



OFFICE OF THE LEGISLATIVE AUDITOR
STATE OF MINNESOTA

EVALUATION REPORT

**Agricultural Utilization
Research Institute
(AURI)**

MAY 2016

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OFFICE OF THE LEGISLATIVE AUDITOR

STATE OF MINNESOTA • James Nobles, Legislative Auditor

May 2016

Members of the Legislative Audit Commission:

At your request, the Office of the Legislative Auditor evaluated the Agricultural Utilization Research Institute (AURI), a nonprofit corporation created by the Minnesota Legislature. AURI conducts research and assists businesses and individuals to develop new uses and markets for the state's agricultural commodities. This report presents the results of our evaluation.

We found that AURI's measurement and reporting of its impact is insufficient. In addition, AURI does not require clients who need only staff assistance (rather than staff and financial assistance) to complete an application justifying their request, even when the amount of help requested is significant. Finally, AURI's board of directors has not always complied with certain requirements of the state Open Meeting Law.

We make a number of recommendations to AURI to address measurement, reporting, and other issues. We also recommend the Legislature amend state law to expand the size of AURI's board and clarify how the Open Meeting Law applies to the board.

Our evaluation was conducted by Carrie Meyerhoff, with assistance from Jodi Munson Rodriguez and Ellen Dehmer. AURI's board of directors and staff cooperated fully with our evaluation.

Sincerely,

Handwritten signature of James Nobles in black ink.

James Nobles
Legislative Auditor

Handwritten signature of Judy Randall in black ink.

Judy Randall
Deputy Legislative Auditor

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Summary

AURI provides research and technical services to support agricultural commodity utilization, but it needs to do a better job measuring and reporting the impact of its work.

Key Facts and Findings:

- In 1989, the Legislature created the Agricultural Utilization Research Institute (AURI) as a nonprofit corporation to support Minnesota’s agricultural economy. (pp. 3-4)
- In addition to conducting its own research, AURI provides technical services and some financial assistance to businesses and individuals who want to develop new uses and markets for the state’s agricultural commodities. (pp. 4-5, 8)
- We estimated that AURI assisted 349 clients working on 420 projects between 2011 and 2015. (pp. 19-20)
- AURI does not require clients who request only staff assistance—rather than staff and financial assistance—to complete an application justifying the request, even when the amount of staff resources is significant. (pp. 33-35, 37)
- AURI prioritizes work with clients over conducting its own research, even though its research might have wider impact. (p. 37)
- Although AURI does not sufficiently measure and report its performance, stakeholders—such as representatives of commodity councils and other organizations interested in AURI—had mostly favorable opinions about the institute and its work. (pp. 16, 18-19, 24-25)
- For each year of the 2015-2016 biennium, the Legislature appropriated over \$3.6 million to AURI, which was more than 80 percent of the institute’s fiscal year 2015 revenue. (pp. 12-13)
- AURI collects little revenue from fees for its services. In addition, it does not have a clear rationale for the fees it charges and does not charge them consistently. (pp. 23-24)
- AURI resources devoted to “support services”—such as strategic planning, accounting, board operations, human resources, and communications—accounted for over 30 percent of expenditures and over 50 percent of staff time in 2015. (pp. 30-31)
- AURI’s board of directors has not always complied with certain requirements of the state’s Open Meeting Law. (pp. 44-45)
- The Legislature designates the types of organizations that must be represented on AURI’s nine-member board, which may limit the board’s ability to follow nonprofit best practices for appointing board members. (pp. 39-41)

Key Recommendations:

- AURI should require more formal justification for projects that need significant staff resources. (p. 38)
- AURI should more consistently and comprehensively measure the impact of its work. (pp. 17-18)
- AURI should develop a policy for charging for its services and apply the policy consistently. (p. 24)
- AURI’s board should comply with the state Open Meeting Law. (p. 47)
- The Legislature should expand AURI’s board and allow it to choose the additional members. (p. 41)

Report Summary

The Legislature created the Agricultural Utilization Research Institute (AURI), a nonprofit corporation, as part of an effort to address economic hardship in the state's rural areas in the 1980s.¹ The institute's purpose is to promote new uses and expanded markets for the state's agricultural commodities.

AURI staff perform a range of activities to fulfill this purpose. For example, staff provide research and technical assistance to individuals and businesses to help them develop new products. In some cases, AURI also provides financial assistance to these clients. In addition, AURI conducts or manages research projects that may reach wider audiences or identify potential uses and markets for commodities. Finally, staff teach classes, facilitate forums (such as the Minnesota Renewable Energy Roundtable), and perform other activities. We estimated that AURI assisted 349 clients on 420 projects between 2011 and 2015. Each year, AURI staff completed more than 100 client projects, research projects, and other activities.

AURI is governed by a nine-member board of directors and employs 24 full-time staff. The institute's headquarters are in Crookston, and additional offices are in Marshall, Waseca, and St. Paul. All offices are on or near a university campus or research center. AURI's Crookston, Marshall, and Waseca locations include laboratory facilities.

The State of Minnesota provides most of AURI's funding.

AURI's annual revenue ranged from approximately \$3.6 million to \$4.7 million between 2011 and 2015.

¹ *Laws of Minnesota* 1987, chapter 386, art. 2; and *Laws of Minnesota* 1989, chapter 350, art. 7, sec. 1.

State appropriations provided at least two-thirds of AURI's revenue each year, accounting for 82 percent of the institute's fiscal year 2015 revenue.

Other sources of revenue include Minnesota agricultural commodity research and promotion councils and growers associations. They have paid AURI for technical-advisor services and helped finance research projects managed by AURI. For example, the Minnesota Corn Research and Promotion Council funded feeding trials conducted by University of Minnesota researchers as part of an AURI project exploring the effects of using ethanol byproducts in feed for dairy steers.

AURI has also received grants from federal agencies, Minnesota foundations, and others. To a lesser extent, AURI earns money from royalties and fees for services.

AURI has limited its ability to generate revenue from fees and is inconsistent in the fees it charges.

Most of AURI's clients are Minnesota businesses or entrepreneurs that receive free services from the institute. The institute charges for services provided to out-of-state clients that do not use Minnesota agricultural commodities, but it seldom provides such services. AURI has charged fees to a small number of organizations. For example, in addition to being compensated by some commodity research and promotion councils and growers associations to act as a technical advisor, AURI charged a fee to provide team-facilitation and other services to a multistate group interested in heating with biomass.

However, the institute does not have written guidelines for its fees, and the fees it has charged vary significantly without a clear rationale. AURI billed for staff time on research projects at rates ranging from a "discounted rate"

of \$45 per hour to \$150 per hour, and provided some hours of staff time at no charge. AURI charged an out-of-state company \$250 an hour for its services. Finally, a letter from AURI in support of a client's project used a rate of \$135 per hour to value the in-kind commitment of senior scientist staff time.

To improve consistency, we think AURI should develop a fee policy, including established rates and circumstances under which services will be provided free or at reduced rates. AURI should also consider expanding the types of clients that will be charged fees.

AURI resources spent on support services increased between 2011 and 2015.

Measured in both staff time and dollars, AURI increased its resources devoted to support services between 2011 and 2015. Support services, such as strategic planning, board operations, finance, human resources, and applying for grants, consumed approximately 50 percent of AURI staff time in 2015, up from 46 percent in 2011. Staff time spent on client projects was also higher in 2015 than in prior years, but time AURI spent on its own research projects fell over 40 percent.

In addition, while AURI's expenditures were higher in 2015 than in 2011, expenditures on support services and operations increased while other spending declined. Expenditures on client projects, research projects, and other direct services accounted for most of AURI's spending each year between 2011 and 2015, but were lower in 2015 than in prior years.

AURI approves client and research projects through processes that consider a range of perspectives.

AURI's process for approving client projects involves staff with scientific and business expertise, as well as

knowledge in specific areas such as food products or renewable energy. Before approving projects, AURI considers factors such as technical and economic feasibility and the potential benefit to state commodities.

AURI's process for developing and approving its research projects begins with interviews with representatives from a range of agricultural interests to identify research that might address issues or trends.

Once projects are approved, AURI does not have a formal process for prioritizing them.

AURI's project-approval processes determine whether staff proceed with a project, but they do not establish priorities among projects. As a general rule, AURI prioritizes client projects over research projects that might reach a wider audience.

Staff said informal and *ad hoc* priority setting occurs among approved projects, but the institute does not have a formal process for prioritizing them. It is unclear if this approach results in the best use of the institute's resources.

AURI does not require clients who request only staff assistance to complete an application justifying the request.

Clients must provide documentation of a project's merits only when they need funding from AURI. These clients must provide, for example, a market analysis for their product or idea and an estimate of commodity impact. This level of information is not required of clients who need only staff assistance, even when a significant amount of assistance is required. Because AURI seldom provides financial assistance to clients, most clients do not need to provide much formal information before receiving services. AURI should

require more thorough documentation of projects' potential impact before approving ones that are expected to use significant resources.

The methods AURI has used to measure its performance are too limited.

AURI has measured its performance using client-satisfaction surveys and a one-time, client-impact survey. These surveys do not yield sufficient information about the institute's work.

AURI should develop its capacity to measure its outcomes, although this may be challenging given the variety of its work and timing of assistance AURI provides. For example, years may elapse between AURI testing the feasibility of a client's idea for a new product and introduction of the product into the marketplace. Nevertheless, AURI should consider investing in project management software to improve its ability to track and report outcomes. In addition, AURI should regularly collect more meaningful information from current and former clients and improve its report to the Legislature to provide a more complete picture of the institute's activities and performance.

We contacted AURI stakeholders and analyzed project data for insight into AURI's performance. Stakeholders' comments and project data reflected well on AURI's performance.

State law and AURI's bylaws may limit the ability of AURI's board of directors to follow best practices for appointing board members.

State law specifies the types of organizations that must have representatives on AURI's nine-member board: the Senate and House of Representatives agriculture finance committees (two seats), agricultural

commodity promotion councils (three seats), statewide farm organizations (two seats), and agribusiness (two seats).

Best practices for appointing board members encourage boards to select members with a range of perspectives and skills and a commitment to the organization's best interests. But AURI's board has no input as to its legislative members, and its influence over filling other seats is constrained. AURI's interpretation of state law is that qualifying organizations may nominate individuals to represent them; the board selects from among the nominees.

This process may result in a strong board, and most board members in Fall 2015 thought the board's makeup was fairly good. In fact, we believe board members have shown a commitment to the organization. For example, in the last half of 2015, the board clarified the institute's mission statement, hired a new executive director, and approved a revised strategic plan.

However, minutes from some past board meetings reveal significant conflict among board members, including some related to the process for appointing members. To help avoid future conflicts on this issue, we recommend that the Legislature expand the size of AURI's board and allow the board to choose members to fill the new seats.

AURI's board has not complied with all requirements of the state's Open Meeting Law.

Specifically, the board did not record all closed meetings and topics discussed did not stay within those allowed by the law. AURI should ensure that its internal documents correctly reflect the Open Meeting Law and board members should conduct meetings in compliance with the law.

Introduction

In 1989, the Minnesota Legislature established the Agricultural Utilization Research Institute (AURI) as a 501(c)(3) nonprofit corporation.¹ AURI provides technical and financial assistance to identify and develop ideas for products and production processes with the potential to add value to Minnesota agricultural commodities.

At the direction of the Legislative Audit Commission, the Office of the Legislative Auditor evaluated AURI beginning in the summer of 2015. Our evaluation addressed the following questions:

- **What types of projects does AURI undertake and what services does the institute provide?**
- **How well has the institute performed in recent years? How successful has AURI been in obtaining funding from nonstate sources?**
- **How does AURI make decisions about projects and set priorities? Does it seek input from a broad range of agricultural interests?**
- **How does AURI's board of directors appoint its members? Is the board able to effectively govern the institute?**

To answer these questions, we interviewed AURI staff, reviewed internal documents, and read state laws. We gathered opinions about AURI from two dozen individuals representing organizations—such as agricultural commodity groups—that AURI considers stakeholders. We also asked several questions of AURI's board members and interviewed staff from the departments of Agriculture and Employment and Economic Development. We reviewed board minutes and guidance for nonprofit boards, listened to recordings of closed meetings, and attended several board meetings. Finally, we reviewed AURI project files and analyzed five years of project, revenue, and expenditure data. However, we did not assess the extent to which AURI's activities resulted in new products, jobs, or businesses.

While we conducted our research, AURI was developing policies and procedures that may address issues we identified. In some cases, we make note of these efforts in the body of the report.

¹ *Laws of Minnesota* 1989, chapter 350, art. 7, sec. 1.

Chapter 1: Background

Agriculture plays a significant role in Minnesota's economy. Twenty-six million acres—51 percent of the state's land—are dedicated to farming. Minnesota agricultural producers received \$18.9 billion for crops and livestock in 2014, ranking fifth in the nation. Measured by value, Minnesota is the nation's leading producer of sugar beets, green peas, and turkeys.¹ Agricultural exports, valued at \$7.4 billion, comprised more than one-third of Minnesota's manufacturing exports and placed the state as the nation's fourth largest agriculture exporter in 2014. The state's leading exports are soybeans, corn, pork, and feed.²

The Legislature created AURI as part of an effort to address the economic hardship affecting the state's agricultural sector and rural areas in the 1980s. This chapter provides a brief overview of AURI's history, purpose, activities, organization, and funding.

HISTORY AND PURPOSE

In the 1970s, the agricultural sector of the U.S. economy was experiencing high commodity prices and exports, low interest rates, and relative prosperity. The country's farmers acquired debt as they expanded their landholdings and invested in equipment. Circumstances began to change in the early 1980s: a strong dollar, decreasing exports, low commodity prices, falling land values, and high interest rates contributed to economic hardship for many farmers, related businesses, and rural communities. On some measures, Minnesota was among states particularly susceptible to financial distress. For example, Minnesota was among states with "severely" falling agricultural land values.

Commodities are products that are not differentiated across producers. For example, a particular grade of corn is the same regardless of who grew the corn or where it was grown. Generic corn syrup is also a commodity. Not all products are commodities. For example, corn syrup sold under a brand name is a differentiated product, not a commodity.

The 1987 Legislature created the Greater Minnesota Corporation, a public corporation, to foster economic development and job creation outside of the Twin Cities metropolitan area.³ Among other things, the corporation could establish up to four regional research institutes to develop the economy "through the utilization of the region's resources and the development of technology."⁴ The Legislature created AURI as one of these institutes to focus on utilization of Minnesota's agricultural resources.⁵ The 1989 Legislature separated

¹ Value and rankings are based on cash income the farm sector receives from commodity sales.

² Minnesota Department of Agriculture, "Minnesota Agricultural Profile" (2015), <https://www.mda.state.mn.us/~media/Files/agprofile.ashx>, accessed February 2, 2016.

³ *Laws of Minnesota* 1987, chapter 386, art. 2; and *Laws of Minnesota* 1989, chapter 335, art. 1, sec. 170. The Greater Minnesota Corporation later became Minnesota Technology, Inc., and then Enterprise Minnesota, Inc.

⁴ *Laws of Minnesota* 1987, chapter 386, art. 2, sec. 8, subd. 2.

⁵ *Laws of Minnesota* 1987, chapter 386, art. 2, sec. 9.

AURI from the Greater Minnesota Corporation, creating a stand-alone, 501(c)(3) corporation.⁶

AURI's purpose is to develop new products, processes, and uses and expanded markets for the state's agricultural commodities.

To that end, AURI works with businesses, entrepreneurs, agricultural producers, researchers, and others to identify and develop uses for Minnesota agricultural commodities. AURI's mission statement reflects the board of directors' articulation of the institute's purpose: fostering long-term economic benefit for the state through value-added agricultural products.

<p>Value-added opportunities create potential to increase agricultural producers' revenue.</p>

One way to add value to commodities is by processing them to create products that demand a higher price. Other opportunities to increase the value of agricultural commodities or producers' profitability

include (1) increasing demand for commodities, their byproducts, or associated waste by finding new uses and markets; and (2) developing processes that improve products or reduce costs of producing them. In any case, value is added only if price increases or cost reductions exceed the additional costs of value-adding activities.⁷ The following section describes AURI's activities to identify and develop value-added opportunities.

ACTIVITIES

AURI staff perform a variety of activities to increase utilization of agricultural commodities. Client projects focus on individual businesses and entrepreneurs, while other activities have the potential to benefit commodity producers or agricultural processors more broadly. Some activities support AURI staff in their delivery of client services and performance of work with a wider audience.

Client Projects

AURI staff meet with individuals who have ideas for new or improved products or production processes. When staff determine an opportunity is consistent with AURI's agricultural focus and capacity, AURI accepts the individual as a client.⁸ AURI staff help clients develop their ideas and connect with other resources. For example, if a client needs assistance writing a business plan, AURI might refer him or her to a Small Business Development Center.⁹

⁶ *Laws of Minnesota* 1989, chapter 350, art. 7, sec. 1.

⁷ Value may be added to commodities by differentiating them based on method of production (for example, organic farming) or other characteristics (such as location). According to AURI staff, the institute's focus is commodity *utilization*, not commodity production.

⁸ We use the word "client" to refer to an individual or business that AURI is assisting in the context of an established project. Staff may provide basic information and refer individuals to other resources without establishing a project. We discuss AURI's project-approval process in Chapter 3.

⁹ Small Business Development Centers, also known as SBDCs, provide business assistance to entrepreneurs and small businesses. They are funded, in part, by the U.S. Small Business Administration.

AURI client services include:

- Product and process development
- Production specifications
- Product evaluation and testing
- Onsite assistance at a client's facility
- Financial assistance
- Referrals to manufacturers or suppliers of materials, ingredients, or packaging
- Information about other resources

AURI scientists work with clients to test the feasibility of their ideas, formulate products, improve product performance or increase consistency, and identify appropriate packaging, among other things. AURI provides the client with test results and product and production specifications.¹⁰ The results of AURI's work with clients belong to the clients. For example, AURI scientists worked with a client to develop a soil amendment.¹¹ AURI provided the client with a report that included details of different formulations tested, equipment used in the process, and analyses of the formulations' ability to hold water and provide nutrients.

In some cases, AURI provides financial assistance to clients in addition to other assistance. AURI provides financial assistance by reimbursing clients for up to one-half of their expenses for approved activities. For example, AURI provided financial assistance to artisan-cheese makers located on the family's dairy farm. AURI provided assistance with product analysis, nutritional facts labeling, and other issues. However, the owners needed assistance with various aspects of launching the business that AURI could not provide. AURI shared the cost of these services with the client. Exhibit 1.1 describes some client projects, including assistance AURI provided to one entrepreneur who had developed a peanut-like snack that he wanted to introduce into the marketplace.

Exhibit 1.1: Sample Client Projects



Product: Nots!

Company: Fergus Foods, LLC

Impact: Increased revenue approximately 100 percent from 2013 to 2014

Location: Fergus Falls, MN

The father of a child with a nut allergy created Nots!. He started experimenting with sunflower seed-based recipes at home and contacted AURI when he decided to commercialize his idea.

AURI assistance: AURI assisted with research and development, market development, and technical analysis required for a new facility. Specifically, AURI provided:

- Product and process development.
- Shelf-life guidance.
- Nutritional labeling.
- Test market research.
- Cost-share assistance for UPC labeling and to secure non-GMO and vegan certifications.
- Guidance for product scale-up.

Other assistance: The Fergus Falls Economic Improvement Commission connected the entrepreneur to AURI and other resources. The company also received assistance from the Minnesota Department of Agriculture's Agricultural Growth, Research, and Innovation grant program.

Continued on next page.

¹⁰ Product and production specifications might include a list of materials or ingredients used, as well as production details (e.g., equipment, temperature, and moisture).

¹¹ A soil amendment is a material added to soil. A gardener might add a soil amendment to his or her garden to increase nutrients and water-holding capacity.

Exhibit 1.1, continued: Sample Client Projects



Product: Biomass pellets

Company: Alternative Energy Solutions

Impact: Heats 65,000 square feet of greenhouse space, cutting energy costs in half

Location: Altura, MN

Alternative Energy Solutions converts prairie grass, corn stalks, and other agriculture residues into biomass pellets to heat an onsite greenhouse. The business produces additional pellets for commercial and residential heating.

AURI assistance: AURI provided assistance with research and development and determining technical specifications of machinery. Specifically, AURI provided:

- Biomass pellet development and testing.
- Technical assistance with manufacturing equipment.
- Technical assistance to optimize the manufacturing process.



Product: Suntava Purple Corn

Company: Suntava

Impact: The company's purple corn is used in nearly a dozen products, including General Mills' Cascadian Farm Berry Vanilla Puffs cereal.

Location: Afton, MN

A couple from Lamberton, MN, developed Suntava Purple Corn from a non-genetically modified strain of red maize. Their first product was a natural food colorant, Sayela, which is used as an alternative to petroleum-based dyes in a number of beverages.

AURI assistance: Starting in 2002, AURI has helped Suntava with a number of projects over the years. Specifically, AURI provided:

- Help identifying commercial uses for Suntava Purple Corn.
- Technical laboratory assistance.
- Sensory panels.
- Product testing.
- Cost-share assistance.

Other assistance: Suntava received a U.S. Department of Agriculture Value-Added Producer Grant.

Continued on next page.

Exhibit 1.1, continued: Sample Client Projects



Product: Swheat Scoop

Company: Pet Care Systems, now part of Farmers Union Industries

Impact: Available in stores nationwide and at one point was estimated to use 18,000 to 20,000 acres worth of non-food-grade wheat each year

Location: Detroit Lakes, MN

The idea for Swheat Scoop, a wheat-based cat litter, originated with a cat owner who was looking for a less expensive alternative to scoopable, clay-based cat litter.

AURI assistance: AURI has worked with Pet Care Systems since the 1990s, assisting with product formulations and improvements over the years. Specifically, AURI provided:

- Product formulation and process development, including formulations to improve absorbency and clumping and reduce tracking.
- Pelleting specifications.
- Quality control.
- Onsite assistance setting up machinery at the owner's plant.



Product: TetraKO

Company: EarthClean Corporation

Impact: First fire-suppression product certified as an environmentally safe chemical by the Environmental Protection Agency

Location: South Saint Paul, MN

TetraKO is a nontoxic, biodegradable, cornstarch-based powder that, when added to water, forms a gel that suppresses fires. Created by three retired engineers and a firefighter, EarthClean bought the patent for TetraKO and began the process of commercializing the product in 2009.

AURI assistance: AURI assisted with research and development and technical assistance. Specifically, AURI provided:

- Technical assistance to obtain USDA Forest Service certification (still pending in April 2016).
- Development and testing for products that fight different classes of fires.
- Product development and testing for a liquid formula.

Other assistance: EarthClean received financial support from the Minnesota Corn Research and Promotion Council and the Minnesota Soybean Research and Promotion Council.

NOTES: AURI is the Agricultural Utilization Research Institute. The Office of the Legislative Auditor did not independently verify the information in this exhibit.

SOURCES: Office of the Legislative Auditor, compilation of articles published in AURI's annual reports, on its website, or in *Ag Innovation News*; and Jennifer Vogel, "One Job at a Time: the Story of Nots!," *MPR News*, January 27, 2012, <http://blogs.mprnews.org/ground-level/2012/01/one-job-at-a-time-the-story-of-nots/>.

Activities with a Wider Audience

Whereas the results of AURI's client projects belong to the clients, some of AURI's work provides information to a broader audience. AURI conducts or manages research projects, facilitates networks and forums, and engages in other activities, as described below.

Research projects undertaken by AURI may be conducted by AURI scientists, or the institute may contract with other research institutions that have expertise or capabilities that AURI does not. AURI seeks support from interested stakeholders to help finance research projects that require outside expertise. For example, AURI managed research into the effects of feeding reduced-fat distillers grains to dairy steers. AURI contracted with the University of Minnesota to conduct the feeding trials and analyze the diet's affect on meat quality and other attributes. The Minnesota Corn Research and Promotion Council provided most of the funding for the research (distillers grains are a coproduct of ethanol, which is derived from corn).

For **AURI research projects**, staff might:

- Design and manage research
- Review scientific literature
- Conduct tests in AURI's labs
- Contract with other researchers for lab services or expertise
- Hold forums to publicize research results

Research projects typically result in information AURI shares with the public. For example, one project resulted in a guide, available on AURI's website, to help turkey producers and greenhouse operators assess the feasibility of using biomass for heating their operations.¹² Exhibit 1.2 describes this research project and two others.

AURI's networks and forums also can reach a wider audience than client projects. Staff organize networks that link individuals or businesses with common interests. For example, one network connects food processors who are interested in food safety issues. AURI also convenes Minnesota's Renewable Energy Roundtable, as directed in state law, "to further the state's leadership on bioenergy issues."¹³ As part of this responsibility, AURI has facilitated forums on renewable-energy topics annually. For example, a July 2015 forum in Rochester focused on possibilities to use biomass to heat the Destination Medical Center.¹⁴

AURI has also held forums or other events to publicize results of research projects. Exhibit 1.3 illustrates one client project AURI traced from a research project, through events to disseminate the research, to work with the client.

Finally, staff conduct classes, workshops, and presentations about topics that could benefit wider audiences. For example, AURI's meat scientist conducts food-safety workshops with an instructor from the University of Minnesota. The workshops are designed to teach food processors about food labeling, allergens, and principles of avoiding food-safety risks.

¹² DLF Consulting, *Minnesota Biomass Heating Feasibility Guide* (AURI, 2012), <http://www.auri.org/assets/2012/05/biomass-heating-feasibility-guide.pdf>, accessed March 4, 2016.

¹³ *Minnesota Statutes* 2015, 116V.01, subd. 3(c). The roundtable comprises one representative each from the Minnesota departments of Commerce and Agriculture, Minnesota State Colleges and Universities, and the University of Minnesota.

¹⁴ In this context, biomass refers to plant materials of low value that could provide a source of renewable energy.

Exhibit 1.2: Sample Research Projects

Research initiative: Lactose fiber

AURI's role: Provided partial funding for research

Partners: Midwest Dairy Association and University of Minnesota's Midwest Dairy Foods Research Center

Description: Lactose is one component of whey, the liquid that remains after producing cheese from milk. Whey protein is used in a variety of products, but AURI saw an opportunity to derive value from the several million tons of lactose produced by the dairy industry. University of Minnesota researchers successfully used lactose to create a dietary fiber that can be added to food or beverages to increase their fiber content. A University scientist says initial results are promising, but more research is needed to determine the fiber's health benefits and to meet safety and regulatory requirements.

Research initiative: *Marketplace Opportunities for Integration of Biobased and Conventional Plastics*

AURI's role: Coordinated research to produce this report and hosted industry forum on the topic

Partners: Minnesota Corn and Soybean research and promotion councils

Description: "Biobased plastics" are derived, in whole or in part, from plant-based materials rather than solely from fossil-fuel based materials. The report:

- Provides details about the size and projected growth of the bioplastics industry.
 - Discusses the types of bioplastics under development or on the market.
 - Describes barriers and potential opportunities in the industry.
 - Recommends ways in which AURI can stimulate growth in the industry. For example, most bioplastics are made from food crops, such as corn or soybeans. The report recommends AURI actively assist researchers and agricultural businesses to test technologies for using wheat straw, grasses, and other nonfood crops.
-

Research initiative: *Minnesota Biomass Heating Feasibility Guide*

AURI's role: Contracted with an independent organization to develop the guide and hosted industry forums on the topic

Partners: Southwest Clean Energy Resource Team, Southern Minnesota Initiative Foundation, and Southwest Minnesota Initiative Foundation

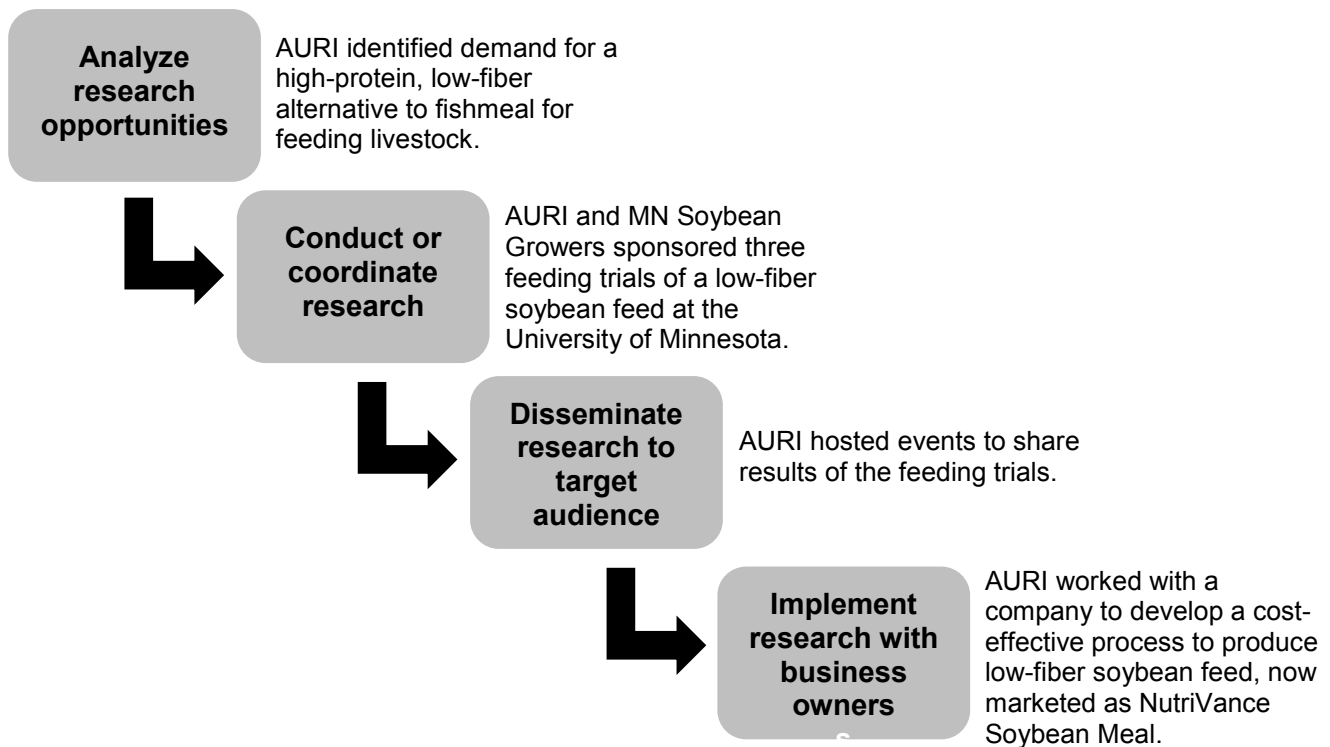
Description: The guide focuses on the feasibility of heating poultry farms and greenhouses using biomass (that is, organic matter) instead of propane, fuel oil, or other high-cost, nonrenewable fuels. The guide:

- Presents information on energy use and heating costs for sample greenhouses and farms that varied in size and type of heating fuel and system used.
 - Provides an overview of the types, availability, and characteristics of biomass in Minnesota, focusing on agricultural and forestry biomass (for example, woodchips, sawdust, and crop residue from corn, wheat, and other plants).
 - Discusses considerations such as (1) storage and handling requirements for biomass, (2) select biomass heating technologies, and (3) electrical and water systems needed to use biomass for heating.
 - Provides cost and financial analysis of the set-up and use of biomass heating systems.
-

NOTE: AURI is the Agricultural Utilization Research Institute.

SOURCES: Dan Lemke, "A new whey to boost health," *Ag Innovation News*, Jan-Mar 2015, p. 4; Jim Lunt & Associates, *Marketplace Opportunities for Integration of Biobased and Conventional Plastics* (Crookston, MN: AURI, 2014), <http://www.auri.org/assets/2014/09/AIC185.biobased1.pdf>, accessed March 8, 2016; and DLF Consulting, *Minnesota Biomass Heating Feasibility Guide* (Crookston, MN: AURI), <http://www.auri.org/assets/2012/05/biomass-heating-feasibility-guide.pdf>, accessed March 4, 2016.

Exhibit 1.3: Sample AURI Path from Research Project to Client Product



NOTE: AURI is the Agricultural Utilization Research Institute.

SOURCE: Liz Morrison, "From idea to reality: How AURI develops uses for agricultural products," *Ag Innovation News*, Oct-Dec 2014, p. 6-7.

Support Activities

Support activities include general management and activities that might improve or publicize AURI's capacity. For example, staff meet with stakeholders and industry representatives and build relationships with university and other researchers to identify research projects that might benefit Minnesota's agricultural commodity producers. In addition, staff promote the institute's services at trade shows and other events, participate in training, and maintain laboratory facilities.

Administrative activities also support the work of the institute. These include planning; conducting client satisfaction surveys; compiling financial and legislative reports; supporting board operations; maintaining the institute's website; and publishing the institute's newspaper, *Ag Innovation News*. Human resources and government affairs are also administrative activities that support the institute's work.

ORGANIZATION

As mentioned previously, AURI is a 501(c)(3) nonprofit corporation. State law establishes a nine-member board to govern AURI and identifies the types of organizations that must be represented on the board. As shown in Exhibit 1.4, AURI board members must include representatives of commodity promotion councils and the chairs of the Senate and House of Representatives agriculture finance committees or their designees.¹⁵ Other board members must represent agribusiness or statewide farm organizations. According to the board's amended Articles of Incorporation, non-legislative board members serve three-year terms and may serve only three terms consecutively. Legislative members serve as long as they are the chair of an agriculture finance committee or the chair's designee.

Exhibit 1.4: AURI Board of Directors

Nine members as follows:

- The chairs of the Senate and House of Representatives standing committees with jurisdiction over agriculture finance or the chair's designee
- Two representatives of statewide farm organizations^a
- Two representatives of agribusiness
- Three representatives of the commodity promotion councils^b

NOTE: AURI is the Agricultural Utilization Research Institute.

^a Historically, the two statewide farm organizations represented on the board have been the Minnesota Farm Bureau and the Minnesota Farmers Union.

^b As of February 2016, board members represented soybean, wheat, and beef councils. Twelve commodities are represented by Minnesota's 13 agricultural commodity research and promotion councils: barley, beef, canola, corn, dairy, dry edible beans, potatoes (two councils), soybeans, sunflowers, turkey, wheat, and cultivated wild rice.

SOURCE: *Minnesota Statutes* 2015, 116V.01, subd. 2.

State law gives the board of directors “the sole approval authority for establishing agricultural utilization research priorities,” among other things.¹⁶ The board hires AURI's executive director, who is responsible for implementing the board's strategy and managing the institute's day-to-day operations, including hiring and managing the institute's staff. As of October 2015, AURI employed 24 full-time and 2 part-time staff. Employees included project managers, scientists, and others. Staff are assigned to one of the institute's four locations, although several staff work remotely.

AURI is headquartered in Crookston and has offices in Marshall, Waseca, and St. Paul.

During AURI's formation, media reported four possible locations for the institute, each with its own supporters. According to one report, Minnesota's Senate Majority Leader, who was also the chief author of the Senate bill creating AURI, favored Crookston; the Minnesota Speaker of the House favored Waseca; and a U.S. congressman who was instrumental in obtaining federal funding for the institute favored either Marshall or Morris

¹⁵ *Minnesota Statutes* 2015, 116V.01, subd. 2.

¹⁶ *Minnesota Statutes* 2015, 116V.01, subd. 3(b).

as AURI's home.¹⁷ In the end, the institute had offices in each of the four cities. AURI closed its Morris office in 2003 and opened an office in St. Paul in 2012.

Exhibit 1.5 lists AURI's locations and facilities. AURI is not part of a university system, but all of its offices are located on or near a university campus or research center.¹⁸ AURI's Crookston, Marshall, and Waseca locations include laboratory facilities.

Exhibit 1.5: AURI Locations and Facilities

Crookston (AURI Headquarters)

- Offices located adjacent to University of Minnesota campus
- Fermentation and microbiology laboratory located on University of Minnesota campus

Marshall

- Located at Southwest Minnesota State University
- Offices
- Analytical chemistry laboratory
- Bioproducts laboratory
- Food laboratory
- Meat laboratory

Waseca

- Located at University of Minnesota Southern Research and Outreach Center
- Offices
- Coproducts utilization laboratory

St. Paul

- Offices located on the University of Minnesota campus

NOTE: AURI is the Agricultural Utilization Research Institute.

SOURCE: Office of the Legislative Auditor, review of Agricultural Utilization Research Institute documents.

FUNDING

As Exhibit 1.6 shows, AURI's total annual revenue ranged from approximately \$3.6 million to \$4.7 million between fiscal years 2011 and 2015.

The State of Minnesota is AURI's primary source of funding.

State appropriations accounted for at least two-thirds of AURI's funding each year between 2011 and 2015, providing 82 percent of funding in 2015. State appropriations increased during the five years but have not always done so. After several years of annual appropriations in the range of \$3.5 million to over \$4.0 million, the Legislature reduced AURI's appropriations to

¹⁷ B. Wilson and S. Writer, "Greater Minnesota Corp. facing its first big test," *Star Tribune*, December 4, 1988, sec. B, p. 1.

¹⁸ When it created AURI, the Legislature specified that AURI "must be located near an existing agricultural research facility in the agricultural region of the state." *Laws of Minnesota* 1987, chapter 386, art. 2, sec. 9, subd. 1.

below \$2 million in 2004. The Legislature increased annual appropriations to \$3.1 million per year for the 2008-2009 biennium, but reduced them again the following two biennia. For the most part, the Legislature directly appropriates funding to AURI.

Research partners, such as research and promotion commodity councils, are another source of funding for AURI; they provided between \$360,000 and \$768,000 each fiscal year, as the exhibit shows. For example, the Minnesota Corn and Soybean research and promotion councils and growers associations have paid AURI to act as a technical advisor and provided financing for research projects. The Minnesota Turf Seed Council and Minnesota Wheat Research and Promotion Council were among other funding partners between 2011 and 2015.¹⁹

AURI also received federal funds between 2011 and 2015 from the U.S. departments of Energy and Agriculture. For example, the institute received a \$200,000 grant from the U.S. Department of Agriculture Rural Cooperative Development Grant program in 2013. AURI also received grants from Minnesota's regional initiative foundations and other funders.²⁰

Exhibit 1.6: AURI Funding, Fiscal Years 2011-2015

	Fiscal Years (revenue in thousands)				
	2011	2012	2013	2014	2015 ^a
State appropriations	\$2,748.0	\$2,643.0	\$2,893.0	\$3,643.0	\$3,643.0
Research partnerships ^b	360.9	623.0	767.7	677.2	415.1
Grants	234.2	241.6	157.4	217.4	111.3
Other ^c	<u>238.9</u>	<u>457.2</u>	<u>270.6</u>	<u>166.3</u>	<u>272.0</u>
Total revenue	\$3,582.1	\$3,964.8	\$4,088.8	\$4,704.0	\$4,441.4

NOTES: AURI is the Agricultural Utilization Research Institute. Its fiscal year runs from October 1 through September 30. Numbers may not sum to totals due to rounding.

^a The Office of the Legislative Auditor revised some numbers in 2015 from data provided by AURI to reflect the auditor's understanding of the revenue categories and revenue sources.

^b Revenue reflected under "research partnerships" includes (1) payments from research and promotion councils and growers associations to AURI to act as a technical advisor, and (2) funding provided to help finance research projects.

^c "Other" includes interest income, fees for services, royalties, donations, and other miscellaneous income.

SOURCE: Office of the Legislative Auditor, analysis of Agricultural Utilization Research Institute data.

¹⁹ The majority of funding provided by research partners did not pay for work completed by AURI staff. For some research partners, AURI administered funds the partners committed to finance project-related expenses. In other words, AURI paid the full cost of the research and billed the partner organization for its share.

²⁰ Minnesota's six regional initiative foundations were established by the McKnight Foundation to support communities and economies in rural Minnesota.

Chapter 2: Performance

Chapter 1 briefly recounted the poor economic state of Minnesota’s agricultural sector preceding the creation of the Agricultural Utilization Research Institute (AURI). The Legislature created AURI to conduct research and provide technical assistance to promote new products, product uses, and expanded markets for Minnesota’s agricultural commodities. In theory, the institute’s work would lead to greater value of the state’s commodities, benefitting agricultural producers and the state economy as a whole.

In this chapter, we evaluate how well the institute measures its performance, before assessing the institute’s performance based on opinions of AURI stakeholders and analysis of AURI’s data. We found that AURI measures its performance, but it needs to improve its methods. Nonetheless, stakeholders were mostly positive in their comments about the institute’s work. We recommend AURI expand the ways in which it measures its impact, improve its reporting to the Legislature, and develop guidelines for charging fees for its services.

AURI’S PERFORMANCE MEASUREMENT

Legislators and others want to know whether AURI is having an impact. They want to know, for example, the extent to which AURI’s work results in new jobs or new products introduced in the marketplace. However, AURI’s impact is not easy to measure. It is not clear what measures would capture the full range of AURI’s activities. In fact, AURI staff commented on challenges measuring the institute’s accomplishments, particularly since outcomes may not be evident for several years.

Unlike economic development programs that offer money in exchange for a promise of jobs created or retained within a certain timeframe, AURI’s projects involve investments of time and resources to test the feasibility of ideas or improve client products. AURI’s work may indicate that an idea is *not* viable. For example, during one of its research projects, AURI explored possibilities for a biobased net for wrapping bales. Part way through the project, the researchers determined there were no economically viable options and suspended the work.

When an idea is feasible, the institute’s work may be many steps removed from a marketable product or new business. Some entrepreneurs and businesses come to AURI with only an idea, while others have developed a product but need help improving or perfecting it. Data reflecting products introduced in the marketplace, commodities utilized, or jobs created would be difficult to collect and, if collected, could not be fully attributed—whether good or bad—to AURI. With regard to AURI’s research projects, the institute may be unaware of who uses the research and to what effect. As we explained in Chapter 1, AURI typically publishes the results of these projects.

Finally, factors outside of AURI’s control influence project success. For example, staff noted that changes in energy prices can affect the economic viability of renewable-energy projects. Nevertheless, while there are many challenges to measuring AURI’s performance, it is important for the institute to do.

Although AURI measures its performance, it needs to improve and expand its methods.

AURI has created tools to gauge its performance and accomplishments, primarily (1) surveys of client satisfaction and impact, and (2) an internal assessment of a project at its conclusion. While these provide some information on the institute's performance and impact, they need improvement. In addition, AURI needs to develop measures that address more aspects of its work.

AURI engages a third party to survey clients with whom staff worked on projects during the year. The survey includes questions about (1) the client's reasons for contacting AURI (for example, "Bring a new product or process to the market to establish or grow your business") and whether the objective was achieved; (2) client satisfaction with AURI's staff, facilities, and services; and (3) results (such as increased revenue or job retention). AURI also contracted with a third party to conduct a one-time, client-impact survey in 2012. The survey included questions about project outcomes, whether AURI assistance contributed to them, and whether products ended up in the marketplace.

Client satisfaction measured by the 2014 annual survey was high, and impacts of AURI assistance (reported in response to the 2012 survey) included creating new jobs and retaining existing ones, enabling capital investments, attracting funding, and developing new processes and technology. However, there are limitations to these surveys. First, while using a third party to administer the surveys allows clients to respond anonymously and honestly, it prevents AURI from knowing outcomes of individual projects. Second, response rates were too low to draw firm conclusions (24 percent and 16 percent, respectively). Finally, AURI has conducted the client-impact survey only once.

AURI staff complete a closure form when they conclude any type of project, whether it is a client project, research project, or support activity.¹ The form requires staff to indicate the project's outcome, which might be: implementation of new technology; efficiencies realized or costs saved; new markets identified or accessed; or project did not move forward, avoiding costs and further efforts. We had hoped to use these forms to compile outcomes of AURI's projects. However, the form has insufficient options (1) for the range of activities it covers and (2) to accurately reflect outcomes at the time of project closure. As part of a broader analysis, we reviewed completed forms for 14 activities that AURI completed in fiscal year 2015.² In over half of the cases, the outcome reflected on the form did not seem supported by the project documents.³

The project closure form is the only instrument AURI uses to assess outcomes from its research projects. Research projects frequently result in published reports that document findings, recommendations, and outcomes from the research. However, AURI does not measure how well the research was received, how widely it was distributed, or other metrics that could reflect on these projects' impacts.

¹ In Chapter 1, we explained AURI's range of activities. An example of a support activity is AURI's formation of a group of leaders in the food industry to serve as a resource for generating and responding to research ideas.

² We reviewed files for the 30 AURI activities that consumed at least 80 hours of staff time in 2015. They included 13 client projects (including grant-related projects), 12 research projects and forums, 3 internal activities, and 2 other activities.

³ Most of these cases were internal projects, research projects, or other activities. Two additional closed projects did not have completed forms.

AURI's data system does not adequately support measurement of the institute's activities and outcomes.

While some challenges to measuring AURI's performance derive from the nature of its work, the institute's data system presents an additional challenge. AURI does not have a database that facilitates managing, tracking, and reporting projects' progress and outcomes. The institute has explored options for enhancing these capabilities, from contracting for programming to enhance reporting to acquiring an off-the-shelf program. However, it still does not have a robust system. Instead, AURI compiles reports on an as-needed basis, using information in its accounting system (such as project type, status, and staff hours) supplemented with other information. This method is inefficient and increases opportunity for human error.

RECOMMENDATION**AURI should more consistently and comprehensively measure the impact of its work.**

We recognize that AURI is a relatively small organization and that resources used to measure its performance will detract from other activities. At the same time, we think it is important for the institute to measure the impact of the services it provides to clients, the research projects it manages, and other resource uses. Our suggestions focus on improving the instruments AURI currently uses. However, we think AURI should also consider investing in a data system that supports reliable outcome measurement and reporting.

First, AURI should periodically repeat its client-impact survey, make it project specific, and inform clients that failure to respond could affect future requests for assistance.⁴ Project-specific questionnaires would allow AURI to (1) personalize surveys and (2) interpret reported outcomes in light of other project information. For example, a successful outcome may be different for clients who first approach AURI with an idea in its infancy than for clients who are further along the development process when they begin working with AURI staff. If response rates to the survey are low, AURI should consider conducting follow-up work so it can report more fully on the impact and outcomes of its work.

Second, AURI should consider ways to assess the impact of its research projects. A revised project-closure form, which AURI is in the process of developing, may help the institute identify and record outcomes of these initiatives. AURI could provide information on the reach of its research projects by reporting the number of non-AURI attendees at related forums, as well as the sectors they represent (such as higher education, government, and private business). Although a more comprehensive measure of research impact would be better, this information would reflect at least one aspect of research distribution. If a research project was undertaken to explore an opportunity for a particular commodity, the commodity group's satisfaction with the work would be informative.

⁴ Questions about client satisfaction with the institute's staff, facilities, and services could remain on a shorter, anonymous survey.

Third, developing multiple measures that reflect the range of AURI's work is important. For example, staff could complete an assessment of a project's stage of development (1) when a client first sought the institute's help and (2) at the conclusion of AURI's work on the project. Although subjective, this would provide one measure of impact. Focusing only on a measure such as "new products in the marketplace" would capture only one type of client project and would reward working with clients on projects that are simple and close to being introduced in the market.

Finally, AURI should review its client-satisfaction and client-impact surveys and assess the need to ask each question. For example, if questions about how a client heard about AURI and the size of the client's business are important, staff could ask those questions when AURI first agrees to work with a client. Fewer survey questions may help increase response rates.

ADDITIONAL PERSPECTIVES ON PERFORMANCE

Because of the limitations of AURI's performance data, we used two other sources of information to evaluate the institute's performance: stakeholder perspectives and client data. We also assessed whether AURI's activities are consistent with the institute's duties listed in state law.

Stakeholder Perspectives

We sought feedback from AURI stakeholders about what AURI does well, where it could improve, and how it is different from other organizations.⁵ These stakeholders varied in their level of interaction with AURI, and we cannot generalize their comments to all stakeholders. However, we think stakeholders' opinions are important because they reflect how organizations that represent commodity growers, agricultural businesses, and others perceive the institute.

For the most part, stakeholder opinions reflect well on AURI's performance.

AURI stakeholders commented on several areas in which AURI performs well. Some stakeholders highlighted the technical assistance or connections that AURI provides to entrepreneurs and new and expanding companies. Others mentioned AURI's connections to businesses and industry representatives, its expertise in value-added and new uses for commodities, and information it provides on potential new developments. For example, one stakeholder referred to AURI as "our experts in the field of value added and utilization of our commodity." Selected stakeholder comments are shown in Exhibit 2.1.

⁵ In September 2015, the Office of the Legislative Auditor sent questions to 43 individuals that AURI identified as representatives of stakeholder organizations. We received responses from 25 individuals, one of whom was not familiar with the institute.

Exhibit 2.1: Selected Positive Stakeholder Comments

From a technical standpoint, AURI has good, talented scientists and project managers who help connect clients to AURI or other resources.

There are certain [AURI] technical services that I think do a phenomenal job bringing applied science and technology to clients.

The abilities of [AURI's] labs and technical staff to assist in efforts to advance new value-added opportunities in Minnesota's food and agricultural community is a real asset for Minnesota.

The strength of AURI lies in its ability to provide start-up companies that may have a novel product with access to networks and technical resources.

AURI's process and ability to do testing and refinement around food products and other products is really quite an extraordinary resource in the state.

AURI keeps us informed of potential new developments that might be useful to our members. No other organization does this with us.

Value added and the utilization of [our commodity] in new and different ways is very important to [our] producers. We do not have the expertise to be leaders in this, however AURI does have that expertise and we count on it.

NOTES: AURI is the Agricultural Utilization Research Institute. In September 2015, the Office of the Legislative Auditor sent questions to 43 individuals that AURI identified as representatives of stakeholder organizations. We received responses from or spoke with 25 individuals, one of whom was not familiar with the institute.

SOURCE: Office of the Legislative Auditor.

While stakeholders were mostly positive, they also identified areas for improvement. For example, several stakeholders thought AURI lacked focus, had not focused on areas these stakeholders thought were important, or was not focused on its mission. A few stakeholders thought AURI's administrative processes could be simplified and better executed. Some comments were specific to a single group (such as, "AURI looks for ways to help our commodity, but we have not been able to find that 'special project'").

Client Project Data

Data about client projects provide additional insight into AURI's performance. Between October 2011 and September 2015, staff initiated over 60 client projects most years and worked on a similar number remaining open from prior years, as Exhibit 2.2 shows. We estimated that AURI worked with 349 clients on 420 projects during this five-year period.⁶

⁶ These numbers of clients and projects do not include grant-related projects or informal interactions during which AURI staff might provide entrepreneurs or business people with advice or referrals to resources.

Exhibit 2.2: AURI Client Projects, Fiscal Years 2011-2015

Fiscal Year	Initiated	Open from Earlier Year	Total Open	Closed
2011	71	67	138	61
2012	66	77	143	69
2013	73	74	147	82
2014	57	65	122	57
2015	86	65	151	76

NOTES: AURI is the Agricultural Utilization Research Institute. Its fiscal year runs from October 1 through September 30. The numbers of client projects do not include grant-related projects.

SOURCE: Office of the Legislative Auditor, analysis of Agricultural Utilization Research Institute project data.

Several clients have worked with AURI on multiple occasions, suggesting that AURI's assistance had a positive impact on their projects.

Of 13 client projects we reviewed, some clients received help with multiple products or product formulations. For example, AURI completed nutritional analysis of 20 products for one client over the course of almost one year. AURI worked with another client for over two years, developing six products during that time; the project file also noted retail locations where the products would be sold. AURI has been working with a third client since late 2010, assisting the client with at least two products that became available commercially.

In addition, 6 of the 13 projects involved clients with which AURI worked multiple times between 2011 and 2015. For the most part, AURI worked with clients once between 2011 and 2015, but we estimated that the institute worked with about 14 percent of clients (49 of 349 clients) more than one time during the five years.

Duties in State Law

As a final measure of AURI's performance, we assessed the extent to which AURI's activities address the institute's responsibilities outlined in law. Conceivably, to the extent AURI fulfills the duties listed in state law, producers of Minnesota's agricultural commodities could benefit from expanded markets, new uses for their commodities, and exposure to new information and technologies.

AURI's activities are consistent with its statutory duties.

Exhibit 2.3 shows that activities performed by AURI correspond with its statutory duties. For example, the institute has convened the Renewable Energy Roundtable and held forums related to the topic annually between 2011 and 2015.

Exhibit 2.3: AURI Duties and Activities

Statutory Duties	AURI Activities
Identify development opportunities for agricultural products	<ul style="list-style-type: none"> • Interview stakeholders and survey agricultural processors to understand opportunities, trends, and challenges • Convene groups of experts to gain insights and perspectives • Complete research projects • Meet with potential clients about product or process ideas • Monitor research, issues, and trends related to commodity use
Implement a program that identifies techniques to meet opportunities for agricultural products	<ul style="list-style-type: none"> • Publicize results of AURI-sponsored research through forums and other means • Complete research projects • Complete client projects • Contribute funds for research or services that AURI is unable to complete • Convene groups of experts to gain insights and perspectives
Monitor and coordinate research among the organizations and individuals specifically addressing procedures to transfer new technology to businesses, farmers, and individuals	<ul style="list-style-type: none"> • Monitor research, issues, and trends related to commodity use • Build relationships with researchers • Publicize results of AURI-sponsored research through forums and other means • Convene meetings of Minnesota’s research and promotion councils to identify common research needs • Convene groups of experts to gain insights and perspectives
Provide research grants to organizations that are undertaking basic and applied research to promote the development of emerging agricultural industries	<ul style="list-style-type: none"> • Contract for research that AURI is unable to complete
Assist organizations and individuals with market analysis and product marketing implementations	<ul style="list-style-type: none"> • Conduct varying degrees of market analysis on projects before investing AURI resources • Direct businesses and entrepreneurs to other resources for assistance that AURI does not provide
To the extent possible, earn and receive revenue from contracts, patents, licenses, royalties, grants, fees-for-service, and memberships	<ul style="list-style-type: none"> • Enter into contracts to provide services for a fee • Collect royalties • Apply for federal, state, and private funding • Generally, charge non-Minnesota companies for services
Work with state and federal agencies to maximize marketing opportunities locally, nationally, and internationally	<ul style="list-style-type: none"> • Confer with agency staff
Leverage available funds from federal, state, and private sources to develop new markets and value added opportunities for Minnesota agricultural products	<ul style="list-style-type: none"> • Apply for federal, state, and private funding • Seek funding from research and promotion councils • Contribute partial funding for client services that AURI cannot provide • Encourage clients to apply for grants from federal, state, and private sources
Annually report to the Senate and House of Representatives standing committees with jurisdiction over agricultural policy and funding	<ul style="list-style-type: none"> • Submit an annual legislative report
Convene a Renewable Energy Roundtable	<ul style="list-style-type: none"> • Convene the roundtable and hold a forum at least annually

NOTE: AURI is the Agricultural Utilization Research Institute.

SOURCES: *Minnesota Statutes* 2015, 116V.01, subd. 3; and Office of the Legislative Auditor interviews and document reviews.

State law gives the board of directors the authority to determine the institute's research priorities.⁷ In some cases, choices made by the institute to fulfill some duties have affected the extent to which it is able to fulfill others. We highlight two examples below.

First, some duties involve trade offs. For example, to the extent AURI hires staff to provide research, product-development advice, or other direct assistance to clients, it is less able to fund research or provide financial assistance to clients. AURI prioritizes using its funding to deliver services and conduct research, while seeking to leverage funds from other sources. Exhibit 2.4 shows that money AURI committed to projects and other activities peaked at almost \$830,000 for activities beginning in 2012 and dropped significantly for activities initiated after 2013.⁸ The exhibit also shows financial commitments leveraged by AURI from others, such as groups representing commodity growers, private and federal granting organizations, and clients.⁹ These funds have also decreased since 2013.

Exhibit 2.4: Financial Commitments to Client Projects, Research Projects, and Other Activities, by Fiscal Year Initiated

Year Initiated	Activities	AURI	Minnesota Soybean Research and Promotion Council	Minnesota Corn Research and Promotion Council	Other ^a	Total
2011	29	\$ 458,213	\$ 72,166	\$ 303,274	\$ 618,328	\$1,451,981
2012	27	829,517	165,960	1,046,422	422,471	2,464,369
2013	28	443,439	185,000	938,823	625,535	2,192,797
2014	15	7,197	153,500	5,000	119,897	285,593
2015	6	5,000	69,600	0	61,900	136,500
Total	105	\$1,743,365	\$646,226	\$2,293,519	\$1,848,130	\$6,531,239

NOTES: AURI is the Agricultural Utilization Research Institute. Its fiscal year runs from October 1 through September 30. The exhibit reflects funding various parties committed to projects, not actual expenditures.

^a Examples of other funding sources include Minnesota initiative foundations, the United States Department of Agriculture, agricultural commodity groups not reflected individually, clients, and others.

SOURCE: Office of the Legislative Auditor, analysis of Agricultural Utilization Research Institute data.

Second, the institute generally allows clients to retain intellectual property developed with AURI's help. This practice benefits the businesses and entrepreneurs that AURI assists, but it limits the royalties the institute could receive. AURI also prioritizes client projects over research projects, affecting the amount of time the institute's scientists can spend conducting research that could create intellectual property for the institute.

⁷ *Minnesota Statutes* 2015, 116V.01, subd. 3(b).

⁸ The drop reflects not only AURI's priorities, but also its spending of accumulated reserves. According to staff, AURI reduced its reserves from approximately \$6.7 million as of June 30, 2011, to \$4.3 million as of June 30, 2015, by funding research and providing financial assistance to clients.

⁹ The exhibit does not reflect funds clients may access directly from other sources. For example, several clients who have worked with AURI have received assistance through the Minnesota Department of Agriculture's (MDA's) Agricultural Growth, Research, and Innovation grant program. MDA has provided financial assistance for business feasibility studies, equipment or capital investments, and participation in trade shows. AURI encourages clients to apply for funds from this program.

In the examples above, we do not have an opinion as to whether AURI should be operating differently. However, we think AURI's approaches to two of its statutory duties need reconsideration and improvement: (1) generating fee revenue and (2) reporting.

Generating Fee Revenue

In Chapter 1, we explained that the state provided at least 82 percent of AURI's funding in 2015. State law directs AURI to generate revenue from a range of other sources, including fees, "to the extent possible."¹⁰ Exhibit 2.5 shows the revenue generated from these sources during fiscal years 2011 through 2015. As the exhibit shows, AURI has derived minimal revenue from some of these sources.

Exhibit 2.5: AURI Revenue from Sources Identified in State Law, Fiscal Years 2011-2015

	Fiscal Years (revenue in thousands)				
	2011	2012	2013	2014	2015 ^a
Grants	\$234.2	\$241.6	\$157.4	\$217.4	\$111.3
Federal grants	205.2	213.7	142.4	138.6	91.3
Nonfederal grants	29.1	28.0	15.0	78.8	20.0
Royalties ^b	0	24.7	41.4	48.2	92.4
Fees for service ^c	20.3	0	0	0	64.6
Patents, contracts, licenses, and memberships	0	0	0	0	0
Total	\$254.5	\$266.3	\$198.8	\$265.6	\$268.2

NOTES: AURI is the Agricultural Utilization Research Institute. Its fiscal year runs from October 1 through September 30. *Minnesota Statutes* 2015, 116V.01, subd. 3(a)(6), directs AURI to earn revenue, to the extent possible, from contracts, patents, licenses, royalties, grants, fees for service, and memberships. This exhibit does not include other sources of revenue; for example, it excludes state appropriations. Numbers may not sum to totals due to rounding.

^a The Office of the Legislative Auditor revised some numbers in 2015 from data provided by AURI to reflect the auditor's understanding of the revenue categories and revenue sources.

^b The amount for 2015 includes revenue from AURI's sale of a product idea to a company.

^c "Fees for service" does not include revenue AURI receives to act as a technical advisor for some agricultural commodity research and promotion councils and growers associations. AURI does not reflect that revenue as fees it receives to provide services.

SOURCE: Office of the Legislative Auditor, analysis of Agricultural Utilization Research Institute data.

AURI usually provides its services to clients for free. However, projects with out-of-state companies show these clients value AURI's services enough to pay for them. For the two such projects we reviewed, the companies' interest was in AURI's capabilities at its Waseca facility. At this facility, AURI scientists are able to transform raw coproducts into a pelleted form. Clients can observe how various pieces of equipment work, too, as they consider equipping their own facilities. AURI staff have completed analyses of the value of some of the food services the institute provides. For example, staff estimated the market value of services provided to a "typical" food client that receives the full range of AURI

¹⁰ *Minnesota Statutes* 2015, 116V.01, subd. 3(a)(6).

services at over \$17,000. Yet the institute charges nothing for these services if a client says his or her project will use a Minnesota commodity.

AURI has developed some sources of fee revenue. For example, staff said AURI charges for client services when projects fall outside the institute's mission, such as projects for non-Minnesota companies that do not use Minnesota commodities, but the institute rarely has the capacity to serve these businesses and has seldom done so. In addition, the institute has entered into agreements with Minnesota's Corn and Soybean growers associations and research and promotion councils to act as a technical advisor to these groups for a fee.¹¹ As a final example, in 2015, the institute was developing a proposal to charge a fee for team-facilitation services provided to a multistate organization focused on heating with biomass.

AURI's approach to charging for services it provides is inconsistent and unclear.

The institute does not have written guidelines about the fees it charges. AURI has varied the rates it charges or uses to calculate values for its in-kind services, but the rationale is unclear. For example, documents for research projects indicated staff time would be billed at rates ranging from a "discounted rate" of \$45 per hour to \$150 per hour. AURI charged an out-of-state company \$250 an hour. A letter from AURI in support of a client's project used a rate of \$135 per hour to value the in-kind commitment of senior scientist staff time and a rate of \$55 per square foot per year for laboratory space. Documents also reflected services that would be included at no charge (or "in kind"), making comparisons among projects difficult.

RECOMMENDATION

AURI should set rates for its services and develop guidelines for circumstances under which it will provide services for free or reduced rates.

We think established rates and policies for deviating from them are important to ensuring that clients and research partners are treated consistently. In May 2016, staff reported that efforts to develop a formal rate matrix were well underway. As part of these efforts, AURI should consider changing its position on charging clients for services. Charging fees could help ensure that clients who seek AURI's help are serious about developing their idea. AURI could charge Minnesota clients that use Minnesota commodities below-cost fees, establish fees for only some services, or design another approach; possible pricing options are endless. An important consideration is the administrative work billing for services would entail.

Reporting

State law requires AURI to report to the legislative committees with jurisdiction over agriculture policy and finance by February 1 of each year. Specifically, AURI is to "list projects initiated, progress on projects, and financial information relating to expenditures, income from other sources, and other information *to allow the committees to evaluate the effectiveness of the institute's activities.*"¹²

¹¹ This revenue is not shown in Exhibit 2.5 because AURI includes it with the organizations' contributions to funding research projects.

¹² Emphasis added. *Minnesota Statutes* 2015, 116V.01, subd. 3(b).

AURI's annual legislative reports for fiscal years 2011 through 2015 have only partly fulfilled requirements in law.

AURI did not list projects initiated in its 2011 through 2014 legislative reports and did not include comprehensive revenue and expenditure information in the 2011 through 2013 reports. In addition, AURI did not report “progress on projects” in any of the reports. Instead, the reports described select client and research projects and listed projects on which staff worked during the year. The institute began including income and expenditure information in the 2014 legislative report and included a list of projects initiated in its 2015 legislative report.

AURI has included in the reports additional information that provides insight into the institute’s effectiveness for some activities. For example, reports have included project descriptions that could help committees assess the institute’s effectiveness on those projects. However, summary performance information has focused on the institute’s work with clients, based on the client-impact and client-satisfaction surveys we discussed above, and not its own research. In addition, the institute’s reporting of client satisfaction results could be misconstrued because AURI has not reported the survey response rate. For example, the 2014 report presented client satisfaction information as representative of all clients assisted during a year, rather than the 18 clients who responded to the survey.

RECOMMENDATION**AURI should improve its annual report to the Legislature.**

AURI should provide the Legislature with clear information about the full scope of its client projects, research projects, and other activities. Aggregate information could provide a sense of the volume of AURI’s work. State law is not clear about what “projects” are for the purposes of annual reporting, but legislators might find it helpful in gauging the institute’s work if AURI included aggregate data by project type. For example, reporting about client projects could include the number of clients staff worked with during the year and the hours spent working with them. Providing progress information, as required in state law, could be challenging given the variation in project work plans and limitations of AURI’s data systems. As an alternative, additional information could include: (1) projects initiated, (2) projects remaining open from prior years, and (3) projects closed. As AURI improves its performance measurement tools, as we suggest above, it should include new measures in the report.

As AURI did in its 2015 legislative report, the institute could list projects initiated during the year at the end of the report. It could also list all projects that required more than a minimum number of hours of work (as it has in the past), or focus on projects closed during the year. If AURI focused on closed projects, it could also report total AURI resources spent on each project, staff assessments from a revised project-closure form, and results from a project-specific impact survey.¹³

The institute could include in the reports brief summaries of a few projects, as it does now. Client satisfaction data, with the number of respondents and response rate clearly reported,

¹³ AURI should consider grouping projects to make its lists easier to digest, such as by type, and include more transparent and user-friendly project names.

is also useful information. In addition, clearly stated descriptions of other activities that AURI pursued during the year could help legislators understand how staff spend their time when they are not working on client projects or performing research.

Finally, we think AURI should more thoroughly and consistently report on the extent to which it receives income from the different sources listed in state law. For example, the institute currently reports revenue from research and promotion councils as one sum, regardless of the reason the revenue was provided. In the legislative reports, we think money these councils provide to fund research that the institute cannot conduct should be reported separately from payments for AURI services; such payments should be reflected as fees for services or contracts. Over time, good information about AURI's ability to raise revenue from other sources may reveal that some sources listed in state law are not viable.

Chapter 3: Priorities

As we described in Chapter 1, the Agricultural Utilization Research Institute (AURI) performs a variety of activities, including client projects, research projects, and others. We estimated that AURI worked on over 700 activities during fiscal years 2011 through 2015, with staff generally starting over 100 new activities each year and working on over 100 more that remained open from previous years. In addition, AURI staff applied for grants, participated in training, and met with stakeholders. AURI must choose how to allocate resources among its various resource demands—which projects to undertake, grants to pursue, and groups to convene, among other things. State law gives minimal direction for setting priorities among the various duties with which AURI is charged. In fact, the law states that “[AURI’s] board of directors shall have the sole approval authority for establishing agricultural utilization research priorities.”¹

This chapter focuses on AURI’s allocation of resources among activities and how the institute chooses projects. We found that, overall, staff time and funds spent on direct services were lower in 2015 than in 2011. In addition, while the institute has developed project-approval processes that consider a range of perspectives, staff do not always follow the process for client projects. Finally, AURI does not require the same level of documented information when considering projects that use only staff assistance as it does for those that receive financial assistance, even when significant staff resources are committed. We recommend that AURI (1) adopt project guidelines that require more explicit consideration of projects’ potential impacts before approving projects that are expected to consume significant staff resources, and (2) consider using this information and other criteria to prioritize projects and other activities.

ALLOCATION OF RESOURCES

We examined AURI’s allocation of resources as a general reflection of the institute’s overall priorities. Decisions about which staff positions to create or fill and how to spend money are an indication of the activities the institute supports. For this analysis, we describe AURI’s work on client projects and activities that reach a wider audience as “direct services.”² Support services, on the other hand, contribute to AURI’s functioning and delivery of direct services.

Staff

Exhibit 3.1 shows AURI’s organizational chart as of October 2015. At the time, AURI employed 24 full-time and 2 part-time staff, including scientists, project managers, and others.

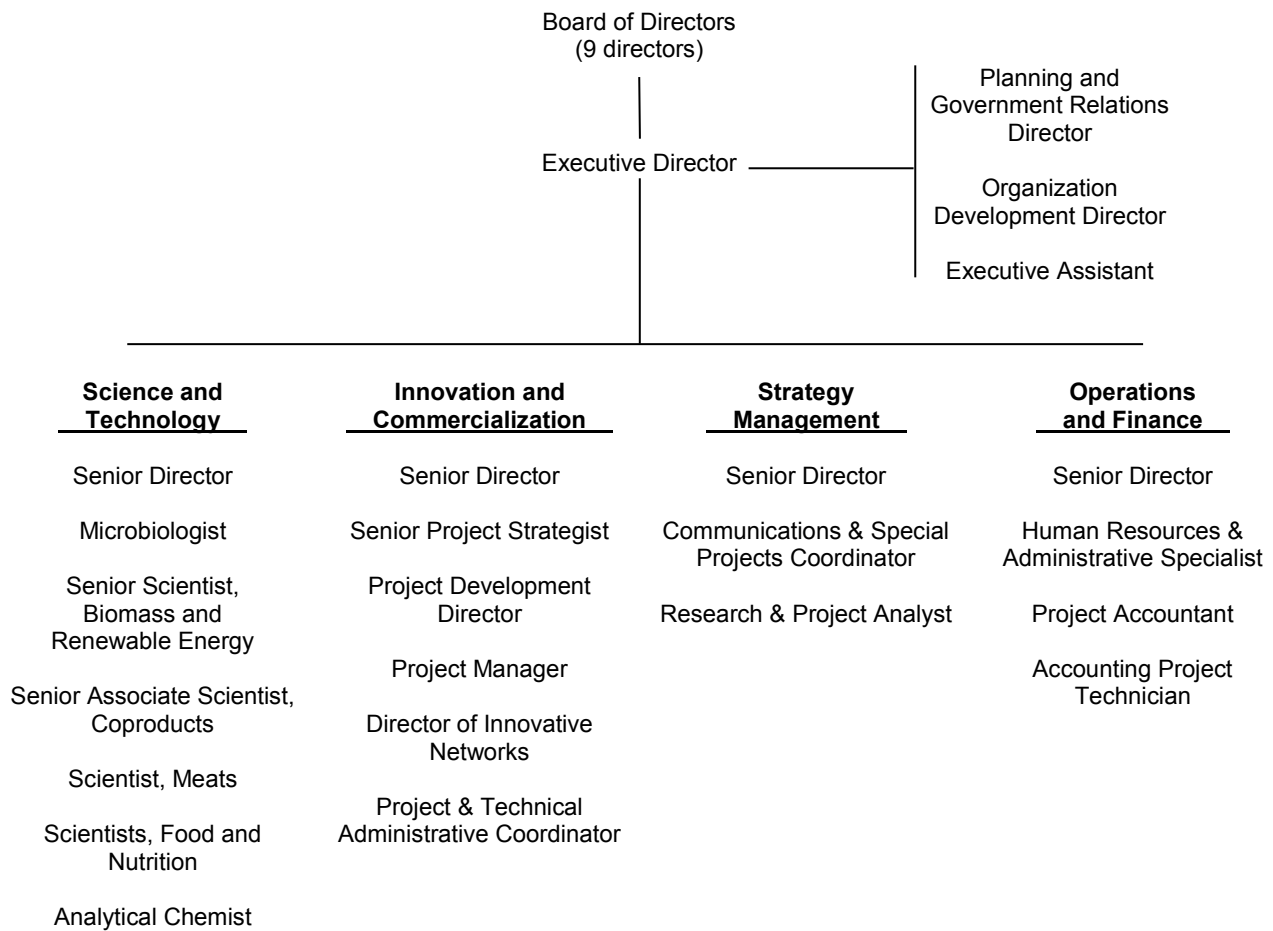
¹ *Minnesota Statutes* 2015, 116V.01, subd. 3(b).

² We explained in Chapter 1 that AURI’s activities with wider audiences include research projects, networks and forums, and activities such as teaching classes and workshops.

Just over half of AURI’s full-time staff work in departments that conduct client or research projects, facilitate forums, and provide other direct services.

As Exhibit 3.1 illustrates, 13 of AURI’s 24 full-time staff work in the Science and Technology Department or the Innovation and Commercialization Department. AURI’s two part-time staff also work in these departments. Staff and scientists in the Science and Technology Department work in AURI laboratories or at client facilities assisting clients with projects. These staff also manage, conduct, and design research that will be available to the public. Staff in the Innovation and Commercialization Department meet with potential clients to determine if AURI can assist them, help clients develop product ideas, and connect clients with providers of services AURI does not provide (such as business-plan writing and financing). These staff also organize and facilitate (1) forums to present and discuss AURI research findings and (2) networks that link individuals with common interests.

Exhibit 3.1: AURI Full-Time Staff, October 1, 2015



NOTES: AURI is the Agricultural Utilization Research Institute. The exhibit reflects full-time, filled positions only. On October 1, 2015, the institute employed 24 full-time and 2 part-time staff.

SOURCE: Office of the Legislative Auditor, compilation of Agricultural Utilization Research Institute data.

While these staff provide direct services, they may also spend time on activities such as training, lab maintenance, general management, and networking. In addition, they facilitate meetings of stakeholders and industry leaders that help AURI staff stay informed of issues, trends, and research needs in Minnesota's agricultural processing industry.

The remaining 11 full-time staff provide support services that contribute to AURI's operation and the capacity of the institute to provide direct services. Staff in the Strategy Management Department facilitate AURI's strategic planning process; coordinate efforts to measure AURI's impact; publish AURI's newspaper, *Ag Innovation News*; and coordinate AURI's presence at trade shows. Staff in the Operations and Finance Department oversee contracting; manage financing for projects that involve funding partners; prepare budget and financial statements; and facilitate hiring and other employment-related tasks. The executive director and staff who report directly to him or her also support the institute's work.

Numbers of staff who work in each department do not reveal how staff spend their time. AURI tracks some staff time based upon the department in which staff work, but the institute also records time spent on specific activities that are anticipated to consume significant amounts of time.

Between 2011 and 2015, AURI's total staff time increased, but time spent on direct services declined.

Exhibit 3.2 shows that AURI staff time increased by about 10 percent during the five-year period. Between 2011 and 2015, time spent on direct services decreased by almost 16 percent, to around 10,000 hours in 2015. The decline occurred between 2011 and 2013; hours mostly recovered between 2013 and 2015 but remained below the 2011 level.

Direct Services

Staff noted that an open position in the Innovation and Commercialization Department may be contributing to the drop in staff time spent on direct services. Another possible explanation is that existing staff spent less time on client and research projects than in the past. The data we analyzed did not allow examination into this possibility. But, for example, AURI's scientists are encouraged to spend some time monitoring research that is occurring worldwide. This activity could benefit work with clients or identify promising research projects, but it would not be reflected as a direct service.

Hours spent on the activities that comprise direct services did not decline for each type of activity. Notably, time spent on client projects and meeting with potential clients *increased* by almost 25 percent between 2011 and 2015. As Exhibit 3.2 shows, staff spent almost 4,500 hours on client projects or meeting with potential clients in 2011. Hours dropped between 2011 through 2013 before increasing to over 5,500 hours in 2015. In contrast, hours spent on research projects and forums and grant-funded projects decreased by over 40 percent during the same time period, from roughly 7,200 hours combined to around 4,100 hours.

Exhibit 3.2: AURI Hours of Activity, Fiscal Years 2011-2015

	2011	2012	2013	2014	2015	Percentage Change (2011-2015)
Support services^a	19,449	20,766	22,268	23,768	23,303	19.8%
Program management^b	10,466	11,588	13,819	12,632	12,785	22.2%
Direct services	11,991	9,386	7,710	9,628	10,090	-15.9%
Client projects ^c	4,433	3,740	3,573	3,717	5,542	25.0
Research projects and forums	5,723	4,832	3,115	4,797	3,320	-42.0
Grant-funded projects ^d	1,471	411	739	860	801	-45.5
Other activities ^e	365	403	283	254	427	17.1
Total	41,905	41,739	43,797	46,027	46,178	10.2%

NOTES: AURI is the Agricultural Utilization Research Institute. Its fiscal year runs from October 1 through September 30. Hours may not sum to totals due to rounding.

^a “Support services” includes time for activities such as accounting, contracts, board operations, and human resources. It also includes time spent on grant applications, award applications, communications, client surveys, and strategy management.

^b “Program management” includes a mix of support and direct services. It includes attending meetings with collaborators and stakeholders, networking, attending conferences, maintaining laboratories, training, and convening forums and doing research to inform AURI staff (as opposed to the public). Two senior directors’ time is included, as well as small increments of time spent on client and research projects that staff did not record to the specific project.

^c “Client projects” is primarily time AURI staff spend working with clients on their projects, but it also includes time spent meeting with potential clients.

^d Grant-funded projects were at least partly funded by federal grants. AURI’s data do not identify these as client projects or research projects.

^e “Other activities” includes activities such as teaching classes and workshops and preparing for and making presentations at events.

SOURCE: Office of the Legislative Auditor, analysis of Agricultural Utilization Research Institute project data.

Support Services

Staff time devoted to support services increased by almost 20 percent between 2011 and 2015. These services include activities in areas such as strategic planning, finance, human resources, contract administration, board operations, and communications, as well as applying for grants. These services used approximately 50 percent of AURI staff time in 2015, up from 46 percent in 2011. AURI staff said that staffing changes over the five-year period likely explain this increase. The institute added two administrative positions between 2011 and 2015.

Program Management

Exhibit 3.2 shows “program management” increased by 22 percent between 2011 and 2015. Program management includes a mix of direct and support services. For example, support services include promoting the institute’s services at trade shows and other events, meeting with stakeholders to identify topics for research projects, training, staying abreast of relevant research, and planning for laboratory facilities. Program management also includes

the time of two senior directors who work with AURI's project staff and scientists, and small increments of time spent on projects but not coded to them.³

Expenditures

Overall, AURI's expenditures ranged from approximately \$3.9 million in fiscal year 2011 to almost \$4.7 million in 2013. Expenditures were slightly higher in 2015—\$4.2 million—than in 2011. To a large degree, AURI's expenditures on direct and support services reflect the institute's staffing. For example, expenditures on direct services include the compensation, travel-related expenses, and office expenses of staff who work in the Science and Technology Department and Innovation and Commercialization Department.⁴ Remaining staff engage in activities we categorized as support services. AURI defines institute-wide expenses—such as rent, insurance, and information technology services—as operations expenditures. Operations expenditures also include some support-service activities, such as training and professional development.

While expenditures related to direct services accounted for most of AURI's expenditures between 2011 and 2015, they declined during the time period even as other expenditures increased.

Expenditures related to direct services accounted for between 54 percent and 65 percent of expenditures each year between 2011 and 2015. At the same time, as Exhibit 3.3 shows, spending related to direct services fell from almost \$2.5 million in 2011 to \$2.3 million in 2015, after peaking at over \$2.9 million in 2013. Overall, staff compensation in this area increased by almost \$310,000, due at least in part to adjustments following a salary benchmarking study.⁵ However, project expenditures decreased by over \$475,000 between 2011 and 2015.⁶ According to AURI staff, grant revenue and funding from the Minnesota Corn Research and Promotion Council—two sources that help fund direct services—both dropped during this timeframe.

While expenditures on direct services declined, AURI's overall expenditures were 9 percent higher in 2015 than in 2011. Between 2011 and 2015, expenditures that comprise support services increased over 40 percent, from less than \$1 million to almost \$1.4 million. Staff compensation in the support services area increased by over \$321,000 during the time period, reflecting increased staffing and salary adjustments following the benchmarking study mentioned above. By 2015, expenditures on support services accounted for almost 33 percent of spending, up from 25 percent in 2011.

³ For the most part, AURI's data did not allow us to parse "program management" time between direct and support services.

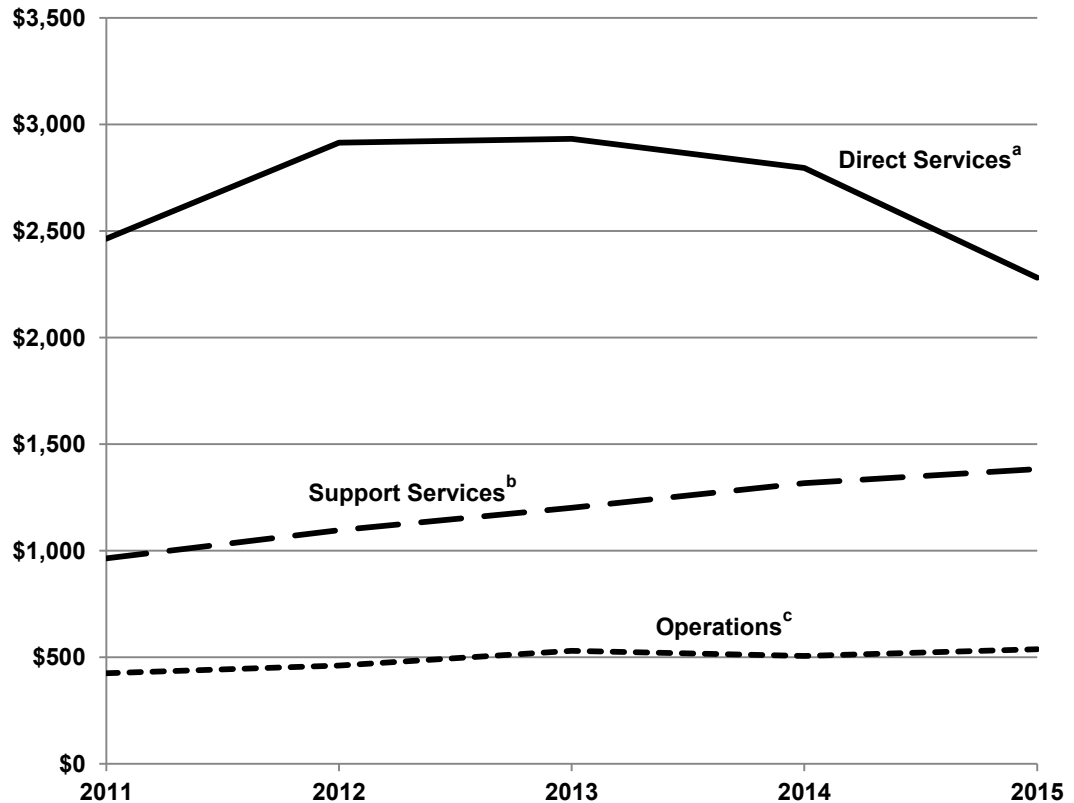
⁴ An exception is that AURI includes expenditures for the Planning and Government Relations Director with this group.

⁵ According to AURI, the institute contracted with a firm to research salaries across several nonprofit organizations to determine an "industry standard."

⁶ Project expenditures include (1) financial assistance to clients, (2) costs for expertise and assistance that AURI staff are unable to provide, and (3) AURI's match for federal grants.

Exhibit 3.3: AURI Expenditures, Fiscal Years 2011-2015

In thousands



NOTES: AURI is the Agricultural Utilization Research Institute. Its fiscal year runs from October 1 through September 30.

^a "Direct services" includes compensation and expenses (such as office materials, telephone, and travel) for staff who work in the Innovation and Commercialization Department or Science and Technology Department, and the Planning and Government Relations Director. Staff include scientists who do applied research and project managers. Expenditures related to client and research projects also fall in this category. Lab supplies and repairs are also included.

^b "Support services" includes compensation and expenses (such as office materials, telephone, and travel) for staff who are not included in "direct services," such as the executive director and staff in the Strategy Management and Operations and Finance departments. Costs of exhibits and *Ag Innovation News*, AURI's newspaper, are also in this category.

^c "Operations" includes institute-wide expenditures, such as rent; insurance (for example, liability insurance); some travel and contracted services; legal, accounting, information technology, professional development, and staff training; and board-related expenditures. It does not include any staff compensation.

SOURCE: Office of the Legislative Auditor, analysis of Agricultural Utilization Research Institute data.

PROJECT SELECTION

During our evaluation, we learned that client waiting lists had developed. In spite of an increase in time spent on client projects overall, staff estimated that 8 to 12 clients were waiting for services in Fall 2015. At the same time, resources devoted to research projects declined, as we showed above. The following sections outline AURI's processes for approving these projects and setting priorities among them.

Client-Project Approval

Potential clients become aware of AURI through several avenues.⁷ Individuals or businesses may be referred to AURI by institute clients or groups with which AURI has developed relationships, such as economic developers, Small Business Development Centers, state agencies, or organizations representing commodity growers. Potential clients might become aware of AURI's services through a trade show that institute staff attended or by reading *Ag Innovation News*.

AURI assesses potential client projects based on several criteria, such as whether a project uses a Minnesota commodity and is scientifically feasible.

Prior to beginning work on a potential client's idea, AURI's staff discuss the idea with the individual or business, as shown in Exhibit 3.4. For example, a food entrepreneur might contact AURI for assistance with product packaging and shelf life. During initial contacts, staff would assess whether (1) the product uses (or benefits) a commodity grown in Minnesota and (2) the entrepreneur needs AURI assistance. If a potential client's project does not meet the criteria shown in the first box of Exhibit 3.4, staff will refer him or her to other resources. As the exhibit shows, being based in Minnesota is not a requirement for working with AURI. Most of AURI's clients are based in the state, but AURI has provided free assistance to companies from other states when the projects involve Minnesota producers or plan to use commodities that are grown in Minnesota. As noted in Chapter 2, AURI has also worked with out-of-state businesses for a fee.⁸

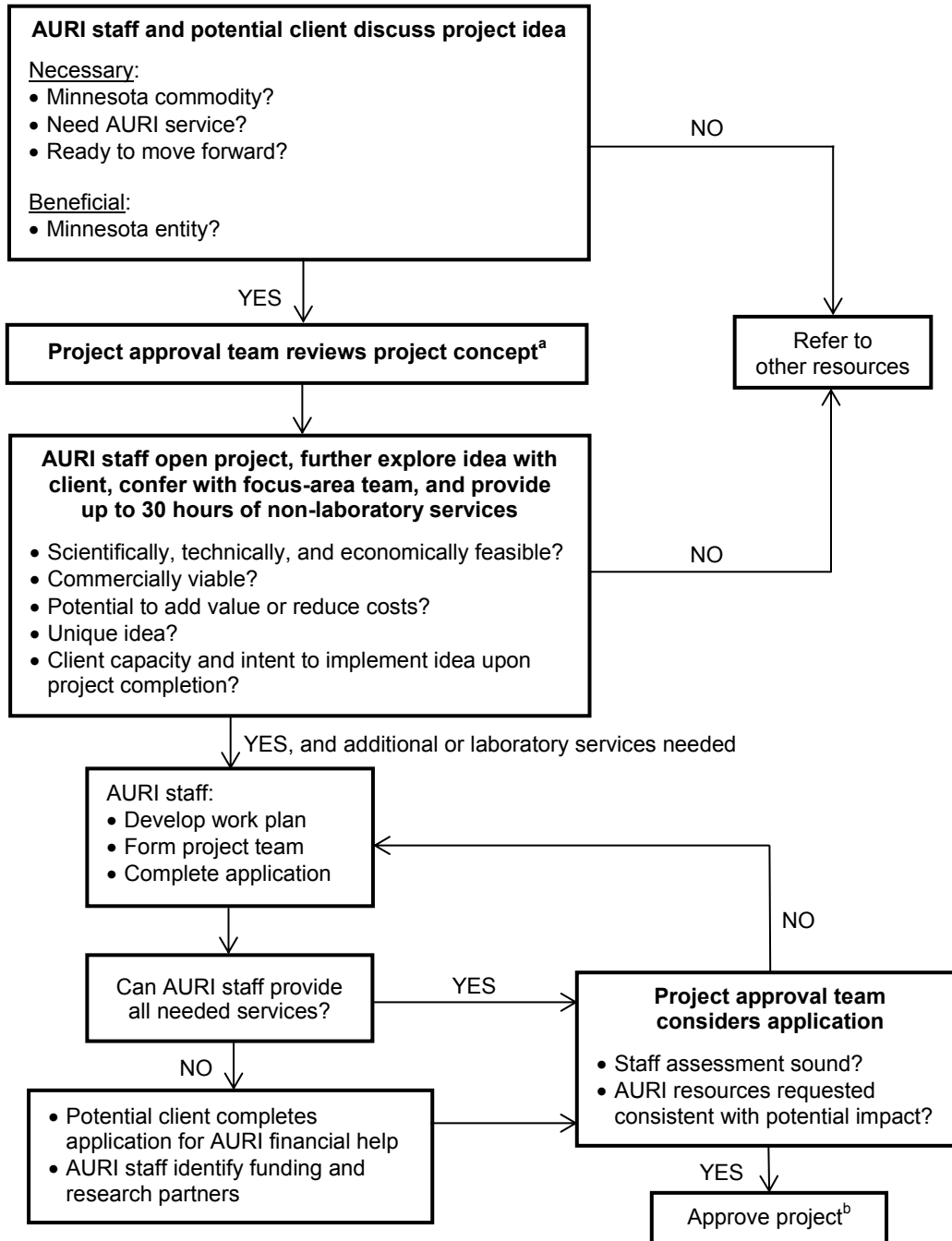
As Exhibit 3.4 shows, if staff determine that a project fits the preliminary criteria, the project concept is reviewed by AURI's project-approval team, which includes senior directors and staff. After this review, staff establish a project and may provide up to 30 hours of non-laboratory services to the client. Staff also further explore the idea with the client and a team of AURI colleagues to assess the idea's technical feasibility, uniqueness, and other factors. The teams are organized around focus areas (such as food and renewable energy) and include scientists, project managers, and senior staff with experience in product development.⁹ For example, in 2013 AURI staff considered a client project to develop a coffee-chaff-based soil additive. According to staff, they had considerable discussions about whether this product fit AURI's mission to add value to Minnesota agricultural commodities. Ultimately, staff determined the product fit because wheat coproducts would be used in the additive.

⁷ We refer to "clients" as individuals and businesses that are receiving assistance from AURI in the context of a project. Except in discussions of our in-depth project reviews, our reference to "client projects" excludes grant-related projects. According to AURI, staff may have preliminary discussions with and provide referrals and basic information to individuals and businesses prior to beginning a project. AURI considers all of the people it assists, including individuals who contact AURI informally and do not open a project, as clients.

⁸ Statutory language does not limit AURI assistance to Minnesota businesses and entrepreneurs but does emphasize Minnesota commodities and products.

⁹ Besides teams focused on food and renewable energy, AURI has a team focused on coproducts and one focused on biobased products. "Coproducts," also called byproducts, are what is left over from a commodity after it has been used for its primary purpose. "Biobased products" refer to products developed from renewable, biological sources; AURI works on client and research projects to create plant-based materials that can be used in place of petroleum-based ones.

Exhibit 3.4: AURI's Client-Project Approval Process



NOTE: AURI is the Agricultural Utilization Research Institute.

^a If unresolved questions arise during this review, staff may revise the concept or refer the potential client to other resources.

^b Requests for financial assistance that exceeds \$15,000 must be approved by the executive director. The board of directors must approve requests of \$25,000 or more.

SOURCE: Office of the Legislative Auditor.

Exhibit 3.4 shows that staff complete an application, develop a work plan, and suggest a team to work on projects that need more than 30 hours of assistance or require laboratory services. The application includes an explanation of the project's purpose, client's vision, and project needs. It also identifies Minnesota commodities that will benefit from the project and other organizations involved in the project, if any.

If a client needs financial assistance to pay for technical services or expertise that AURI cannot provide, staff work with the applicant to obtain additional justification for the resources. Additional information includes: a business plan; a more thorough outline of client needs and an explanation of how assistance will help the business and community; an analysis of the amount of commodity that will be used per year and the value that will be added; a description of market opportunities; self-reported organizational strengths, weaknesses, and three-year performance history; and the applicant's market research.

The project-approval team must approve projects before staff provide laboratory services or more than 30 hours of assistance to the individual or business requesting AURI's help. The team assesses information in the application and considers the extent to which the proposed work plan and resources are consistent with the potential impact of the project on commodity use, rural communities, and the economy. The executive director must approve all projects requesting over \$15,000 in financial assistance, and the board of directors must approve all projects with a financial outlay of \$25,000 or more.¹⁰

AURI staff have not always initiated client projects through AURI's approval process.

First, staff have worked on new products for clients with whom they were already working without going through the project-approval process. We reviewed files for the 30 activities, including 13 client projects, that consumed at least 80 hours of staff time in 2015. During two client projects, staff started new work with the client without following the project-approval process. A third project did not clearly define an original scope of work, but staff assisted the client with over a dozen products.¹¹

Second, staff have provided laboratory services or over 30 hours of services to clients prior to receiving approval to do so.¹² As described above, staff may spend up to 30 hours providing advice, referrals, and non-laboratory assistance to a client and conferring with colleagues. But AURI's process requires that they submit an application to the project-approval team and obtain approval before providing any laboratory services or more than 30 hours of other services.

RECOMMENDATION

AURI staff should follow the institute's project-approval process.

¹⁰ AURI's bylaws require board approval for expenditures of \$25,000 or more. State law requires approval, too, but only for expenditures *over* \$25,000. *Minnesota Statutes* 2015, 116V.01, subd. 13.

¹¹ The practice of extending work with an existing client rather than initiating new projects through the approval process may be greater among the projects we reviewed than for all projects because we reviewed 2015's most time-consuming projects.

¹² These projects were not among the 30 projects we selected for file review. We reviewed dozens of additional project files as we developed an understanding of AURI's work and project data.

When staff provide services without having followed the approval process, they circumvent a process that incorporates the input of multiple staff with varying expertise. The practice also prevents the project-approval team from assessing whether the amount of assistance is reasonable given the expected impact. Finally, it affects AURI's ability to measure its impact by making the number of client projects smaller than it would be if each new request were counted as a new project. AURI identified the practice of adding new projects onto existing ones as problematic and began addressing it in Fall 2015. Further clarification with staff about what services they can provide at different stages in the process would also be beneficial.

Research-Project Approval

The institute's usual practice for identifying research topics begins with staff meeting individually with representatives of stakeholder groups.¹³ During these meetings, staff ask about emerging trends, challenges, and priorities.

AURI seeks input from a range of agricultural interests when developing ideas for research projects.

AURI staff meet with persons from a range of commodity groups, including those representing corn, soybeans, dairy, and wild rice. AURI staff also meet with other stakeholders and partners, such as representatives from the Minnesota AgriGrowth Council, Minnesota Farm Bureau, and Minnesota Farmers Union. Staff reported completing over 25 stakeholder meetings between October 2014 and July 2015. In addition, AURI surveyed businesses in agricultural industries in 2014 and intends to repeat the survey regularly.

As a group, AURI staff review the information generated by the interviews to identify research projects that could address issues faced by one or more stakeholder groups. Staff consider what issue or opportunity the research would address, who might be interested in the results, and how it might affect businesses and industries. Staff look for topics that can have an impact for multiple entities.

AURI's focus-area teams are key to identifying research topics to pursue within each area, developing work plans, recommending project teams, and determining any financial assistance that will be needed. As with client projects, only applications for projects that require AURI financial contributions include a more formal justification for the project, such as a documented needs assessment and market research.¹⁴ At the same time, AURI's process for selecting research projects focuses on the need for the research and its potential impact. The project-approval team approves research projects, and the executive director and board of directors approve projects that meet thresholds for financial involvement.

We asked staff whether the ability of a stakeholder to finance research affects which projects move forward. Staff noted that funding is important for projects that require expertise or research capacity that AURI does not have. At the same time, staff said

¹³ In 2013, AURI did not follow this process and instead invited commodity representatives to attend five meetings to discuss research needs and identify areas where needs might align. AURI resumed meeting individually with stakeholder groups in 2015.

¹⁴ There were four research projects that included AURI funding among the 30 files we reviewed. Three of the four project files included information on needs addressed by the project and expected impacts.

research projects have benefitted commodity groups that do not have money to finance research and highlighted how the institute accomplishes them. For example, AURI looks for projects that can be completed with staff resources and has brought together commodity group representatives in part to identify common research needs.

Project Priorities

During our evaluation, AURI was in the process of updating guidelines for client projects and writing guidelines for research projects for the first time. Above, we described AURI's processes for approving client and research projects, relying chiefly on staff interviews and past guidelines. These processes affect whether AURI will work on a specific project.

AURI does not have a formal process for prioritizing its approved client and research projects.

Instead, as a matter of practice, AURI prioritizes client projects over research projects and works with clients on a first-come, first-served basis, with numerous client projects running concurrently. As we described in Chapter 1, client-project results belong solely to the client. In contrast, research projects have the potential to provide useful information to a wider audience, such as a whole commodity group or industry sector. According to AURI, it has prioritized promising and time-sensitive projects on an *ad hoc* basis, and more informal priority setting occurs within focus-area teams and by staff working on projects.¹⁵ Without a formal process for collecting and considering relevant information, it is unclear if AURI prioritizes projects that offer the greatest potential impact.

For such a process to work, the institute needs sufficient information about projects so staff can explicitly compare the value of resources a project demands with its expected outcomes. But for most projects, AURI does not document this information in the project application. The process by which the information is collected before approving client and research projects is less formal for those that require only staff assistance, even when the level of assistance is significant. Most of AURI's projects do not include financial assistance and, consequently, do not require the formally documented information that could inform priority setting.¹⁶

Most of the client projects completed during 2011 through 2015 consumed fewer than 40 hours of staff time, and most research projects took less than 80 hours to complete. However, we identified four client projects that AURI initiated between 2011 and 2015 with budgeted commitments in staff time that exceeded total resources budgeted to some cash-assisted client projects. For example, one client project initiated in 2015 budgeted 400 hours of staff time; at AURI's default rate of \$90 per hour, the value of the assistance would be \$36,000. Total resources budgeted to one cash-assisted project was under \$28,000. Similarly, some research projects that were initiated between 2011 and 2015 that

¹⁵ Staff said a Fall 2015 gathering of experts to look into opportunities for shrimp farming in Minnesota is an example of a project the institute prioritized due to its potential impact for the state. AURI and the Minnesota Soybean Research and Promotion Council held the event. Soybeans are used in shrimp feed.

¹⁶ Within the past year, AURI began a more formal process to collect information from clients needing help with a food product or process. These clients complete a questionnaire asking about their product or process idea, long-term plans, and service needs, among other things. Depending on how well clients complete the questionnaire, it could provide information that might help with priority setting. Over half of the client projects initiated in AURI's 2015 fiscal year were in the food area.

did not require AURI financing had higher value commitments (in terms of AURI staff time) than research projects that included financing. Regardless of the relatively high value of staff resources committed to these projects, formal, documented justification was not required for them.

RECOMMENDATION

AURI should (1) develop guidelines that require explicit consideration of the value of staff time and more formal justification for projects that are expected to consume significant resources, and (2) consider using this information and other criteria to prioritize projects.

AURI is in the process of developing and updating its project guidelines. We think these guidelines should require project applications to reflect (1) the full value of AURI's assistance and (2) additional information when projects are expected to consume resources that exceed a certain threshold. When evaluating requests for services, it is important that AURI consider the full value of those services in addition to the projects' potential impact. Collecting information that permits a straightforward comparison will support decision-making that explicitly considers the return on AURI's—and the state's—investment.

We recognize that AURI's board of directors has the authority to establish the institute's research priorities. As of now, AURI does not know whether client projects or research projects tend to yield greater benefits to Minnesota agriculture, or whether certain types of client projects are more promising than others in that regard. Collecting more project-specific outcome data, as we recommended in Chapter 2, might illuminate this question over time. But in the meantime, we think the board and staff should consider using information on projects' full costs and expected outcomes to prioritize projects and allocate resources. AURI should consider other criteria that reflect the institute's priorities, too. For example, one criterion might be balance in terms of commodities that are expected to benefit from AURI's activities. This criterion would ensure that projects benefitting small commodity groups would be considered, even if the expected project outcomes are smaller than those anticipated by other projects.

Finally, our discussion has focused on prioritizing client projects and research projects. However, as we noted at the beginning of this chapter, staff spend time on a range of activities beyond these two project types. We encourage AURI's board and executive director to critically review all demands on staff time.

Chapter 4: Governance

The Agricultural Utilization Research Institute's (AURI's) recent past included periods of turmoil and change. From mid-2013 through 2014, there were times of discord among members of AURI's board of directors. In addition, a rift developed between the board and executive director, ultimately leading to the director's resignation. The institute is now governed by a board with new members and led by a new executive director.

This chapter assesses the capacity of AURI's board to govern effectively moving forward by focusing on two areas: (1) board composition and (2) board performance. We found the board's ability to follow best practices for appointing its members may be limited by state law and the board's bylaws. We also found a board that is engaged in the institute and has some positive accomplishments. However, some board meetings have violated the state's Open Meeting Law. We recommend that the Legislature expand the size of AURI's board of directors and the board comply with the Open Meeting Law.

BOARD COMPOSITION

The composition of AURI's board is important because of the board's authority to establish the institute's research priorities. Additionally, board members can provide AURI with access to perspectives, expertise, and support. As noted in Chapter 1, the Minnesota Legislature has determined the types of organizations that must be represented on AURI's nine-member board. They include: (1) the Senate and House of Representatives committees on agriculture finance, (2) statewide farm organizations, (3) agribusiness, and (4) commodity promotion councils.¹ The legislative board members are the chairs or their designees of the indicated committees. State law does not dictate how the board should work with the remaining organizations to select board members.

AURI's process for filling board seats begins with the board chair appointing a nominating committee. The nominating committee assesses skills needed on the board and identifies organizations or businesses to which it will send letters asking for candidates. The board selects members from the candidates put forward by the organizations. For example, if a seat is vacant for a representative of the commodity promotion councils, AURI sends letters requesting candidates to the executive directors of the commodity research and promotion councils that are not already represented on the board. An organization that receives a letter can nominate more than one candidate. Candidates submit information outlining their background, skills, and the value they believe they will bring to the board.

According to the institute's bylaws, the nominating committee recommends at least one candidate from among those suggested to the full board for consideration. However, the bylaws also specify that the nominating committee does not put forward names for the seats held by the statewide farm organizations or the legislative members.²

¹ *Minnesota Statutes 2015*, 116V.01, subd. 2.

² *Amended and Restated Bylaws of the Agricultural Utilization Research Institute* (May 2004), art. IV, sec. 4.2.

The ability of AURI's board to follow best practices for appointing members may be limited by state law and AURI's bylaws constraining board membership.

State law and recommended practices for nonprofit boards say board members should act in the best interest of the nonprofit organization.³ Guidance for nonprofit boards also recommends appointing members who are committed to the organization's mission, have skills that will help achieve that mission, and contribute to a board that reflects a diverse representation of the organization's constituents.⁴ Specifying the types of organizations that must have representatives on AURI's board could limit the board's ability to appoint members with the needed commitment, strengths, and perspectives.

State law and historical practice give power to entities other than the board to name four of AURI's board members, irrespective of board needs and individuals' commitment to AURI. As required by state law, the chairs of the Senate and House of Representatives Agriculture Finance committees (or their designees) are two members.⁵ Although they are not named in law, it has been the practice that two organizations are considered statewide farm organizations: the Minnesota Farmers Union and the Minnesota Farm Bureau. Consequently, each of these organizations has the ability to appoint a member to the board.

AURI's board has some flexibility to fill the remaining five seats, three from commodity promotion councils and two from agribusiness. AURI has interpreted "commodity promotion councils" to be the state's 13 commodity research and promotion councils; this category could provide the board with some flexibility if more than one council suggests a candidate or a council puts forward more than one candidate.⁶ Entities that could be considered agribusiness are numerous; these two seats provide the most flexibility to the board, assuming it receives multiple nominations.

AURI's bylaws further limit the board's control over appointing members. As already noted, the bylaws prevent the nominating committee from recommending a candidate to fill the seats of statewide farm organizations. Furthermore, the bylaws state that board vacancies that occur during a member's term are filled by the organization the member represented. This language implies that a member's role is not to act in the institute's interests but to represent the organization that nominated the member.

Restricting the board's freedom in appointing members does not guarantee poorly performing members. In fact, most board members in Fall 2015 thought the board makeup was fairly good.⁷ However, one issue that caused significant conflict among members in the past was the board-member appointment process. In addition, several AURI staff noted that some board

³ *Minnesota Statutes* 2015, 317A.251, subd. 1; and 317A.361, subd. 1; Minnesota Council of Nonprofits, *Principles & Practices for Nonprofit Excellence* (Saint Paul, 2014), 10; and Standards for Excellence Institute, *Standards for Excellence: An Ethics and Accountability Code for the Nonprofit Sector* (Baltimore, MD, 1998-2004), 7.

⁴ Minnesota Council of Nonprofits, *Principles & Practices*, 10; and Standards for Excellence Institute, *Standards for Excellence*, 13.

⁵ *Minnesota Statutes* 2015, 116V.01, subd. 2(1).

⁶ Minnesota has commodity research and promotion councils representing: barley, beef, canola, corn, dairy, dry edible beans, potatoes (two councils), soybeans, sunflowers, turkeys, wheat, and cultivated wild rice.

⁷ In September 2015, we sent an e-mail to AURI's board of directors asking several questions. Eight of the nine board members responded by e-mail or phone.

members have been perceived as serving two interests—AURI and the organization they represent—or not operating in the best interests of AURI. Some board members also commented on past board behavior that was not constructive or in the best interests of AURI. Minutes from some board meetings in prior years revealed conduct that arguably did not emphasize the institute’s best interests. For example, board minutes refer to members personalizing comments, a need for the board to function much better than it had been, disrespectful behavior, and disappointment about board-member interactions. A poorly functioning governing board could affect the ability of the board and organization to operate at their fullest potential.

AURI’s board has shown interest in expanding board membership. In 2014, the board approved a request to the Legislature to increase the board’s membership by two “at-large” positions. Although most board members thought the makeup was fine in Fall 2015, a majority of board members—including some who thought the makeup was acceptable—thought broader representation, additional perspectives, or more seats could be valuable.

RECOMMENDATION

The Legislature should amend state law to expand AURI’s board of directors to include at-large members of the board’s choosing.

Additional board members would allow the board to tap into perspectives and skills that are not present among board members or candidates put forward by designated organizations. Valuable perspectives might include those offered by clients, the commissioners of the departments of Agriculture and Employment and Economic Development, representatives from higher education institutions engaged in agricultural research, or commodity groups that do not have a promotion council. Or, the board might opt for members with particular skills, such as fundraising or grant writing.

BOARD PERFORMANCE

AURI’s board is responsible for guiding AURI in fulfilling its mission, goals, and objectives. The board also hires AURI’s executive director, who is responsible for implementing the board’s strategy and managing the institute’s day-to-day operations. AURI’s board must comply with laws applicable to boards of nonprofit corporations generally, laws applicable to AURI’s board in particular, and its bylaws and other governing documents. This section highlights two aspects of board performance: engagement and compliance with the state Open Meeting Law.

Board Engagement

By “board engagement” we mean active interest and involvement in AURI’s mission, strategy, and activities. To effectively guide AURI and make good decisions, board members must be familiar with the institute’s purpose, strategies, programs, and activities.

AURI’s board of directors is positively engaged in the institute and has some recent achievements.

AURI's board of directors has undertaken various activities that show a commitment to guiding a well-performing enterprise. In fact, in response to our survey of board members, two members noted the board's increased interest, engagement, or oversight as among the board's successes. In the last half of 2015, the board took steps to clarify and update the institute's strategic direction. Other positive actions include hiring a new executive director, establishing board-member term limits, and learning about and participating in AURI activities. While these accomplishments may be expected of any nonprofit board, they are noteworthy given the dissension we alluded to at the beginning of the chapter.

Strategic Direction

In September 2015, AURI's board held a retreat with the new executive director and senior staff to strengthen alignment between the board and staff and foster board governance and informed decision-making. Later that year, AURI's board adopted a new mission statement that arose from work begun during the retreat. The previous mission statement had been in place since at least 2010. After reviewing the chapter in state law establishing AURI, the board wanted a mission statement that more clearly conveyed AURI's purpose. As Exhibit 4.1 shows, the board shortened and simplified the institute's mission statement.

Exhibit 4.1: AURI's Mission Statements

Prior Mission Statement	Current Mission Statement
<p>AURI was created and funded by the Minnesota legislature to foster long-term economic benefit through increased business and employment opportunities in Minnesota through:</p> <ul style="list-style-type: none"> • Research and development of innovative uses or value improvements for Minnesota agricultural commodities and products, including the identification and expansion of new and existing markets; • Implementation of basic and applied research to support innovation, technology and growth of the agricultural industry; and • The development of renewable energy and biobased opportunities from Minnesota agricultural commodities and coproducts. 	<p>Foster long-term economic benefit for Minnesota through value-added agricultural products</p>

NOTE: AURI is the Agricultural Utilization Research Institute.

SOURCES: Agricultural Utilization Research Institute, *Legislative Report for State Fiscal Year 2013*, 2; and Agricultural Utilization Research Institute Board Resolution 15-18a, adopted December 17, 2015.

The board reviewed and discussed the institute's strategic plan during the retreat, too, and adopted a revised plan during the November 2015 board meeting. On a periodic basis, AURI's board of directors and the institute's senior directors undertake strategic planning to outline the institute's goals and identify strategies for meeting the goals. The planning process incorporates several sources of information, including (1) board and staff input; (2) feedback from industry and stakeholders; and (3) an assessment of institute strengths,

weaknesses, and external factors.⁸ Throughout the process, senior leaders seek input from AURI's scientists and program staff and identify areas for change.

During the 2015 retreat, the board and staff discussed several areas, shown in Exhibit 4.2, where they would like to make changes. For example, the board and staff identified funding as an area needing change, with "multiple streams of funding" the desired future state. As we discussed in Chapter 1, state appropriations account for most of the institute's revenue. AURI staff and the board assessed these areas as being various distances from the institute's desired future state. For example, they assessed the current state of funding as quite removed from the desired future state, but internal communications being relatively close to the desired future state.

Exhibit 4.2: AURI-Identified Areas for Change

Change Areas	AURI's Desired Future State
Service area	Midwest ^a
Impact	Global
Funding	Multiple streams of funding
Image/profile	Excellent image with key audiences
Relationships	Entities are AURI advocates; AURI is trusted
Project prioritization	Mission-based; impact balanced between client and industry
Programmatic	Seamless flow and support for innovation strategy, program framework
Processes	Streamlined, efficient
Information management	Technology meets current needs
Internal communications	Effective, relevant, and timely
Culture	Mutual trust and respect
Enterprise risk management	Risks mitigated

NOTE: AURI is the Agricultural Utilization Research Institute.

^a Midwest encompasses neighboring states that are sources of agricultural commodities that are also grown in Minnesota.

SOURCE: Agricultural Utilization Research Institute, *FY 14-16 Strategic Plan: Agricultural innovation from idea to reality* (Crookston, MN, 2015), 3.

Using information gathered during the planning process and considering the chapter of state law that established AURI and outlines its duties, senior staff developed AURI's strategic goals. Goals identified in the institute's strategic plan for fiscal years 2014-2016 are shown in Exhibit 4.3. The strategic plan comprises more concrete statements of what the institute must do to achieve each goal, including specific tasks, anticipated outcomes, and timelines.⁹

⁸ AURI staff conduct interviews with numerous stakeholders to help identify the institute's research projects and solicit feedback that AURI can use in its strategic planning. For example, the 2015 interview questions asked (1) for suggestions for improvement and (2) what stakeholders like about other organizations. In 2014, AURI also surveyed businesses in the state's agricultural processing industry to understand opportunities and challenges for the industry.

⁹ AURI, which is not subject to the Minnesota Government Data Practices Act, considers the details of its strategic plan to be not public information.

Exhibit 4.3: AURI's Strategic Goals

- Create and maintain a sustainable business model, including funding sources, programs, and services
- Support growth in the agricultural processing industry
- Strengthen agricultural research systems
- Support operational excellence

NOTE: AURI is the Agricultural Utilization Research Institute.

SOURCE: Agricultural Utilization Research Institute, *FY 14-16 Strategic Plan: Agricultural innovation from idea to reality* (Crookston, MN, 2015), 4-11.

Other Board Accomplishments

In July 2015, the board hired a new executive director. Several AURI board members and staff cited this accomplishment or the process the board used to hire the director as a recent board success. The board included a staff member on the interview committee and was transparent about the hiring process. For example, over the course of two public meetings, the board determined its recruitment strategy, established a hiring timeline, and finalized the executive director position description and screening criteria. The board also instituted term limits for non-legislative members in 2014, a practice recommended for nonprofit boards.¹⁰

Finally, AURI's board has shown interest in learning more about the institute's activities and has participated in some of them. Periodically, board meetings include presentations or tours related to one of the institute's focus areas or projects. In August 2013, the board chair suggested these agenda items so board members could learn more about the work AURI does. In addition, board members have participated in meetings with stakeholders and other AURI meetings and events. For example, a board member attended the institute's all-staff meeting in October 2015, and two board members attended an AURI forum about aquaculture opportunities in Minnesota.

Compliance with Open Meeting Law

Minnesota's Open Meeting Law identifies meetings held by government bodies that must be open to the public. It includes circumstances under which public meetings must or may be closed, as well as establishes procedures and requirements for holding closed meetings. The AURI chapter in state law firmly establishes that the Open Meeting Law applies to AURI's board meetings.¹¹

AURI's board of directors has not always complied with certain requirements of the Open Meeting Law.

¹⁰ Minnesota Council of Nonprofits, *Principles & Practices for Nonprofit Excellence* (Saint Paul, 2014), 12; and Standards for Excellence Institute, *Standards for Excellence: An Ethics and Accountability Code for the Nonprofit Sector* (Baltimore, MD, 1998-2004), 13. Because *Minnesota Statutes* 2015, Chapter 116V, does not set a term for AURI board members, it is arguably within the board's authority to set terms and establish term limits.

¹¹ *Minnesota Statutes* 2015, 116V.01, subd. 10.

In particular, AURI has not recorded all closed board meetings. We requested recordings of all of the board's closed meetings between July 2012 and June 2015. The institute was unable to provide recordings of some closed meetings, and the recordings provided were not consistently audible. The Open Meeting Law requires closed meetings, other than those permitted by attorney-client privilege, be electronically recorded.¹²

In addition, topics discussed during the board's closed meetings did not stay within those allowed by the Open Meeting Law. Exhibit 4.4 lists topics that require or permit closed meetings under state law. Closed meetings of AURI's board appear to have covered several topics that are not among those listed in the law, including (1) the board's approach to setting the compensation level for the executive director position, (2) the process and activities for nominating new board members, (3) outcomes, (4) AURI's financial audit, and (5) speculation about legislative activity.¹³

Exhibit 4.4: Open Meeting Law, Closed Meeting Topics

Meeting *Must* be Closed

1. To discuss:
 - Data that would identify alleged victims or reporters of criminal sexual conduct, domestic abuse, or maltreatment of minors or vulnerable adults
 - Active investigative data or internal affairs data relating to allegations of law enforcement personnel misconduct collected or created by a state agency, statewide system, or political subdivision
 - Educational, health, medical, welfare, or mental health data that are classified as not public
 - An individual's medical records
2. To conduct preliminary consideration of allegations or charges against an individual subject to the organization's authority, unless requested that it be open by the individual
3. If expressly required by other law

Meeting *May* be Closed

1. To consider strategy for labor negotiations
2. To evaluate the performance of an individual who is subject to the organization's authority
3. If expressly authorized by law or permitted by attorney-client privilege
4. To consider and review certain data related to the purchase or sale of real or personal property
5. To receive and discuss security briefings and reports

SOURCES: *Minnesota Statutes* 2015, 13D.03; and 13D.05, subds. 2 and 3.

We are not aware of specific intentions to circumvent the law. Nor can we attribute actual harm to the noncompliance. However, at a minimum, noncompliance suggests a lack of knowledge of or attention to laws that are relevant to board operations. We noted, for example, that one of AURI's policies related to closed meetings is incorrect. The policy states that the board may close meetings to discuss certain types of financial and client information.¹⁴ State law allows the board to omit certain documents from the public copies

¹² *Minnesota Statutes* 2015, 13D.05, subd. 1(d).

¹³ Not all recordings of AURI's closed meetings were labeled or audible. Based on what we were able to hear, some closed meetings covered the listed items.

¹⁴ Agricultural Utilization Research Institute, *Policies* (Crookston, MN, 2013), Policy 2.5.B.

of materials that must be provided at board meetings, but it does not permit the board to close meetings to discuss these items.¹⁵ When asked, AURI staff provided a correct interpretation of the law. Nonetheless, the institute's policy document is inaccurate.

It is unclear how some sections of the Open Meeting Law apply to AURI.

The Open Meeting Law lists categories of public entities and public pension plans to which the law applies.¹⁶ Some provisions of the Open Meeting Law apply only to state entities. State law does not indicate what type of entity AURI's board is for purposes of the Open Meeting Law. Thus, it is unclear if the sections that apply to state entities apply to AURI's board.

For example, except in the case of emergency or health pandemic, only state entities and statewide public pension plans can hold meetings covered by the Open Meeting Law by telephone.¹⁷ AURI has received advice that it may hold meetings by telephone as long as it meets the relevant conditions outlined in the Open Meeting Law. Conditions include that members of the public present at the entity's usual meeting location must be able to hear all discussion and all votes must be conducted by roll call.¹⁸ The board of directors has held meetings by telephone.¹⁹

Another provision that applies to state entities relates to requirements for providing meeting notices. The Open Meeting Law includes notice requirements for regular, special, and emergency meetings.²⁰ For example, organizations must provide notice of most special meetings by (1) posting a written notice on their "principal bulletin board" or, if they do not have a principal bulletin board, on the door of their usual meeting room; and (2) mailing or delivering notice to each person who has made a written request for such notice or publishing the notice in a newspaper. However, different requirements apply to state entities. For example, state entities may meet publication requirements by using the *State Register* or their website. It is not clear if AURI may follow these alternative notice requirements because AURI is not clearly identified as an agency, board, commission, or department of the state.²¹

RECOMMENDATION

The Legislature should clarify what type of organization AURI's board is for purposes of the Open Meeting Law.

¹⁵ *Minnesota Statutes* 2015, 116V.01, subd. 10.

¹⁶ *Minnesota Statutes* 2015, 13D.01, subd. 1.

¹⁷ *Minnesota Statutes* 2015, 13D.015, subd. 1.

¹⁸ *Minnesota Statutes* 2015, 13D.015, subd. 2.

¹⁹ The telephone meetings did not occur during our evaluation; we cannot say whether they complied with requirements.

²⁰ *Minnesota Statutes* 2015, 13D.04.

²¹ According to AURI, the institute has provided notice of special meetings by posting a notice on the door of the Crookston office and on the institute's website.

Minnesota Statutes 2015, 116V.01, subd. 10, states that AURI board meetings are subject to the Open Meeting Law. The Legislature should amend this subdivision to clarify the type of organization the board is for purposes of the law. This would determine whether sections of the law that apply to state entities also apply to AURI's board. Because AURI has statewide reach, it would make sense to consider AURI's board of directors a state board for purposes of the Open Meeting Law.

RECOMMENDATIONS

AURI should review its internal documents to ensure they are consistent with relevant laws.

AURI should take steps to improve board knowledge of and compliance with relevant laws and guiding documents.

AURI should ensure that its internal documents accurately reflect legal requirements that apply to the board and the institute. AURI should provide members with electronic or hard copies of laws that apply to them and ensure that board-member orientation accurately covers laws and other documents, such as bylaws and articles of incorporation, that are relevant to board operations. Orientation should be held annually and be required of new and returning board members.

AURI's board should comply with the Open Meeting Law. However, we have made this recommendation broader than the Open Meeting Law because we are aware that the board has at times adopted its meeting schedule through a process that does not align with the institute's bylaws and policies. We did not highlight this issue above because it is not clear that the process the board follows has negative consequences; the board adopts its meeting schedule at a public meeting and AURI posts the schedule on its website. Nevertheless, one would expect the board to operate in a manner consistent with its bylaws and policies.

List of Recommendations

- AURI should more consistently and comprehensively measure the impact of its work. (p. 17)
- AURI should set rates for its services and develop guidelines for circumstances under which it will provide services for free or reduced rates. (p. 24)
- AURI should improve its annual report to the Legislature. (p. 25)
- AURI staff should follow the institute's project-approval process. (p. 35)
- AURI should (1) develop guidelines that require explicit consideration of the value of staff time and more formal justification for projects that are expected to consume significant resources, and (2) consider using this information and other criteria to prioritize projects. (p. 38)
- The Legislature should amend state law to expand AURI's board of directors to include at-large members of the board's choosing. (p. 41)
- The Legislature should clarify what type of organization AURI's board is for purposes of the Open Meeting Law. (p. 46)
- AURI should review its internal documents to ensure they are consistent with relevant laws. (p. 47)
- AURI should take steps to improve board knowledge of and compliance with relevant laws and guiding documents. (p. 47)

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Agricultural Utilization Research Institute

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May 13, 2016

Mr. James Nobles
Legislative Auditor
Office of the Legislative Auditor
Centennial Building, Room 140
658 Cedar Street
St. Paul, MN 55155

Dear Mr. Nobles:

The Agricultural Utilization Research Institute (AURI) appreciates the Office of the Legislative Auditor's (OLA) thorough review of the institute's programs and activities. AURI underwent several changes in the past year and the external assessment provides a valuable perspective.

AURI's mission is to foster long-term economic development for Minnesota through value-added agricultural products. The directors and staff are dedicated, passionate and committed to meeting this objective.

AURI has reviewed the report and fundamentally agrees with the findings and recommendations. Several OLA recommendations support changes already initiated by AURI, while other recommendations provide beneficial ideas for future implementation.

The following illustrates AURI's efforts to align with OLA's recommendations:

- **Project process guidelines and prioritization:** In the fall of 2015, AURI created a cross-functional team to revise project processes, including program guideline modifications, development of a client application as well as an enhanced system to collect project outcomes upon project closure. This organizational initiative will be complete in the summer/fall of 2016. In 2015, AURI also revised its practice to begin requiring project approvals for new ideas from existing clients. These efforts align with the recommendations and will result in the development of stronger project processes and prioritization.
- **Legislative reporting:** AURI's 2014 and 2015 legislative reports incorporated information not included in previous submissions. Additional information to meet statute requirements as well as to provide greater transparency will be incorporated in future legislative reports.
- **Measuring impact:** AURI continuously explores methods to better measure impact. Currently, an annual client satisfaction survey is conducted and a multi-year impact survey occurred in 2012. AURI will give a high level of attention to the recommendation to more thoroughly measure and report its contributions to Minnesota's food and agricultural industry as well as the overall economy.

- **Consistent rates:** AURI will pursue opportunities to leverage resources and began efforts in 2015 to more thoroughly identify additional funding streams. These efforts included staff analysis of options and the creation of a board working group to discuss possibilities, including fee-for-service work. As a result, AURI updated and refined a rate matrix in 2016 and will set an overall policy on rates as discussions advance.
- **Statute changes and adherence to guiding regulations:** As noted in the report, AURI directors approved a resolution in 2014 which concurs with the recommendation to add at-large board positions. AURI has improved its understanding of Open Meeting Law requirements and further clarification would be welcomed. Additionally, the organization conducted a board orientation in early 2016 and also began discussing changes to its guiding policies to ensure compliance.

AURI has illustrated self-awareness of many issues identified in the report. The organization is taking or will take steps to explore and implement the recommendations. The proactive effort should provide confidence to the legislature and stakeholders of AURI's positive future.

Minnesota has a vibrant food and agricultural entrepreneurial environment. The legislative foresight to create AURI over 25 years ago resulted in an organization that provides vital resources to the state's food and agricultural entrepreneurs, businesses and producers. AURI values the support of the legislature and its stakeholders to assist entrepreneurs and businesses to further utilization of Minnesota's agricultural production as well as to create economic opportunities and jobs across the entire state.

Thanks again to the dedicated staff at the OLA's office who conducted this assessment and to the stakeholders who contributed input to provide insightful recommendations.

Sincerely,

A handwritten signature in black ink, appearing to read 'Shannon M. Schlecht', written in a cursive style.

Shannon M. Schlecht
Executive Director

Forthcoming OLA Evaluations

Department of Natural Resources: Deer Population Management

Recent OLA Evaluations

Agriculture

Agricultural Utilization Research Institute (AURI), May 2016
Agricultural Commodity Councils, March 2014
“Green Acres” and Agricultural Land Preservation Programs, February 2008
Pesticide Regulation, March 2006

Criminal Justice

Mental Health Services in County Jails, March 2016
Health Services in State Correctional Facilities, February 2014
Law Enforcement’s Use of State Databases, February 2013
Public Defender System, February 2010
MINNCOR Industries, February 2009
Substance Abuse Treatment, February 2006

Education, K-12, and Preschool

Minnesota Teacher Licensure, March 2016
Special Education, February 2013
K-12 Online Learning, September 2011
Alternative Education Programs, February 2010
Q Comp: Quality Compensation for Teachers, February 2009
Charter Schools, June 2008

Education, Postsecondary

Preventive Maintenance for University of Minnesota Buildings, June 2012
MnSCU System Office, February 2010
MnSCU Occupational Programs, March 2009

Energy

Renewable Energy Development Fund, October 2010
Biofuel Policies and Programs, April 2009
Energy Conservation Improvement Program, January 2005

Environment and Natural Resources

Recycling and Waste Reduction, February 2015
DNR Forest Management, August 2014
Sustainable Forest Incentive Program, November 2013
Conservation Easements, February 2013
Environmental Review and Permitting, March 2011
Natural Resource Land, March 2010
Watershed Management, January 2007

Government Operations

Helping Communities Recover from Natural Disasters, March 2012
Mineral Taxation, April 2015
Minnesota Board of Nursing: Complaint Resolution Process, March 2015
Councils on Asian-Pacific Minnesotans, Black Minnesotans, Chicano/Latino People, and Indian Affairs, March 2014

Government Operations (continued)

Fiscal Notes, February 2012
Capitol Complex Security, May 2009
County Veterans Service Offices, January 2008

Health

Minnesota Department of Health Oversight of HMO Complaint Resolution, February 2016
Minnesota Health Insurance Exchange (MNSure), February 2015
Financial Management of Health Care Programs, February 2008
Nursing Home Inspections, February 2005

Human Services

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