BOARD OF COMMISSIONERS OF PUBLIC LANDS 1848

Managing Wisconsin's trust assets for public education

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Tia Nelson, *Executive Secretary*

AGENDA

June 16, 2015
2:00 P.M.
Board of Commissioners of Public Lands
101 E. Wilson Street, 2nd Floor
Madison, Wisconsin

Routine Business:

1) Call to Order

2) Approve Minutes – June 2, 2015 (Attachment)

3) Approve Loans (Attachment)

Old Business: None

New Business:

4) Discuss In-Person Attendance at Board Meetings when Agenda Includes Non-Routine Business Items

5) Discuss Mud Lake History and Timber Harvesting Schedule (Attachment)

6) Discuss Date and Time for Executive Secretary Nelson's Performance Evaluation

7) Discuss and Vote to Modify Board Policy on Global Warming/Climate Change Adopted at April 7, 2015, Board Meeting (Attachment)

Routine Business:

8) Future Agenda Items

9) Executive Secretary's Report

10) Adjourn

AUDIO ACCESS INFORMATION

Toll Free Number: **(888) 291-0079**
Passcode: **6363690#**

BOARD MEETING
JUNE 16, 2015

AGENDA ITEM 2
APPROVE MINUTES

Attached for approval are the minutes from the June 2, 2015, board meeting.

State of Wisconsin **Board of Commissioners of Public Lands**

Board Meeting Minutes
June 2, 2015

Present were:	
Doug La Follette, Commissioner	Secretary of State
Matt Adamczyk, Commissioner	State Treasurer
Brad Schimel, Board Chair	Attorney General
Tia Nelson, Executive Secretary	Board of Commissioners of Public Lands
Tom German, Deputy Secretary	Board of Commissioners of Public Lands
Richard Sneider, Loan Analyst	Board of Commissioners of Public Lands
Vicki Halverson, Office Manager	Board of Commissioners of Public Lands
Randy Bixby, Land Records Archivist	Board of Commissioners of Public Lands
Mike Krueger, IT Specialist	Board of Commissioners of Public Lands
John Schwarzmann, Forestry Supervisor	Board of Commissioners of Public Lands

ITEM 1. CALL TO ORDER

Board Chair Schimel called the meeting to order at 2:00 p.m.

ITEM 2. APPROVE MINUTES – MAY 19, 2015

MOTION: Commissioner La Follette moved to approve the minutes; Board Chair Schimel seconded the motion.

DISCUSSION:

VOTE: The motion passed 3-0.

ITEM 3. APPROVE LOANS

Board Chair Schimel asked if the loans had been reviewed for public purpose. Executive Secretary Nelson confirmed they had.

	Municipality	Municipal Type	Loan Type	Loan Amount
1.	Arrowhead UHS Waukesha County Application #: 02015151 Purpose: Finance classroom remodeling	School Rate: 3.25% Term: 10 years	General Obligation	$1,000,000.00
2.	Brookfield Waukesha County Application #: 02015150 Purpose: Finance fiber optics network	City Rate: 3.75% Term: 20 years	General Obligation	$910,000.00
3.	Clinton Rock County Application #: 02015149 Purpose: Purchase road maintenance equipment	Town Rate: 3.25% Term: 10 years	General Obligation	$250,000.00

4.	Elmwood Pierce County Application #: 02015144 Purpose: Finance street paving projects	Village Rate: 3.75% Term: 20 years	General Obligation	$190,000.00
5.	Juda Green County Application #: 02015147 Purpose: Purchase capital equipment	School Rate: 3.25% Term: 10 years	General Obligation	$200,000.00
6.	Molitor Taylor County Application #: 02015145 Purpose: Finance roadwork	Town Rate: 3.25% Term: 10 years	General Obligation	$250,000.00
7.	Mount Morris Waushara County Application #: 02015146 Purpose: Construct park pavilion	Town Rate: 3.75% Term: 20 years	General Obligation	$20,000.00
8.	River Falls Pierce and St Croix Counties Application #: 02015143 Purpose: Refinance BCPL Loan #2015072	City Rate: 3.75% Term: 19 years	General Obligation	$1,600,000.00
9.	Waupaca Waupaca County Application #: 02015148 Purpose: Purchase equipment; repair streets and buildings	City Rate: 3.25% Term: 10 years	General Obligation	$841,200.00
		TOTAL		**$5,261,200.00**

MOTION AND VOTE: Commissioner La Follette moved to approve the loans; Board Chair Schimel seconded the motion. The motion passed 3-0.

ITEM 4. AGENCY EXPENSES OVER $5,000 APPROVED BY BOARD CHAIR

Board Chair Schimel said the expense totaled $6,300 and was for appraisal services conducted by Steigerwaldt Land Services.

ITEM 5. DISCUSS AND VOTE ON TOM GERMAN'S ATTENDANCE AT WSLCA SUMMER CONFERENCE

MOTION: Board Chair Schimel moved to authorize Tom German's travel and attendance at the WSLCA summer conference; Commissioner La Follette seconded the motion.

VOTE: Board Chair Schimel and Commissioner La Follette voted aye; Commissioner Adamczyk voted no. The motion passed 2-1.

ITEM 6. MOTION REQUIRING THAT BCPL STAFF MEMBER BE PRESENT TO TAKE MEETING MINUTES

Board Chair Schimel said that due to the length of the April 7 board meeting, the minutes required additional time to transcribe. He asked Commissioner Adamczyk to lead the discussion since he had requested the agenda item.

MOTION: Commissioner Adamczyk moved that the staff member responsible for preparing the board meeting minutes be present at the meeting; Board Chair Schimel seconded the motion.

DISCUSSION: Board Chair Schimel expressed concern about micromanaging staff and indicated a preference for leaving it to the Executive Secretary to decide how to handle the matter.

VOTE: Commissioner Adamczyk voted aye; Board Chair Schimel and Commissioner La Follette voted no. The motion failed 1-2.

[Commissioner La Follette excused himself from the meeting.]

[Board Chair Schimel took up Items 7 through 10 in the order in which they appear below.]

ITEM 8. DISCUSS BCPL STAFF WORK
ITEM 10. DISCUSS BCPL FLYER vs. STAFF TIME

Board Chair Schimel said these agenda item descriptions needed greater specificity so that the general public or media have enough information about what would be discussed. He said future agenda items would need to be more specific before he would approve including them on an agenda. Commissioner Adamczyk said that in the future he would include more information for his agenda item requests.

ITEM 9. DISCUSS BOARD RECORDINGS

Board Chair Schimel and Commissioner Adamczyk discussed the cost of the board meeting recordings and background noises that interrupt the meeting and recording. Executive Secretary Nelson suggested that anyone listening who is not a Commissioner should mute their phone.

Commissioner Adamczyk asked if any member of the public was allowed to call in. Board Chair Schimel replied that they are but they are not allowed to speak because there is no public comment on the agenda. He suggested that the teleconference number be included on the meeting agendas.

The Commissioners asked the Executive Secretary to research teleconference options that would allow the public to listen but not speak.

ITEM 7. DISCUSS EXECUTIVE SECRETARY NELSON'S PRESS COMMENTS

Board Chair Schimel said he had spoken to Executive Secretary Nelson about her comments to the press and her admission that she may have spoken too freely. He concluded that her comments were to some extent provoked but cautioned at-will employees about making comments that are publicly critical of the Board they serve. Since becoming the Board Chair he said he has sat quietly during past meetings and listened to a discourse that had been troubling at times in the tone but did not want to prevent Commissioners from speaking during the meetings. He added that there are legitimate issues before the Board and while there may be differences of opinion on Board matters, the topics should be discussed in a professional and productive manner.

ITEM 11. FUTURE AGENDA ITEMS

Board Chair Schimel requested a discussion regarding in-person attendance for Board meetings that included non-routine agenda items.

Board Chair Schimel also requested a discussion of the Board's Mud Lake site in the Laona area. Commissioner Adamczyk said he was unfamiliar with the site and asked for additional information. Executive Secretary Nelson said she would provide the board with a report.

ITEM 12. EXECUTIVE SECRETARY'S REPORT

Executive Secretary Nelson reported that the arena financing discussions continue and that she would inform the Board of any developments. She commended Tom German and Richard Sneider for the critical role they have played in the financial analysis. Board Chair Schimel thanked them for their leadership.

ITEM 13. ADJOURN

The Board adjourned at 2:25 PM.

Tia Nelson, Executive Secretary

These minutes have been prepared from a recording of the meeting. The summaries have not been transcribed verbatim.
Link to audio recording: ftp://doaftp1380.wi.gov/doadocs/BCPL/2015-06-02_BCPL-BoardMtgRecording.mp3

BOARD MEETING
JUNE 16, 2015

AGENDA ITEM 3
APPROVE LOANS

	Municipality	Municipal Type	Loan Type	Loan Amount
1.	Bloomfield Walworth County Application #: 02015154 Purpose: Purchase police vehicles	Village Rate: 3.00% Term: 5 years	General Obligation	$60,831.00
2.	Bloomfield Walworth County Application #: 02015155 Purpose: Purchase highway truck	Village Rate: 3.25% Term: 8 years	General Obligation	$150,000.00
3.	Buchanan Outagamie County Application #: 02015111 Purpose: Finance road projects	Town Rate: 3.25% Term: 10 years	General Obligation	$2,000,000.00
4.	Elkhorn Area Walworth County Application #: 02015153 Purpose: Finance school building improvements	School Rate: 3.00% Term: 3 years	General Obligation	$420,000.00
5.	Mercer Iron County Application #: 02015156 Purpose: Finance new roof	School Rate: 3.75% Term: 20 years	General Obligation	$300,000.00
6.	Waterloo Jefferson County Application #: 02015152 Purpose: Finance road construction and maintenance	Town Rate: 2.50% Term: 2 years	General Obligation	$50,000.00
		TOTAL		**$2,980,831.00**

BOARD MEETING
JUNE 16, 2015

AGENDA ITEM 5
DISCUSS MUD LAKE HISTORY AND TIMBER HARVESTING SCHEDULE

To: The Board of Commissioners of Public Lands
From: Tia Nelson, Executive Secretary

Issue

Several individuals have recently expressed concern about BCPL's timber management at Mud Lake in Florence County.

Background

The Mud Lake site is 100 acres. It is quite unusual in that it until 1963 it had never been logged. The site originally supported a climax forest stand (sometimes called "old growth") of very large trees that were quite uniform in size and age (also known as an "even-aged forest"). When BCPL began logging this site in the early 1960's, more than two decades after BCPL began timber management on other School Trust Lands, staff was faced with unique management challenges. This type of forest is very unusual as nearly all of northern Wisconsin was clear cut more than a century ago. Today, lands like Mud Lake constitute approximately 1.5% of BCPL's portfolio.

Mud Lake has received four regular timber harvests and one salvage sale since 1963. The regular timber sales occurred in 1963, 1976, 1990, and 2004; and the salvage sale was in 2013 following a windstorm that knocked over approximately 5% of the trees. BCPL's original plans were to mark another timber sale there in two years when the density of trees is projected to reach the appropriate basal area under standard silviculture practices.

Nearly 900,000 board feet of timber and 1,100 cords of pulpwood have been removed from Mud Lake in previous harvests. In only 50 years' time, BCPL has sold the saw timber volume that would ordinarily be cut on a site two to three times the acreage of a more typical hardwood forest in northern Wisconsin.

A handful of individuals have criticized BCPL for leaving too many large trees at the Mud Lake site. While the parcel still contains large trees, it would be incorrect to suggest that a substantial portion of large trees have not been marked for harvest. In the last timber sale nearly 83% of the trees marked for harvest were 21 inches in diameter or larger.

Timber between 21 and 25 inches in diameter at this site has a very high timber value based on bid results. Our records show that we received 13 bids for the Mud Lake sale. Sugar maple saw timber sold for $650 per thousand board feet. While that price is very good by current standards, in 2004 it was an exceptional price. By way of comparison, BCPL received $500 per thousand board feet for sugar maple saw timber at Halsey Lake in Florence County that same year. That timber sale is more typical of BCPL's hardwood stands in that it does not contain as significant of a proportion of large sugar maple trees. The Halsey Lake site was visited in 2012 and deemed well managed by industry representatives and other timberland managers.

In marking Mud Lake for harvest, marking all or most of the large trees at one time would not have been advised for the following reasons:

1) The density of residual trees would have declined substantially below established forestry protocols. In hardwoods, it is common practice to leave a residual density of 75 to 80 square feet of basal area. That is what BCPL did in 2004.

2) A recent inventory showed many of the large trees are growing fast and will still be in the economically mature stage of 21 to 25 inches in diameter when we conduct the next harvest. These trees will make up the bulk of the next timber sale. While there are trees greater than 25 inches in diameter, they comprise barely 15% of the trees at that site.

From an economic standpoint, logs between 21 to25 inches often create Grade 1 and veneer quality saw logs that garner premium prices. Mud Lake is receiving 30% higher bids on it timber because of this. This strategy would not make sense at other sites with shorter trees or poorer quality timber but is clearly paying dividends at Mud Lake.

Simply cutting all or most of the big trees does not turn the parcel into an uneven-aged forest – our goal for the site. Doing so would render the parcel unproductive for a significant period of time and seriously compromise the value of the land, in addition to future revenue streams.

BCPL currently manages about 33,750 acres of upland productive forests. Inventory data shows that in total, a mere 1.5% of BCPL's timber base is similar to Mud Lake. While the management of these acres is very important to BCPL because the timber values there are high, Mud Lake and the other similar hardwood stands are a historical anomaly and are not representative of BCPL's management of northern hardwood stands.

BCPL recognizes the unique elements of the Mud Lake site, and when questions were raised about its management practices, staff reached out to forestry peers for advice, convening a panel of stakeholders to help improve management at Mud Lake and other hardwood forests (details below).

One outcome of this effort was the development of a new tool that helps model preferred tree diameter distributions. This new tool has been shared with the County Forests and other timberland managers and has been widely praised. Going forward, the new tool will help BCPL manage both Mud Lake and all its other hardwood sites to ensure a sustainable progression of trees as they move through increasing size classes until they are marked for harvest.

Mud Lake certainly has presented more than the usual challenges. We started with an unusual even-aged climax forest, unlike almost any other northern hardwood forest. Regeneration after harvest has been sporadic. The lack of seedlings, saplings and small trees could constrict future management options. In the 2004 timber harvest, larger canopy gaps were created than previous harvests by cutting groups of adjacent trees instead of single trees in an effort to promote seedling growth and establishment. Fortunately, in the past two years, a good cohort of sugar maple seedlings has germinated. The upcoming timber sale will be marked to give these seedlings sufficient light so that they grow quickly and provide abundant regeneration to replace trees that will be cut down.

The current goal for this site is to transition to an uneven, aged hardwood site and optimize revenue without compromising future value.

In summary, the Mud Lake site has outperformed- both in terms of volume cut and market value- other more typical hardwood sites in spite of historically unique conditions, and current site specific challenges.

Recent History of Stakeholder Engagement on Mud Lake

- On June 20, 2012, Jane Severt, Wisconsin County Forest Association Executive Director; Dick Krawze, a timber buyer for Pine River Lumber; Steve Guthrie, a timberland manager then representing Nicolet Hardwoods; John Schwarzmann, BCPL Forestry Supervisor; and I visited Woodboro, a BCPL-managed timber harvest. There was a broad consensus that the timber sale underway there was well managed. No issues were identified by the group. At the end of the field visit Dick Krawze asked me if we could visit another site and be open to "constructive criticism." I readily agreed; that site was Mud Lake.

- On August 5, 2012, the same group, plus a local legislator, visited Halsey Lake – a typical BCPL uneven-aged hardwood site. BCPL's management of the Halsey Lake site received good reviews.

- Next, we visited Mud Lake. Everyone agreed the parcel had unique challenges. The reasons for that are pretty straight forward. Until 1963 BCPL had never managed that site for timber and it was a pre-settlement even-aged climax forest. Since we began harvesting this site we have experienced heavy deer browse and sporadic seedling regeneration.

- On February 27, 2013, BCPL convened a group of nearly twenty private and public sector timberland managers at the Great Lakes Timber Professionals Association's office in Rhinelander to discuss the Mud Lake issues. My goal was to invite everyone into an open and frank conversation about the unique challenges at this site and potential strategies to address them. The group was asked to evaluate, discuss, and propose potential solutions. As a result of this discussion, it was agreed that additional research would be helpful and that there was a need for a new tool to guide foresters beyond what was currently available in the silviculture handbook. This conclusion was shared by all participants. BCPL engaged the assistance of Kevin Burns, UW Stevens Point-Treehaven, to develop a new diameter distribution tool to aid hardwood managers in determining the most desirable order of removal of trees to meet appropriate "desired future conditions." (My biggest take away message from this discussion was that tree selection is relatively straight forward the first few times a forester enters a harvest site but that when entering a site for the fourth or fifth time, especially a site as unusual as Mud Lake, specific tree marking decisions are more difficult.)

- For the next year and a half the stakeholders group received regular updates and invitations to beta test and provide feedback on the tool as it was developed.

- On August 21, 2014, the modeling tool was rolled out. It has since been shared with industry, county foresters and others and has received widespread praise.

Staff recommendations

- Move up scheduled marking of the Mud Lake site to the fall of 2015.
- Reconvene the Mud Lake stakeholder group, the Board, and other interested parties in the field to examine the process.

Proposed Process

BCPL will work with Kevin Burns of UW Stevens Point to apply the diameter distribution modeling tool to the management of the Mud Lake site. BCPL and UW Stevens Point will:

1) Collect enough data at Mud Lake to develop an accurate estimate of its current diameter distribution.

2) Use the data to compare the existing diameter distribution with the desired future condition. Note: BCPL's goal (a.k.a. "desired future condition") for this site is to have an uneven-aged diameter distribution that maintains good growth and the excellent timber quality while achieving adequate regeneration.

3) Develop a marking prescription that proscribes the percentage of trees in each 4-inch diameter class to be marked so that the diameter distribution approaches the desired future condition after the selected trees are cut.

4) Using the marking prescription, select the trees in a 10-acre area at Mud Lake as a demonstration site. The trees selected for harvest will be flagged.

5) Each flagged tree will have a card attached to it that lists the reasons why it was selected for harvest.

6) Interested stakeholders will be invited to evaluate the 10-acre demonstration site and provide written comments to BCPL and UW Stevens Point.

7) BCPL and UW Stevens Point will later invite participants to a meeting to discuss how any alternative marking strategies identified in the comments would compare to the demonstration, including harvest volume and projected future timber revenue streams.

8) Based upon the comments received, BCPL may adjust its marking prescription at Mud Lake if the comments provided present compelling reasons why changes should be made.

9) Complete marking the rest of the site based on the tool and stakeholder feedback.

10) Produce a summary of public input and feedback to the Board.

BOARD MEETING
JUNE 16, 2015

AGENDA ITEM 7
DISCUSS AND VOTE TO MODIFY BOARD POLICY ON GLOBAL WARMING/CLIMATE CHANGE ADOPTED AT APRIL 7, 2015, BOARD MEETING

The Board policy prohibiting staff from engaging in global warming/climate change activity while on BCPL time shall be modified to read:

- **Proposed Resolution**: BCPL staff members are only prohibited from engaging in global warming/climate change policy advocacy during BCPL time.

Attachment

Plum Creek

Ecosystem Benefits

At Plum Creek, we have long conducted our business with a strong commitment to the environment. We understand that our sustainably managed forests support diverse ecosystems and provide numerous benefits such as slowing the rate of climate change, naturally filtering millions of gallons of water and cleaning the air. Sustaining these beneficial attributes is among the reasons we manage our working forests to the highest standards – ultimately helping to preserve this natural cycle.

Benefits of Our Working Forests

Trees take a long time to grow, so every tree that we plant is a long-term investment that enhances the environment and the communities where we operate.

Annually, our company plants nearly 60 million new trees. When we complete harvesting a full rotation, we replant or plan for natural regeneration of new trees. Ninety-nine percent of our harvested areas have successfully regenerated within five years of harvest. Successful forest management like this creates many environmental values and benefits that are shared with the public:

- For example, the Environmental Protection Agency (EPA) estimates that the amount of carbon stored annually in forest products in the United States is equivalent to removing more than 100 million tons of carbon dioxide from the atmosphere annually[(1)]. That is equal to taking almost 21 million cars off the road every year[(2)]. And additional research has shown that managed forests can sequester and store as much as 150% more tons of carbon per acre than less-intensively managed forests.
- Also, the Intergovernmental Panel on Climate Change (IPCC) reports that in the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fiber or energy from the forest, will generate the largest sustained climate change mitigation benefit.

Beyond slowing the rate of climate change, working forests also enhance water quality by helping slow storm water runoff, filter rainwater, recharge groundwater supplies, and maintain stream flows. Managed forests also resist insects and disease. Learn more about working forest benefits.

According to the United States Department of Agriculture's Forest Service (USFS), working forests provide numerous environmental benefits:

- Absorbing heat.
- Supporting biodiversity.
- Providing habitat for thousands of bird, aquatic and mammal species – including people.

And, as noted by the Global Tree Registry and the USDA Forestry Service Pamphlet #R1-92-100, over a 50-year lifespan, one tree:

- Generates more than $30,000 worth of oxygen.
- Removes air pollution equivalent to $60,000 of other remediation.

- Provides $31,250 in soil erosion control.
- Recycles $37,500 worth of water.

Environmental Performance of Wood Products

Plum Creek supports efforts to fully understand and communicate about the environmental performance of its products and services. We participated with the American Wood Council to create several Environmental Product Declarations (EPDs). Learn more about EPDs.

Additional Resources

Capturing Carbon

The Forest Carbon Cycle

Energy & Natural Resources

Working Forests

Wood Is Good

Wood: A Renewable and Responsible Choice

Intergovernmental Panel on Climate Change

[1] U.S. Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2011. Carbon Benefits of Forests, NAFO site.

[2] Environmental Protection Agency, Calculations and References, Clean Energy.

WEYERHAEUSER'S

Climate Change COMMITMENT

WEYERHAEUSER IS REDUCING GREENHOUSE GASES.

OVERVIEW

Weyerhaeuser grows and harvests trees, builds homes, and makes forest products essential to everyday lives. We believe that conservation of resources, energy efficiency, and global climate change are important, interrelated international issues. We continuously improve our ability to use energy and natural resources wisely and established a companywide target to reduce greenhouse gas emissions from our operations by 40 percent by 2020 using a 2000 baseline.

We recognize that climate change poses potential risks as well as opportunities, and we have strategies in place to address both. We are actively engaged in projects to reduce the use of fossil fuels, increase the use of carbon-neutral biomass, and increase sequestration of carbon dioxide. Given our commitment to reducing greenhouse gas emissions, we expect to be well positioned to respond to future govern-mental requirements to reduce emissions. We have designed our climate change strategy to meet future regulatory obligations.

KEY ACTIONS FOR ADDRESSING CLIMATE CHANGE

- Manage forests sustainably
- Sequester carbon
- Use more biomass energy
- Promote green building
- Develop biofuels
- Increase energy efficiency
- Reduce greenhouse gas emissions

CLIMATE CHANGE POLICY

WEYERHAEUSER BELIEVES THE BEST WAY TO REDUCE GREENHOUSE GAS EMISSIONS IS THROUGH LEGISLATION THAT REGULATES AND VALUES CARBON USING A NATIONAL CAP-AND-TRADE MODEL. FUTURE POLICIES SHOULD INCLUDE THESE KEY COMPONENTS:

- Expand the definition of "renewable biomass" to broadly recognize renewable biomass feedstock resources, including energy crops grown on forestlands.
- Recognize the carbon dioxide emissions resulting from the combustion of biomass and biomass-derived fuels as carbon- neutral.
- Distribute carbon emission allowances at no cost to ensure that energy-intensive manufacturers are not at a competitive disadvantage in international markets.
- Include a robust domestic and international offset program that recognizes credits for the sequestration and storage of carbon through reforestation, afforestation, avoided deforestation, harvested wood products, and forest management projects.
- Incent and recognize combined heat and power cogeneration facilities for their inherent energy-efficiency capacity.
- Recognize the forest products industry's existing investment in renewable energy in a federal Renewable Electricity Standard.
- Provide credit for early actions that reduce GHG emissions or increase sequestration of atmospheric carbon dioxide taken over the past decade.

SUMMARY

Weyerhaeuser is committed to operating as a sustainable company and doing our part to address climate change. This commitment is evidenced by the company's actions to:

- power our manufacturing operations with biomass,
- sequester carbon in forest products from our sustainably managed forests,
- adopt more energy-efficient technologies, and
- reduce greenhouse gas emissions according to our companywide target.

Finally, strategic and innovative relationships, such as the one with Chevron to research and develop a low-carbon transportation fuel, enable us to find new ways to address global climate change.

Our climate change strategy will result in reducing millions of tons of carbon dioxide from entering the atmosphere, promote sustainable working forests, and provide green jobs in rural communities.

For more information on our commitment to climate change and sustainability, please visit **www.weyerhaeuser.com/sustainability.**

Weyerhaeuser is a proud member of:

- Dow Jones Sustainability Index for North America
- Storebrand SRI "Best in Class"
- Corporate Responsibility Officers' 100 Best Corporate Citizens 2009
- S&P Carbon Efficient Index
- Ethisphere World's Most Ethical Companies 2009

BEST IN CLASS environmental and social performance STOREBRAND SRI

Dow Jones Sustainability Indexes Member 2008/09

ExxonMobil's views and principles on policies to manage long-term risks from climate change

Keeping in mind the central importance of energy to economies of the world, ExxonMobil believes that it is prudent to develop and implement strategies that address the risks to society associated with increasing GHG emissions.

2013 Carbon Disclosure Project responses – *PDF / 679.84 KB*

Effective strategies must include putting policies in place that start the world on a path to reduce emissions while recognizing that addressing GHG emissions is one among other important world priorities, such as economic development, poverty eradication and public health.

While pursuing the long-term objective to minimize risks, near-term objectives should include the following:

- promoting energy efficiency,
- deploying existing technologies that reduce greenhouse-gas emissions cost-effectively,
- supporting research and development of new low-emissions technologies, and
- supporting climate research to help inform the ongoing policy response.

Throughout the world, national and regional policymakers are considering a variety of legislative and regulatory options to mitigate GHG emissions. In our view, assessing these options requires an understanding of their likely effectiveness, scale, and cost, as well as their implications for economic growth and quality of life. Within ExxonMobil, we analyze and compare the various policy options by evaluating the degree to which they meet the following principles:

- Ensure that any cost of carbon is uniform and predictable across the economy
- Let market prices drive the selection of solutions
- Promote global participation
- Consider priorities of the developing world
- Recognize the impacts of imbalances among national policies

- Minimize complexity to reduce administrative costs
- Maximize transparency to companies and consumers
- Adjust in the future to developments in climate science and the economic impacts of climate policies

These principles are intended to minimize overall costs to society and to allow markets, not regulators, to determine technologies that best meet consumer needs. They recognize that long-term policies must align with differing national priorities and with evolving knowledge if they are to be sustainable. Cost minimization is important because the scale of the challenge is enormous. Estimates indicate that costs of policies under consideration in the U.S. alone can easily run to hundreds of billions of dollars per year. Consequently, climate policy will compete with other major policy priority areas including health, education, infrastructure and security. Poorly designed policies will needlessly channel funds and human resources into higher cost energy investments that could be used to address other pressing priorities.

Strategies should promote fundamental shifts toward energy-efficient technologies and practices across the economy, and the more prominent use of fuels with lower carbon intensity — such as natural gas, nuclear energy and renewable fuels — within the overall energy mix. These actions already are making headway in many countries, including the United States. U.S. emissions of energy-related CO_2 are reaching a plateau and are expected to begin declining soon. By 2030, U.S. CO_2 emissions are expected to be about 15 percent lower than in 2005.

Industry and governments should pursue an integrated set of solutions that include developing new energy supplies, increasing efficiency and advancing energy technologies. For example, new technologies will

allow more energy-efficient homes, vehicles and businesses. In 2030, improved efficiency will not only have curbed energy demand significantly, but also reduced related CO_2 emissions by approximately 17 billion metric tons.

Throughout the world, policymakers are considering a variety of legislative and regulatory options to influence technology development and consumer choice to affect GHG emissions. If policymakers do move to impose a cost on carbon, we believe that a carbon tax would be a more effective policy option to reduce greenhouse-gas emissions than alternatives such as cap-and-trade. And to ensure revenues raised from such a tax are indeed directed to investment, and to assist those on lower incomes who spend a higher proportion of their income on energy, a carbon tax should be offset by tax reductions in other areas to become revenue neutral for government. It is rare that a business lends its support to new taxes. But in this case, given the risk-management challenges we face and the policy alternatives under consideration, it is our judgment that a carbon tax is a preferred course of public policy action versus cap and trade approaches.

Sources

1. Climate Change 2007: Synthesis Report. Intergovernmental Panel on Climate Change Fourth Assessment Report (AR4). **www.ipcc.ch/**

2. Energy Technology Perspectives (2008) Scenarios and Strategies to 2050.