hungry Canyons Alliance

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HUNGRY CANYONS ALLIANCE

The Problem

The Hungry Canyons Alliance (HCA) was formed locally to research and implement solutions to the problem of stream channel erosion and degradation in a 19 county area of the deep loess soils region of western Iowa. Channelization of streams and land use changes during the first half of the 1900's caused stream channels to erode, causing an estimated \$1.1 billion in damages to public and private infrastructure (bridges, culverts, utility lines, etc.), loss of farmland, and increased sediment loads. A 2013 survey of county infrastructure in western Iowa revealed that a total of 415 bridges, culverts, and flumes were still endangered due to stream channel degradation. Golden Hills RC&D in Oakland,



Iowa helped to form and currently provides office space and administrative assistance to the HCA.

Straightened stream Old meander

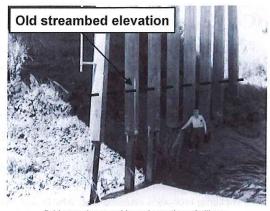
Straightened versus meandering stream. (Walnut Creek, Pottawattamie County).

The Solution

A proven, affordable solution to this problem is to build grade control structures in streams. Grade control structures (GCS) at regular intervals help streams stabilize by changing their longitudinal profile from an erosive steep incline to a stable stairstep pattern. Streambed stabilization is the key to preventing further erosion and protecting infrastructure. GCS design is largely dependent on drainage area. Small drainage areas can often be controlled with reinforced concrete box (RCB) or corrugated metal pipe (CMP) culverts with drop inlets and/or flume outlets. Large drainage areas are often controlled with weirs constructed with steel sheet pile driven into the streambed, with a riprap and concrete grout slope immediately downstream, a loose riprap stilling basin downstream of the weir slope, and loose riprap covered banks. Both RCB/CMP and weir designs allow the stream elevation to drop in a controlled setting, restore lost stream grade, prevent further degradation, and reduce streambed slope upstream. This creates a calm backwater condition where silt can settle out, decreasing sediment loads and turbidity and increasing water quality. Sediment re-deposited upstream then helps support formerly exposed bridge pilings and stabilize eroded streambanks.

The Savings

The HCA provides state and federal money available to the 23 counties through a cost share program for grade control structures (GCS). County governments provide a minimum of 20% match for each GCS. Since 1992, the program has provided \$24.1 million in state and federal appropriations and the technical assistance needed to complete 373 GCS in 19 counties in western Iowa. Another 17 GCS are in progress. These GCS will protect an estimated \$93.6 million in property value. It is estimated that 720.7 acres of land, equivalent to 21.9 million tons of sediment, will be protected from erosion by construction of the 390 GCS. HCA grade control structures, with an average cost of \$66,500,



Bridge endangered by exhumation of pilings.

protect approximately \$240,000 in property per GCS. For every \$1 invested in HCA grade control structures, on average more than \$4.25 of property value and 0.9 tons of sediment are protected from streambed degradation. During FY 2016, the HCA approved 8 GCS for cost share and completed construction on another ten.

A second HCA program provides funding to landowners where grade control is necessary to stabilize active gully erosion. This program is funded with the interest earned from state appropriations. This program has built 122 structures, and approved another two, for a total cost share of \$862,540.

The HCA has quarterly meetings at which issues concerning stream erosion and streambed stabilization are discussed. Tours show firsthand which aspects of past GCS designs have worked and which haven't while also highlighting new techniques which can be used to enhance future GCS performance. Regular attendees include county engineers, county supervisors, NRCS & DNR employees, SWCD commissioners, engineering consultants, contractors, and landowners.

Over 1,500 GCS of all types have been constructed in 19 western Iowa counties by county governments, the HCA, NRCS, NRCS-EWP, SWCD, Iowa DOT, cities, utility (water, gas, telephone,





Top: 4 foot high sheet pile weir with a 1:20 grouted riprap slope in Crawford County. Bottom: RCB flume with 25 feet of fall in Fremont County.

electric, etc.) companies, railroad companies, Army Corps of Engineers, Iowa DNR, and landowners. This is the greatest concentration of GCS anywhere in the world due to the loess soils, highly altered unstable stream system, high drainage density, and high road density. With so many GCS located in one area, western Iowa has been referred to as a "laboratory" for GCS design. And because western Iowa is still experiencing streambed degradation, the HCA is one of the unheralded leaders in innovative GCS research, design, and construction.

Matching Federal Funding for Flood Recovery

Heavy precipitation in May 2007 and June 2008 resulted in widespread stream channel damage and destroyed county road infrastructure. However, in the investigations that followed, FEMA, NRCS, and county road departments all reported that GCS directly reduced infrastructure and channel damage costs and the number of FEMA program claims, and infrastructure protected by GCS suffered no damage. Although some GCS suffered minor damage, these damages were minimal compared to the potential total loss of infrastructure that could have resulted without the GCS.

Federal NRCS-EWP funding became available after the disaster declarations; so in order to complete as many projects as possible and reduce the counties' burden to 15% match, the HCA provided 10% match (using state cost share) for all EWP projects which provided grade control or were directly associated with existing GCS projects. A total of 72 GCS projects were completed between September 2008 and January 2011 at a cost of \$12.83 million. The EWP program provided \$9.50 million in cost share, the HCA \$1.28 million, and the sponsor counties \$2.05 million. This influx of funding for construction came at the perfect time to also help stimulate western Iowa's economy during the 2008–2012 Great Recession.

HCA Research

Completed HCA research projects include design of GCS to provide fish passage, use of scrap tires in GCS, aerial stream video and classification of western Iowa streams, factors controlling knickpoint migration, and the use of directional drilling in small watershed GCS projects. Ongoing research projects include experimenting with new bank stabilization techniques and measuring nutrient loads from eroding streambanks to quantify the impact of channel stabilization projects. Partners in these projects include: NRCS, Iowa DOT Highway Research Board, IIHR—Hydroscience and Engineering at the University of Iowa, Natural Resource Ecology and Management Department at Iowa State University, Civil Engineering Department at Iowa State University, Iowa DNR, US Geological Survey, and US Fish and Wildlife Service.

Hungry Canyons Alliance

I. Project Overview

A. Purpose:

• Focus attention on the problems of, and develop solutions related to, stream channel degradation in the deep loess region of western lowa.

B. Needs:

 415 bridges, flumes, and major culverts susceptible to significant damage from stream degradation in 2013 (from correspondence with county engineers).

C. Goals:

- Provide financial and technical assistance to construct grade control structures (GCS) in 19 counties in western lowa.
- Conduct research and provide demonstration for members.

II. Progress Report (1992-2016)

A. HCA Structures as of 12-12-16:

1.	GCS approved:	390
	GCS completed:	373
3.	GCS in progress:	17

B. HCA Costs as of 12-12-16:

1.	Total costs:	25,957,492
2.	Total HCA cost share spent:	\$ 17,983,695
3.	Total HCA cost share obligated:	\$ 1,124,646
4.	Cost share per structure:	\$ 48,996
5.	Counties share of total cost spent:	\$ 6,103,675
6.	Counties share of total cost obligated:	\$ 745,476

C. HCA Benefits as of 12-12-16:

1.	Total property protected:	\$ 93,550,047
	Property protected per structure:	\$ 239,872

For every \$1 invested in Hungry Canyons Alliance grade control structures (GCS), an average of more than \$4.25 in property value and 0.9 tons of sediment are protected.

Match for EWP Program:

Occasionally, western lowa counties will be declared eligible for federal disaster assistance due to severe rains which cause flooding and stream channel damage, endangering or destroying county infrastructure. The NRCS-EWP program will provide cost share for new GCS and repairs to existing GCS. In order to complete as many EWP projects as possible while the federal money is available to western lowa, the HCA will provide 10% of the match, reducing the counties match to 15%, for any EWP projects which provided grade control or were directly associated with existing GCS projects. In FY10, the state appropriated \$100,000 to the HCA specifically for this purpose.

D. EWP Structures and Costs as of 12-12-16:

1. GCS completed:	76
2. Total costs:	\$ 13,137,249
3. Total HCA cost share spent:	\$ 1,314,188
4. Total NRCS cost share spent:	\$ 9,731,801
Total counties share spent:	\$ 2,091,260

III. Funding Summary (1992-2016)

A. Total Appropriations:

 1. Federal:
 \$ 11,944,394

 2. State:
 \$ 12,201,334

 3. Total:
 \$ 24,145,728

 4. County share:
 \$ 7,945,401

B. Funds Needed:

Total needed to reach goal of protecting 200 bridges, flumes, and major culverts: \$9.8 million

 Annual appropriations of \$0.9 million (\$0.45 million in state funds, \$0.45 million in federal funds) for 10.9 more years (assuming no disastrous floods)

IV. Accomplishments of the Past Year

- A. Approved cost share for 8 county GCS and 1 small GCS for landowners.
- B. Completed construction of 10 county GCS and 3 small GCS for landowners.
- C. Held four successful quarterly meetings, including three tours.
- D. Assisted with the watershed assessment for Silver Creek in Pottawattamie County and helped with implementation of a WIRB grant for Waubonsie Creek in Mills and Fremont Counties.
- E. Approved for a Fish and Wildlife Service grant for a weir modification on the Tarkio River in Page County.
- F. Helped organize the Partnership for River Restoration and Science in the Upper Midwest's (PRRSUM) February 2016 Upper Midwest Stream Restoration Symposium (UMSRS) held in Milwaukee, Wisconsin.
- G. Helped in the DNR's effort to build a framework for a best practices toolbox which will be used as the basis for a potential statewide stream restoration program.
- H. Approved for \$86,000 by the Iowa Nutrient Research Center for a research project to be led by Iowa State University to measure nutrient loads from eroding streambanks in western Iowa with the goal to make a case for funding stream bed and bank stabilization due to the current emphasis on the state's nutrient reduction strategy.
- Gave free advice to eleven landowners, one city, two county conservation boards, and one county road department on cost-effective methods of bank stabilization using only broken concrete; ten have been completed.

V. Strategy for the Coming Year

- A. Continue to protect infrastructure and prevent soil loss by providing state cost share to county governments and private landowners for streambed erosion control projects.
- B. Continue providing education to students and public about the fragility of loess soils and river channel stability and processes.
- C. Continue cooperation with Iowa DNR Fisheries Division and US Fish and Wildlife Service to modify existing grade control structures to allow fish migration.
- D. Continue monitoring and building bored headcut basins in the Loess Hills in conjunction with the USDA-NRCS and IDALS. Despite being experimental, the bored headcut basin design was recognized in 2015 by the NRCS as an approved, viable, cost-effective method of controlling deep gully headcuts with small drainage areas in the Loess Hills.
- E. Finish submittal of a research paper on the processes controlling knickpoint migration in a western lowa stream for publication in a peer-reviewed journal.
- F. Continue to provide technical assistance for bank stabilization projects.

Hungry Canyons Projects in Progress as of 12-12-16

State Funds

Project	County		Total		Requested
#	(or sponsor)	Stream	Cost		Share
11-1	Woodbury	Dutch Crk. Trib.	\$ 37,500.00	\$	30,000.00
11-6	Woodbury	Reynolds Crk. Trib.	\$ 15,500.00	\$	12,400.00
12-1	lda	Maple R. Trib.	\$ 120,000.00	\$	96,000.00
14-1	lda	Soldier R.	\$ 150,000.00	\$	120,000.00
14-3	Guthrie	Middle R.	\$ 120,000.00	\$	96,000.00
14-8	lda	Maple R. Trib.	\$ 50,000.00	\$	40,000.00
15-6	Page	W. Tarkio Crk.	\$ 256,800.00	\$	140,000.00
16-1	Monona	Maple R. Trib.	\$ 100,000.00	\$	80,000.00
16-2	Woodbury	Wolf Crk.	\$ 200,111.00	\$\$	110,000.00
16-3	Adair	Thompson Crk.	\$ 69,000.00	\$	55,200.00
16-4	Adair	W. Fk. Mid. Nodaway R. Tr	\$ 63,000.00	\$	50,400.00
16-5	Adair	W. Fk. Mid. Nodaway R. Tr	\$ 55,600.00	\$	44,500.00
16-6	Plymouth	Perry Crk. Trib.	\$ 20,400.00	\$	16,320.00
16-7	Plymouth	Mink Crk. Trib.	\$ 18,800.00	\$	15,040.00
16-8	Page	Tarkio R.	\$ 488,747.00	\$	140,000.00
17-1	Woodbury	Wolf Crk.	\$ 40,200.00	\$	27,215.00
17-2	Sioux City	Perry Crk. Trib.	\$ 64,464.00	\$	51,571.20
State Total			\$ 1,870,122.00	\$	1,124,646.20
Total Feder	al & State		\$ 1,870,122.00	\$	1,124,646.20

Hungry Canyons Alliance Small Structure projects in progress as of 12-12-16

Project #	Name	County	Location/Notes	Total	cost	HCA (Cost Share
13-133	John Hanigan	Crawford	Boyer R. Trib.	\$	186,245.00	\$	8,500.00
16-144	Dale Wheeler	Adams	Mid. Nodaway R. Trib.	\$	48,000.00	\$	8,500.00
Totals				\$	234 245 00	\$	17 000 00

Hungry Canyons Alliance FY2017 Budget July 1, 2016 to June 30, 2017

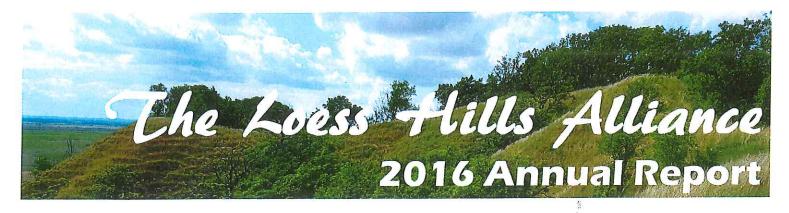
I. Available funds		State	Interest	County	Federal
New appropriations		\$ 450,000			\$ -
 B. Unobligated state appropriations (pre 	-FY2017)	\$ 691,653			
C. Unobligated interest	(7/1/16)		\$ 129,971		
D. Differed salary already paid to GH	(7/1/16)			\$ 27,601	
E. Unobligated county fees & interest	(7/1/16)			\$ 121,921	
F. County dues expected for FY17	(7/1/16)			\$ 61,750	
Total available funds		\$ 1,141,653	\$ 129,971	\$ 211,272	\$ -

Expenses from state and federal appropriations NRCS administration						
1. NRCS 5% administration	T	**************************************	(20), (1) (2) (2) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3	T	s ₁ = = = = = = = = = = = = = = = = = = =	T\$
Available for projects						
HCA county structures	T \$ 1	1,011,653		T		\$
HCA administration	1					<u> </u>
LHDCA administrative expenses	1			T		
from state appropriations (2%)	\$	9,000				
GHRC&D administrative expenses	┪			†		
(5% of previous fiscal year approp.)	1\$	22,500	\$ -	1 \$	12,500	
3. Staff (salary, benefits)	\$	13,500	\$ -	\$	45,500	
Research and education						
Research, education, & development	1		******	T	······································	T
(GIS, special projects, stream table, other)	\$	2,000				
Stage-discharge / crest-stage gages	\$	1,000				
3. Aerial video reconnaissance - misc.	\$	5,000		1		
Aerial video development	\$	-		T	•	
5. Bank erosion & nutrients research project	\$	40,000		1		
6. Road signs	\$	1,000		Ì		
7. Stream profile surveys	\$	6,000		1		
Experimental bored headcut basins	\$	20,000		T		
Experimental scrap tire structures	\$	10,000		1		
xpenses from interest fund		,				
Available for projects						
HCA small structures	T		\$ 25,500	T		
Expenses from county fees						
Administration						
1. Insurance	T			T \$	700	
Supplies/equipment (computer,					·	
camera, cell phone, etc.)				\$	2,000	
3. Postage				\$	300	
Office / field assistants				\$	500	
5. Meeting expenses & travel				\$	2,000	
6. Conferences/training				\$	1,500	
7. Subscriptions, books, media				\$	100	
8. Miscellaneous (cards, awards, etc.)				\$	100	
9. HCA shirts				\$	500	
.obbying						
State lobbyist				\$	7,500	
Lobbying trips (DC trip, Des Moines trip)				\$	1,500	
Services to counties						
Services (web page, maps, etc.)				\$	300	
expenses from federal administration fund						
dministration		//				
LHDCA administrative expenses		T				
from federal appropriations (1.5%)	1					\$
nom lederal appropriations (1.5%)				range and a constant		
total of expenses (no county structures)	\$	130,000	\$ 25,500	\$	75,000	\$

2016 2019 7014 2013 2012 2011 County Hungry Canyons Alliance Funding 2010 5002 2008 **→** State 2007 2008 2002 Federal 2004 2003 2002 --- Federal & State Total 2001 2000 666 l 866 L ۱66ک 966 L 966 L ⊅66 l 1993 1992 ⊹ \$2,400,000 \$2,200,000 \$2,000,000 \$1,800,000 \$1,600,000 \$1,400,000 \$1,200,000 \$1,000,000 \$800,000 \$600,000 \$400,000 \$200,000 Dollars

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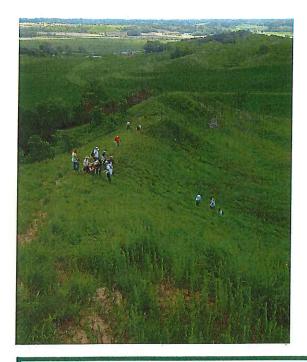


Our Mission

The Loess Hills Alliance strives to protect special natural and cultural resources while ensuring the economic viability and private property rights of the region through the creation of a common vision for lowa's Loess Hills.

A region where ...

- The unique land formation, culture and history of the hills are conserved for future generations
- Areas of special interest are protected from development, soil mining, soil erosion and other visually disruptive activities
- Awareness and educational opportunities are promoted about the unique nature of the region
- Vegetation is managed to encourage native plant and wildlife communities, such as prairie, savanna and oak woodlands
- Regional recreational opportunities and tourism attractions exist and public areas are expanded
- References and resources are available to landowners interested in protecting features on their land
- Local businesses and rural communities are supported



lowa code 161D established the Loess Hills Alliance on March 15, 1999 as a part of the Loess Hills Development and Conservation Authority. The Hungry Canyons Alliance was also authorized under this authority. Funds are directed to both non-profit organizations through the lowa legislature. State funds are used to match and fund projects under the discretion of each organization. Statutory responsibilities include:

- To apply for, accept, and expend public and private funds for planning and implementing projects, programs, and other components of the mission of the Loess Hills Alliance subject to approval of the Authority.
- To study different options for the protection and preservation of significant historic, scenic, geologic, and recreational areas of the Loess Hills including but not limited to a federal or state park, preserve, or monument designation, fee title acquisition, or restrictive easement.
- To develop and implement pilot projects for the protection of Loess Hills areas with the use of restrictive easements from willing sellers and fee title ownership from willing sellers, subject to approval of the Authority.

The Loess Hills Alliance encourages local and state collaboration and cooperation to collectively address conservation and promotion efforts for the region.

More than 10,000 state and private acres within the Loess Hills were declared a *National Natural Landmark* in 1986 by the National Park Service, identifying the area as one of the best examples of loess topography in the United States. Over 35,000 acres of warm season prairie grassland remain or have been restored throughout the Loess Hills region, representing 50-75% of lowa's remaining prairie heritage.





Stewardship Activities

Loess Hills Prairie Seminar Sponsorship

The Stewardship Committee supported the Loess Hills Prairie Seminar, this year celebrating its 40th year. The Seminar is a 3-day event held the first week of June annually in Monona County, and is one of the premier educational events to promote stewardship and awareness of the unique resources presented in lowa's Loess Hills. Approximately 200 people attended, including biologists, land owners and other interested visitors. Sessions ranged from botanical and faunal surveys, an understanding of the soil resources in the hills, cultural history, and discussions of challenges landowners face in the hills.

LHA Stewardship sponsorship effectively leverages funding with Loess Hills County Conservation Boards, the Iowa Natural Heritage Foundation, The Nature Conservancy, the Iowa Prairie Network, Izaak Walton League, NW Iowa Audubon Society, and the Iowa DNR, among others in support of promoting stewardship in the Loess Hills landform.



Loess Hills Prairie Seminar

Private Lands Positions

These positions provide outreach and technical assistance to private landowners on conservation planning and implementation. Each position is housed in USDA field offices.

The two private lands positions are funded in partnership with the lowa Department of Agriculture and Land Stewardship, Soil and Water Conservation Districts, National and local Pheasants Forever and the Natural Resources Conservation Service. Nic Salick is housed in Logan, serving Harrison, Pottawattamie and Monona Counties and Jake Holt is housed in Sidney to work in Fremont, Mills, Page and Montgomery Counties. Assistance to landowners and the public included:

- lowa Habitat and Access Program, 1570 acres
- Various program assistance for critical environments (wetland restoration, habitat buffers, pollinator habitat, etc.), 420 acres
- Phone calls, in-office meetings and on-site visits with clients, 95 contacts
- 20 public programs and radio interviews to the public have been conducted this year.



Izaak Walton League State Conference, Schleswig, IA

Loess Hills Fire Partners Cooperative Burn Week

The Cooperative Burn Week is an opportunity for partners in the Loess Hills to achieve fire management of environmental and agricultural areas where extra resources are needed to accomplish work at scale. It is also an opportunity for partners to collaborate, develop fire line leadership, build professional relationships, and improve fire line skills. LHA funding hired the Conservation Corps of lowa (CCI) crew to assist local DNR staff pre- and post-event and to provide adequate food and supplies for participants.

The grant consisted of two components:

- First project component Spring burn workshop expenses (focused in the southern Loess Hills)
- Second project component CCI crew post workshop invasive species treatment and burn follow up with partner groups to control the emergence of invasive plant species in the managed areas.



Loess Hills Cooperative Burn Week 2016—Courtesy The Nature Conservancy

Loess Hills Nature School

In conjunction with the Pottawattamie County Conservation Board, Waubonsie State Forest and the New Tree School, the Loess Hills Nature School will provide participants with knowledge and skills to be stewards of the environment while appreciating interactions with agriculture and existing industry.

The key goal is to enable a population of citizen scientists to focus management and restoration efforts in critical environments that are particularly special in the Loess Hills landform. The overall program will include walkabouts, citizen science, workshops on specific issues, and a Naturalist Certification Program.

We are joining in the second year of the Loess Hills Nature School, with a dedicated core audience from the Loess Hills area of Iowa and adjacent areas in Nebraska.



Fire Science Consortium, Hitchcock Nature Center—Courtesy The New Tree School

Protection Activities

The Protection Committee works to leverage land acquisition and protective easement from willing landowners within and adjacent to the 12 Special Landscape Areas identified in the 2011 Comprehensive Plan. In order to qualify for funds, potential land must contain endangered or threatened species, significant prairie or oak woodlands and be located within the view shed of the Loess Hills National Scenic Byway.

In 2016, the Protection Committee approved the amount of \$32,000 to be offered for the following project:

SFY16 Funded Project

Iowa Department of Natural Resources: Biscuitroot Bluff, Fremont County

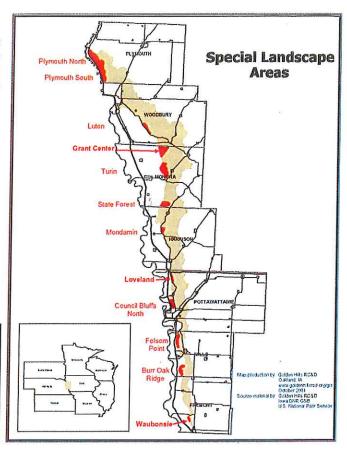
LHA Grant Amount: \$32,000.

Iowa DNR REAP Grant Amount: \$378,972

Total project cost: \$410,972

The goal of this project is to protect and restore property in Fremont County along the Loess Hills National Scenic Byway. This tract of land contains rare Loess Hills remnant prairie and oak woodlands. Funds received for this project would be used for acquisition of 173.2 acres. Future use includes wildlife and native plant habitat protection, public hunting and preservation of scenic views.

The Loess Hills region includes some of lowa's most precious cultural, historic and natural resources. Since the 1980's, two nationally significant intrinsic qualities have been verified in the region— natural areas and Prehistoric cultural resources. The unique geological and topographic features of the hills, the extensive natural and semi-natural grasslands and forests and the many archaeological sites found in this one geologic landform create a treasure for the region. More than 32,500 acres of land are either in public ownership or public protection.



Economic Development Activities

The Economic Development Committee worked collaboratively this year to enhance the economy of the Loess Hills region by:

- Providing assistance and resources for small businesses and community attractions.
- Increasing visitor traffic at recreation facilities, events and area attractions.
- Offering education and technical assistance to business and government agencies. To promote economic development opportunities.

The committee consists of representatives from economic development, conservation, recreation, convention & visitors bureaus, elected officials on local and federal levels, and small businesses and tourist attractions. The committee places a high priority on advertising the Loess Hills and promoting its many businesses and attractions. Cooperative advertising

was placed in numerous publications in neighboring states as well as here in lowa, including the Western lowa Tourism Region Cooperative Advertising Insert.

Advertising was distributed to 549,000 homes as a newspaper insert in MN, SD, NE, KS, MO and Towa. Online advertising accompanied the ad insert and directed visitors to web based resources.

The Western Iowa Tourism Region receives and fulfills requests for information about the Loess Hills and the Alliance. In SFY16, fulfillment pieces mailed on behalf of the Alliance was 864.

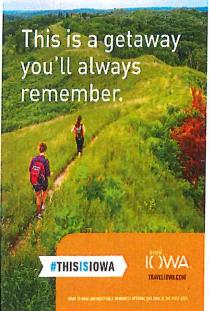
The committee continues to distribute the Loess Hills National Scenic Byway Guidebook. These promotional travel guides are distributed to welcome centers throughout the state and to area attractions and visitors centers. The Loess Hills Alliance has distributed nearly 60,000 guides to travelers and Loess Hills visitors since 2014.

The Loess Hills National Scenic Byway provides an important corridor for economic development and tourism. Within the 7 county region of the Loess Hills, there are 4 State welcome centers. In 2015, Travel Iowa

NATIONAL SCENIC BYWAY
Shaped by Nature

According to the 2015 Iowa Welcome Center Survey, the Loess Hills National Scenic Byway attracted nearly 25,000 visitors with an economic impact of nearly \$22 million for Iowa.

conducted its annual Welcome Center survey to gauge economic impact and interest within the Loess Hills region. The 2015 Welcome Center Survey indicated that more than 52.8% of respondents visited because of interest in the scenic byway.



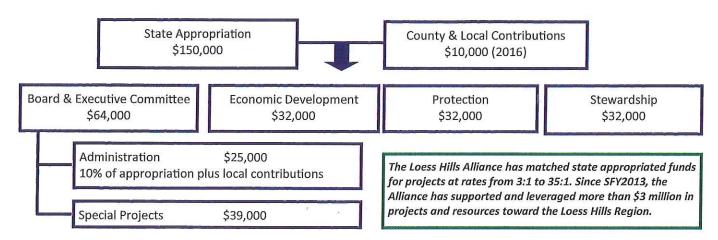
Loess Hills: Hike, Bike, Play and Stay!



Executive Committee Summary

The Loess Hills Alliance Executive Committee provides leadership to the Board of Directors and ensures that funds appropriated through state funding are leveraged with other sources and used wisely. The most successful use of those funds has included partnering with other organizations, farmers and private land owners to leverage the dollars for

the best possible, mutually beneficial outcome within the Loess Hills. In 2016, the Executive Committee contracted with Golden Hills RC&D to provide organizational capacity building support, marketing and outreach. The funds were distributed as follows:



In 2016, the Loess Hills Alliance revised and updated the Board Policy and Procedures Manual and adopted a comprehensive marketing and outreach plan to better engage regional stakeholders. These projects were directed by a public input survey conducted during the Fall of 2015 to gauge public perception and rank priorities for the organization. The survey was distributed widely through email, social media and collaborative organizations. Responses revealed the following:

- 87% of respondents supported ongoing State funding for the Loess Hills Alliance and its initiatives
- Primary concerns for respondents included; preserving and restoring native vegetation, including prairie and oak savannas; minimizing impact from new development and resource extraction; and, increased cost share and technical assistance to preserve private and public Loess Hills land.

Executive Committee

Robert Benton, Chair Cara Marker-Morgan, Vice Chair Patty McCall, Secretary Brent Olson, Treasurer Renea Anderson, At Large Terry Lewis, At Large Linda Herman, At Large

2016 Board of Directors

Plymouth County Nick Beeck John Meis Mark Loutsch Monona County Patty McCall Brady Hanson Alan Dale

Harrison County Tim Sproul Walter Utman Linda Herman Pottawattamie County Lynn Grobe Mark Shoemaker Cindy Thompson

Mills County Lonnie Mayberry Gary Liebsch Jerad Getter Fremont County

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Mark Monson

Rich Pope

Brett Bengard, Iowa Division of Soil Conservation Renea Anderson, Western Iowa Tourism Region Graham McGaffin, The Nature Conservancy Brent Olson, Iowa Department of Natural Resources Jim Randall, Iowa Bankers Association Michelle Wodtke Franks, Golden Hills RC&D Ed Cambridge, Iowa Realtors Association

