



February 25, 2009

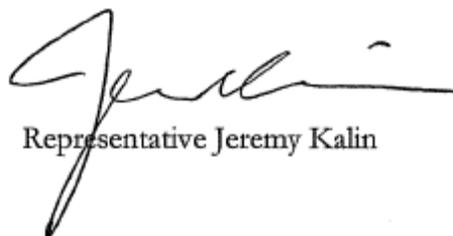
We are pleased to present the Minnesota Green Jobs Task Force's legislative recommendations to optimize the growth of Minnesota's green economy.

Over the last 7 months, Task Forces members held 12 public meetings and heard directly from 600 of Minnesota business leaders and engaged citizens. This first-hand information provided the Task Force with examples of the challenges Minnesota faces in accelerating the growth of green jobs, the barriers to retaining existing green jobs, and the hurdles to training the workforce needed for green business in Minnesota.

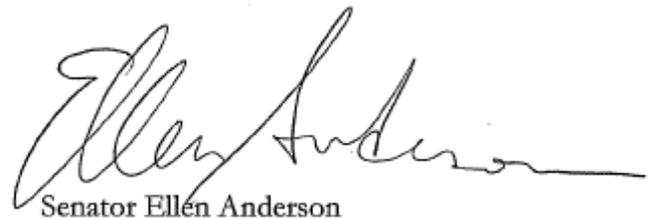
In December, the Task Force received a Market Analysis Report from GSP Consulting Corp providing an in-depth examination of Minnesota's strengths, weaknesses and best opportunities for investment in the green economy. The Market Analysis divided the areas of investment into four categories: Green Products, Green Services, Environmental Conservation and Renewable Energy. Minnesota's current situation as well as its comparative position to relevant states was assessed for each of these areas. The market analysis created the first-in-the-nation research definition of a green job, including identifying the share of construction industries engaged in green building projects. The analysis showed that, with Minnesota's existing environmental policies remaining in place and Minnesota firms remaining competitive, Minnesota can retain our existing 52,827 green jobs, and expand to as much as 72,467 by 2020. With the enactment of the Action Plan legislative initiatives, this number will increase dramatically.

The Action Plan that follows provides the Task Force's recommendations of specific legislative initiatives as well as education and workforce training strategies. We look forward to working with the Legislature and the Governor on these recommendations.

Sincerely,



Representative Jeremy Kalin



Senator Ellen Anderson

Senator Ellen Anderson, *Co-Chair*  
Representative Jeremy Kalin, *Co-Chair*  
Senator Scott Dibble  
Senator Mike Jungbauer  
Representative Jim Davnie  
Representative Bob Gunther  
Deb Bahr-Helgen  
Minneapolis Employment and Training Program  
Bill Blazar  
Minnesota Chamber  
Doug Cameron  
Piper Jaffray  
Ken Day  
New Flyer of America  
Christopher Eng  
Chisago County HRA/EDA  
David Foster  
Blue-Green Alliance  
Bill Glahn  
Office of Energy Security  
Bob Isaacson  
Department of Employment and Economic Development  
David Leckey  
Dane Technologies  
Brad Lehto  
Minnesota AFL-CIO  
Lorrie Louder  
Saint Paul Port Authority  
Laurie Martinson  
Department of Natural Resources  
Michael Noble  
Fresh Energy  
Gail O'Kane  
Minnesota Colleges and Universities  
Teresa Spaeth  
Agricultural Utilization Research Institute  
Suzanne Spellacy  
Taylor Corporation  
Deborah Swackhamer  
University of Minnesota Environmental Health Sciences/Water Resources Center  
David Thornton  
Minnesota Pollution Control Agency





# Minnesota's Green Jobs Task Force Action Plan

February 25, 2009



## **Task Force Members<sup>1</sup> include:**

- Senator Ellen Anderson, Co-Chair
- Representative Jeremy Kalin, Co-Chair
- Senator Scott Dibble
- Senator Mike Jungbauer
- Representative Jim Davnie
- Representative Bob Gunther
- Deb Bahr-Helgen, Minneapolis Employment and Training Program
- Bill Blazar, Minnesota Chamber of Commerce
- Doug Cameron, Piper Jaffray
- Ken Day, New Flyer of America
- Christopher Eng, Chisago County HRA/EDA
- David Foster, Blue-Green Alliance
- Bill Glahn, Office of Energy Security
- Bob Isaacson, Department of Employment and Economic Development
- David Leckey, Dane Technologies
- Brad Lehto, Minnesota AFL-CIO
- Lorrie Louder, Saint Paul Port Authority
- Laurie Martinson, Department of Natural Resources
- Michael Noble, Fresh Energy
- Gail O’Kane, Minnesota Colleges and Universities
- Teresa Spaeth, Agricultural Utilization Research Institute
- Suzanne Spellacy, Taylor Corporation
- Deborah Swackhamer, University of Minnesota Environmental Health Sciences/Water Resources Center
- David Thornton, Minnesota Pollution Control Agency

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<sup>1</sup> Minnesota’s Green Jobs Task Force was established pursuant to 2008 legislation and was charged with developing a statewide action plan to “optimize the growth of the green economy”.



## *The Action Plan proposes legislative initiatives and education and workforce training strategies to encourage green economic development.*

This statewide Action Plan was developed by the Green Jobs Task Force (“Task Force”) in order to optimize the growth of the green economy in Minnesota. The Action Plan (“Plan”) proposes legislative initiatives and education and workforce training strategies to encourage green economic development while staying consistent with five key environmental policies defined in Minnesota Statute 116J.437<sup>2</sup>. In addition to the Plan’s proposed legislative initiatives, education and workforce training strategies are also proposed.

In preparing the Plan, a market analysis was completed to inform the Task Force’s discussions and development of the Plan. The market analysis focused on the green economy opportunities in Minnesota based upon green jobs related markets, industry strengths, innovation strengths and the overall business environment of the state. The market analysis determined that Minnesota’s focus on renewable energy from a policy and regulatory standpoint may enhance Minnesota’s ability to grow and attract green jobs in that sector. Minnesota has begun to support the growth of green product markets and the environmental conservation industry has made progress in recent years resulting in growth in the green services sector which supports these other sectors.

Competing states are targeting their marketing efforts (particularly towards the renewable fuel sector) and new strategies to compete are needed. This is Minnesota’s greatest green jobs challenge. Therefore, the Action Plan focuses generally on legislative initiatives as well as business and workforce training and educational strategies that are more aggressive than in the past to stimulate greater green economic development in Minnesota.

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<sup>2</sup> **Green Economy is defined in Minnesota Statute Section 116J.437** as follows:

*"[G]reen economy" means products, processes, methods, technologies, or services intended to do one or more of the following:*

- (1) increase the use of energy from renewable sources, including through achieving the renewable energy standard established in section [216B.1691](#);*
- (2) achieve the statewide energy-savings goal established in section [216B.2401](#), including energy savings achieved by the conservation investment program under section [216B.241](#);*
- (3) achieve the greenhouse gas emission reduction goals of section [216H.02](#), subdivision 1, including through reduction of greenhouse gas emissions, as defined in section [216H.01, subdivision 2](#), or mitigation of the greenhouse gas emissions through, but not limited to, carbon capture, storage, or sequestration;*
- (4) monitor, protect, restore, and preserve the quality of surface waters, including actions to further the purposes of the Clean Water Legacy Act as provided in section [114D.10, subdivision 1](#); or*
- (5) expand the use of biofuels, including by expanding the feasibility or reducing the cost of producing biofuels or the types of equipment, machinery, and vehicles that can use biofuels, including activities to achieve the biofuels 25 by 2025 initiative in sections [41A.10, subdivision 2](#), and [41A.11](#).*

*For the purpose of clause (3), "green economy" includes strategies that reduce carbon emissions, such as utilizing existing buildings and other infrastructure, and utilizing mass transit or otherwise reducing commuting for employees.*

# Recommended Action Plan

*The Plan focuses on strategies to create employment opportunities in four industry sectors: Green Products, Renewable Energy, Green Services and Environmental Conservation.*

## The Green Jobs Task Force's Recommended Action Plan

### Background

This Action Plan was developed by the Green Jobs Task Force for consideration of the legislature and the governor. The Plan focuses on strategies to create employment opportunities in four industry sectors: Green Products, Renewable Energy, Green Services and Environmental Conservation. These industry sectors are defined in the Market Analysis prepared for the Task Force by GSP Consulting Corp.

### “Green Jobs” Definition<sup>3</sup>

The definition of “green jobs” adopted by the Task Force solely for purposes of the Action Plan was:

**“Green jobs are the employment and entrepreneurial opportunities that are part of the green economy, as defined in Minnesota statute 116.437, including the four industry sectors of green products, renewable energy, green services and environmental conservation. Minnesota’s green jobs policies, strategies and investments need to lead to high quality jobs with good wages and benefits, meeting current wage and labor laws”**

<sup>3</sup> **Green Economy is defined in Minnesota Statute Section 116J.437** as follows:

*"[G]reen economy" means products, processes, methods, technologies, or services intended to do one or more of the following:*

*(1) increase the use of energy from renewable sources, including through achieving the renewable energy standard established in section [216B.1691](#);*

*(2) achieve the statewide energy-savings goal established in section [216B.2401](#), including energy savings achieved by the conservation investment program under section [216B.241](#);*

*(3) achieve the greenhouse gas emission reduction goals of section [216H.02](#), subdivision 1, including through reduction of greenhouse gas emissions, as defined in section [216H.01, subdivision 2](#), or mitigation of the greenhouse gas emissions through, but not limited to, carbon capture, storage, or sequestration;*

*(4) monitor, protect, restore, and preserve the quality of surface waters, including actions to further the purposes of the Clean Water Legacy Act as provided in section [114D.10, subdivision 1](#); or*

*(5) expand the use of biofuels, including by expanding the feasibility or reducing the cost of producing biofuels or the types of equipment, machinery, and vehicles that can use biofuels, including activities to achieve the biofuels 25 by 2025 initiative in sections [41A.10, subdivision 2](#), and [41A.11](#).*

*For the purpose of clause (3), "green economy" includes strategies that reduce carbon emissions, such as utilizing existing buildings and other infrastructure, and utilizing mass transit or otherwise reducing commuting for employees.*

# Guiding Principles

*Creating results, enhancing state competitiveness, promoting Minnesota's opportunities, breaking barriers, and assuring participation.*

Guiding Principles adopted by the Task Force for the Action Plan include:

## Accountability

Creating measurable results with effective and fiscally responsible strategies consistent with these Guiding Principles.

## Adaptability

Awareness of ongoing developments and conditions within and beyond Minnesota to enhance state competitiveness and responsiveness to new and changing green economic opportunities.

## Advocacy/Alignment

Promoting and leveraging Minnesota's strategic opportunities at the federal level where State's priorities, activities and resources exist.

## Connectedness

Breaking barriers between regions, agencies, institutions, companies, unions and governmental entities.

## Inclusiveness

Assuring opportunity and active participation by all Minnesotan's including economically vulnerable, at risk and disadvantaged populations.

*The Plan is divided into two sections:  
Legislative Initiatives and  
Education and Workforce Training Strategies.*

## **I. Action Plan's Recommended Legislative Strategies (2/13/09)**

To develop its Action Plan, the Task Force met six times and received and considered a Market Analysis and recommendations prepared by GSP Consulting Corp as well as input from stakeholders throughout the State at numerous sub committee meetings that were held by the Task Force to listen to Minnesotans' ideas for attracting green jobs, providing workforce education and training and assuring job retention and expansion. Prior to the Task Force's February 2009 meeting, the various Task Force initiatives under consideration were divided into legislative initiatives and workforce training and education strategies.

At its meeting at the State Capital on February 13, 2009, the Task Force reached consensus on 24 legislative initiatives and supported six other strategies by majority vote of members voting. Although Administration representatives did not indicate their consensus or vote, commitments were made by them to work with others to achieve the overall goal of the Task Force to improve Minnesota's green economy. **Specific legislation was not endorsed by any member of the Task Force.** Rather, in developing legislative initiatives focused on creating and retaining green jobs in Minnesota, the Task Force proposed the initiatives "in concept" to capture the essence of the information it received from the market analysis sub-committee's numerous outreach meetings, other studies, discussions and deliberations.

Once legislative language is drafted for the various initiatives, specific job creation numbers will be modeled.

Subsequent to the February 13, 2009, Task Force meeting, agreement was reached on proposed education and workforce training strategies. In addition, it is the desire of the Co-Chairs to meet in June, prior to the expiration of the Task Force members' work, and consider an update on legislation enacted as well as the progress made to date regarding the various education and workforce training strategies.

*The legislative initiatives are identified by four sectors: renewable energy, green products, environmental conservation, and green services.*

## Green Jobs Task Force Consensus Legislative Initiatives

The legislative initiatives are identified by the four sectors developed by GSP Consulting Corp for the Market Analysis.

### Renewable Energy Sector

GSP Consulting Corp advised the Task Force that the Renewable Energy sector is the strongest area of economic opportunity for Minnesota.

Specific initiatives related to Renewable Energy Sector adopted by consensus by the Task Force include:

- Support state revenue bonds for interest free or interest deferred loans for renewable energy projects.
- Explore funding for biofuel demonstration project.
- Explore support for scaling up biomass plants to ensure commercial viability.
- Require an agency to focus on and report to the legislature on the utilization of the Farm Bill programming dollars for biomass establishment costs.
- Remove barriers to cost effective transmission and distribution for renewable electricity.
- Expand policies and financing for emerging solar technology.
- Provide support to establish solar energy certification lab.

“The Renewable Energy sector is the strongest area of economic opportunity for Minnesota.”

-GSP Consulting Corp

# Legislative Initiatives (cont.)

*The Green Products Sector includes industries manufacturing products that reduce environmental impact and improve the use of resources..*

## Green Products Sector

The Green Products Sector includes industries manufacturing products that reduce environmental impact and improve the use of resources. GSP Consulting Corp found that Minnesota has begun to support the growth of green products manufacturing.

Specific initiatives related to the Green Products Sector adopted by consensus by the Task Force include:

- Explore strategies for increased electric automobile infrastructure and manufacturing.
- Modify Minnesota's building code to include utilization of energy efficiency requirements.
- Enact requirement to aggregate purchasing power to purchase green products for state agencies.
- Continue funding Select Committee on Recycling and Environment (SCORE) programming.
- Support counting in Utilities' Conservation Improvement Programs all energy saved, either kWh or BTUs from a given energy conservation project.
- Work with IREE, MnSCU, AURI, Institute for Agriculture and Trade Policy and other interested stakeholders, to prepare a study of food production sector, including organics, local, conventional, natural, traditional, and urban farming, to define the size of the employment base and identify opportunities to increase the number of green jobs in these segments.

“Minnesota has begun to support the growth of green products manufacturing.”

– GSP Consulting Corp

*The Environmental Conservation Sector includes industries related to conservation of air, water and land including water treatment and conservation and wastewater treatment.*

## Environmental Conservation Sector

The Environmental Conservation Sector includes industries related to conservation of air, water and land including water treatment and conservation and wastewater treatment. GSP Consulting Corp found that this industry sector has seen significant progress in recent years with the passage of Minnesota various environmental regulatory provisions. GSP Consulting Corp also believes that the Constitutional Amendment passed increasing State's sales tax rate to be used for natural resources, cultural heritage programs and the arts will result in increased green job opportunities.

Specific initiatives related to the Environmental Conservation Sector adopted by consensus by the Task Force include:

- Incent businesses and utilities resulting in increased waste heat recovery and cogeneration.
- Align funding from Natural Resource and Cultural Heritage program with Task Force's environmental conservation and water treatment goals.
- Target existing funding sources for energy efficient technology for wastewater treatment plants.
- Identify training needs for workforce that would support new models of water conservation and reuse.
- Remove barriers and incent water recycling by industry.

“The Environmental Conservation Sector has seen significant progress in recent years with the passage of Minnesota various environmental regulatory provisions.”

- GSP Consulting Corp

# Legislative Initiatives (cont.)

*Energy Auditors, Green Architects and Designers, Systems Technicians, and HVAC Technicians are examples of green services jobs.*

## Green Services Sector

The Green Services Sector is industries and occupations that provide a range of services to build and supply the green economy.

For example, jobs included but not limited to providing energy efficiency services are:

- Buildings and Construction
- Systems Technician
- Green Designer and Architect
- Skilled Energy-Efficient Construction Trade Workers such as Carpenter, Electrician, Plumber
- Resource Conservation/Efficiency Manager
- Energy and Indoor Air Quality Auditor
- Heating, Ventilation, and Air Conditioning (HVAC) Operation and Maintenance Technician

GSP Consulting Corp found that over 22,000 jobs already exist in this sector and that it is particularly critical to match private sector needs with education and training delivery systems.

“The Green Services Sector has seen significant growth as this sector supports the growth of the other three sectors.”  
- GSP Consulting Corp

*Financing mechanisms are needed to renovate energy inefficient public buildings and assure green and brownfield development ready sites.*

**Specific initiatives related to the Green Services Sector adopted by consensus by the Task Force include:**

- Provide State revenue bonding package to renovate the most energy inefficient public buildings.
- Develop innovative, cost effective financing mechanisms to stimulate more residential energy efficiency retrofits, including foreclosed and foreclosure threatened properties.
- Require all public bond and grant programs to analyze and implement cost-effective energy efficiency improvements and retrofits where practicable.
- Provide all appropriate funding and loan guarantees for commercial/industrial energy efficiency improvements and green renewable energy loan programs, including but not limited to programs that include collaboration with the local utility.
- Provide to EDA's across the State all appropriate federal and state brownfield grant and financing tools to redevelop and remediate land which will generate jobs and development ready sites.
- Provide State bonding for public infrastructure funding of green industrial parks to reuse brownfields or old infrastructure near transit and workforce to minimize carbon emissions, to create a green business cluster and to establish carbon neutral bio-business parks in Greater Minnesota.

Innovative. Cost effective. Energy efficient.

# Legislative Initiatives (cont.)

*Six other initiatives were supported by the majority of the Task Force members voting in addition to the 24 adopted legislative initiatives.*

## **Action Plan Legislative Initiatives Receiving Majority Support of Task Force Members Voting**

In addition to the 24 legislative initiatives that the Task Force adopted by consensus, six other initiatives were supported by the majority of Task Force members voting.

- Establish a Green Enterprise Authority to coordinate marketing and business assistance; streamline grants, loans and permitting processes; and coordinate workforce training opportunities.
- Enact policies to incent locally owned distributed renewable energy generation.
- Review and strengthen Minnesota's net metering and interconnection policy.
- Provide Angel Investment Tax Credits where proposed jobs meet green job definition.
- Develop a green bonds program that allows individuals to purchase and support green enterprise investments.
- Fund the farm to school and farm to home pilot projects.

# Education and Workforce Training Strategies

*Job seekers interested in green careers should have access to intensive job search, vocational assessment and career guidance resources.*

## II. Action Plan's Recommended Education and Workforce Training Strategies<sup>4</sup>

A dynamic green economy requires a highly trained workforce with life-long learning options to successfully link workforce development and economic development. Education and workforce training strategies should build upon our existing workforce development system of WorkForce Centers, education and training institutions (private, public and non-profit), and union apprenticeship training programs.

The existing structure of Local Workforce Councils is well positioned to support the growth of green jobs by facilitating connections between jobseekers and employers.

Job seekers interested in green careers should have access to intensive job search, vocational assessment and career guidance resources. ***By investing solidly in workforce development through existing systems<sup>5</sup>***, a strong economy can once again be realized in our state. Supporting the growth of green jobs and green careers can be part of this infrastructure that needs stable funding to continue providing services to all Minnesotans.

A fair and equitable proportion of green job programs should include training for at-risk and disadvantaged people from low-income and minority populations, tribal communities, women in non-traditional career paths, and dislocated and unemployed workers.

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<sup>4</sup>These strategies were developed from the basis of the work of the workforce training and education sub-committee and the corresponding findings from December 22, 2008 found following the below strategies.

<sup>5</sup> At least one Task Force Member had reservations about investing exclusively in existing workforce development programs.

# Education and Workforce Training Strategies (cont.)

*The jobs created under this program need to lead to sustainable employment, sustainable wages, and sustainable benefits.*

## **The following strategies received consensus from the Task Force Members:**

- Develop and disseminate accelerated green jobs retraining programs where they support workforce needs of businesses and do not duplicate existing available training and provide access to all.
- DEED/Local Workforce Councils/GEA (Green Enterprise Authority) should develop and maintain an inventory of training programs and workforce needs as part of its ongoing labor market information.
- Incorporate green techniques and jobs skills into existing curricula when it is rational and feasible to do so.
- Maintain and expand access to STEM (science, technology, engineering and math), industrial arts and career technical education in both K-12 schools and through post-secondary options in higher education.
- Include apprenticeship, mentorship, internship and work experience opportunities in publicly funded green jobs projects and assure access for all.
- Private sector companies that are recipients of public funding creating green jobs should participate in career awareness activities.
- Create a work group that includes but is not limited to academia, unions, and industry to develop strategies for increasing private and federal funding for R & D in various green disciplines.
- Encourage industry, unions et al. to participate in [www.GetSTEM-MN.com](http://www.GetSTEM-MN.com) and other similar resources for linking businesses to education.

## **The following strategies received majority support from the Task Force Members:**

- Invest in youth employment and training programs.
- Maintain and expand K-12 curricula and teacher professional development to include renewable energy and energy efficiency. When possible, leverage WIRED and other federal funding sources to achieve this goal.
- Fund career counselor programming for adult and youth career planning.

*Green jobs and education will require a cultural shift for both the public and employers.*

## Green Jobs Education and Workforce Training Sub-Committee Input Session Findings (12/22/08)

### Guiding Principles

- Inclusiveness - Paying attention to vulnerable, at risk and disadvantaged populations.
- Alignment – Breaking barriers between agencies, institutions, companies and government entities.
- Accessibility – Creating access to educational programs with multiple entry and exit points and access to employment for people across a wide range of skill and educational attainment levels.

### Finding

Green jobs and education will require a cultural shift for both the public and employers. To facilitate a smooth transition to a green economy a significant amount of community education will be required.

- Better education of young people from preschool through post-secondary, or P-16.
  - Access to hands-on educational opportunities for all K-12 students.
  - Create more opportunities for students to connect with practical application of science and math theories concurrently covered in the classroom. (e.g. start young, field trips, classroom presentations)
  - Classrooms into the communities for specific energy efficiency, water quality or other projects that can provide opportunity to learn and improve existing infrastructure.
- Food Systems (another opportunity for classrooms in the communities).
  - Urban farming.
  - Locally grown food.

# Findings (cont.)

- Improve access throughout educational systems for all levels of training and education.
  - Apprenticeship Programs, Technical College Programs, State Colleges and Universities.
  - Dual track certification for vocational-technical through full-degree training and education.
- Recommend promotion of concentrated/focused training for specific employment opportunities that exist and will not add to the existing unemployment in these specific employment areas.
- Development of 8-12 week intensive retraining programs that can be tailored to specific, existing and relevant employment opportunities in demand.
  - Inventories of existing training programs should be ongoing to limit duplication of training programs. This will ensure the most cost effective allocation of resources.
- Academia needs to have a realistic awareness of the current, immediate and future outlooks for business innovation and technology.
- Academia should make an attempt to attend seminars/technology fairs from the private sector as well as within academic realm in order to broaden awareness.

## **Finding**

Green industries, collectively, are seen as one of the most promising engines of economic growth both nationally and regionally. To maximize the return on state investment and to best leverage the economic potential of this sector, the jobs created under this program need to lead to sustainable employment, sustainable wages, and sustainable benefits.

## **Finding**

If Federal and State funds begin to flow to programs, it is important to encourage the development of green jobs training and education. Any funding must start with training targeted to at-risk populations/low-income individuals and dislocated workers. For example, many dislocated workers will have rich skill sets that, if supplemented with appropriate retraining resources, could support the growth of the green economy. The workforce investment system, higher education system and unions should be engaged in helping to tap the skills presented by these groups. For workers with existing skills, it is vital that all green jobs training and educational programs enhance workers' skill sets through continuing education or certification programs. No training or education program should contribute to higher unemployment in fields of training or education.

## **Finding**

If a company can meet our job/wage/benefit principles of sustainability and is willing to train/pay/reimburse for training to assimilate people into a sustainable wage we believe a special committee to convene with DEED should have the latitude to focus its resources to incentivize the company to come to Minnesota.

## **Finding**

Connectivity between employers, educators and workers is important.

- Quantitative and qualitative information on current and future workforce gaps that may present job opportunities for workers.
- Just-in-time/on-demand business hiring and employment training program giving the forward looking employer the well-trained employee on a planned schedule.
- Qualified employers must meet current wage and labor laws.