DIVISION OF FORESTRY

Strategic Direction

Department of Natural Resources
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The mission of the Division of Forestry is to work in partnership to protect and sustainably manage Wisconsin's forest ecosystems to supply a wide range of ecological, economic and social benefits for present and future generations.

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DIVISION OF FORESTRY'S STRATEGIC DIRECTION

WHY WISCONSIN'S FORESTS ARE IMPORTANT

Wisconsin's forests are ecological, economic and social treasures. They provide the raw materials for the forest products industry which directly contributes over $18 billion and more than 60,000 jobs to our state's economy. They are also the setting for our recreation and tourism industry which contributes over $5 billion to our state's economy. Our forests purify and maintain the quality of our plentiful water resources and provide habitat for a wide array of plant and animal species. Our abundant forests also mitigate climate change and air pollution through carbon storage and oxygen production, are a source of renewable energy, and provide settings within which many of Wisconsin's citizens and visitors choose to live, work and recreate.

The ability of Wisconsin's forests to continue to support existing and emerging industries, as well as produce environmental services that benefit people including clean air and water, wildlife habitat, and soil conservation, is contingent on forests being protected and sustainably managed. The following are a few examples of the returns the citizens of Wisconsin receive for their investment in protecting and sustainably managing our forests:

- assuring a continuous supply of wood to our traditional forest industries as well as emerging bioenergy ventures, helping maintain a vital part of Wisconsin's economy;
- preventing loss of life, property and natural resources to wildfire;
- providing a diverse array of recreational opportunities for Wisconsin citizens and visitors;
- minimizing the loss of, or damage to, our rural and urban trees and the benefits they provide due to invasive plants and destructive pests; and
- providing habitat for a diverse array of wildlife, both common and rare.

Given the importance of Wisconsin's forests to the state's economy and environment, and increasing state budget challenges, it is essential that the Division of Forestry has a clear understanding of:

- the goals in the Statewide Forestry Strategy approved in June 2010;
- our role, relative to others within the diverse forestry community, in working towards those goals; and
- how we intend to maintain or reshape the work of the Division to most effectively achieve those goals.

THE CHALLENGE OF STRATEGIC PLANNING

The major issues and threats affecting the forests of Wisconsin can not be tackled by one group, organization or agency. Nor are there enough resources to implement all of the value-added strategies that have been identified. Furthermore, different groups will have different perspectives on whether or not a particular strategy should be implemented. Recognizing the current economic constraints at all levels of government and in the private sector, it is

necessary to implement strategies and actions that are most important for the state to focus on in light of our goal to maximize the public benefits produced by Wisconsin's forests.

We, in the DNR's Division of Forestry, are responsible for developing and implementing programs to protect and sustainably manage the state's forest resources. Although this seems a fairly straightforward purpose, there is a wide array of interests that can benefit from our work such as:

- A city resident enjoying the shade of their boulevard trees and a community that gets its drinking water purified by nearby forestland
- A vacationer enjoying a snowmobile trail across one of our state forests and a young hunter hoping to harvest his or her first whitetail deer
- A private landowner with 10 acres of forest and an industrial forestland owner with tens of thousands of acres
- A volunteer fire department receiving a grant to purchase equipment and an individual receiving a burning permit
- A large pulp and paper mill and a small, family-owned, sawmill
- A landowner interested in enhancing habitat for an endangered, threatened or rare species and a landowner interested in growing quality oak and enhancing habitat for grouse
- A community with many family-supporting jobs in wood-using industries and a landowner planting trees that he or she knows will be enjoyed by their grandchildren

DIVISION OF FORESTRY'S STRATEGIC DIRECTION

In 2008 we initiated a Statewide Forest Assessment process that analyzed the current condition of forests (both public and private), looked for trends, and identified issues and threats to our forests for the next 10 years. From that assessment grew the Statewide Forest Strategy which is a collection of many strategies and actions. It includes multiple ideas on how the forestry community as a whole can address major issues and priority topics over the next five to ten years. The assessment and strategy were both completed in June of 2010.

We reviewed each strategy and possible action in the Statewide Forest Strategy and assessed which actions we could play a role in and what our niche should be, recognizing the work of others within the forestry community and drawing upon Department assessments such as the State Comprehensive Outdoor Recreation Plan, State Wildlife Action Plan, Land Legacy Report, and Impaired Waters List. The Strategy provided a base from which we could assess where we have a role based on the conditions today, which may or may not be where we have traditionally had a role. We have also strived to develop a Strategic Direction which enables us to be flexible so that we may be better able to adapt to the rapidly changing economic and ecological conditions. Lastly, in developing the Strategic Direction, we asked partners to identify actions offered in the Statewide Strategy in which they believe we have a role and the relative priority of that role.

Much of what is presented here continues work we now do and, in many cases, have done for many years. This reflects our belief that these functions have been, and remain, an appropriate and valued role for the Division. There are several significant changes described in the Strategic

Direction to address the changing needs of the forestry community and citizens of Wisconsin. As a result we believe the Strategic Direction identifies both those challenges that we have worked to address in the past and that continue to need our attention, as well as new challenges and opportunities that demand our attention.

GUIDING PRINCIPLES BEHIND THE STRATEGIC DIRECTION

I. Maximize the Value Delivered to the People of Wisconsin

In the Strategic Direction, we explain how we believe we can most effectively and efficiently achieve the desired outcomes expressed in the 2010 Statewide Forest Strategy. The Strategic Direction explains areas in which we will increase, maintain or decrease the varied investments in DNR forestry programs over the next five years, as well as implement shifts to the longer-term focus of our work in some areas. Our Strategic Direction provides intention statements that describe the difficult choices we have made about how to invest our limited personnel and funding to maximize the value we deliver towards protecting and sustainably managing Wisconsin's forests for the next five years and beyond.

II. Respecting Existing Rights

We recognize Native Americans' off-reservation treaty rights, sovereignty over tribal land and access to public lands. We have consulted with tribes as we've evaluated issues and threats to forests and our role in managing state lands and asked for their input throughout this planning process. As well, other landowners enjoy property rights that enable them to manage for their objectives. These are important rights and our niche is to assist landowner's to achieve their management objectives and promote sustainable forestry in doing so.

III. Leverage Limited Resources & Increase Our Collective Capacity

The major issues and threats affecting the forests of Wisconsin can not be tackled by one group, organization or agency. It is evident the resources we and our partners have will continue to be limited. However the need to sustainably manage the State's forests will continue, if not increase. This demands efficient and effective use of the resources provided to us by the people of Wisconsin in order to maximize the value we and our partners collectively deliver. The Division is in a position to facilitate partnerships with the goal of increasing the collective capacity and impact of the forestry community as a whole. Through collaboration we share resources and responsibilities to jointly plan, implement and evaluate programs to achieve common goals.

IV. Adapt to Differences Across the State

Just as the forests of Wisconsin differ across the state, so do the opportunities and challenges. As a result the Strategic Direction can not be a "one size fits all". It must be flexible and adaptable in order to ensure that we are most effectively and efficiently maximizing the value we deliver. In recognizing the need to leverage our limited resources, we may spend more resources in a geographic area where there is a greater need or better opportunity to achieve success. Adapting to differences

across the state also means that although the end result is achieving the intent of the Strategic Direction, how it is accomplished operationally may vary across the Division.

IV. Integrated & Skilled Organization
Although the Strategic Direction is organized by program, the reality is that DNR's Forestry Division is integrated. The majority of our workforce produces accomplishments affecting more than one program, reflecting the fact that this increases the effectiveness and efficiency of program implementation throughout the state. Many employees not only work on multiple programs, such as a forester working on private forests, county forests and fire protection, many also work together to address common issues (e.g., urban forestry specialists working with utilization & marketing specialists to improve utilization of urban wood). In order to achieve this varied and diverse work, the Division is committed to maintaining the technical competence of our employees to ensure we are successful in implementing the Strategic Direction.

PUBLIC COMMENT PROCESS

The first draft of the Strategic Direction was released on December 17, 2010 and partners, the public, and staff were requested to provide their comments. We heard from 40 individuals and organizations and over 100 DNR employees including many outside the Forestry Division. We received feedback from those who believe the goals and strategies they value most would be better served by this Strategic Direction as well as those who expressed concern about the path the Division proposed to follow.

The Forestry Leadership Team reviewed this input and made modifications to the draft. On the DNR website you can view two versions of the final Strategic Direction: one that shows the edits that were made and one that incorporates the edits. All of the comments are posted on the DNR website at: http://dnr.wi.gov/forestry/assessment/strategy/strategicDir.htm.

There were a range of opinions on many topics**.** In a separate document posted at the same website as above, called the Response to Comments, we discuss a) comments that resulted in changes to the Strategic Direction, b) definitions and clarification of terms or concepts readers did not understand, and c) intent statements and decisions that received a lot of comments but were not changed for reasons explained.

NEXT STEPS

As we move forward we will assess how best to align our resources to meet the identified priorities and develop an implementation plan. The gap analysis of current and needed resources, reconciliation of the gaps identified and development of an action plan for implementation will involve several phases, but it is anticipated our plan for implementation will be completed by the close of 2011. We expect implementation will be phased, in an effort to minimize impacts on staff and in recognition of additional work that needs to be completed before implementation can proceed.

We recognize that change does not come easily. Everything we do today produces outcomes valued by someone. Whether reducing a function, changing its scope or shifting strategies for accomplishing a goal, changing how we conduct our business and serve the people of Wisconsin generates concern.

Implementing the changes presented in the Strategic Direction will be challenging. However, we are confident in the capabilities of both Division staff and our partners to succeed in this endeavor. We have a history here in Wisconsin of working together to accomplish important work involving our forests. We anticipate this collaboration will continue as we work to implement the Division of Forestry's Strategic Direction.

COUNTY FORESTS (CO)

Wisconsin's county forest program is unique in the nation; a state/county partnership defined in statute, designed to promote sustainable management of forests for the purpose of providing an array of public benefits. Currently, there are county forests in 29 of Wisconsin's 72 counties, totaling more than 2.36 million acres. Collectively, the county forests represent the state's largest public forest landholding. County forests are extremely important to Wisconsin's forest products industry and economy. Each year, these lands generate anywhere from $25 to $30 million in timber revenues for the counties and towns. Approximately 16,000 jobs and $4.6 billion in forest products production result from the timber volumes harvested from county forests[*]. Recreation and tourism also depend on this land base. County forests afford a variety of recreation opportunities due to their large blocks of forest, extensive lakes and rivers, and remote nature. The demand for nature based recreation is increasing and county forests have the ability to sustainably provide a range of recreational activities with more than 6,000 miles of roads and trails, the county forests are the key to connectivity of the state's renowned hiking, biking, equestrian and motorized vehicle trail networks.

CHALLENGES AND OPPORTUNITIES

Twenty seven of Wisconsin's 29 county forests are currently certified under the standards of the Sustainable Forestry Initiative (SFI) and/or the Forest Stewardship Council (FSC). Independent, third-party certification means management of the county forests meets strict standards for ecological, social, and economic sustainability.

Each county forest is different; in size they range from 1,000 to 273,000 acres. Some are in counties with sizable cities whereas others are not. Each is managed by a different local government, and each has their own fiscal and political constraints to deal with. In difficult economic times it becomes tempting for county boards to look at selling county forest land for short-term income, overlooking the significant long term economic, social, and environmental benefits these forests produce. Protections afforded in the county forest law make it difficult to withdraw land from this program, greatly restricting the potential for fragmenting the valuable large blocks of public forest lands and ensuring long term sustainable services and taxpayer investments are protected.

Due to the amount of county forest land and the distribution across the state, county forests have the opportunity to manage at a landscape scale, which provides a variety of important public benefits unique to large blocks of forested land. State-approved forest plans for counties consider regional economic, ecological, and social conditions in a manner that serves the needs of each individual county.

[*] Data from IMPLAN model.

DIVISION OF FORESTRY'S ROLE

The Division works in partnership with the 29 counties with land entered under the county forest program to ensure these forests provide the full array of public benefits. In exchange for county commitments to manage their land sustainably and consistent with the state law, the state invests resources in each county to facilitate that county's ability to contribute to the local and statewide economies, provide an array of ecological services, and provide a land base on which the public can recreate. The Division will shift the manner in which the state provides assistance to the counties under this program, providing a greater degree of flexibility for individual counties to select among an array of resources that best meet their needs.

The needs of individual county forests vary widely, based on size, location, county capacity and other factors. As a result, we will engage the counties in developing a framework of options that enables individual counties to select, within budgetary constraints, among an array of resources that best meet the needs of their particular county. Currently, we provide staff for planning, reforestation, inventory and timber sale assistance, fiscal support for counties to hire professional expertise, grants for forest and wildlife management practices, coordination and management of third party forest certification (i.e. FSC, SFI), loans for land acquisition and management needs, and annual acreage payments for land within the program. We will continue to provide a base level of support through our county liaisons, while modifying the mix of assistance in investments listed above by allowing each county to choose, within limits, the services that best meet their needs. The Division will be reducing the direct investment in county forests. However, we anticipate that this increased flexibility in assistance will ultimately result in a more efficient use of resources.

In 2010 the counties gained access to the state's portion of the Knowles-Nelson Stewardship land acquisition program. This recognized the counties' unique relationship with the state and the role they can play in acquiring forest land to reduce fragmentation and increase the sustainable management of forest land for an array of public values.

We are pursuing programs and services that will directly contribute to the ability of counties to more efficiently implement their programs. These include information technology (IT), utilization and marketing, and support for land acquisition. A number of additional investments in consultative services and tools, as well as the availability of expertise in several sciences (see page 29) likewise will enhance the ability of counties to achieve their goals within this partnership.

Program Change: The Division will continue to provide a suite of services and support to counties in order to maintain the excellent partnership that has been developed. The Division will shift the manner in which the state provides assistance to the counties under this program, providing a greater degree of flexibility for individual counties to select among an array of resources that best meet their needs. This will result in a reduction in the direct investment to counties. The Division will increase the assistance provided to counties in support services (e.g. IT, utilization and marketing, and support for land acquisition). (CO-1)[†]

[†] This is the reference code for this intention statement. CO stands for County and this is the first (1) statement within this program.

FIRE PROTECTION (FP)

Wisconsin's forests are, to varying degrees, at risk for destructive wildland fires. The number of wildland fires in Wisconsin varies annually depending on weather, fuel conditions and human activity. Based on a 35 year average, approximately 1,700 fires burn 6,000 acres each year within the areas of the state under DNR's organized protection. Periodic drought cycles drastically affect the number of fires and acres burned.

Fire can be extremely dangerous or beneficial to the health of forests, depending on the circumstances. The choice to aggressively fight wildland fire has direct effects on fire dependent ecosystems. A counter-balance to the aggressive suppression of fires is use of prescribed burning, a management tool used to manage and restore fire dependent ecosystems that otherwise would be difficult to sustain.

Not only are forests at risk from wildland fire, people, their homes and other structures are also threatened. Between 2000 and 2008, an average of 58 structures were lost to wildland fire each year; during that same time, an average of 400 additional structures were threatened, yet ultimately saved. Many more acres were threatened by small fires, but suppression activities stopped their spread. Furthermore, prevention efforts have certainly reduced human-caused fires.

Local fire departments are critical partners in detecting, managing and suppressing wildland fires within the state, which is accomplished through an interagency approach in a coordinated, efficient and effective manner. Wisconsin is party to several agreements such as the Great Lakes Forest Fire Compact, National Wildfire Coordinating Group and commitments with several other agencies to share resources such as direct air suppression, fire fighters and equipment.

CHALLENGES AND OPPORTUNITIES

Fire suppression affects the composition, structure, and function of forests. Increasingly, housing development continues to move deeper into rural areas; creating a condition called the wildland-urban interface (WUI) where people, homes, and property are intermingled with wildland vegetation and are at greater risk of wildfire. In Wisconsin, people cause over 98% of all wildland fires. Counties with high fire occurrence have a large residential or seasonal recreation population base. Because fighting wildland fire is resource intensive, it is essential that the entities with fire suppression capabilities all play defined roles that maximize their capabilities and reduce risk.

Opportunities exist to reduce human caused fires and, by extension, the losses that result. Targeted fire prevention efforts can reduce ignitions, saving structures and forests. Furthermore, advancing work to mitigate hazards and protect homes can reduce the damage caused by fires that do start.

DIVISION OF FORESTRY ROLE

The Division's role in forest fire protection is to prevent, detect and rapidly suppress wildland fires in areas of the state that have the greatest potential for significant loss of property, natural resources and even lives due to wildland fire. The Division complements the capacity of local fire departments by filling roles (e.g., Incident Management Teams, heavy equipment) not efficiently covered on a community by community basis. The Division will allocate resources based on an updated assessment of risk as defined by fire landscapes in Wisconsin, and enhance efforts in fire prevention and risk mitigation.

With our broad reach throughout the state and help from our partners, we are well positioned to protect the public and respond to catastrophic wildland fires. The most effective way to identify and express the concept of fire suppression risk in Wisconsin is through the identification of distinct fire landscapes. The fire landscape map was developed as part of the Fire Program Assessment (2010) and analyzes data instrumental in predicting fire hazard such as vegetation, ecological landscapes, soil, forest patch size, and parcel improvements. Efficiencies will be gained by focusing investments in the highest risk areas.

Program Change: The Division will utilize fire landscapes to allocate resources based on level of hazard. This change reflects an update to the way the program focuses investments with new tools and updated data. (FP-1)[‡]

Enhancing the public's understanding of the causes of wildland fires, the conditions that increase likelihood of wildland fires igniting and the extent of the damage that can result, will contribute to a reduction in activities by the public that historically result in damaging wildland fires. Specific investments will target the statewide Wildland-Urban Interface Program (WUI) in high priority fire landscapes. The new on-line burning permits system is a cost effective and responsive tool to manage burning activity on a day-to-day basis. As a result, the investment in the emergency fire warden program will be significantly reduced. Ultimately, a highly effective fire prevention effort will likely result in reduced fire activity and potentially decrease the public investment in fire suppression.

Program Change: The Division will strengthen existing prevention and mitigation programs such as the Wildland-Urban Interface program. Prevention programs will be integrated into a Division-wide strategic plan for education and outreach and will be evaluated to understand the cost savings they provide by reducing the numbers of fires. (FP-2)

Using the previously mentioned fire landscapes, we will allocate detection and suppression resources in a manner that reflects level of risk and hazard. Continually being prepared for fire

[‡] This is the reference code for this intention statement. FP stands for Forest Protection and this is the first (1) statement within this program.

response includes developing and maintaining fire suppression infrastructure and equipment, identifying values at risk, predicting fire activity, pre-positioning, and dispatching firefighters and equipment. We will be assessing where best to allocate resources when we determine how to implement the Strategic Direction, including consideration of cooperative protection areas that are now at high risk of wildland fire. We will also explore several options for cost savings such as alternative scheduling (e.g. 7-day scheduling), and establishing local short incident management teams (IMT) for rapid response and regional expanded IMT for extended attack fires.

Program Change: The Division's investment will be reduced and resources will be placed within the state to more efficiently prepare for, detect, and suppress wildland fires with emphasis on high risk areas. (FP-3)

We will continue to be the leader in providing wildland fire protection services through early detection and rapid initial attack with ground-based resources (e.g. engines and tractor plows). Aircraft will remain an essential tool for detection and ensure firefighter and public safety, and enabling ground resources to more aggressively attack on-going fires. Exclusive use contracts for single engine air tankers (SEATs) will be eliminated. To allow more flexibility to respond to rapidly changing fire conditions and make more efficient use of fire suppression funds, we will instead rely on our strong partnerships with the Great Lakes Fire Compact and federal agencies to obtain aerial suppression aircraft when needed.

Program Change: The Division will eliminate exclusive use contracts for the SEAT program. (FP-4)

A key partnership in wildland fire management is the fire departments in the state. A cost effective approach to support general suppression capabilities in areas of lower wildland fire risk and exposure, as well as to provide critical structural protection in areas of high fire risk, is to enhance the capabilities of local fire departments. Division Forest Fire Protection (FFP) grants help local fire departments to purchase equipment and supplies that improve their capability and safety on wildland fires.

Maintain Program: The Division will maintain its current investment in providing FFP grants to local fire departments to assist in suppressing and preventing wildland fires. (FP-5)

It is essential to provide a trained and qualified workforce to be effective in emergency response and maintain safe operations. Our commitment to meet established national and state training standards for wildland and prescribed fire will be maintained. Interagency drills and scenarios are an efficient way to train and maintain skills and will be continued.

Maintain Program: The Division will continue to fund training as a basic function of the fire protection program at current levels. (FP-6)

Safety of firefighters and the public is the top priority in our fire protection program. Investments in safety will be maintained. Law enforcement is also an important component of an effective fire control program. Enforcing laws regarding burning and investigating arson are two critical functions that will be maintained.

Maintain Program: The Division will maintain current investment in fire safety and law enforcement efforts. Working together with partners to improve firefighter and citizen safety is and will continue to be the Division's highest priority. (FP-7)

FOREST HEALTH (FH)

The health of Wisconsin's forests is critical for providing high-quality wildlife habitat, clean air and water, and a reliable supply of raw material for Wisconsin's forest products industries while also reducing erosion and improving our quality of life in urban and rural areas. When forests are healthy, they are able to respond to changing conditions and be more resilient to insect and disease infestations. There are many systems in Wisconsin to detect and monitor changes in forest health such as satellite imagery, ground surveys, and even private landowners sharing information about what's happening on their property. Agencies and communities in Wisconsin are forming partnerships to work together to respond to forest health issues.

CHALLENGES AND OPPORTUNITIES

Insects and diseases (both native and non-native) can increase tree mortality to a level that negatively affects the sustainability of the forests and the suite of benefits they provide. Threats from non-native invasive plants, insects and diseases have increased significantly since 2002. If successfully established, invasive insects and diseases can kill native tree species more quickly than native pests due to the lack of host resistance and biological controls. The emerald ash borer has the potential to eliminate ash – of which there are over 700 million in Wisconsin including nearly 1 in 5 street trees -- from the forest environment. Options for reducing the impact of invasive species are often limited. Quarantines affecting movement of material can be cumbersome for the forest industry and others, including recreational users. A focused effort on management activities that reduce the forest's susceptibility to mortality will continue to be a priority to ensure forest health. Government agencies can not identify all infested areas; partnerships are an important way to detect infestations and to prevent the spread.

DIVISION OF FORESTRY'S ROLE

The Division's role in forest health is to provide technical expertise in the prevention, detection, assessment, management and monitoring of invasive plants, insects and diseases that damage trees and forests, and the benefits they provide. The Division will maintain its existing capacity to assist public and private forest landowners in their efforts to minimize the establishment and adverse impacts from destructive forest insects and diseases, particularly non-native invasive species and invasive plants.

Invasive species management will continue to be a key focus; however, over the next five years we will reduce involvement in gypsy moth suppression in order to more effectively manage higher priority invasive species. Other species, such as the Emerald Ash Borer, have been identified as posing a more significant threat to Wisconsin's forests. We are best positioned to accomplish early detection of invasive species because of our breadth of expertise and broad geographical coverage. The public and partners have expressed great concern over invasive species issues and have identified DNR as playing a critical role in responding to them. We work collaboratively with our partners to address these issues and are developing new partnerships to design and implement strategies to manage invasive plants, insects and pathogens.

Program Change: The Division will continue the recent shift in investment toward increased emphasis on invasive species work. There will be a continuing focus on emerging priority needs with a reduction in gypsy moth suppression efforts. (FH-1)[§]

Monitoring the incidence, severity, impact and location of forest insect and disease populations provides the information needed to focus mitigation strategies, evaluate disease prevention protocols, and broadens our knowledge on the influence these organisms have on forest ecosystems. We have been a leader in risk model and map development for the last five years. Risk analysis has been an important part of survey planning and can be developed both for a larger number of high-risk organisms and at both a landscape-scale and local property (e.g. state forest) level. Risk analysis can also be used at the property-level to prioritize where mitigation strategies should be used. Continued development of partnerships will be pursued to further this possibility.

We will continue to make strategic on-site field investigations of forest sickness and decline and to provide insect identification and disease diagnostic services.

Maintain Program: The Division will continue to provide detection, delimitation, monitoring, and impact assessments of invasive plants and highly damaging insects and disease-causing organisms and expand risk model and map development. The technical assistance the forest health program provides to partners and land managers is critical for them to make appropriate management decisions. (FH-2)

Currently, administrative rule NR40 provides the framework for controlling non-native damaging pests in Wisconsin. We will continue to take a lead role in developing rule guidelines (e.g. firewood regulations) and promoting partnerships so that efficient and effective action can be taken upon the arrival of a regulated NR40 invasive species. Additionally, through outreach and education, we will improve the protection of Wisconsin's forests from invasive insects, diseases, and plants. Our continued leadership in this area allows the forest health program to actively control prohibited invasive species in forests by working directly with DNR law enforcement staff and other partners such as DATCP and APHIS.

Maintain Program: The Division will continue to work in partnership with other DNR divisions, state agencies, and local municipalities to minimize the damage to Wisconsin's forests from harmful invasives. (FH-3)

[§] This is the reference code for this intention statement. FH stands for Forest Health and this is the first (1) statement within this program.

Forest managers and Wisconsin citizens work, recreate, and live in Wisconsin's forests, but if they are not aware of threatening invasive problems, they will not be able to report or recognize them. Key program objectives include creating awareness of invasives and improving understanding of Best Management Practices (BMP's), encouraging higher efficiency of invasive species' detection, and informing forest managers and citizens on invasive species identification and management.

In the next two years, we will be conducting a specific assessment and strategic plan for our roles in education and outreach. Forest health focused education and outreach will be evaluated as part of this process.

Maintain Program: The Division will provide education and outreach materials for, and implementation of, training related to BMP's, detection, monitoring and management of a broad number of invasive species. New partnerships will be sought to share information about landscape-level management for invasive species. Expanded use of the web as an outreach and education tool will be explored – particularly as it relates to sharing survey and management data. (FH-4)

NURSERIES (N)

The amount of forest land in Wisconsin has steadily increased since the cutover that ended early in the last century. Today over 47% of the state, 16.4 million acres, is covered by forests. Reforestation of resilient forests plays an essential role in protecting and enhancing the suite of diverse benefits forest provide. The vast majority of Wisconsin's forests regenerate naturally. That said, Wisconsin's reforestation efforts, including efforts to re-establish forest (afforestation) on lands that had previously been cleared of trees for other land uses, have benefited from the availability of high quality seedlings, economical seedling prices, known seed sources, and a genetically superior nursery stock.

CHALLENGES AND OPPORTUNITIES

The growth in forests has not been consistent across the state – forests in eight counties have not increased. A decline in industrial forest ownership, more highly fragmented forest lands, economic decline, new landowner objectives, new tax structures and shrinking federal cost share programs have led to fewer tree planting projects across the state. The current economic decline has resulted in landowners deferring tree planting operations in order to save money.

DIVISION OF FORESTRY ROLE

The Division's role in forest nurseries is to encourage afforestation and reforestation in Wisconsin by facilitating the availability of an adequate supply of high quality seedlings of native species at an economical price from public and private sources. The Division will maintain a capacity to produce stock at a level that, when combined with private sector capacity, meets projected demand for tree seedlings.

When public and private landowners have access to economically priced seedlings, their plantings contribute to a variety of important statewide goals such as increasing the amount of forestland in the state, connecting fragmented forest parcels, economically producing forest products and increasing the diversity of species across the state. The DNR's Ecological Landscapes Handbook helps define where afforestation or reforestation is most desirable ecologically, recognizing that individual landowners ultimately decide whether and where to establish and maintain forest cover. Tree planting offers private landowners the opportunity to earn income from not only traditional forest products, but from new markets for carbon and other ecosystem services.

The Department is in the process of adjusting its capacity due to declines in demand for nursery stock. On a regular basis, we will be analyzing the nursery market in order to better understand what the best role and optimal capacity is for the state nursery program. In order to make future adjustments in state production, it is also important to know the capacity of private nurseries serving Wisconsin with native stock to meet the overall demand.

Program Change: State nursery facilities will scale production in relation to private sector capacity and changing seedling demand. Facility numbers will be based on the need to balance flexibility with cost of production. (N-1)[**]

Over time trees must be able to adapt to stressors like insects and diseases, animal herbivory, and shifts in climate. It is important to monitor the success of regeneration, both natural and artificial, in order to have the best information and data to adjust what type of seedlings are produced, their genetic qualities, and geographically where they are best suited to grow. Gathering and assessing information on the success or failure of certain tree species and seeds will benefit private nursery production as well as state nurseries and should be in collaboration with our partners in the private sector. (Note: Genetics research is discussed in the Cross-Program Activities section, intention statement CP-1.)

Maintain Program: The Division will increase the investment in a monitoring program that will monitor forest regeneration, identify problems, field test potential solutions, and disseminate lessons learned to internal and external customers to ensure high-quality stock and successful planting survival in the future. (N-2)

[**] This is the reference code for this intention statement. N stands for Nurseries and this is the first (1) statement within this program.

Privately Owned Forest Lands (PF)

The majority of Wisconsin's 16 million acres of forest land are held by private non-industrial landowners -- 10.4 million acres of woodland are cared for by about 362,000 individuals and families. In addition, nearly two-thirds of the wood needs of Wisconsin's forest products industry are supplied from family-owned private land. Private lands provide abundant recreational opportunities and a range of ecosystem services, much of which benefit the public at large.

CHALLENGES AND OPPORTUNITIES

Private land ownership patterns are changing and forest land values are increasing, which makes it difficult to keep forests in forest. Large forest landholdings in amenity rich areas are particularly at risk of being split as landowners can sell smaller parcels at a higher price. Industrial land holders selling large forest blocks off in small parcels are one of the largest factors influencing this change. The portion of land owned by forest products companies fell from 62% in 2002 to 24% in 2008, the majority of these lands having been transferred to Real Estate Investment Trusts (REITs). The use of conservation easements by private individuals, organizations, and governments is a valuable tool to maintain working forests and protect them from development and other non-forest uses.

The average non-industrial private forest parcel shrank from 37 acres in 1997 to 28 acres in 2006. The number of small parcels of 1-9 acre category nearly doubled. Owners of small non-industrial private forest parcels are challenged, due to operational inefficiencies, to implement management to meet their objectives in a manner that produces an economic return. The ability to manage for some ecosystem services, including those associated with broader landscapes, is compromised as parcel sizes decrease.

DNR foresters provide service to private landowners, as do other agencies, organizations, and private businesses. The number of cooperating forester firms grew from 73 in 1999 to 127 in 2009, nearly a 75% increase. The number of foresters available in those firms rose about 84% over the same ten-year period. As the number of forest landowners grow and objectives for management shift, the need for professional forestry assistance increases.

DIVISION OF FORESTRY'S ROLE

The Division's role in private forestry is to facilitate the ability of private landowners to manage their forest land sustainably to provide an array of public benefits. The Division seeks to complement the work accomplished by private sector professionals by filling roles not conducive to private sector involvement. The Division will reduce emphasis on administering the state's forest tax program while increasing emphasis on reaching landowners who currently do not receive any professional assistance in managing their forest land.

The Managed Forest Law (MFL) is a major tool the state uses to keep forests as forests, providing sustainable management that produces an array of public benefits. We will continue to make a significant investment in this program and will continue to invest in efforts to make the program more efficient (e.g. GIS based databases). The opportunity for additional efficiencies will be evaluated over the next five years. Savings from these efficiencies will be shifted toward reaching out to private landowners who are not currently engaged in managing their land sustainably.

Areas of the program to evaluate will include: increased capacity of cooperating foresters, setting standards that allows for the full range of sustainable practices, clear accountability and protocols for landowners and cooperators to be able to reduce the level of compliance checks, and other efficiencies identified by DNR staff, partners and landowners.

Program Change: The Division will develop and implement additional efficiencies in the administration of the Managed Forest Law (MFL) program. (PF-1)[††]

We are committed to supporting the cooperating forester program and increasing their capacity because of the significant contribution they make towards accomplishing our mission.

Program Change: The Division will increase efforts to make full use of cooperating foresters for activities such as industrial transfers, in an effort to build the capacity of private sector partners and focus DNR staff time on other activities. (PF-2)

Of the 10.4 million acres of privately owned non-industrial forest land in the state, less than a third is enrolled in the Managed Forest Law. We recognize that many forest owners not in the MFL are sustainably managing their land but there are others who are not aware of professional forestry services available to them. A 2006 survey indicated that 85% of the landowners who had a harvest on their property within the last five years did not have a plan. Whether or not a landowner wants a plan to direct the management of their forest, professional assistance can help them achieve objectives they have for their land and do so in a manner that sustains the forest and the many benefits it provides.

There are many ways in which the Division can reach landowners not enrolled in any assistance program and we will work with partners to pilot different techniques and then evaluate the level of success achieved with each investment. One approach will be to increase the use of voluntary landscape scale management programs to efficiently reach and assist willing and interested private forest landowners who have land within a specific geographic area and who, by collaborating, choose to cost-effectively implement management to accomplish their objectives. The Division recognizes there are differences across the state and, with limited resources, possible landscape scale management programs will not occur everywhere. Another

[††] This is the reference code for this intention statement. PF stands for Private Forestry and this is the first (1) statement within this program.

approach to work with private landowners will be to use various education and outreach techniques. Within the next two years, we will invest resources to assess our role in outreach and education on the protection and sustainable management of Wisconsin's forests (see Cross-program Activities page 29). One key component of this work will be to clearly define our role in reaching and informing private forest landowners.

Program Change: The Division will increase investment in efforts to reach the large percentage of private forest landowners who receive no professional assistance in caring for their land. Different techniques to reach these landowners will be tried and certain areas or groups will be focused on. (PF-3)

Easements are a powerful tool to keep forests as forests ensuring they continue to provide all of their services and benefits. We will continue to use easements to increase the acreage of large block lands open to public recreation and managed sustainably for forest products, preventing development and maintaining unique landscapes and rare species. Easements generally cost less than half what fee acquisition costs and have the further benefit of keeping the land under private management, with appropriate state oversight.

Program Change: The Division will increase investment in programs that utilize conservation easements to secure private forested lands. (PF-4)

At some point, many landowners find themselves faced with financial challenges, which sometimes lead to selling off small parcels, foregoing management activities that can improve the health of the land, or harvesting forests in a manner that foregoes long-term productivity and health. Incentives can help landowners hold on to the property and manage for their diverse objectives. We will utilize federal incentives (e.g., EQIP) and available private sources (e.g., Hardwood Forestry Fund) to supplement available state sources of cost-share dollars.

We believe the primary focus of financial incentives should be those landowners who are not already receiving significant public incentives through the forest tax programs. With limited resources, the funding can best be used to encourage landowners to make an investment in managing their forest to achieve their objectives and, by extension, provide public benefits.

Program Change: The Division will maintain the level of investment in financial incentives to landowners but focus these more on landowners requesting assistance with management practices and those who currently do not receive professional assistance, in lieu of those already enrolled in MFL. (PF-5)

STATE LANDS (S)

Currently, 1.5 million acres of land are in state ownership, of which approximately 930,000 acres are forested. Approximately half of the forested acreage is designated as State Forests and half is in other state land ownership – wildlife areas, fisheries areas, state parks, and many others. Collectively, these forests provide a variety of important benefits for the citizens of Wisconsin, specifically large blocks of forests and natural communities that represent unique ecological landscapes, high quality habitat for many rare species, a diversity of recreation amenities, and a stable resource base for Wisconsin's wood products industry. Each state property is required to have a master plan. The plan reiterates tribal rights and is critical for defining public property management and is facilitated by public input. It involves diverse stakeholders, analyzing alternative actions and incorporating ecosystem management principles to provide public benefits.

CHALLENGES AND OPPORTUNITIES

Forest ecosystems are always in a state of change. More than a century ago the vast forest resource that covered Wisconsin was cutover to supply raw materials for the state and regional economy and its burgeoning population. This was a drastic period of change that resulted in more ecologically simplified forests (i.e. loss of species and structural diversity, and increased dominance of fewer species) and loss of several under-represented forest communities. Since then, public and private sector forest managers have been instrumental in facilitating the recovery of Wisconsin's forests though challenges regarding simplification and under-represented forest types remain. Through the master planning process, we consider these issues and work to improve forested ecosystems with a landscape management approach. As well, master plans provide guidance for timber management and recreation opportunities on state lands.

Over the last few years, we have made a concerted effort to reach the allowable harvests on state lands as stated in the master plans. This has involved shifting resources from other program areas and using a limited amount of contracting. As well, the need for reforestation on state lands is increasing and yet there is no stable source of funding to meet this need.

Large expanses of working forests free of development pressure are decreasing. Human activities such as housing and road development alter habitat, fragment landscapes, threaten biodiversity, and impact the efficiencies of forest operations. All of our state forests contain some private in-holdings, which are developed to varying degrees. Large forest blocks (especially with either early or late successional stages, the latter including old forest) are prized resources in Wisconsin.

Wisconsin is expecting a 6.3% increase in the state's adult population between 2010 and 2020 (DOA, 2004). This population growth is expected to increase demands for recreation opportunities and pressures on competing land uses. The state's diverse public ownership offers opportunities to geographically prioritize recreation uses to occur on the most sustainable locations. State forests offer large areas that often connect to other public recreation systems.

DIVISION OF FORESTRY'S ROLE

The Division's role in managing state lands is to ensure that state-owned forested lands are balancing the economic, ecological and social benefits derived from forests as set out in property master plans. The Division will maintain its capacity to sustainably manage state-owned forested lands, and enhance our ability to improve recreational opportunities and visitor safety on designated State Forests.

Through the master planning process, state forests are managed based on a landscape management approach which takes into consideration each property's history and addresses issues of ecological simplification, under-represented forest communities, spread of invasive species between properties and habitat for large mammals. Landscape scale management provides opportunities to work with neighboring landowners (private and public) who choose to manage at larger scales and oftentimes allows for greater economies of scale for harvesting. Up to date reconnaissance of the forest is necessary to be able to adaptively manage based on the conditions. Forest management practices are the tool most often used to meet plan objectives.

We are striving to meet allowable harvest goals on state lands. Two ways that can increase our ability to accomplish those goals are through the use of lump-sum timber sales (which reduce administrative costs) and utilizing the private sector to supplement what can be accomplished by state staff. We are currently conducting a study to evaluate whether, and under what circumstances, using private cooperating consulting foresters to establish timber sales is cost effective. The results of that study will inform how we proceed in the future given our limited resources. Where cost-effective, the Division will increase the number of lump-sum timber sales and work collaboratively with private consulting foresters to maximize DNR's ability to accomplish workload priorities across the Division. The majority of this work will continue to be done by DNR staff.

Maintain Program: The Division will remain committed to current levels of sustainable forest management on all state lands as identified in property master plans. The Division will continue to meet allowable harvest goals as determined through the master planning process on all state lands. The Division will also continue to work to eliminate the current backlog of forest management practices. (S-1)[‡‡]

More stable funding is needed to implement reforestation on state lands, which includes site preparation and release of both natural and artificial regeneration of planted stands. In the past, funds that have been available for regeneration activities have largely come through a number of nearly depleted gift accounts, special funding opportunities, or internal and external grant sources. A statute change will be pursued to allow the use of timber sale revenues for

[‡‡] This is the reference code for this intention statement. S stands for State Lands and this is the first (1) statement within this program.

reforestation associated with timber sales. The desired result would be a reliable funding source to provide regeneration activities on DNR managed state-owned lands to a point that the post harvest sale area meets department guidelines.

Program Change: The Division will increase the amount of funds for reforestation on all state lands, ensuring adequate resources to meet identified reforestation needs. (S-2)

State forests provide unique recreation opportunities due to their large forest blocks, extensive lakes and rivers, and remote nature. The demand for nature based recreation is increasing and the state forests will prioritize locations that can sustainably provide opportunities.

Program Change: The Division will implement recreation priorities on state forests as articulated in property master plans and increase the level of investment in the state forest recreation program to enhance unique niche recreation activities such as remote camping and trails, and serve high demand recreation facilities while continuing to provide for visitor safety. (S-3)

By continuing to purchase land from willing sellers, the amount of sustainably managed lands under certification standards will increase and forest blocks will be less parcelized within property boundaries. This will, in turn, increase recreation opportunity areas for the public and advance the protection of ecologically unique landscapes.

Program Change: The Division will increase the investment in land survey and workload associated with property boundary issues such as trespasses and newly acquired land. Acquisition efforts will continue and use criteria aligned with the recently approved Stewardship Land Acquisition Strategy. (S-4)

We provide assistance to all DNR programs in the sustainable management and development of master plans on other forested state lands. We have worked aggressively to update property master plans for state forest properties in the last five years and are now able to shift resources to assist other state lands over the next several years.

Program Change: The Division will decrease overall investment in planning from current levels due to the pending completion of state forest master plan revisions. Focus will be shifted to assisting other DNR programs with the planning needs for other state lands. (S-5)

URBAN FORESTS (UF)

Wisconsin's urban forests provide a wide range of ecological, economic and social benefits for the 80% of Wisconsin's population that lives in an urban area as well as for visitors to these communities. Urban areas contain nearly 27 million trees with an estimated total replacement value of almost $11 billion. Many don't realize all the services urban forests provide. They reduce air pollution, retain and mitigate storm water runoff, provide wildlife habitat, conserve energy, improve public health and well being, increase property values, and attract business, tourists and residents.

CHALLENGES AND OPPORTUNITIES

Urban forests face two main challenges. First, our current tree canopy cover is only 14%, well below the recommended 40%, and second, it lacks species diversity. An estimated 43% of all trees are either maple or ash. This leads to a high level of instability (e.g. high susceptibility to catastrophic loss from a pest such as Emerald Ash Borer (EAB)). Effective urban forest management includes up-to-date inventories and resulting operational plans. While there has been a steady increase in communities that have urban forest inventories and associated plans, two-thirds of Wisconsin communities still lack an inventory of their resource.

DIVISION OF FORESTRY'S ROLE

The Division's role in urban forestry is that of a facilitator to bring interests together and build partnerships to advance urban forestry as practiced by local communities, private sector specialists, and community organizations. The Division will shift emphasis from a public "street tree" model to an integrated "community canopy" model that better reflects how it can maximize the public benefits from all trees and forests in our communities. The Division helps establish and advocate for best management practices in coordination with partners.

The Division is best positioned to help maximize the public benefits of urban forests by focusing on large landscapes like multiple communities which, depending on the issue or program, could involve communities across several counties, a group of small communities, metropolitan areas, or statewide initiatives. By shifting our emphasis from managing at the street tree level to managing urban forests at the community canopy level (i.e. considering all trees within a community – street, yard, park, and so on), we are able to provide more assistance to more communities than the limited direct assistance we are able to provide individual communities currently. The community canopy model is better aligned with the goal of maximizing public benefits because it features the entire urban forest, both publicly and privately held, managed for the full suite of associated benefits. By using geographically based inventories and assessments, assistance will be focused on multiple communities' relevant needs, opportunities, and resources which may be distinct compared to other areas. Direct assistance to individual communities will be reduced in favor of developing partners, such as non-profit organizations, private arborists, and urban forestry consultants, to provide service at that level instead of the Department.

Program Change: The Division will focus assistance at a multi-community scale and will do less individualized local program delivery. (UF-1)[§§]

We will work to enhance public/private partnerships to provide assistance to municipalities to invest in their urban forest canopy. We will significantly increase the current investment in partnerships to support building local capacity and finding creative ways, such as private/public foundations, to fund initiatives. Increased support is intended for partners to reach the public and increase market demand for quality urban forestry practitioners. This is reflective of our role at the canopy level to enable others to do the work at the ground level.

Program Change: The Division will increase the focus on developing broad scale partnerships and funding methods to enable communities, regional planning commissions, tribes, foundations, non-profits and professional organizations to add value to urban forests. (UF-2)

Urban forestry grant funding is maintained at the current level. We will seek to revise grant rules to enable larger grants at a multiple community scale to achieve broad canopy objectives and benefit from economies of scale. Individual communities will not be excluded from the grant program; however, we will work to engage more communities in a more efficient manner, reducing administration and increasing outcomes.

Maintain Program: The Division will maintain the urban forestry grant program at current levels and encourage multi-community partnerships, to leverage local resources. (UF-3)

A continuous urban forest inventory and canopy analysis better equips urban forest managers to set resource goals, identify new threats, measure initiative results and quantify benefits to the public. We will work to develop tools and databases to aggregate community level inventories, evaluate data to help prioritize multi-community efforts and inventory urban wood resources for utilization. These services help build the capacity of communities and increase their ability to manage efficiently.

Program Change: The Division will increase investment to help create and support a statewide inventory and assessment of the urban forests of Wisconsin to provide best available data for program planning and prioritization of efforts. (UF-4)

General public awareness will be supported primarily through our participation in the Arbor Day Foundation's Tree City USA and related programs. In the next two years, we will be

[§§] This is the reference code for this intention statement. UF stands for Urban Forestry and this is the first (1) statement within this program.

conducting a specific assessment and strategic plan for the Division's roles in education and outreach for all programs, including urban forestry. At this point it is uncertain what specific urban forestry outreach and education we will be involved with but there will be a decreased investment by program staff and partnerships will play a critical role.

Program Change: The Division will decrease investment in outreach and education initiatives. The Division will focus on partnerships that can provide services and tools to local governments and organizations working in small communities and those without active urban forest management. (UF-5)

UTILIZATION & MARKETING (UM)

Commercial markets for forest products provide over 60,000 jobs throughout the state and allow Wisconsin's landowners to realize economic benefits as part of managing forests. Wisconsin remains the number one paper producer in the nation, a position it has held for over 50 years. Growing domestic and international demand for certified wood products from sustainably managed forests has helped stabilize the paper and solid wood sectors in the Great Lakes region due to a concentrated supply relative to the rest of the country.

CHALLENGES AND OPPORTUNITIES

The forest products industry is expected to recover from the decline experienced in the recession, but not necessarily with the same mix of commercial products as before. The industry is in transition and new markets for certified wood, biomass and bio-fuels are likely to influence growth opportunities. Diverse markets are emerging such as urban wood waste and expanded international opportunities. Many small businesses will be challenged because they do not have the expertise to effortlessly transition into new markets and have limited technological capacity and minimal funds to invest in capital development. The stable supply of certified wood products in the state will continue to reinforce the state's competitive advantage. The state's forest products industries benefit from research and education regarding new markets, regulatory procedures, and ideas for forest-based economic development.

DIVISION OF FORESTRY'S ROLE

The Division's role in marketing & utilization of forest products is to facilitate the ability of the private sector to use the state's wood resource in an efficient, effective and sustainable manner, maximizing wood's contribution to Wisconsin's economy. The Division will increase its capacity to provide assistance to wood-producing and wood-using companies around the state and maintain its capacity to assess the condition of the state's forest resources.

In order to maintain a strong, competitive and diverse forest industry in the state, we will increase the investment in efforts that provide industry analysis, information and guidance regarding forest resource availability and demand, market trends and opportunities (both local and international), harvesting and transportation efficiencies, and manufacturing process improvements. All of these efforts help industry retain markets and develop and enter new markets. Emphasis will shift to providing direct assistance that is better tailored to region-specific industries. All elements in the chain from woods to final product will be incorporated in this work from logging to hauling to manufacturing and value-added processing. A strong and diverse industry drives the markets for forest products which then provide the economic incentive for sustainable forest management, helping to keep forests in forest.

Program Change: The Division will increase investment in utilization and marketing expertise to assist existing and new forest industries to retain markets and develop new markets. (UM-1)[***]

The Forest Inventory and Analysis (FIA) is a program that provides geographically based information regarding forest composition, change, production and ownership and tracks that data over extended periods of time. This information helps many agencies, organizations and companies identify market opportunities and prioritize their efforts. Continuing to invest in the FIA program will encourage sound planning and decision-making by public and private landowners in Wisconsin. Most importantly, the historical data allows for comparisons to present conditions which enhance our ability to analyze whether forest management practices and policies are sustainable.

Maintain Program: The Division will continue to invest in the forest inventory and analysis (FIA) at the double intensity level, ensuring its continued ability to use the information at a sub-state scale. (UM-2)

[***] This is the reference code for this intention statement. U&M stands for Utilization & Marketing and this is the first (1) statement within this program.

CROSS-PROGRAM ACTIVITIES (CP)

There are many important activities that critically support our programs but do not fit into just one of the program areas. These activities either help make possible the accomplishment of multiple programs, or are issues that several programs work collectively to address.

CHALLENGES AND OPPORTUNITIES

We work in partnership to evaluate and develop policy on cross-program issues such as deer management, climate and energy. The impact of these issues on forest sustainability is an important consideration in the process of developing policy and communicating with our partners and publics.

The importance of programs that provide service to the entire Division can not be undervalued. Investments are needed in several functions (e.g., training, information technology) to effectively manage the work within all programs. Furthermore, opportunities exist to capitalize on the growing capabilities of information technology to both improve service delivery to the public and increase the efficiency of doing our work. A related challenge is the cost of investing in these tools to help fully realize their potential to generate savings in time spent serving our customers.

DIVISION OF FORESTRY ROLE

Following is a series of intent statements pertaining to several key areas of cross-program work. Although most of these program areas are small, the investment we make in them is very important to ensuring we can achieve the goals outlined in this Strategic Direction.

Forest Sciences

Science is the foundation for much of our work. Although incorporated throughout, the focus of this function is specialized expertise that serves our program work and our internal and external partners. It should be noted that one of the programs detailed earlier, forest health, was discussed separately due to its size. Like entomology and pathology (forest health), silviculture/forest ecology and hydrology are important components of our work across all land ownerships.

We will expand our existing genetics program to adapt the quality and quantity of tree species to changing environmental conditions. The program will emphasize genetic research on a wider variety of species as well as expand into testing seedlings for adaptation and gene conservation.

We are increasing our investment in forest economics in light of the critical role forests play in the state's economy and the impact economic drivers have on forests themselves.

As the Karner Blue Butterfly Habitat Conservation Plan (an endangered species support partnership) has matured, the demands on the department have lessened, creating an opportunity to continue realizing efficiencies in that program, shifting resources from that effort over time to address other priority needs.

Program Change: The Division will maintain current investments in silviculture/forest ecology and forest hydrology. An increased investment will be made in genetics and forest economics, whereas a reduction will occur by streamlining the Karner Blue Butterfly Habitat Conservation Plan implementation, reflecting its maturation. (CP-1)[†††]

Research

Research informs our work to address specific issues. Research is a partner-based effort with the universities and other organizations. We invest in both internal DNR research capacity and other research institutions, most notably the University of Wisconsin. This work is varied and on multiple topics ranging from adaptation of forests to changing conditions to regeneration challenges for economically important tree species to the impacts on forests caused by changing land ownership dynamics. One area of emphasis will be to contribute information to the debate over deer management. Our role in this complex issue is to invest in the growing research that analyzes the ecological, economic, and social effects deer have on forests.

Program Change: The Division will modestly increase funding for research to support informed decision-making. The Division will continue to work with internal and external partners to assess priorities for research on ecological, economic and social aspects of forestry. (CP-2)

IT & GIS

Information technology (IT) and geographic information systems (GIS) increasingly play a role in effective program implementation. Opportunities exist to more effectively deliver service to our customers and more efficiently accomplish our work through the implementation of new technology and applications. We are in the midst of a major IT/GIS initiative (WisFIRS) that will improve our systems for managing public and private forest lands. Once complete, this application will create efficiencies in the work the DNR and partner organizations do on the land. Furthermore, increased use of the web will reach our customers and the general public in a more effective manner.

Program Change: The Division will significantly increase its investment in IT and GIS to support all Division programs. (CP-3)

Outreach & Education

Effective public outreach and education is an important tool to implement our programs effectively. An assessment of our existing outreach and education programs is needed to evaluate how to make a more efficient investment that addresses all aspects of forestry, rural

[†††] This is the reference code for this intention statement. CP stands for Cross-Program Activities and this is the first (1) statement within this program.

and urban. One key component of this work will be to clearly define our role in reaching and educating private forest landowners.

Assess Program: Within the next two years, the Division will invest resources to assess the Division's role in outreach and education on the protection and sustainable management of Wisconsin's forests. A specific strategic direction, planned with the input of staff and partners, will guide the Division's future outreach and education work and investments. (CP-4)

Hiring & Training

We will assess our training needs and develop a professional training standard for new and current employees. We will work with the many other organizations that help deliver and receive training with the DNR to develop the most effective and efficient ways to provide training opportunities.

Maintain Program: The Division will continue our commitment to hiring quality employees, ensuring we have a trained and professional workforce, and supporting leadership development and succession planning. (CP-5)

Cross Program Policy Analysis

Issues we are likely to be involved in addressing over the next five years include biomass production, renewable energy sustainability, transportation, deer management, carbon markets, and climate adaptation and mitigation. In this work, we will work closely with partners to gather input and assess how policy alternatives might affect Wisconsin's forests and the benefits they provide.

Program Change: The Division will increase investment in policy analysis to address the acceleration of forestry issues that have a significant impact across program areas and at both the state and federal level. (CP-6)

Forest Certification

Independent third-party forest certification has created a competitive advantage for Wisconsin forest products companies to gain and/or maintain access to markets. This has been particularly important in the increasingly globally competitive marketplace. Certification has also provided a mechanism to receive feedback from outside experts that we will continue to use to improve our management of both programs and forests.

Maintain Program: The Division remains committed to its investment in third-party certification of state lands, county forests and the Managed Forest Law. (CP-7)

Energy Efficiency

We manage many facilities such as ranger stations, nurseries, recreation sites, and offices. We recognize the economic and environmental importance of increasing our efficient use of energy and prioritizing project implementation accordingly.

Program Change: The Division will invest in energy audits of our facilities and pursue energy efficiency in the design of new facilities. (CP-8)

Assistance to other Divisions

We receive valuable assistance from other DNR programs to implement an array of priority activities. This assistance comes in the form of expertise (e.g., wildlife biologist, water resource specialist) and functional assistance (e.g., filling positions on our Incident Management Teams used in emergency response). We also provide a variety of services to the whole department such as radio communication support, aerial surveys by our pilots, and assistance with prescribed burning on state lands. We will maintain our investment in assisting other programs. We will work with them to identify how we maximize the value we provide. Similarly, we will work with those programs to identify priority activities for which they assist the Forestry Division.

Maintain Program: The Division will maintain our current level of assistance to other DNR programs and continue to work on collaborative projects. (CP-9)

APPENDIX – DIVISION PROGRAMS & STRATEGIES ADDRESSED

The following table shows which strategies and goals from the Statewide Forest Strategy are addressed by Division of Forestry programs. The 'X' in each cell reflects that the program in some way will implement aspects of a goal or strategy. For example, Strategy A.1 states: "Encourage planting to enhance, protect, and connect larger tracts of forested land in appropriate locations consistent with ecological landscapes." The county, state lands, and private forests programs (marked with an 'X') plant trees that are appropriate for the ecological landscape and the public lands in particular work to keep large tracts of forest. The nurseries program (marked with an 'X') supplies counties and state lands with planting stock for reforestation. Some of the programs will influence strategies more dramatically than others. After the Division implements the Strategic Direction, work will be done to evaluate the Division's performance on achieving the strategies.

Statewide Forest Goals (letters) & Strategies (#'s)		Division of Forestry Programs								
		County Forests (CF)	Fire Protection (FP)	Forest Health (FH)	Nurseries (N)	Private Forests (PF)	State Lands (SL)	Urban Forests (U)	Utilization & Marketing (UM)	Cross-Program Activities (CP)
(A) FOREST LAND - The amount of forest land increases and is focused in desired landscapes.		X			X	X	X			X
1	Encourage planting to enhance, protect, and connect larger tracts of forested land in appropriate locations consistent with ecological landscapes.	X			X	X	X			
2	Reduce the rate of conversion of forestland to alternative uses.	X				X	X			X
(B) PARCEL SIZE - The rate of forest land parcelized is reduced.		X				X	X			X
3	Reduce the rate of ownership parcelization of large forest blocks (i.e. greater than 500 acres).	X				X	X			X
4	Reduce the rate of ownership parcelization of small forest blocks (i.e. less than 500 acres).	X				X	X			X
(C) LARGE BLOCKS of FORESTS - Large blocks of forest are maintained/increase.		X				X	X			X

	Statewide Forest Goals (letters) & Strategies (#'s)	County Forests (CF)	Fire Protection (FP)	Forest Health (FH)	Nurseries (N)	Private Forests (PF)	State Lands (SL)	Urban Forests (U)	Utilization & Marketing (UM)	Cross-Program Activities (CP)
5	Pursue the conservation and protection of large, unfragmented blocks of forest lands.	X				X	X			X
(D) LANDSCAPE SCALE MANAGEMENT - An increasing amount of land management at small scales is in alignment with landscape scale plans.		X				X	X			X
7	Increase the functional size of forest blocks by encouraging coordination of management of clusters of forest ownerships.	X				X	X			X
(E) SUSTAINABLY MANAGED FOREST - The percentage of sustainably managed forest land will steadily increase.		X				X	X			X
8	Encourage a tax structure that favors well managed forests.					X				X
9	Increase acreage of privately owned forests managed based on generally accepted forest management practices.					X				
10	Increase acreage of publicly owned forests managed based on generally accepted forest management practices.	X					X			
(F) IMPROVING FORESTED COMMUNITIES - Improve all forest communities and increase in quality and extent forest communities that are under-represented.		X		X	X	X	X			X
11	Encourage the management of under-represented forest communities.	X				X	X			X
12	Improve all forested communities with a landscape management approach that considers the representation of all successional stages.	X				X	X			X
13	Increase forest structure and diversity.	X				X	X			X
14	Encourage the use of disturbance mechanisms to maintain diverse forest communities.	X	X			X	X			X

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	(G) LANDSCAPE SCALE PLANNING - More forest land is being managed and protected under landscape scale plans, or consistent with landscape scale considerations. Management on the ground is increasingly being made within the landscape scale context.	X		X	X	X	X			X
15	Maintain the appropriate forest types for the ecological landscape while protecting forest health and function.	X		X	X	X	X			X
16	Encourage multi-state landscape scale planning.									X
	(H) DEER - Deer populations are managed to protect and enhance forest ecosystem functions while considering the full balance of impacts.	X		X		X	X			X
17	Increase scientific knowledge needed to understand the economic, ecological and social impacts of various deer populations (and associated deer herbivory) on forests.			X						X
18	Encourage the forestry community to be engaged in deer management issues with an understanding of the long term significance of deer impacts on sustainable forestry.			X						X
19	Adapt forest management practices to sustainably manage forests with locally high deer populations.	X				X	X			
	(I) URBAN - Urban forests are more species diverse with greater tree canopy.							X		X
20	Characterize and assess urban and community forests.							X		X
21	Expand and manage a diverse urban tree canopy cover to provide multiple public benefits.							X		X
	(J) INVASIVES - The spectrum of native and exotic invasive species is being addressed to minimize loss of forested ecosystem functions.	X		X		X	X	X		X

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22	Strive to prevent infestations of invasive species before they arrive.	X		X		X	X	X		X
23	Work to detect new infestations early and respond rapidly to minimize impacts to forests.	X		X		X	X	X		X
24	Control and management of existing infestations.	X		X		X	X	X		X
25	Rehabilitate, restore, or adapt native forest habitats and ecosystems.	X		X		X	X	X		X
(K) BIOMASS - Forests provide raw materials for energy and traditional forest products at a level that sustains forest ecosystems and the productive capacity of the land. Use of woody biomass for energy is done in a way that produces a high energy return on biomass input.		X				X	X		X	X
26	Collect information and develop policy to ensure efficient and sustainable use of our forest resources in regards to energy production								X	X
27	Encourage establishment of sustainable renewable energy industries (or use of renewable energy by industries) which use woody biomass while improving or maintaining the health of the existing forest products industry								X	
(L) ADAPTATION - Forests are established and managed in a manner that increases their resilience and ability to facilitate adaptation of associated species and communities to changing climatic conditions.		X		X	X	X	X			X
28	Seek to understand the probability and severity of future climate change impacts			X						X
29	Attempt to improve the defenses of the forest and increase the resilience of natural systems to future climate change impacts	X		X		X	X	X		X
30	Intentionally accommodate change and enable forest ecosystems to adaptively respond.	X				X	X	X		

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31	Realign forest ecosystems to new conditions caused by climate change.	X				X	X	X		
	(M) MITIGATION - Forests will increasingly be used as a tool to mitigate climate change.	X	X			X	X	X	X	X
32	Manage the forest ecosystems (rural and urban) to sequester additional carbon while retaining the abundance of other benefits forests provide.	X				X	X	X		X
33	Reduce green house gas emissions by substituting wood for products that have a more energy intensive carbon footprint (i.e. non-wood building materials such as steel and concrete).								X	X
34	Utilize best management practices to minimize emissions from forest-based activities and production.	X	X			X	X	X		
35	Increase the awareness of carbon markets by private forest landowners and facilitate their participation in established carbon markets.					X				X
36	Ensure that climate policy reflects the potential positive contributions that forest conservation and sustainable management can make to achieving substantial net reductions in greenhouse gas emissions.									X
	(N) FOREST VALUE - Forest ecosystem services have economic values that are realized and managed to maximize the benefits to society and improve quality of life. (Ecosystem services are functions performed by natural ecosystems that benefit human society, such as hydrological services, protection of the soil, biomass, carbon sequestration, habitat for wild species, and recreation opportunities.)	X				X	X	X	X	X
37	Invest in forest conservation to contribute to a strong economy and provide clean water and air, wildlife, and other ecosystem services.	X				X	X	X		

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38	Encourage communities to invest in their urban forest canopy as part of a long-term plan for a community's quality of life.							X		X
39	Build public understanding about the benefits provided from investing in forest conservation.					X				X
(O) MARKETS - Wisconsin is a hub of green forest product markets, producing a diversity of value added solid wood, fiber, energy and ecosystem services.									X	X
40	Support existing forest products companies so that they are competitive domestically and internationally.								X	
41	Encourage the development of new markets and companies that leverage sustainable (e.g. third-party certified) supply and ecosystem services in emerging markets.								X	
(P) CAPACITY - Forest management/protection providers, business, and other organizations in the forestry community have increased capacity to protect and sustainably manage forests.		X	X	X	X	X	X	X	X	X
42	Develop collaborations and partnerships to engage all forestry stakeholders	X	X	X	X	X	X	X	X	X
43	Increase the number of students who enter forestry related studies or a forestry profession in order to recruit and hire high quality and diverse individuals									X
44	Increase the number of private businesses (loggers, cooperating forester firms, tree planters, arborists, timber stand improvement contractors, etc.) that provide high quality goods and services to effectively and efficiently reach more forest landowners and sustainably manage more forest.								X	X

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	(Q) RECREATION - Diverse recreational opportunities are available and have minimal impacts on forest ecosystems.	X				X	X			X
45	Plan for a range of recreation opportunities at a statewide level suitable to the capability of the land and with minimal long term impacts.	X					X			X
46	Provide sustainable recreation opportunities on forested public lands.	X					X			X
47	Increase the acreage of lands open to public recreation in areas where public land is not abundant.					X				X
	(R) FIRE, SAFETY, AND LAW ENFORCEMENT - Human life, property, and forest resources are at reduced risk of harm or loss.	X	X			X	X	X	X	X
48	Improve safety for the forest-based workforce and forest users.	X	X			X	X	X	X	X
49	Provide for early detection and rapid initial attack for all forest fires within the state.		X							
50	Reduce wildland fire ignitions and minimize loss from fire.		X							
51	Protect the public and natural resource from unlawful practices.		X				X			X