

2014 University of New Hampshire Extension Plan of Work

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I. Plan Overview

1. Brief Summary about Plan Of Work

The University of New Hampshire Cooperative Extension (UNHCE) provides New Hampshire residents with research-based information, enhancing their ability to make informed decisions that strengthen youth, families and communities, sustain natural resources, and improve the economy. As a University outreach program, the network of professional Extension staff resides in all ten New Hampshire counties. County staff work with local volunteers and specialists on the University of New Hampshire (UNH) campus to design and conduct educational programs that meet societal, environmental, and economic needs. While many of our programs are conducted locally, we also use current communication technologies including computer networking, the Internet (including eXtension), and interactive video conferencing. As part of the national land-grant university system, we also access the knowledge and expertise of other state land-grant universities throughout the United States. The University of New Hampshire serves the state as the principle land-grant university charged by Congress to conduct resident instruction, research, and outreach to people beyond the formal classroom.

With a total state population of 1.3 million people, Extension reaches a quarter of these individuals through educational programs. On July 1, 2011, the University of New Hampshire Cooperative Extension (UNHCE) experienced a 23 percent cut in its state allocation amounting to a reduction of \$1.7 million. Subsequently, after some staff retirements, resignations and reductions in force, we now have 23 fewer staff members than 1 year ago, which creates serious gaps in our ability to provide priority programming throughout the state.

To explore ways to handle this challenge, Dean and Director, John Pike appointed a team from around the state and different parts of UNH to advise him on ways to reinvent, reconnect and reinvigorate our work. Despite the tough financial situation, this team was challenged to find new ways to deliver our programs that were both more efficient and more effective in creating value for program participants and also for the taxpayers. While they were asked to carefully study the lessons from other states, the focus remained on the needs of N.H. and to create a system to address these needs. Many constructive suggestions were received at the October regional meetings with all staff and many stakeholders and were tremendously helpful in developing the final plan.

This updated POW reflects only some of the changes that are expected as a result of the reorganization. We have now organized into four program teams: Food and Agriculture, Natural Resources, Community and Economic Development and Youth and Family.

Estimated Number of Professional FTEs/SYs total in the State.

Year	Extension		Research	
	1862	1890	1862	1890

Estimated Number of Professional FTEs/SYs total in the State.

Year	Extension		Research	
	1862	1890	1862	1890
2014	63.0	0.0	0.0	0.0
2015	65.0	0.0	0.0	0.0
2016	65.0	0.0	0.0	0.0
2017	65.0	0.0	0.0	0.0
2018	65.0	0.0	0.0	0.0

II. Merit Review Process

1. The Merit Review Process that will be Employed during the 5-Year POW Cycle

- External Non-University Panel

2. Brief Explanation

County and state advisory committees, comprised of stakeholders and legislators are asked annually to review updates to county and state plans as part of their role in the process.

The University of New Hampshire Cooperative Extension has entered into a formal agreement with Extension in Maine, Vermont, and Massachusetts to develop and implement a four-state web-based planning and reporting system. Through the on-line system, program staff and administrators can access the content of plans in all four states at the organizational level, the team level and for individuals. Extension administrators from each the four states utilize the system to review work that is occurring across the region. Ongoing monthly telephone meetings with the four states are an opportunity for each of the states to provide feedback on specific programs or on the statewide goals and initiatives. The process of developing this shared system has also resulted in discussions around regional programs, opportunities for multistate work, sharing staff resources and a much better understanding of how each of our unique programs are similar and different than others in New England.

As a result, the four states have agreed to provide periodic formal and informal merit review and feedback for each state as a component of our partnership. The new system provides access to each state plan of work for all four states, allowing for easy sharing of ideas and opportunities for further collaboration.

III. Evaluation of Multis & Joint Activities

1. How will the planned programs address the critical issues of strategic importance, including those identified by the stakeholders?

UNH Cooperative Extension's program plan of work addresses high priority needs in New Hampshire identified through on-going counsel with local and a state-wide advisory councils. In addition, Advisory Council members, county and state staff, faculty, and other stakeholders took part in a program review process in 2011. Results of this program review became the basis for formation of Area of Expertise (AoE) teams within each program team. Fourteen AoE's have formed and developed logic models to guide their work.

2. How will the planned programs address the needs of under-served and under-represented populations of the State(s)?

UNH Cooperative Extension staff are committed to increased programming for under-served and under-represented audiences in New Hampshire. These individuals participate mainly through program efforts in Nutrition Connections, part of the state's welfare reform effort. 4-H after school programs also involve a significant number of under-served families. Staff working in these programs build trust and rapport with under-represented audiences, and help Extension advisory councils understand the audiences' needs and circumstances.

Over the past decade, more than 10,000 refugees and immigrants, speaking more than 72 languages, have settled in Manchester, New Hampshire's largest city. Extension staff have made tremendous efforts to identify, understand, develop relationships with, and help members of these populations through non-formal education. Youth & Family and Food & Agriculture Educators in the two New Hampshire counties with the highest immigrant populations are delivering programs for refugee families aimed at helping families understand American culture and providing the necessary support for them to transition successfully to life in New Hampshire. Parenting and life skill programs are providing information as basic as US currency and how to enroll children in school and community gardening programs for youth and adults not only provide fresh produce and help lower the cost of weekly grocery bills, but also helps the new arrivals connect with each other and their new homeland.

3. How will the planned programs describe the expected outcomes and impacts?

This plan is built around a well-researched and popular model for educational program development called the logic model. Logic models have been used by many organizations as a framework for planning, implementing, evaluating, and communicating results of educational programs. UNHCE staff have been trained to develop educational programs using a logic model framework and have been submitting individual and team logic models in New Hampshire since 2004. Each program logic model is updated annually. The plan is designed to articulate long- (condition change) , medium- (action) and short-term (learning) outcomes and planned outputs (activities) that lead to these outcomes. In order to provide clear target performance measures for each outcome, impact indicators for most action and learning outcomes have been articulated and evaluation plans have been developed. Impact indicators are written similar to SMAART objectives (specific, measurable, audience-directed/ambitious, realistic, and time-bound) and will provide a clear measure of associated outcomes. Impact indicators in this plan provide the link between each outcome and associated outputs and will be the basis of our impact reporting system. Detailed logic models that articulate all of the expected outcomes of New Hampshire's Extension programs have been developed, however it is not realistic to evaluate each and every outcome in each plan. The planned programs submitted here represent only targeted, focused outcomes we expect to measure and report on over the next five years.

4. How will the planned programs result in improved program effectiveness and/or

Program development using the logic model requires the planner to closely examine the relationship between outputs and desired outcomes of a program. In doing so, extraneous activities that do not lead to desired outcomes can be revised, eliminated, or spun off to another organization more appropriate to be conducting the activity. Formative evaluation plays a key role in determining whether or not a program is being implemented effectively and how it might be improved and on-going evaluation of this type will enable Extension staff to make modifications to their programs on a regular basis, constantly improving program effectiveness. Newly defined UNH Cooperative Extension program teams bring expertise together to work on critical issues that require multiple perspectives and innovative teaching methods. Programs that have a multidisciplinary scope are expected to be more effective and make a more efficient use of staff time and resources because they will make better use of existing staff expertise to solve the problems and address challenges of the people of New Hampshire. A web-based planning and reporting system has been developed to integrate disciplinary and interdisciplinary outcomes, insuring a comprehensive and efficient system to meet the most critical issues identified by stakeholders and staff.

IV. Stakeholder Input

1. Actions taken to seek stakeholder input that encourages their participation

- Targeted invitation to traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to selected individuals from general public
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals
- Other (Advisory Council Meetings)

Brief explanation.

Stakeholders were encouraged to provide input to UNH Cooperative Extension in a variety of ways and in a variety of locations. Each county meets regularly with their County Advisory Council and the State Advisory Council (made up of members from each county, and representatives from various partner organizations) meets quarterly.

In addition, Advisory Council members, county and state staff, faculty, and other stakeholders took part in a program review process in 2011. Results of this program review were used to determine program priorities that would be continued in a reorganized UNH Cooperative Extension. These program reviews included focus groups, web-based stake holder surveys and staff surveys as well.

2(A). A brief statement of the process that will be used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Needs Assessments

Brief explanation.

Identification of stakeholders and groups is accomplished primarily through local and state-wide advisory committees. Care is taken to recruit advisory committee members that represent a broad array of interests, background, and residency, including youth and underserved audiences.

2(B). A brief statement of the process that will be used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Meeting with traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Survey of selected individuals from the general public

Brief explanation.

UNH Cooperative Extension's program plan of work addresses high priority needs in New Hampshire identified through on-going counsel with local and a state-wide advisory councils. In addition, Advisory Council members, county and state staff, faculty, and other stakeholders took part in a program review process in 2011. Results of this program review were used to determine program priorities that would be continued in a reorganized UNH Cooperative Extension. These program reviews included focus groups, web-based stakeholder surveys and staff surveys as well.

3. A statement of how the input will be considered

- To Identify Emerging Issues
- Redirect Extension Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities

Brief explanation.

See above.

V. Planned Program Table of Content

S. No.	PROGRAM NAME
1	Natural Resources
2	Food and Agriculture
3	Youth and Family
4	Community and Economic Development
5	Food Safety

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Natural Resources

2. Brief summary about Planned Program

New Hampshire currently has the fastest-growing population in the Northeast and valuable natural resources are at risk. These challenges require an interdisciplinary approach at multiple scales to protect, improve and insure the economic and ecological health of New Hampshire. The Natural Resources Program Team is positioned to meet a number of challenges related to these risks.

Area of Expertise (AoE) teams include:

- Forest Resources
- Wildlife and Fisheries
- Communities and Natural Resources

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
112	Watershed Protection and Management	10%			
123	Management and Sustainability of Forest Resources	50%			
124	Urban Forestry	10%			
131	Alternative Uses of Land	10%			
135	Aquatic and Terrestrial Wildlife	20%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Forest Resources: New Hampshire is the second most forested state in the nation--84% forested and 80% is privately owned--2/3 of New Hampshire. Private lands and landowners provide important

environmental and economic benefits and services. An estimated 120,000 people own at least an acre of forest. UNH Cooperative Extension increases the public value received from private lands and yet the majority of forest land and landowners haven't sought advice from us. The Forest Stewardship AOE proposes to extend our reach to "new audiences." We define "new audiences" as any individual we haven't reached before and include:

- Non-participant woodlot owners. Though an estimated 27% of the private lands in New Hampshire is being managed with the benefit of a forest stewardship plan, the majority of the landowners haven't sought advice from a professional forester and are unaware of the range of benefits to be had from a carefully managed woodlot.
- Small woodlot owners. Nearly half of New Hampshire woodlot owners own 10 acres or less. They represent a growing population and though they own less than 5% of the land, they are important to maintaining the acceptance in New Hampshire of forestry and the forest industry.
- Landowners ready to sell timber. No single activity has such power to significantly improve--or degrade--the forest.
- Citizens affected by short-term and extended natural disasters.
- The next generation of landowners is upon us. The population in New Hampshire is aging: 40 % of the land will change hands in next 25 years.

Back-to-the-landers. We are witnessing a new generation of "back to the landers" and we think this provides us with a "new audience" opportunity.

Wildlife and Fisheries: New Hampshire currently has the fastest-growing population in the Northeast. Loss of habitat from human development is one of the biggest threats to wildlife species and their habitats. Approximately 83,700 private landowners control 80% of New Hampshire's forestland and wildlife habitat. The collective decisions of these land-owners have a tremendous impact on New Hampshire's landscape and natural resources. Education about forests, wildlife habitat and land stewardship is key to helping landowners and natural resource professionals make informed decisions influencing the health and productivity of their land. The majority of private landowners do not have management plans to guide their activities on their property, so there is great opportunity for outreach and research efforts to inform sound stewardship of wildlife habitats in NH.

Marine fisheries are characterized by highly dynamic populations and habitats that are directly impacted by natural environmental variability as well as anthropogenic causes such as pollution, commercial and recreational harvesting, and climate change.

For lobstermen and fishermen, both management and market forces demand that fishermen seek methods and activities that minimize habitat impacts and that protect the long-term health of the marine ecosystem and Federally protected species. As a result, fishermen are motivated to seek innovative ways to meet environmental and economic goals.

In addition, recent management changes in the groundfish fishery have created opportunities for fishermen to further promote environmentally sustainable practices. The Northeast groundfish fishery recently transitioned to sector management, which imposes a total allowable catch, or annual catch limit (ACL) to manage the fishery. Each groundfish sector, or self-organized group of fishermen, is allocated a share of this ACL at the beginning of the season, as an annual catch entitlement (ACE), and must manage the fishing of this ACE throughout the season on a real time, day-to-day basis. This system increases the economic incentive for fishermen to seek gear and fishing modifications and through collaborative research with University scientist that that selects abundant species while avoiding rare species ("Conservation Gear").

2. Scope of the Program

- In-State Extension
- Multistate Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Funding continues at the federal, state, and local levels so staffing levels permit implementation of this plan.

Staffing remains sufficient.

2. Ultimate goal(s) of this Program

Develop and implement research-based educational outreach programs in forest stewardship, urban and community forestry, wildlife, economic viability/sustainability and natural resource conservation helping landowners make informed decisions that will influence the health and productivity of their forests, open space and related resources.

New Hampshire communities, businesses, organizations, and volunteers work together to protect, manage and steward the state's vast natural resources (including agriculture, forests and fisheries) vital to sustaining the state's character and economy, preserving recreational opportunities and maintaining a high quality of life.

Fishermen adopt practices that allow them to successfully exist within management structures that support sustainable marine ecosystems

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2014	15.0	0.0	0.0	0.0
2015	15.0	0.0	0.0	0.0
2016	15.0	0.0	0.0	0.0
2017	15.0	0.0	0.0	0.0
2018	15.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

One-on-one education:

- Site visits to landowners, fishermen and natural resource professionals
- Phone, email, video chats and walk-in clients

- One-on-one assistance to develop management or business plans

Write and respond to news media

Development of Educational Information:

- Newsletters (including e-newsletters)
- Fact sheets
- Trade-magazines, journals, posters, displays
- Books

Workshops, Conferences

- Workshop series
- Statewide Speaker's Bureau
- State-wide and multistate (regional)
- Public forums
- Demonstrations
- Invited presentations

On-line/web based information

- Web page updates; blogs, social media (Facebook and Twitter)
- Electronic pest alerts
- Developing educational visuals/videos; podcasts

Technical Assistance to state agencies/organizations

- Tree Farm Program
- Quabbin to Cardigan
- Small & Beginner Farmers
- Women in the Woods
- Land trusts, town officials, municipalities, parks
- Connect professionals to partners, projects and information

Applied research, Field trials and publishing research reports

- Wildlife and habitat
- Fishing industry collaborative research
- Forest stewardship research

Volunteer Training, Management and Support

- Coverts
- Natural Resource Stewards
- Marine Docents
- Lakes Lay Monitoring Program (LLMP)

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
----------------	------------------

- | | |
|--|--|
| <ul style="list-style-type: none">● Education Class● Workshop● Group Discussion● One-on-One Intervention● Demonstrations | <ul style="list-style-type: none">● Public Service Announcement● Newsletters● TV Media Programs● Web sites other than eXtension● Other 1 (radio) |
|--|--|

3. Description of targeted audience

Target audiences include non-industrial private forest owners (NIPF), municipal and other forest landowners, natural resource professionals, communities, volunteers, NH forest-based industries and the public.

Commercial fishermen and related industries; land owners and recreational users of New Hampshire's lakes, estuaries, rivers, and ocean beaches.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
- Number of patents submitted
- Number of peer reviewed publications

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- One-on-one education: Site visits, phone, email, other one-on-one assistance
 - People reached through media: press releases, newsletters, radio, TV, web, direct mailing
 - Number of people reached through conferences or workshops
 - Volunteers trained and supported: Coverts, Community Tree Stewards, and other community volunteers such as conservation commissions, etc.
 - Number of people reached through print educational information
 - Number of people reached through on-line or web-based educational information
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Number of new landowners that report they will/have engage(d)with a licensed forester or and/or a certified logger
2	Number of communities that initiate or continue a change to their plans, policies, regulations practices and projects related to natural resources protection or climate adaptation/resiliency
3	Number of fishermen that adopt gear modifications to limit the environmental impact of their operations
4	Number of landowners that report they will/have implement(ed) at least one recommended stewardship or best practice
5	Number of landowners that report on the development of a written management plan
6	Number of volunteers that reported increased capacity (e.g. knowledge, skills, confidence, motivation, opportunity, funding, contacts, etc.) related to serving on community planning and zoning boards, conservation commissions and/or participation leading or establishing natural resource-related programs and projects
7	Number of professionals that reported increased capacity (e.g. knowledge, skills, confidence, motivation, opportunity, funding, contacts, etc.) for climate (adaptation and resiliency) and natural resources work

Outcome # 1

1. Outcome Target

Number of new landowners that report they will/have engage(d)with a licensed forester or and/or a certified logger

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 123 - Management and Sustainability of Forest Resources

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Number of communities that initiate or continue a change to their plans, policies, regulations practices and projects related to natural resources protection or climate adaptation/resiliency

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 112 - Watershed Protection and Management
- 123 - Management and Sustainability of Forest Resources
- 131 - Alternative Uses of Land

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Number of fishermen that adopt gear modifications to limit the environmental impact of their operations

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 112 - Watershed Protection and Management
- 135 - Aquatic and Terrestrial Wildlife

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Number of landowners that report they will/have implement(ed) at least one recommended stewardship or best practice

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 112 - Watershed Protection and Management
- 123 - Management and Sustainability of Forest Resources
- 131 - Alternative Uses of Land
- 135 - Aquatic and Terrestrial Wildlife

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Number of landowners that report on the development of a written management plan

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 112 - Watershed Protection and Management
- 123 - Management and Sustainability of Forest Resources

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 6

1. Outcome Target

Number of volunteers that reported increased capacity (e.g. knowledge, skills, confidence, motivation, opportunity, funding, contacts, etc.) related to serving on community planning and zoning boards,

conservation commissions and/or participation leading or establishing natural resource-related programs and projects

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 112 - Watershed Protection and Management
- 124 - Urban Forestry
- 131 - Alternative Uses of Land

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 7

1. Outcome Target

Number of professionals that reported increased capacity (e.g. knowledge, skills, confidence, motivation, opportunity, funding, contacts, etc.) for climate (adaptation and resiliency) and natural resources work

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 112 - Watershed Protection and Management
- 131 - Alternative Uses of Land

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Description

- Landowner assistance programs may come and go, adding or subtracting educational options and

outcomes

- Economic factors affect landowners' short term objectives, markets, and opportunities
- Communities increasingly responding to conservation needs
- A conservation ethic on the part of landowners
- High economic land values
- Unforeseen extreme natural catastrophic events
- Land use regulations often lag behind issues of concern

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

Evaluation and assessment methods will run the gamut from observation, written evaluations, focus groups, surveys, pre- and post-testing, follow-up communications, public and professional forums. Currently available resources include web based information from the University of Wisconsin as well as staff training in program design and evaluation in-services and materials provided by the NOAA Coastal Services Center (usually every couple of years). If funding can be secured, the resources of the UNH Survey Center may be utilized on occasion. Results of our assessments must show that our programming is effective, reaches a diverse audience, and successfully leads to targeted outcomes.

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Food and Agriculture

2. Brief summary about Planned Program

The University of New Hampshire Cooperative Extension's Food and Agriculture Program Team delivers information and technical assistance to New Hampshire citizens involved in agriculture for profit or to achieve their own personal goals. Extension's role is unique because our Food and Agriculture staff members provide current, research-based educational programming to farmers, horticultural businesses, and gardeners, allowing them to make their own informed decisions. Food and Agriculture specialists are trusted partners in the pursuit of sustainable and productive local agriculture.

Area of Expertise (AoE) teams in Food and Agriculture include:

- Animal Husbandry and Forage Crops
- Fruit and Vegetable Crop Production
- Food Safety (to be reported as a separate planned program)
- Landscape and Greenhouse Horticulture

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	20%			
205	Plant Management Systems	20%			
211	Insects, Mites, and Other Arthropods Affecting Plants	15%			
212	Pathogens and Nematodes Affecting Plants	15%			
216	Integrated Pest Management Systems	15%			
315	Animal Welfare/Well-Being and Protection	15%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Animal Husbandry and Forage Crops: Animal production is an important part of agriculture in New Hampshire that includes commercial farms in a wide range of scales and production systems, and it also includes small-scale 'homestead' operations focused on limited marketing or home food production. The value of products from dairy, livestock, and poultry operations from these farms across the state exceeds \$116 million. The forage, pasture and silage corn crops that support this sector covers over 100,000 acres, more than 90% of the cropland in the state. In order for these farms to be profitable, producers need information that enable them to adopt practices in raising healthy animals, managing their operations as efficient businesses, and producing crops in a manner that protects soil and water resources. With our capacity to provide unbiased information and our relationships with colleagues throughout the land-grant university system, UNHCE's Animal Husbandry and Forage Crop Area of Expertise is best suited to provide producers with this information.

Fruit and Vegetable Production: The numbers of farms that produce vegetables and fruits are increasing in New Hampshire, and consumer interest in locally grown food has also expanded in recent years throughout New England. Between 2002 and 2007 the number of vegetable farms increased 36%, and the number of orchards increased 28%. Many of these are operated by new farmers that lack experience and knowledge of effective crop production practices in our region. Successful crop production depends on making decisions on a wide range of topics, from irrigation, variety selection, site selection and soil preparation, planting schedules, training/pruning crops, and various methods to extend the short growing season. These practices have the potential to greatly increase farm profitability by increasing crop yields and crop quality, and reducing labor and inputs. For example, over-application of fertilizers is expensive and can negatively impact water quality as well as plant growth. Under-application of fertilizers results in poor plant growth and loss of potential yields and profits. Soil tests and plant tissue tests are tools that growers can use to determine nutrient availability and crop needs, so that they can meet nutrient needs accurately.

Pests (weeds, insects and pathogens) can limit farm profitability through reduced yields. Research-based information about how to identify, diagnose or prevent pest problems can reduce costs and environmental impact of pest control strategies. This requires 1) correct identification of pests, and 2) an understanding of how pest and crop life cycles interact. Cultural controls include growing practices that favor crops while hindering pests. Chemical controls vary widely in terms of impacts on non-target organisms such as beneficial insects or humans, and the environment. Reduced-risk pesticides include both biological controls as well as chemicals that have fewer off-target effects than conventional pesticides. The goal of the Integrated Pest Management (IPM) program is to teach farmers how to manage pest problems in a more appropriate manner, without compromising crop yield or quality. We emphasize a three-component approach: 1) monitoring conditions and pest populations 2) using cultural methods to suppress pest populations, and 3) prioritizing controls with the least environmental impact first.

Landscape and Greenhouse Horticulture: Landscape and greenhouse horticulture is the largest sector of New Hampshire's agricultural economy with sales and services valued at \$276 million¹. Over 1,100 businesses (which employ over 12,000 people) are involved in plant production, retail sales and landscape services including lawn maintenance and tree care. In addition, horticulture is an essential component of the human environment, affecting health and well-being, social behavior, and environmental health². Our landscape helps to define the sense of place that we call New Hampshire.

Garden center and/or landscape professionals are often the primary source of information for the gardening public. These professionals utilize many resources to guide the public in proper planting and maintenance practices, but look to UNH Cooperative Extension as the local source of science-based recommendations for plant selection, culture and nutrient management, pest diagnosis and

recommendations and sustainable production and landscape practices. In addition, field/state specialists, the Education Center, Master Gardeners and other volunteers educate many thousands of consumers each year on horticultural topics.

The priorities of producers (greenhouse and nursery crops) and other green industry businesses are somewhat different than those of the consumer. Producers are focused on crop production and the economic viability of their businesses. However many nurseries and greenhouses are producing crops at less than optimal efficiencies. Labor, raw materials, and energy are becoming increasingly more expensive and/or are hard to source. Owners, operators and employees often lack sufficient knowledge and skills to maximize productivity while maintaining level or decreased inputs.

The mission of the University of New Hampshire Cooperative Extension's Landscape and Greenhouse Horticulture Area of Expertise Team is to develop and provide research-based educational resources that meet the needs of businesses, property owners, and home gardeners. More resources will be made available through new computer-based technologies as well as conventional delivery methods. The adoption of recommended best practices will help support sustainable businesses, enhance the environment and provide essential eco-system services¹ that ultimately benefit all the citizens of the State.

¹Eco-system services attributed to plants in landscapes include climate modification, storm water runoff reduction and infiltration, soil and water quality protection, noise reduction, waste recycling, wildlife habitat and biodiversity, carbon sequestration, improved air quality.

¹New England Nursery Association, 2009. A summary of the impact of the Environmental Horticulture Industry on the New England economy. On-line at <http://pss.uvm.edu/ppp/nesurvey/index.htm>

²Dr. Charlie Hall, Professor and Ellison Chair in International Floriculture, Texas A&M University, 2012. Articles and citations on-line at <http://ellisonchair.tamu.edu/emphasis-areas/marketing-economics/economic-benefits-of-plants/#.UBbdq6Amx8G>

2. Scope of the Program

- In-State Extension
- In-State Research
- Multistate Extension
- Integrated Research and Extension
- Multistate Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

The sustainability of agriculture in NH requires a holistic approach that interfaces production, human resources, economic, and environmental issues, and civic policies. All must be addressed at some level.

Field Specialists (formerly county educators) will become more specialized in a particular Area of Expertise (AoE) and work regionally instead of being responsible for conducting programs in all aspects of agriculture in their respective counties. They will be encouraged and supported to develop one or more specialty areas for state wide programming, i.e. fruits and vegetables, agronomic crops, dairy and livestock, nutrient management, ornamentals, etc.

Specialists will continue to provide leadership and support in their specialties to field specialists.

2. Ultimate goal(s) of this Program

- Agriculture preserves the integrity of New Hampshire's natural resources.
- Agricultural businesses in New Hampshire are profitable and economically sustainable in the long-term future.
 - High quality agricultural products are available to New Hampshire citizens.
 - New Hampshire citizens have improved year-round access to locally-grown agricultural products.
 - New Hampshire citizens have access to safe food.
 - Agriculture contributes to New Hampshire's high quality of life.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2014	18.0	0.0	0.0	0.0
2015	18.0	0.0	0.0	0.0
2016	18.0	0.0	0.0	0.0
2017	18.0	0.0	0.0	0.0
2018	18.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

- Workshops/conferences - including single- and multi-day conferences, Farm and Forest events, and various producer association meetings
- Pasture walks & twilight meetings
- Farm/site visits, including kitchen table meetings and private consultations
- On-farm and university-based applied research projects
- Phone consultations
- Pesticide Applicator Training
- Soil and plant tissue diagnostic services
- Publications - newsletters, news releases, fact sheets, publications, web page
- Radio and TV spots

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods

- | | |
|--|--|
| <ul style="list-style-type: none">● Education Class● Workshop● Group Discussion● One-on-One Intervention● Demonstrations● Other 1 (phone consultations) | <ul style="list-style-type: none">● Newsletters● TV Media Programs● Web sites other than eXtension● Other 1 (Displays at fairs and festivals) |
|--|--|

3. Description of targeted audience

Farmers/producers, people who work in agriculture-related fields, homeowners, nursery/greenhouse managers

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- One-on-one education:
 - Site visits
 - Phone, email, video chats and walk-in clients
 - One-on-one assistance to develop management or business plans
- Number of people served by diagnostic/ID services
- Number of people reached through educational Workshops or Conferences
- Number of people reached through monitoring/scouting and sharing of pest data
- Number of Master Gardeners working on behalf of Cooperative Extension
- Number of people reached through print educational information
- Number of people reached through on-line/web-based information
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Number of NH growers who adopt new production practices, crops or crop varieties that help them to reduce labor, increase crop quality and/or increase profits.
2	Number of NH growers who report improved forage yield and quality
3	Number of NH growers who monitor for pests, use cultural practices to manage pests and/or select reduced-risk (lower EIQ) materials to manage pests
4	Number of NH producers who improve animal health and comfort
5	Number of growers that calibrate their sprayers
6	Number of greenhouse plant growers who base nutrient management decisions on soil, substrate, tissue and water testing

Outcome # 1

1. Outcome Target

Number of NH growers who adopt new production practices, crops or crop varieties that help them to reduce labor, increase crop quality and/or increase profits.

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships
- 205 - Plant Management Systems
- 216 - Integrated Pest Management Systems

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Number of NH growers who report improved forage yield and quality

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships
- 205 - Plant Management Systems
- 315 - Animal Welfare/Well-Being and Protection

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Number of NH growers who monitor for pests, use cultural practices to manage pests and/or select reduced-risk (lower EIQ) materials to manage pests

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 205 - Plant Management Systems

- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 212 - Pathogens and Nematodes Affecting Plants
- 216 - Integrated Pest Management Systems

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Number of NH producers who improve animal health and comfort

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 315 - Animal Welfare/Well-Being and Protection

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Number of growers that calibrate their sprayers

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships
- 205 - Plant Management Systems

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 6

1. Outcome Target

Number of greenhouse plant growers who base nutrient management decisions on soil, substrate, tissue and water testing

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships
- 205 - Plant Management Systems

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Competing Programmatic Challenges

Description

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

Interviews, surveys and on-farm observation

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Youth and Family

2. Brief summary about Planned Program

The backbone of a vibrant and strong New Hampshire is our youth and families. As the core of our workforce and of our communities, youth and families are the engines of our prosperity and the locus of our well-being. The staff members of the UNHCE Youth & Family Program Team are positioned to provide the research-based education and information necessary to enhance the ability of youth and families (and those who work with them), to make the kind of informed decisions and choices that will strengthen New Hampshire.

Area of Expertise Teams include:

- 4-H Youth Development
- Healthy Living & Nutrition Education
- Science Literacy
- Positive Learning Environments for Youth

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
703	Nutrition Education and Behavior	30%			
724	Healthy Lifestyle	10%			
802	Human Development and Family Well-Being	10%			
805	Community Institutions, Health, and Social Services	10%			
806	Youth Development	40%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Currently the 4-H club and 4-H camping programs reach 28% of the youth served in Cooperative Extension youth programs and has the most community support and visibility of CE youth programs. Other youth are reached through programs offered through school enrichment which include those conducted by Nutrition Connections, Marine Docents and Master Gardeners. 4-H Youth development provides a long term experience with a caring adult in out of school time settings. Youth develop leadership, sense of community and often take ownership for their own direction in learning. Specialized school programs often are more adult directed, intense learning for a shorter period of time. The **4-H Youth Development** team will help provide a focus and intentional volunteer training to help expand and retain both youth and volunteers in the 4-H club and 4-H camping programs thus increasing the % of youth reached in 4-H Youth Development.

Overweight and obesity have greatly increased during recent decades. Contributing factors include physical inactivity, excessive food consumption, and unhealthy food choices. Myths and unreliable sources of information abound. New Hampshire's (NH) Behavioral Risk Factor Surveillance Survey (BRFSS) shows 37.6 % adults are overweight and 25.5 % are obese. The **Healthy Living Team** will address issues related to the following:

1. Data from a telephone survey of SNAP recipients in 2011 shows, sixty-seven percent of are overweight (26%) or obese (41%).
2. Coos, Grafton, Cheshire, Merrimack and Rockingham Counties have higher rates of obesity within NH.
3. A survey of third graders in NH showed that 33.4% of third graders were overweight or obese.
4. BRFSS data from 2009 show that 27.9% of NH residents eat fruits and vegetables five or more times per day and 72.1% do not.
5. Data reveal that for SNAP recipients, 14% ate five or more servings of fruits and vegetables each day and 8% do not eat any daily servings. Cost is the most frequently cited reason among all recipients (40%) as the primary barrier preventing them from eating a more nutritious diet. Data for intake of whole grains is very limited, however a study in 2005 found only 7% of adults met the 2005 recommendations for whole grains.
6. BRFSS data for 2009 show 53.4% of adults engage in 30 minutes or more of moderate physical activity five or more days per week and 46.6% do not.
7. Providing nutrition education to adults and youth will help to increase New Hampshire residents' physical activity and intake of fruits, vegetables and whole grain foods closer to recommended levels.

In order to be competitive, the 21st century NH workforce needs to possess skills in the areas of science, technologically, engineering, and mathematics. Our schools often struggle to provide both the informal and hands-on place-based science learning opportunities that provide students with the tools and confidence to pursue work or further studies in science.

NH Youth Risk Behavior Surveys, Carsey Institute research, and other recent surveys all indicate that our young people face significant challenges finding outlets and environments where they feel valued and supported. While well-intended educators work with constructive outcomes in mind, they need research-based resources (provided by the **Positive Learning Environments for Youth** team), proven methods and effective collaborations in order to partner with youth effectively.

2. Scope of the Program

- In-State Extension
- Multistate Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Cooperative Extension is a highly effective educational program development and delivery organization and is a non-biased research-based source of information and education.

Effective collaborations of agencies and organizations, and strategic partnerships will strengthen program development, delivery and evaluation.

4-H YD is a well respected and effective youth development program in NH.

A successful 4-H YD program is dependent on adequate number of competent volunteers.

The NH 4-H YD program provides youth a unique and inclusive setting for individual life skill development and mastery of subject matter competencies through the interactions with caring adults (paid and volunteer)

Youth and family staff have the ability to recognize and understand the needs of individuals in communities, and to facilitate educational opportunities in respond to those needs.

Partnerships between University System of New Hampshire (USNH) and UNHCE youth and family staff can provide two-way communications for youth, families, faculty and community partners to foster lifelong learning.

2. Ultimate goal(s) of this Program

Increase quality of health and nutrition choices (e.g., physical activity, menu choices) made by NH families, primarily within low income and 4-H communities.

Improve number and quality of opportunities in NH that incorporate research-based "essential elements" of Positive Youth Development that are necessary to support our youth as they develop into contributing citizens.

Increase the number of youth in NH who are ready to engage confidently in science related projects, studies and careers; and increase the ability of non-formal and volunteer science educators to engage effectively with youth in this area.

Improve NH's capacity to support vulnerable families and youth, through the increased effectiveness of community collaborations and social/human service organizations; and the life skill development of inmates, military youth, and More Than Wheels participants.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2014	20.0	0.0	0.0	0.0
2015	20.0	0.0	0.0	0.0
2016	20.0	0.0	0.0	0.0
2017	20.0	0.0	0.0	0.0
2018	20.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

- Nutrition Connections sequential workshop series & programs (e.g., Cooking Matters)
- Nutrition Connections Home study Course (with development of possible on-line module)
- 4-H Youth Development staff and volunteer training (both in person and on-line)
- Implementation and evaluation of "Is It Whole Grains" curriculum
- Develop and facilitate anti-obesity community of practice with health practitioners (pending NIFA Rural Health funding)
 - Youth, school, & Community gardening
 - Courage to Care™, Understanding Bullying
 - 4-H Youth Development projects, clubs, events, and camp (includingNH Teen Council & Conference, National Congress & Conference, Barry Conservation Camp, healthy living and science projects)
 - 4-H Youth Development staff and volunteer training (both in person and on-line)
 - Afterschool Staff trainings - including N.H. Afterschool Professional Development Career System and Certification Process
 - Marine Docent educational work with schools and groups
 - Science Literacy statewide community of practice for agencies/organizations involved in this work
 - Seacoast SeaPearch

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> • Education Class • Workshop • Group Discussion • Demonstrations • Other 1 (Competitive events) 	<ul style="list-style-type: none"> • Newsletters • TV Media Programs • eXtension web sites • Web sites other than eXtension

3. Description of targeted audience

Low income families and youth, 4-H youth members, 4-H Volunteers, 4-H Youth Development Staff, Afterschool Program Staff, Health Practitioners

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
- Number of patents submitted
- Number of peer reviewed publications

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of volunteers supported and recognized
- Number of volunteers trained
- Number of youth enrolled in 4-H as a 4-H club, after school or special interest group member
- Number of educators and parents participating in workshops or educational events related to the issue of school bullying
- Number of low-income adults participating in Nutrition Connections - educational courses to income eligible New Hampshire residents
- Number of youth participating in nutrition programming through Nutrition Connections
- Number of youth participating in 4-H Healthy living programs
- Number of youth attending Barry Conservation Camp

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Number of of enrolled 4-H members participating in 4-H projects/events who show an increase in their universal life skills (e.g., teamwork & communication)
2	Number of enrolled 4-H members participating in Citizenship projects/events will show an increase in their knowledge about citizenship and an increase their actual citizenship skills
3	Number of 4-H Volunteers, 4-H Staff, Afterschool Staff and other Youth Development practitioners receiving training and/or technical assistance who report providing environments for youth with essential positive youth development elements present (e.g., sense of belonging, mastery, independence, & generosity)
4	Number of youth attending 4-H Barry Conservation Camp will demonstrate effective practicing of life skills (e.g., teamwork & communication)
5	Number of youth & adults participating in Nutrition Connections who report increased physical activity and reduction in sedentary behavior; they will increase knowledge about and intent to eat, healthy foods
6	Number of enrolled 4-H members participating in Healthy Living projects/events who show an increase in their knowledge about healthy living and an increase their actual Healthy Living habits
7	Number of enrolled 4-H members participating in STEM projects/events who show an increase in their knowledge about STEM and an increase their STEM skills

Outcome # 1

1. Outcome Target

Number of of enrolled 4-H members participating in 4-H projects/events who show an increase in their universal life skills (e.g., teamwork & communication)

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Number of enrolled 4-H members participating in Citizenship projects/events will show an increase in their knowledge about citizenship and an increase their actual citizenship skills

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 805 - Community Institutions, Health, and Social Services
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Number of 4-H Volunteers, 4-H Staff, Afterschool Staff and other Youth Development practitioners receiving training and/or technical assistance who report providing environments for youth with essential positive youth development elements present (e.g., sense of belonging, mastery, independence, & generosity)

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being

- 805 - Community Institutions, Health, and Social Services
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Number of youth attending 4-H Barry Conservation Camp will demonstrate effective practicing of life skills (e.g., teamwork & communication)

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Number of youth & adults participating in Nutrition Connections who report increased physical activity and reduction in sedentary behavior; they will increase knowledge about and intent to eat, healthy foods

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 6

1. Outcome Target

Number of enrolled 4-H members participating in Healthy Living projects/events who show an increase in their knowledge about healthy living and an increase their actual Healthy Living habits

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 7

1. Outcome Target

Number of enrolled 4-H members participating in STEM projects/events who show an increase in their knowledge about STEM and an increase their STEM skills

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Competing Public priorities
- Competing Programmatic Challenges

Description

More diverse family structures. Increase in number of NH families living in poverty.

NH communities lack resources for youth opportunities, particularly in rural areas.

Increasing need for out-of-school time activities promoting positive youth development for NH youth, especially teens.

Economic development and stability is a goal for individuals, families, communities and businesses.

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

Post participation survey using 4-H Common Measures Survey - Universal items, Science Literacy and Healthy Living items for grades 4-7 or grades 8-12

Post participation survey using Barry Camp Questionnaire

EFNEP/SNAP-Ed Pre-Post self-report

Periodic survey utilizing CYFER common measure: Program Quality Instrument for Adult Staff & Volunteers

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Community and Economic Development

2. Brief summary about Planned Program

UNHCE has a long history of supporting New Hampshire's economy through agriculture, forestry and fishing industry support. In addition to this UNHCE has become well known and appreciated for our staff's ability to convene and facilitate community members and groups, helping them to develop leadership skills and make sound decisions regarding the future. UNH CE's Community and Economic Development team (CED) will continue providing research-based education and assistance to individuals, families, businesses and communities to help them to identify opportunities to enhance their competitive advantage, build upon their assets, and create conditions that foster local and regional economic growth.

A small number of CED staff will work collaboratively across all program teams as well as with UNH faculty, statewide agencies and organizations - to address the most pressing needs facing communities. These close collaborations will ensure UNHCE is developing programs that we are uniquely qualified to implement and build upon the strengths of UNH as a whole. Area of Expertise (AoE) Teams include:

- Community Development
- Agriculture & Natural Resource Business
- Youth, Families and Communities

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
601	Economics of Agricultural Production and Farm Management	20%			
602	Business Management, Finance, and Taxation	10%			
608	Community Resource Planning and Development	20%			
801	Individual and Family Resource Management	10%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	15%			
805	Community Institutions, Health, and Social Services	20%			
903	Communication, Education, and Information Delivery	5%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

New Hampshire communities face many challenges, including changing demographics, shifting economic structures, and societal crises, with unprecedented growth in some regions and decline in others. Extension's Community and Economic Development program helps communities achieve long-term well-being by building human, economic, social and environmental capacity. To build community capacity, Extension Educators provide a variety of educational services to community residents, organizations and local governments. Examples include facilitation of community forums, training in leadership development, assistance with planning activities and provision of technical assistance for economic development, tourism and communications. Extension also connects campus-based resources - particularly faculty and students - to New Hampshire communities.

More than 3,100 agricultural firms in New Hampshire generate nearly \$750 million in annual product value and manage approximately 445,000 acres in farm land. New Hampshire's agricultural industry is principally comprised of small family farms offering a diverse selection of crop, livestock and specialty products. These family businesses are an integral part of the local community, maintaining a working landscape and providing citizens with superior products as well as connections to farming and "rural" New Hampshire. Each of these program areas address the unique needs of farmers and assist in keeping their operations viable.

The number of farms in NH is increasing, but many of the individuals who are starting these operations require basic management education. Small business start ups in the natural resources and agricultural industries will require education and support from Extension in order to successful and add jobs to the NH economy.

In one year alone, New Hampshire residents received over \$45.9 million of income from selling timber and other wood products and New Hampshire towns received over \$4.6 million in timber tax (2007, NH Department of Revenue Administration). Healthy, sustainable forests are critical to New Hampshire's forest products industry and the forest-related tourism and recreation industries which contribute more than \$2 billion annually to the state's economy. The **Agriculture & Natural Resources** team will work in an interdisciplinary manner to support and strengthen NH's farming, fishing and forestry industries.

The **Community Development** team builds communities' capacity to address important issues and needs related to land and water resources, economic development, and other elements of a healthy, strong and vibrant community by helping them increase volunteerism, cultivate effective local leadership, and engage the public in decision-making. Successful programs include Community Profiles Visioning, Citizen Planner, community conservation assistance, and facilitation and leadership training.

Vibrant and strong New Hampshire communities provide safe and secure environments for NH families and their children. Likewise, secure and stable families form the backbone of thriving NH communities. Currently, communities face unprecedented challenges as a result of reduced budgets and resources for educational, health and human services. An educated, healthy and engaged citizenry with children who are engaged in positive activities and successful in school are extraordinary assets to communities, providing a skilled workforce that attracts employers, volunteers who care about the community they live in and take actions to improve it, reduction in health issues and costs, fewer incidents of juvenile crimes and an increase in the social networks available throughout New Hampshire.

While families with financial or social resources (middle or higher income families) often have several options available to them to for educational and social services, vulnerable audiences often do not have the same access for a variety of reasons (e.g. lack of transportation; incarceration, military deployment, lack of Internet connectivity, or inadequate financial resources). Children are particularly subject to health, educational and antisocial behavior concerns when their parents face extraordinary challenges. The **Strong Youth, Families and Communities** team will address these challenges through collaborative work and programs such as financial literacy and Operation Military Kids.

2. Scope of the Program

- In-State Extension
- Multistate Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Citizens want to impact community decision-making.

All citizens have leadership potential and the capacity to contribute to their community.

Communities and small businesses will continue face challenging economic times in NH.

While ultimately, UNHCE will provide additional programming in economic development, for the first year, these efforts will be focused on agricultural and forest industry support and development.

2. Ultimate goal(s) of this Program

Farming, fishing, and forestry businesses in New Hampshire are sustained, expanded, or initiated as a result of careful planning, effective marketing, and sound financial and business management practices.

New Hampshire communities remain economically vibrant as a result of greater ability to identify competitive advantage and implement effective local and regional economic development strategies.

Residents of New Hampshire communities are engaged in local decision-making and action, resulting in greater ability to address issues/needs of social, economic, natural and cultural importance.

Skilled and inclusive leaders in New Hampshire communities maintain skills to effectively serve on local boards and committees, engage diverse voices, and empower others to instigate positive change.

New Hampshire communities, businesses, organizations, and volunteers work together to steward the state's vast agricultural and natural resources vital to sustaining the state's character and economy.

Communities foster collaboration to pursue community goals, strengthen community networks, address the needs of vulnerable populations, and enhance their social, economic, and natural assets.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2014	7.0	0.0	0.0	0.0
2015	7.0	0.0	0.0	0.0
2016	7.0	0.0	0.0	0.0
2017	8.0	0.0	0.0	0.0
2018	8.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

- Institutes/workshop series (e.g. Ag & Natural Resource Business Institute, Whole Farm Planning, Community Development Academy, Master Facilitatory Volunteer Program, Community Impact Seminar, and Leadership Development)
 - Workshops and seminars (e.g. Innovative Marketing Strategies for Ag Businesses, Logs to Lumber, Putting your Business on the Digital Map, Community Supported Fisheries)
 - Invited talks and presentations (e.g. Black Fly Breakfast)
 - One-on-one business consultations and technical assistance
 - Development and dissemination of business resources and publications (web and print)
 - Media releases (news and radio)
 - Industry collaboration and planning support (e.g. Fisherman's Roundtables...)
 - Economic Development Technical Assistance (economic development assistance, strategy implementation, Broadband utilization, support to community planning grant recipients)
 - Economic Development Planning (Community Profiles Visioning, Broadband Planning)
 - Community planning forums/Charettes (e.g. Community Profiles Visioning, Master Plan Visioning, Economic Development Planning, Granite State Futures, etc.)
 - Operation Military Kids

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● Demonstrations 	<ul style="list-style-type: none"> ● Newsletters ● eXtension web sites ● Web sites other than eXtension

3. Description of targeted audience

Community leaders, municipal board/committees, community volunteers, youth, professional community development practitioners, active community members.

Municipalities, Regional Economic Development Corporations, Regional Planning Commissions, chambers of commerce, local land use boards, municipal economic development professionals, lay economic development practitioners.

Farmers, fishermen, food processors, forest products businesses, tourism businesses, industry sectors, potential entrepreneurs, business service providers.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
- Number of patents submitted
- Number of peer reviewed publications

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of community leaders who complete a facilitation/leadership skills course
- Number of people reached with on-line/web based educational information
- Number of communities provided with technical assistance to enhance their decision making with regard to economic development plans, project, and activities.
- Number of people reached through workshops, conferences and forums
- Number of people reached through one-on-one education/consultation: site visits; phone, email, etc.
- Number of people reached through institutes and academies (longer-term - more than one session as part of a series)
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Number of community and regional plans, policies, or projects that incorporate public input from a broad base of community stakeholders
2	Number of communities that work with Extension to implement mechanisms/tools to analyze the current situation and identify emerging issues to be addressed.
3	Community and regional leaders learn effective strategies for supporting and growing the local and regional economy
4	Number of UNHCE program participants who report new leadership roles in their communities
5	New farm, fishing, and/or forestry businesses are initiated as a result of training, technical support and information provided by UNH Cooperative Extension
6	Farm, fishing and forestry businesses have a greater understanding of key concepts and best practices for managing a successful business, including business planning, financial management, record-keeping, and marketing
7	At least 3 community/regional/state organizations or coalitions will develop and implement initiatives or strategies that address the needs of vulnerable youth and families
8	Number of organizations/collaborations who report increased awareness, knowledge or skills needed to implement effective actions and initiatives to address community needs of youth and families of incarcerated citizens, military members, and other vulnerable youth and families

Outcome # 1

1. Outcome Target

Number of community and regional plans, policies, or projects that incorporate public input from a broad base of community stakeholders

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development
- 805 - Community Institutions, Health, and Social Services

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Number of communities that work with Extension to implement mechanisms/tools to analyze the current situation and identify emerging issues to be addressed.

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 608 - Community Resource Planning and Development
- 805 - Community Institutions, Health, and Social Services

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Community and regional leaders learn effective strategies for supporting and growing the local and regional economy

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation

- 608 - Community Resource Planning and Development
- 805 - Community Institutions, Health, and Social Services

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Number of UNHCE program participants who report new leadership roles in their communities

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 805 - Community Institutions, Health, and Social Services
- 903 - Communication, Education, and Information Delivery

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

New farm, fishing, and/or forestry businesses are initiated as a result of training, technical support and information provided by UNH Cooperative Extension

2. Outcome Type : Change in Condition Outcome Measure

3. Associated Knowledge Area(s)

- 601 - Economics of Agricultural Production and Farm Management
- 602 - Business Management, Finance, and Taxation
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 6

1. Outcome Target

Farm, fishing and forestry businesses have a greater understanding of key concepts and best practices for managing a successful business, including business planning, financial management, record-keeping, and marketing

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 601 - Economics of Agricultural Production and Farm Management
- 602 - Business Management, Finance, and Taxation

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 7

1. Outcome Target

At least 3 community/regional/state organizations or coalitions will develop and implement initiatives or strategies that address the needs of vulnerable youth and families

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 801 - Individual and Family Resource Management
- 803 - Sociological and Technological Change Affecting Individuals, Families, and Communities
- 805 - Community Institutions, Health, and Social Services

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 8

1. Outcome Target

Number of organizations/collaborations who report increased awareness, knowledge or skills needed to implement effective actions and initiatives to address community needs of youth and families of incarcerated citizens, military members, and other vulnerable youth and families

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 801 - Individual and Family Resource Management
- 803 - Sociological and Technological Change Affecting Individuals, Families, and Communities
- 805 - Community Institutions, Health, and Social Services

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Description

Changes in Extension priorities may occur as federal, state and county financial support changes

Support for local Extension work may limit the scope of staff activities.

Disasters and economic conditions may influence the short and long-term civic participation and leadership needs of NH residents.

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

Baseline and post survey of business planning program participants will be used

- to assess change in participants' knowledge in each of the three areas (business planning, financial management, and marketing)
- track new business start-ups and employment growth/retention

Follow-up interview with community and regional economic development leaders who receive programming or technical assistance from UNH Cooperative Extension

Baseline (pre-) and post-survey of CD educational program participants to determine individuals' participation in new leadership roles and/or more effective participation in existing leadership roles

Results of baseline and post effort surveys will determine effectiveness of communities' collaborative efforts

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Food Safety

2. Brief summary about Planned Program

The University of New Hampshire Cooperative Extension delivers science-based programs through many avenues to give people the knowledge, skills and motivation to achieve their economic and social goals. Food safety programs focus on training and resources for food handlers in restaurants, schools and other institutions as well as consumer education around food safety. The **Food Safety** Area of Expertise Team works in conjunction with the Food and Agriculture program team at UNH Cooperative Extension.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	20%			
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	70%			
723	Hazards to Human Health and Safety	10%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

The US Centers for Disease Control and Prevention (CDC) estimates that each year approximately 1 out of 6 Americans or 47.8 million people get sick from a foodborne illness. Of those people who get sick, 128,000 are hospitalized and 3,037 die from their illness. The Produce Safety Project supported by The Pew Charitable Trust and Georgetown University published a study in 2010 estimating the annual cost of foodborne illnesses is \$152 billion. This study estimated the per case cost for an individual is \$1,850. Further, this report assessed the annual health-related cost of foodborne illness by state. For New Hampshire, the estimated annual cost of foodborne illness was \$681 million with a per case cost estimate of \$1,892. Renewed interest in local food production and processing, e.g. the increasing number

of farmers' markets and food entrepreneurs, requires innovative approaches to address food safety risks within these sectors of the food system. In 2012, New Hampshire restaurants are projected to record \$2.3 billion in sales while employing 63,800 people and many of these employees have no or limited training in food safety. Although consumer awareness of food safety hazards has increased, survey results indicate that the youngest and oldest consumers and those with the highest education have the least safe food safety practices. UNHCE's **Food Safety** team addresses these needs with food safety education targeting each sector of the food system, including production, foodservice and consumers, with research-based education programs, resources, and information.

2. Scope of the Program

- In-State Extension
- Multistate Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Cooperative Extension has the capacity to address the food safety educational needs of the residents of NH.

People are willing to pay fees associated with training sessions.

2. Ultimate goal(s) of this Program

New Hampshire citizens have access to safe food.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2014	3.0	0.0	0.0	0.0
2015	3.0	0.0	0.0	0.0
2016	3.0	0.0	0.0	0.0
2017	3.0	0.0	0.0	0.0
2018	3.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Programs implemented on a regional basis:

- SAFE program
- ServSafe®
- Serving It Safe

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> • Education Class • Workshop 	<ul style="list-style-type: none"> • Public Service Announcement • Newsletters • TV Media Programs • Web sites other than eXtension

3. Description of targeted audience

Food handlers at restaurants, schools, health facilities, etc. and the general public.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of people who participate in ServSafe workshops
- Number of adults participating in food safety programming through Nutrition Connections - educational courses to income eligible New Hampshire residents
- Number of people who participate in SAFE (Safety Awareness in the Food Environment) programs
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Number of program participants who score 75% or greater on knowledge tests of high risk practices including: * Personal hygiene * Holding/time and temperature * Cooking temperatures * Prevention of contamination
2	Number of food handlers who self-report an intent to adopt recommended hand washing practices, take steps to reduce cross-contamination and/or use proper time and temperature controls after attending a SAFE program.

Outcome # 1

1. Outcome Target

Number of program participants who score 75% or greater on knowledge tests of high risk practices including:

- * Personal hygiene
- * Holding/time and temperature
- * Cooking temperatures
- * Prevention of contamination

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
- 723 - Hazards to Human Health and Safety

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Number of food handlers who self-report an intent to adopt recommended hand washing practices, take steps to reduce cross-contamination and/or use proper time and temperature controls after attending a SAFE program.

2. Outcome Type : Change in Knowledge Outcome Measure

3. Associated Knowledge Area(s)

- 711 - Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
- 723 - Hazards to Human Health and Safety

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Public Policy changes
- Competing Programmatic Challenges

Description

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

A post-workshop knowledge questionnaire will be administered after each SAFE program. Examination scores of ServSafe® program participants will be used to ascertain food safety and sanitation knowledge. Participants in both SAFE and ServSafe® programs will complete another questionnaire to assess intent to implement recommended food safety and sanitation practices.