

# School Trust Lands

## Analysis of Funding Mechanisms for Private and Public Use

Laws of Minnesota 2010, Chapter 361, Article 4, Section 70 (b)

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### **Report preparation costs**

The report cost approximately \$4,000 to prepare. Funds that the legislature appropriated for real estate management activities and other appropriations were used to prepare this report.

## INTRODUCTION

The information enclosed in this packet is being submitted pursuant to Laws of Minnesota 2010, Chapter 361, Article 4, Section 70(b). Laws of Minnesota 2010, Chapter 361, Article 4, Section 70(b) states:

*By January 15, 2011, the commissioner of natural resources shall provide an analysis to the chairs of the house of representatives and senate committees and divisions with primary jurisdiction over natural resources finance and education finance and the Permanent School Fund Advisory Committee on the advantages and disadvantages of having a funding mechanism for compensating the permanent school fund for private and public use of school trust lands.*

The information is presented in two sections corresponding to the legislative mandate to provide advantages and disadvantages of mechanisms to compensate the trust for public and private use of school trust lands.

Section 1 deals with public funding mechanisms for the public's use of school trust lands. This includes an analysis of charging a lease fee to the DNR for public use of school trust lands and an analysis of charging users of school trust lands for recreation, hunting, and other activities.

The school trust lands were granted by the federal government starting at the time of statehood<sup>1</sup> and since that time these lands have been considered public lands and have been open to public use without charge. Many of the lands were quickly sold, with the remaining lands open to public access unless restricted due to activities such as mining or timber removal. Thus, when the lands are being used in an activity that generates revenue, the public access is restricted in favor of the revenue generating activity. Otherwise the school trust lands, as other lands owned by the state, have remained open to public access.

The DNR has continually made investments into these lands so that they could be used for recreational purposes. There will likely be strong concerns from the public regarding the implementation of a public funding mechanism for outdoor recreation use of trust lands; whether it is in the form of a lease with the State of Minnesota or a user fee.

It should also be noted that any lease fee to the school trust fund would require an appropriation of funds. Such an appropriation would take funds from other state programs and transfer them to the school trust. If a lease fee was required to be paid out of the DNR Game and Fish Fund, a user fee would likely be necessary – essentially a fee increase for hunters and anglers.

Section 2 deals with private funding mechanisms for use of the school trust lands. A private funding mechanism is when a specific person is charged for the use of a specific parcel of school

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<sup>1</sup> “There are some distinctions among states in the restrictions contained in federal enabling acts and state constitutions accepting the school land grant. Minnesota illustrates the simple conditions attached to the federal land grant in states admitted to the Union before the mid-1880s. The federal government simply provided the land “for the use of schools.” In contrast, the federal government attached detailed restrictions on school land grants made after the 1880s. Arizona’s Enabling Act, for instance, requires that land may be sold only at public sale, after advertising, and at not less than the fair market value, and rental revenues from trust land must be deposited into the permanent fund.” Office of the Legislative Auditor, Report # 98-05, School Trust Lands, p. 5 (St. Paul 1998).

trust lands, rather than charging the public as a whole. Many private funding mechanisms are already in place in the form of leases, licenses, and easements. The funding mechanisms that are discussed in Section 2 are areas where opportunities for increased revenues may exist.

## **SECTION 1A – Lease of School Trust Lands to the State of Minnesota**

### **1A.1 Public Leasing of School Trust Lands for Recreational Access by the Public**

One potential funding mechanism for compensating the permanent school fund could be leasing of the school trust lands for recreational access by the public. It should be noted that not all of the school trust lands in Minnesota can be accessed for recreation or hunting. Much of the Minnesota school trust land acres have limited use because of wetland or bog conditions and/or have lack of public access. The most relevant examples of a lease approach are found in Colorado and Utah.

Trust lands in Colorado total about 3 million acres. In October of 2005, the Colorado Board of Land Commissioners entered into a seven year lease with the Colorado Division of Wildlife. The lease authorizes public access to about 550,000 acres of school trust lands which were not open to the public prior to the lease. The lease agreement opens the land for public hunting, fishing, and other wildlife-related activities during specified times of the year.

More specifically, the Colorado lease provides for:

- Lands being available for use for wildlife-related public recreation from August 1 to February 28, unless otherwise authorized by law;
- Lands with identified fishing recreation values may be open year round under an approved access management plan;
- Lands with significant wildlife watching opportunities may be opened during March through August with an approved access management plan;
- Motorized vehicle use is limited to designated roads; otherwise access is by foot or horseback except where specifically authorized;
- Camping and fires are prohibited except as specifically authorized; and
- Use is limited to the time within ½ hour before sunrise to ½ hour after sunset.

The Colorado lease provides for a base rent of \$1.43 per acre per year, subject to escalation. For the first two years, the Division of Wildlife is credited with 1/3 of the rental to offset initial management costs. Thereafter, 30% of the rental payments will go into an Enhancement Account, with 5% for signage and maintenance of the properties, and 25% to manage the property for personal property damage and clean-up, land damage, land enhancement and other land uses. The lease raises about \$550,000 per year for the trust fund.

Trust lands in Utah total about 3.4 million acres. In February 2007, the Utah School and Institutional Trust Lands Administration entered into a 10 year memorandum of agreement with the Utah Department of Natural Resources, Division of Wildlife Resources. The agreement provides for compensation for the school and institutional trust beneficiaries for public access for hunting, fishing, trapping, and viewing of wildlife. Unlike the Colorado lease, the Utah agreement does not transfer any management or decision-making authority. The trust also agreed to renew two grazing permits issued to the DNR.

The Utah agreement provides for annual payments. The 2007 payment was \$500,000, subject to a compounded 5% annual increase. The payment would be reduced in the event that the trust sold land or closed lands to public use due to other leasing activities. Due to their budget deficit, the Utah DNR was only able to pay \$250,000 of the \$551,250 rental payment due for 2009 and

\$250,000 of the \$578,812 rental payment due for 2010. It is expected that the full payments for 2011 and 2012 will be made.

### **Advantages**

- Opportunity for revenue to the permanent school fund without any need for physical changes or alterations on the land; the public is already using the land for public recreational activities.
- Education opportunity for the public, providing a clear picture that the state has fiduciary responsibilities as to the school trust lands.

### **Disadvantages**

- A contract would need to be negotiated and agreed to.
- Administrative cost and time for entering into the agreement and maintaining agreement terms.
- The state would have to find a funding source to pay the school trust for the access to the lands. Funding sources could include increases in hunting licenses, a new public land access fee charged to the public, a transfer of funds from the game and fish fund, natural resources fund, or the general fund. This would mean higher costs borne by the public for the access to the lands that they have accessed since statehood for free.
- State expenditures would be shifted from other state funds to the permanent school fund. If no new revenue is generated activities funded by other state funds would be diminished.
- In times of budget deficits, the obligation for payment might not be met.

## **1A.2 Grant-in-Aid (GIA) Trails on School Trust Lands**

There is currently a process in place to compensate the school trust for grant-in-aid trails that cross school trust lands. GIA trails include the following types of trails: all-terrain vehicles (ATV), off-highway vehicles (OHV), off-road vehicles (ORV), snowmobile, and cross country skiing. For permits authorizing use of school trust land, the DNR Parks & Trails Division pays into the forest suspense account the charge that would have otherwise been imposed had this land been leased for trail purposes from the school trust. This arrangement is comparable to the lease options discussed in Section 1A.1 above.

GIA trails currently pay \$30 for every 40 acre parcel that a trail comes in contact with regardless of whether the trail traverses the entire parcel or a short distance across a corner. Rates are determined by the Division of Lands and Minerals. Recent rate history is: FY 06 - \$24/forty, FY 07 - \$26/forty, FY 08 to the present - \$30/forty.

GIA trails are primarily for trail use by motorized vehicles, however many dedicated trails such as hunter walking and hiking trails do not pay a fee to cross school trust lands. Consideration could be given to requiring permits and the collection of fees for these dedicated trails.

### **Advantages**

- Additional revenue to the school trust is provided for each parcel used for GIA.
- This practice displays a clear example of the DNR's implementation of the state's fiduciary responsibilities to the school trust.

## **Disadvantages**

- A fairly extensive trail network currently exists. There is limited potential for expansion of this revenue opportunity.

## **SECTION 1B – User Fees**

Another potential funding mechanism for compensating the permanent school fund would be the imposition of user fees. The following is an analysis of fees that could be charged to individual citizens for the use of state lands. A variety of user fees that could be charged are discussed below. Any of the user fees discussed below could be used to compensate the school trust for the use of the school trust lands by the public. Charging any of the fees discussed below raises some general issues common to any fee.

A fee could be charged only to users of school trust lands, but not other state lands. If a fee is charged only for the use of school trust lands, it may be difficult for a person to determine whether a fee is required to be paid because of the interspersed nature of school trust lands. This may cause some people to pay the fee even if they don't use school trust lands and may cause others to not pay the fee even though they do use school trust lands. This may also cause an issue for enforcement because of the different requirements of school trust versus non-school trust lands.

If the fee is charged to all users of state land, there will be people who do not use school trust lands that will be opposed to paying such a fee. For example, a person that uses public land in the southern part of the state, where the amount of school trust land acres is minimal, may never use school trust lands and therefore be reluctant to pay such a fee.

However, if a fee is charged to all users of state land, the issue of paying a fee but not using school trust lands could be overcome by distributing the fees to the school trust fund pro-rata based on the amount of school trust lands compared to all state land. This pro-rated amount could be based on total acres or only on acres that are available for hunting and recreational use. Much of the school trust lands acres have limited use because of wetland or bog conditions and/or have lack of public access.

Montana currently is the only state we are aware of that charges a fee for the use of public lands for hunting or recreational use. The Montana Department of Natural Resources and Conservation estimates that 96-97% of the recreational use of public lands is for hunting and fishing. Montana charges a state land recreation permit fee of \$2 that is a prerequisite to any hunting and fishing license purchased. This fee is collected to compensate the school trust for the value associated with use of state lands. This fee is charged regardless of whether the person uses any state land. In Montana almost all of the state land is school trust lands. When this program was introduced in 1992 there was a graduated fee scale depending on the age of the license holder and the fee ranged up to \$10. After numerous complaints from hunters and anglers about the high cost, the state settled on a flat fee of \$2. In FY09 \$922,613 was generated from 461,307 licenses charged at this rate.

The 3-4% of recreational use of state land in Montana that does not involve hunting and fishing licenses requires citizens to have a State Land Recreation Use Permit which is charged at a different rate; this annual rate ranges from \$5 for youths and seniors to \$10 for other individuals to \$20 for family. This fee is required to be paid only when using state land for a purpose that does not involve hunting and fishing. The Montana State Land Recreation Use Permit is required for anyone conducting a non-commercial activity on State Trust Lands not related to hunting and fishing. Applicable non-commercial activities include, but are not limited to, hiking, skiing, sightseeing, and day horseback use. In FY09 \$82,176 was generated from 8,136 licenses charged at these rates.

### **1B.1 Recreational Use Pass**

A permit for recreational use of state lands (ie. a Recreational Use Pass) could be required for individual citizens to use state lands for any purpose. This permit could be similar to the State Land Recreation Use Permit used in Montana and be required by anyone conducting non-commercial activity on state land, including hiking, skiing, sightseeing, and day horseback use. A recreational use pass could also be required by hunters that hunt on state land, in addition to the required hunting licenses.

The DNR manages approximately 5.5 million acres within the state for multiple benefits. Approximately 2.5 million acres of this land is school trust lands. Nearly all DNR administered lands are open to the public. DNR management activities support and/or provide a background for a wide variety of recreation activities. A fee for the use of all state land could be required, in which case the revenue could be divided proportionally between school trust lands and other state lands. Alternatively, a fee could be required only for the use of school trust lands.

#### **Advantages**

- Annual gross revenue potential, assuming Minnesota follows the Montana model and charges the average annual fee of \$10 and minimum sales of 250,000 permits, could equal \$2.5 million.
- Estimated revenue to the school trust fund is \$900,000. This number assumes costs of 20% for collection and that 45% of the net revenue is attributable to school trust lands. (45% is the approximate percentage of DNR administered land that is school trust lands.)

#### **Disadvantages**

- Collection costs (administration and enforcement) estimated at 20% of gross or \$500,000. (Collections costs of \$225,000 charged to the school trust fund if it is assumed that 45% of the revenue is attributable to school trust lands by acreage.)
- Implementation would require legislative action.
- Enforcement costs. Penalty and fine collection.
- Potential negative public response from parties that believe they are guaranteed the right to enter onto publicly owned land, and do not want to pay a fee for an activity that currently does not require a fee.



## **1B.2 User Fee on Hunting Licenses**

In Minnesota, there were roughly 580,000 unique license buyers who purchased hunting licenses in 2009. If a fee was charged to each licensee, each dollar could generate a total of \$580,000 for the school trust annually. If the revenue from such a fee is pro-rated between school trust lands and other state owned lands the school trust would receive less. Such a fee could be mandatory or voluntary as is the case with the State of Minnesota Walleye Stamp.

### **Advantages**

- Monetary benefit to the school trust fund for the use of public lands.
- Each dollar user fee would generate approximately \$580,000 (2009 license figures).
- Implementation of a user fee for public hunting on school trust lands would have low administrative costs associated with the program.

### **Disadvantages**

- Many hunters never use school trust lands, but would be paying a new fee for use of public land.
- Legislative authorization would be required to begin this program.
- Enforcement costs. Penalty and fine collection.
- Potential negative public response from parties that believe they are guaranteed the right to hunt on publicly owned land, and do not want to pay a fee for an activity that currently does not require a fee.

## **1B.3 User Fee on ATV and Snowmobile Registrations**

A user fee charged to other recreational users such as ATV and snowmobile owners could also generate revenue for the school trust. There were approximately 520,000 annual registrations for ATV and snowmobile owners in 2009. If a school trust land fee was charged to each registration, each dollar would generate a total of \$520,000 for the school trust annually. It should be noted that much of the use of school trust lands by ATV and snowmobile users is compensated for through the Grant-in-Aid (GIA) program. (See Paragraph 1A.2 above.)

### **Advantages**

- Monetary benefit to the school trust fund for the recreational use of state owned lands.
- Each dollar user fee would generate \$520,000 (2009 registration figures).
- Implementation of a user fee for ATV and snowmobile registration would have low administrative costs associated with the program.

### **Disadvantages**

- Legislative authorization would be required to begin this program.
- A set fee would not reflect change or inflation in the “value.”
- Potential negative public response from parties that believe they are guaranteed the right to use publicly owned land, and do not want to pay an additional fee. Since ATV and Snowmobile owners already pay a registration fee any additional fee could be seen as double payment for the same privilege.
- Much of the use of school trust lands by ATV and snowmobile users is compensated for through the Grant-in-Aid (GIA) program.

- Enforcement costs. Penalty and fine collection.

#### **1B.4 Public Water Access Site Use Fee**

##### **Background:**

Currently there are no fees collected for the use of school trust lands as public water access sites, with the exception of the Knife River Marina and Public Water Access on Lake Superior in Lake County. This facility is administered by the Parks and Trails Division with an annual lease fee of \$36,000 paid to the school trust fund. (This property became school trust land in 2001 through the lakeshore lease lot exchange program.)

A number of school trust land parcels have been purchased (through a condemnation action) at fair market value for use as a public water access sites beginning in the early to mid 1990's.

##### **Revenue Generating Options – No User Fee:**

- Purchasing the public access sites currently on the school trust lands is an option to consider. Purchasing the sites at fair market value would be extremely expensive for the public water access program. Total value of all school trust lands being utilized by the public access program is estimated to be between 15 and 25 million dollars, assuming there are 100 sites.
- Leasing the school trust lands, following current DNR leasing guidelines, would mean an annual lease fee of 6 percent of the land value. Making the assumption that there are 100 access sites on Trust land and the average value per access site is \$150,000; the total annual lease payment to the school trust fund might be \$900,000. This amount of payment for leasing rights may not be a good long term sustainable solution as the DNR's public water access program would over time pay more in lease payments than what the value of the lands are.
- Another alternative to consider is providing a permit similar to what DNR policy requires for grant-in-aid trails. At current trail permit rates the annual revenue generated for the school trust would be approximately \$3,000. (\$30 X 100 sites).
- Land exchange opportunities may also exist to result in revenue generating parcels.

##### **User Fee**

User fees could be considered as a possible method to generate revenue for the school trust. A \$1 surcharge on the current boat registration fee would generate about \$816,000 based on there being 816,000 registered boats in 2009. This option would assess a fee even though the boat owner may not use a school trust land water access site. It may be more appropriate to charge a fee to users of water access sites that are on school trust lands.

A fee could also be imposed for parking a car at a water access on school trust lands. This fee would require people that use a water access site on school trust lands pay a fee regardless of whether they own a boat.

##### **Advantages**

- Opportunity for additional revenue to the school trust fund.

- Education opportunity for the public, providing a clear picture that the state has fiduciary responsibilities as to the school trust lands.

### **Disadvantages**

- Administrative costs to collect fees.
- Enforcement costs. Penalty and fine collection.
- Public confusion between which sites are trust and non-trust, and when the fee is required to be paid.
- Legislation would be needed, with uncertain outcomes.
- Public opposition to more fees.
- This option has challenges associated with the administrative costs to collect fees, enforcement costs, and a likely push back from the boating public.

## **SECTION 2**

### **2.1 Hunting Leases on School Trust Land**

A potential funding mechanism for compensating the permanent school fund for private use would be exclusive hunting leases. Private landowners, such as Potlatch, have been leasing some of their land holdings for exclusive hunting rights.

Not all of the school trust lands would be suitable, or accessible, for hunting leases. However, leasing hunting rights on a portion of the current trust acreage could generate significant additional revenue to the school trust fund.

For example, a leasing program applied to 20% of Forestry administered trust land might lease one forty acre parcel within each square mile of trust land. If managed in a way that it did not interfere with access, this amount of leasing would not impact public hunting activities on 15 of the 16 forties in the section. (It should be noted that the pattern of trust ownership includes scattered forties as well as larger blocks of land.) Based on current land ownership patterns, it would involve the leasing of approximately 750 “forties” representing approximately 1.25% of Minnesota’s forestry administered school trust acreage.

An annual lease rate of \$500 per forty would realize a gross annual income to the school trust of \$375,000 (750 x \$500).

#### **Advantages**

- Opportunity for additional income that is not currently being realized.
- Open bidding process for leases would help reflect and realize market value.

#### **Disadvantages**

- Public resistance to a loss of even a small percentage of the current public hunting areas could be anticipated; there is a great demand by recreational users for public land.
- In the Potlatch example, in addition to the loss of public hunting, leases have blocked access to other public land in some cases and there has been an increase in administrative costs to address these issues.
- Such a leasing program would create new administrative work and costs.
- Potential exists for individual tenants to view their hunting lease as an ownership right.
- Lessees and adjacent public land users would need to be aware of the leased parcel boundaries to avoid user conflicts; compliance and enforcement would likely be difficult.

### **2.2 Hunting Cabin Lease Program**

A hunting cabin lease program was started in the 1950s. Initially, sites for private improvements of hunting cabins were leased for \$10/year. The 2010 lease rate for the hunting cabin sites is \$500, with a \$10 annual increase in the rate for the 10 year term of the lease. Each year, a few of the existing leases are terminated because of death of the tenants, or decision by the lessee to release their interest in the lease.

Currently, 123 hunting cabin lease sites are scattered over 12 counties. Pine and St. Louis County contain over half the existing leases. The leases are divided between several land types.

Acquired land, Consolidated Conservation (Con-Con), and school trust land all contain hunting cabin leases. School trust lands currently support 47 of the active hunting cabin lease sites.

Reinstating a modified hunting cabin lease program just on school trust land would be a revenue generating activity for the trust. Increasing the number of cabin leases would generate additional income to the school trust fund. Increasing the density of leases per forty would increase the trust revenue “per forty”. Also, the inspection and monitoring of hunting cabin sites would be more efficient when the leases are concentrated, as opposed to a more scattered pattern. Adding 100 new hunting cabin leases in 2010 would have brought annual income to the school trust of \$50,000.

A new hunting cabin lease program could be modified to try to avoid past issues concerning rent increases and tenant entrenchment. Modifications to the program could include: prohibiting permanent improvements, except for campers, trailers and temporary structures; establishing lease rates through an annual public bidding process; limit the lease term to one (1) year; requiring all leases publicly re-bid, no automatic renewals; requiring the removal of campers, trailers, temporary structures, all trash or debris, and all personal property at the end of every year.

#### **Advantages**

- Opportunity for additional income.
- This would be a modified re-activation of an existing program.
- Such a newly modified program and site bidding process could be used for support in rate increases on the existing hunting cabin leases.

#### **Disadvantages**

- Potential for public resistance to allowing more public lands to be used exclusively for private recreation.
- Loss of public hunting access to immediate areas surrounding the lease sites; user conflicts may develop.
- Potential tenant resistance to increases in market rental rates.
- Potential tenant entrenchment to a particular public trust site.
- Difficulty in distinguishing between temporary and permanent structures.
- Increased administrative workload for inspection and management of the leased sites.
- Possible site contamination from leftover trash, debris, and other refuse.
- Not a significant source of revenue, administrative costs could be more than the revenue brought in.

### **2.3 Commercial Leasing & Development Opportunities**

There are several states in the southwestern part of the United States that have had lots of success with commercial leasing and development of trust fund lands. States such as New Mexico and Arizona have generated millions of dollars for their trust funds through these practices. Some of the common themes that have led to success for these states are that they have lots of trust fund lands, rapidly expanding populations in the “right” areas, and entire bureaus of staff dedicated to commercial leasing and development.

Possibly the largest benefit these states have is that they are managing 5-10 million acres of trust fund land, and often this land is situated in areas that are being over-run with the growing population, unlike Minnesota trust lands which are mostly in rural, wooded lands in the northern part of the state. Minnesota does not have the luxury of large amounts of trust land in areas that are highly developable or desirable, such as on the fringe of the metro area. While positive results could be realized, they would not be on the same level as the results in the western states.

It would take a dedicated effort within the DNR to pursue commercial real estate activities in order for Minnesota to begin to accomplish the types of results that western states are having. There will be a cost to manage for commercial leasing and development.

### **Advantages**

- Commercial development and leasing opportunities could generate large amounts of additional revenue for the trust fund.

### **Disadvantages**

- High administrative cost to run such a program. Would likely require additional employees to manage, market, and locate prime trust lands.
- Minnesota has limited areas that would be highly desirable for commercial development or leasing.
- Rural location of current school trust lands.
- Commercial real estate leasing is currently experiencing a depressed market that is forecasted to continue in the coming years.
- Such development would likely cause a loss of the environmental services provided by these lands.

## **2.4 Aggregate Inventory and Marketing**

The DNR Division of Lands and Minerals has received appropriations for the past years in order to enhance revenue generation from the sale of construction aggregates on school trust lands. This project has resulted in modification of lease terms from 10-year to 3-year leases, helping to maintain market equitability. When any new lease is issued or renewed the current local market conditions are analyzed to make certain that the school trust is being properly compensated.

Current DNR practices relating to gravel leasing are often on a request basis. An increased marketing effort has been directed towards the Minnesota Department of Transportation and other potential clients. A new website has been added to the DNR website to promote construction aggregates sales from school trust lands. Field-testing has been conducted at various sites to determine the quantity and quality of resources. Creating mine plans for specific sites has increased accuracy in forecasting which sites are able to accommodate higher construction aggregate demands, which promotes increasing revenue potentials for the school trust fund.

Through these efforts, revenue goals have been achieved. This more aggressive program of identifying gravel resources on school trust lands and actively marketing these resources is producing higher revenues and has potential for further revenue increases.

## **Advantages**

- Increase in revenue generation for the school trust fund.
- Helps to include school trust lands as a reliable source of construction aggregates in that market area.
- Allows for inventorying of mine sites to determine which are capable of producing revenue.
- Allows DNR to actively promote leases for construction aggregates, as opposed to reacting to inquiries.
- Mine plans allow DNR to prioritize sites based on their resources and capabilities.
- Quantifies the construction aggregate value of school trust lands so that the school trust is properly compensated in any transaction including sales and exchanges.

## **Disadvantages**

- Requires an investment to inventory existing aggregate resources on school trust lands.
- Revenue may rise and fall from year-to-year with local construction demand for gravel.
- Gravel mining and the establishment of roads associated with this activity would likely cause a loss of the environmental services provided by these lands.

## **2.5 Wind Power Leasing**

The expanding wind energy industry is creating many possibilities that offer additional forms of energy, and benefit local communities and economies. Some of the major benefits of wind energy are that it offers a source of renewable, clean and locally produced energy, diversifies the energy portfolio, and creates economic development in the form of new jobs, new industry, new and increased revenue through electricity sales as well as tax revenue for communities. The potential of wind power can be harnessed either through local or community owned wind projects (farmer-owned, tribal owned or school owned wind turbines), as well as through private ownership.

Several key factors that dictate the success of wind power projects are wind speed, power transmission availability, cost of capital, permitting and local support. Minnesota's best wind resources are located in the southwest, and this is where development is concentrated. However, changing turbine size and designs have enabled viable wind energy development across the state.

The leasing of property for use of a wind power site can be financially beneficial. According to sources such as the American Wind Energy Association, and Windustry, a typical lease can generate \$2,500 to \$4,000 per turbine per year. The terms of the wind lease between MN DNR and Mountain Iron EDA provide for a payment of \$2,000 per megawatt of installed capacity. The 320 acre site is expected to support about six megawatts.

A major impediment facing the development of wind farms on school trust lands is the lack of wind resources and power transmission. Nearly all of the school trust lands are in the northeastern part of the state, but the best wind resources are in the southwest part of the state. That being said, some strong localized wind resources exist on school trust lands that are suitable for wind turbine development. Also, a lack of transmission lines in the northeast part of the state limits the amount of electrical power that can be transferred to end users. While there may be good sites for wind energy production on school trust lands, they must have access to

transmission. However, smaller projects might be developed in ways that leverage local power loads or transmission capacity.

### **Advantages**

- Leasing wind power sites has the potential to earn \$2,500-\$4,000 per turbine per year, generating significantly more revenue per acre than traditional pulpwood forestry.
- Wind power projects offer a source of alternative “green” energy.
- Projects financially benefit host communities and economies, particularly if there is more local investment in the project.
- Tax incentives are helping privately owned projects gain support from larger corporations.
- Wind projects can be scaled from a few megawatts to hundreds of megawatts enabling considerable flexibility in project development and siting.

### **Disadvantages**

- Land owner opportunities are often limited to the projects being considered by project developers.
- The trust fund could seek to develop its own projects, but such project development will require significant upfront investment.
- Power transmission affects where and how much energy can be derived from a project.
- The size and sound of wind turbines is a major concern for surrounding neighbors, and wind project may disrupt traditional use of a project area.
- Most wind power leases are good for 30 years, or the life of the wind turbine, requiring a long-term commitment from the school trust.
- Tower siting and the establishment of roads and transmission corridors would likely cause a loss of the environmental services provided by these lands.

## **2.6 Carbon Markets**

Carbon markets are new and still developing with a range of market structures emerging, the primary distinction being voluntary versus regulatory. Voluntary markets are the dominate carbon market in the United States at this time and are comprised of the transactions between parties that choose to pursue greenhouse gas (GHG) emissions for individual reasons. The regulatory market is defined by governmental regulation of carbon emissions. While there is no national framework for regulating GHGs that results in market transactions, there are emerging sub-federal GHG cap and trade systems. Several northeastern states (Regional Greenhouse Gas Initiative—RGGI) impose a cap and trade system on power plants, and California is developing an economy-wide cap and trade program. Because regulatory compliance is mandatory, these markets are anticipated to significantly increase the value and volume of carbon credit trading.

### **Status of Voluntary Markets**

The Chicago Climate Exchange (CCX) is essentially a voluntary, but legally binding cap and trade program. CCX members signed contracts to achieve modest GHG emission reductions. These voluntary agreements carried through until 2010. Resource managers are likely most familiar with the “terrestrial sequestration” aggregation programs initiated by the Farm Bureau and the Farmers Union. These two farm groups worked with landowners and farm operators who practiced no-till farming or implemented other projects, such as tree or grass plantings, to sell offset credits into the market. There was a short period in 2008 when prices peaked at \$7.40



per ton of carbon dioxide equivalent, providing a significant opportunity to capture revenue from terrestrial carbon sequestration on the CCX. That opportunity then collapsed with the general commodity crash in 2008 and has not since recovered. Prices as of fall 2010 have largely collapsed to under \$1 per ton.

Other trading mechanisms in the U.S., such as the Climate Action Registry (CAR) and Voluntary Carbon Standard (VCS) began to eclipse CCX as dominate trading systems in 2009 as a “pre-compliance” market. Pre-compliance projects seemed to dominate the market in 2009, but may have dramatically fallen off recently as market participants reassess the probability of a national cap and trade program.

### **Implications for Revenue Enhancement for Minnesota School Trust Lands**

Protocols are the rules and measurement methodologies under which carbon credits are created. A wide range of entities have developed a number of competing protocol systems. The protocols are developed to provide the market with assurance that the offsets are valid, that is they are real and verifiable, additional, permanent and enforceable. There are varying levels of stringency within different protocols. The common thread among protocol systems is to provide quality assurance to the carbon offsets offered for sale. The primary considerations for quality are:

- Real and verifiable: Carbon is captured in the managed landscape and the total carbon captured can be measured and documented.
- Additional: The carbon captured would not have happened if the project was not implemented.
- Permanent: The carbon will be held out of the atmosphere for an extended period of time to assure that there is a long term climate benefit. Typically, the captured carbon need not be stored forever, but the storage will be several decades to a century.
- Enforceable: There is a contractual basis to ensure that the seller can be required to carry out the project and benefits that they sold.

Permanence is a broad challenge for terrestrial sequestration projects, which are subject to “reversals” and leakage. For example, carbon that accumulates in trees can be reemitted to the atmosphere if those trees die and are oxidized. This might occur because of fire, disease, harvest, or future land use change. Similarly, if the project is based upon reducing commercial harvest, will that harvest be made up by increased harvest at another site or even in another country? Protocols may discount the carbon credits generated based on assumed leakage and based upon the risk of reversals within the specified contract period. They will also specify how long the carbon must be stored and what kind of on-going monitoring is needed to assure that reversal does not occur.

Additionality is an important consideration as well. On-going natural resource management actively manipulates vegetation and thereby the stock of carbon stored in the landscape. Business as usual resource management is not typically considered to be eligible for carbon credits, because any carbon accumulation is not additional to what would have happened without the generation and purchase of those credits. Reforesting a site post harvest would be a standard practice that would not meet the additionality test, but changing management practice, such as shifting aspen to pine or extending rotation length, may meet the threshold. Protocols seek to define the very specific instances where a resource manager or land owner could claim additionality and thus viable credits.

The protocol selected for an offset project will matter significantly. These protocols will determine the amount of marketable credits generated, the cost of compliance, and the value of the credits to the ultimate purchaser. The most restrictive protocol allowed 30-40 percent fewer credits than the least restrictive protocol.

### **Advantages**

- There is a large school trust land base, so there is significant potential for carbon sequestration.
- There is potential for additional revenue to the school trust.

### **Disadvantages**

- Currently markets are weak and indications are that this trend will continue.
- Investments and administrative costs may outweigh the revenue generated.
- Long-term commitment.
- Timber sales may generate more revenue to the school trust.

## **2.7 Wetland Credit Revenue Potential**

The Wetlands Conservation Act (WCA) provides for the establishment of wetland credits that can be developed and sold as mitigation for construction projects that remove wetland areas. This procedure has created local markets for the sale of “credits” to those needing them for planned projects.

Under this program landowners can obtain “wetland credits” through the restoration of wetland areas, encumbering those restored wetlands with an agreement insuring they would remain wetlands. Established wetland credits are available through local coordinating governmental units in a “wetland credit bank” for those needing credits for proposed construction projects. Project developers purchase needed credits from landowners holding qualifying wetland credits.

The value of wetland credits is locally established by the market, and is dependent upon the supply of credits, the construction activity, and demand for them. Value also is affected by the abundance or lack of wetlands in the project area.

School trust lands containing thousands of acres of wetlands initially would seem to be a natural source for such activity. Credits accrue from the re-establishment of otherwise drained wetlands. To establish wetland credits on trust land, documentation of drained wetlands eligible for restoration, and then the restoration (and associated costs) of these wetland areas, would need to be completed. There also is an option under WCA to receive credit for preserving existing wetlands on public lands. However, in order to get credit, the wetlands must be under a “demonstrable threat” of loss or degradation from a legal or otherwise permissible activity. Most wetlands currently on public land fail this test.

### **Advantages**

- Opportunity to capitalize on an existing program to generate revenue for the trust.

### **Disadvantages**

- High administrative costs to locate, delineate and restore wetlands to obtain credits.

- Value of credits and revenue from their sale are speculative and may not cover administrative costs.
- The number of eligible school trust parcels is estimated to be too few to suggest significant revenue generation from this activity.
- Perpetual maintenance of restored wetlands with associated costs to the trust potentially prohibits other means to generate revenue from affected areas. Preserved wetlands that receive mitigation credit are also subject to restrictions on future use, such as mineral development.

## **2.8 Prairie Seed Harvest Leases on School Trust Lands**

A 157-acre prairie seed harvest lease was issued in 2010 on school trust fund land in Pennington County. The purpose of the lease was to generate revenue for the school trust and to make prairie seed available on the market for prairie restoration work in the DNR NW Region.

A special fee was requested for this lease rather than the standard fixed rate (\$25/acre for upland hay in Pennington County). In this case, applying the standard lease rate to 157 acres would generate an annual rental of about \$3,925. Prairie seed is a unique resource which is currently under high demand. We anticipate that the special fee arrangement should generate revenue for the school trust well in excess of the amount obtained with the standard lease fee in years of a typical seed harvest.

About 70 acres of the lease acres were harvested in 2010. The yield is unknown at this time, but rough estimates indicate that 3000-4000 pounds of bulk seed were harvested. If the harvest was 3000 bulk pounds, the likely yield would be at least 40% pure live seed (PLS) or 1200 pounds. The trust would receive 35% of the market value of the PLS (for this example, assume the value is \$15/lb.) which would be \$6,300.

This 157- acre lease in Pennington County is one of the first prairie seed leases that has been issued. There are some additional acres of school trust lands that could be leased for prairie seed harvest, but an estimate of the acreage is not available at this time.

### **Advantages**

- Demand for prairie seed is high and expected to increase.
- School trust lands that otherwise have limited revenue generating capability may be capable of being leased for prairie seed harvest.
- There is potential for additional revenue to the school trust.
- Provides access to local genetic plant material, thereby contributing to prairie restoration initiatives in the state.

### **Disadvantages**

- The potential to generate revenue is unknown.
- Only modest potential for generating additional revenue to the trust.