

**The Wisconsin Karner Blue Butterfly Habitat Conservation Plan
Annual Report of Activities for Calendar Year 2008**



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Introduction

The Wisconsin Karner Blue Butterfly Habitat Conservation Plan, approved in September 1999, established a statewide program for Karner blue butterfly conservation in Wisconsin. The Wisconsin Department of Natural Resources (Wisconsin DNR) is authorized to oversee implementation of this plan and the activities described in the associated implementing agreement according to the terms of Federal Fish and Wildlife Permit #TE010064-4. This permit, issued by the United States Fish and Wildlife Service (USFWS) to the Wisconsin DNR on September 27, 1999, authorizes incidental take of Karner blue butterflies (Karners) according to the terms described therein. Forty organizations currently participate as full or limited partners in the Wisconsin Karner Blue Butterfly Habitat Conservation Plan (HCP). This report summarizes activities conducted by these 40 partners on HCP-covered lands in 2008, the ninth full year of HCP implementation.

Monitoring

Monitoring is a critical component of the HCP, and should demonstrate whether or not HCP partners are conserving Karners and their habitat, while still conducting planned land management and development activities. Each year, HCP partner organizations conduct surveys for Karner Blue Butterflies and/or their host plant, wild lupine. The year 2005 saw significant changes in the monitoring program. These provisional changes continued for monitoring in 2006 and were finalized and approved in 2007.

Late in 2003, it became clear to the partners and the FWS that the original HCP monitoring strategy was not clearly providing needed feedback for a proactive adaptive management strategy. In addition, efficient monitoring became a priority in a time of budget and staff constraints for all partners. The years 2004 and 2005 had seen much progress with respect to improving the HCP monitoring program to better meet the HCP's objectives, while maintaining some well designed basic monitoring procedures. In 2006, many of these adjustments were subsequently implemented; most notably: the inclusion of a formal method of Cause-Effect monitoring studies; and discontinuing random sampling of sites to identify new habitat for lupine inventory and allowing partners to seek out habitat in areas they felt had the greatest likelihood, and/or sites where they would need to do a pre-management survey.

The Monitoring Improvement Team (MIT) was formed to assess and improve the monitoring components of the HCP. The MIT designed a system to directly study the cause-effect relationships of the conservation measures (management activities) designed for the HCP. Cause-Effect monitoring began during the 2005 field season and continued through 2007. The initial management activities being studied were all forest management activities. Following the 2007 field season, it was determined and agreed upon between the Service and the DNR that the forest management activities as described in the HCP management protocols were sufficiently acceptable and there was no need to continue C-E studies on these activities. In 2008 partners provided applicable monitoring information for: (1) New lupine and Karner sites, and (2) Pre-management surveys, (3) Pre- and post-construction/mitigation surveys.

2008 Monitoring Summary Table – (Does not include Recovery results)

Surveys by Management Strategy	Number of surveys performed	Lupine <u>P</u> resent or <u>A</u> bsent		Percentage of sites with significant lupine of those sites surveyed for lupine	Karner blue <u>P</u> resent or <u>A</u> bsent		Percentage of surveys where Kbb were present
		P	A		P	A	
<i>All Surveys Combined</i>							
POH/ROW	207						
SM	298						
Other	1						
Total all surveys	506						
<i>Level 1 surveys (Lupine Presence or Absence - significant amount)</i>							

POH/ROW	143	87	56	60.84%
SM	236	85	151	36.02%
Other	1	0	1	0.00%
Total Level 1	380	172	208	45.26%

Level 2 surveys (Karner Blue Presence or Absence)

POH/ROW	68
SM	74
Other	0
Total Level 2	142

7	61	10.29%
16	58	21.62%
0	0	0.00%
23	119	16.20%

Level 3 surveys (Karner Blue butterfly relative Abundance)

There were no relative abundance surveys reported in 2008

Distance Sampling replaces relative abundance surveys (for trends monitoring)

2008 was the first full year of Recovery Monitoring. As suggested by the MIT, trends monitoring was to be redefined to draw from recovery monitoring, which would take place on recovery properties where long data sets could be gathered over time. Relative abundance indices had been used to track Kbb trend status. Population estimates would be needed to describe the recovery status, so a shift to population estimates was agreed upon. To achieve this goal, a method would need to be identified and agreed upon. The method selected is called Distance Sampling and is a tool to estimate populations. The method was recommended by USGS and endorsed by the Monitoring sub-team of the Federal Recovery Team and the FWS. Five WDNR and two FWS staff attended a national Distance Sampling training at Indiana Dunes NWR in September 2006. DNR recovery property managers and some staff were further trained in Distance in June of 2007. A small pilot test exercise occurred during the 2007 field season at Crex Meadows and Fish Lake State Wildlife Areas to better understand the issues related to site sampling and transect design strategies and to integrate the Distance Sampling method into

practice. In 2008 thirty-one people attended Distance Sampling Training. Statewide recovery monitoring took place in spring and summer flight periods in 2008.

KBB Recovery Monitoring - Distance Sampling Summary 2008 Field Season

Prepared by Robert J. Hess, Karner Blue Recovery Coordinator

This report summarizes activities, results, and follow-up discussion for the Wisconsin Karner Blue Butterfly (Kbb) recovery program for 2008.

This was the first year that intensive monitoring was developed and implemented on eight Kbb recovery properties owned or managed by the Wisconsin Department of Natural Resources and one cooperating private land ownership. The properties are included in four recovery units (RUs) across Wisconsin, including Morainal Sands, Glacial Lake Wisconsin, West Central Driftless, and Superior Outwash.

Activities

- Local Recovery Teams (LRTs) were formed for each RU to work cooperatively on their respective units to achieve recovery goals.
- Thirty five recovery sites were identified on seven recovery properties in the Central Forest part of the range. The Crex Meadows/Fish Lake Wildlife Area (Superior Outwash) was treated as a single extensive site.
- GIS mapping was developed for each recovery property identifying the location of each recovery site.
- Transects were overlaid on each recovery site for population estimate sampling. Total transect length was 66,920 meters for the Central Forest properties, and 10,000 meters for Crex/Fish Lake.
- A habitat assessment method and protocol was developed to assess the quality of Kbb habitat on each site.
- UW-Madison developed a Kbb flight emergence model to be used for predicting the start and peak of each flight for recovery properties across the state.
- Distance methodology was adopted as the appropriate population estimate tool for the Wisconsin recovery program. Training in the use of this method certified about 35 individuals for recovery population sampling.
- Distance sampling was conducted during first flight as a trial. After making adjustments, it was applied during the second flight to generate population estimates for each recovery site.

Results:

Second Flight Distance Sampling

Only 12 of the original 35 sites identified in the Central Forest RUs produced enough numbers to generate a population estimate. Sampling data at Crex/Fish Lake was insufficient to generate an estimate. The table below shows the statewide results by Recovery Unit.

Recovery Unit	Recovery Property	Population Goal	2008 Estimate
Morainal Sands	Emmons/Hartman/Welch	6,000	5,850
	Greenwood W.A.	3,000	
	White River Marsh W.A.	3,000	2,547
Glacial Lake Wisconsin	Sandhill W.A.	3,000	12,065
	Meadow Valley W.A.	6,000	
West Central Driftless	Black River State Forest	3,000	
Superior Outwash	Crex Meadows/Fish Lake W.A.	6,000	

Discussion:

Distance Sampling

- Low and erratic Kbb populations could be attributed to the sharp drought in the summer of 2007 that may have affected egg-laying at the peak of the 2007 flight.
- Future sampling will be conducted only during the second flight.
- At Crex/Fish Lake the Kbb population was extremely low, even on the best traditional sites. However, the property needs to be remapped to better define suitable habitat for 2009 sampling.

Emergence Model

The model appears to be functioning as it was designed. No modifications were suggested.

Habitat Assessment

Habitat assessment of each site needs to be completed in 2009 in order to proceed with recovery implementation planning.

As trends monitoring will be accomplished on a state-wide level by the Wisconsin Karner Blue Butterfly Recovery Program through WDNR's Bureau of Endangered Resources, trends monitoring will no longer be conducted or reported by HCP Partners. HCP Partners will continue to conduct pre-management surveys and, as appropriate, cause and effect monitoring.

For more specific details regarding 2008 HCP monitoring activities, please see [Appendix A: 2008 Monitoring Results Summary](#).

For the complete 2008 Recovery Monitoring Report, please contact the [WDNR, Bureau of Endangered Resources -- KBB Recovery Program at 101 S. Webster St. P.O. Box 7921, Madison, WI 53707-7921 or call \(608\) 266-7012](#).

Associated Species Surveys

As this is a single species (Kbb) HCP, associated species surveys are voluntary for HCP partners. No associated species surveys were reported in 2008.

Certification of Surveyors

The Wisconsin DNR verified that all monitoring surveyors had attended a monitoring training session within the last 5 years. Four monitoring training sessions were held in 2008 in Waupaca, Black River Falls, Grantsburg and Nekoosa. In 2008, 50 people received HCP monitoring training either for the first time or as a refresher. Following the 2008 training sessions there were a total of **365** surveyors that held a current monitoring certification. ([Appendix B: Certified Surveyors for Karner Blue Butterfly Monitoring: 2004-2008](#)). Training is available annually to all partners' staff. The WDNR has been able to provide this training beyond the partners to groups of volunteers who are assisting county highway departments with monitoring, environmental consultants and contracted land maintenance staff who regularly work for partners. When partners receive monitoring training, the Wisconsin DNR urges proper completion of updated monitoring forms and offered technical advice. Monitoring and annual

report forms were revised to improve the level of quality and proper form completion and accurate site information. The Wisconsin DNR continues to do quality assurance checks on surveyor certification and will continue to encourage improvement and consistency in the survey process through individual contacts, compliance audits, improved training, and other means.

Amendments to Partner Species and Habitat Conservation Agreements

There was one Species and Habitat Conservation Agreement (SHCA) amended in 2008. During 2006 it was realized that most SHCA amendments were perfunctory and did not merit coordination between the DNR and the Service. SHCAs are an agreement between the partner (sub-permittee) and the DNR (permittee). As of 2006, it was agreed that minor SHCA amendments will be handled by DNR and reported to the Service in the annual report. The amendment listed in table 1 was just such a change.

Table 1: Amendments to Partners Species and Habitat Conservation Agreements

<i>Partner Name</i>	<i>Date</i>	<i>Amendment</i>
Stora Enso North America (SENA)	03/19/2008	Stora Enso North America sold it's North American assets along with all of its land included in the HCP to New Page Corp of Miamisburg Ohio. NewPage assumed the same responsibilities in the SHCA as did Stora Enso North America. The SENA Species and Habitat Agreement was transferred to New Page Corp.

Land Transfers

Lands included within the HCP continue to change hands between, into, and out of the HCP umbrella. Five partners completed land transfers in 2008. Partners acquired 1,123.32 acres and sold 4,330.67 total acres of HCP-covered land in 2008. Throughout 2008 there was a net decrease of land by 3,207.35 acres ([Appendix C: Land Transferred in 2008](#)). As of December 31, 2008, the HCP covered approximately 240,497 acres. This equates to approximately 1.3% decrease in 2008 in land included in the HCP under the permit. In 1999 when the permit was issued, there were 264,916 acres included under the permit. Since that time, there has been a net decrease of 24,419 which equates to approximately 9%.

The summary of lands included provided in table 2 does not yet reflect adjustments to partners declared lands due to the corrections to the high potential range for the Karner blue butterfly in Wisconsin. These adjustments are planned for 2009.

Table 2: Summary of Lands Included

Acres included at onset of permit 09/27/1999	Acres included as of 12/31/2007	Acres included as of 12/31/2008	Acres increased or (decreased)	Percent change
	243,704.54	240,497.19	(3,207.35)	1.31 %
264,916			(24,418.81)	9.22 %

Land Management Activities on Karner Blue Occupied Sites

The Karner blue butterfly is a species which lives in a disturbance-dependent ecosystem. Therefore, management activities occurring on habitat are necessary to continue the existence of Karner blue populations. Management activities include mowing along rights-of-way, timber harvests, brush clearing, and prescribed burning to name a few. Some Karners may be incidentally taken as a result of these activities. These activities however, are an important and necessary step to managing Karner blue habitat and sustaining its populations.

Full-Partner Activities:

- ☞ Eight full-partners reported land management activity on sites occupied by Karner blues within the High Potential Range. WDNR is among these eight, with 9 different state properties performing beneficial disturbance to occupied sites. (*Appendix D: Land Management Activities Conducted on Karner Blue Occupied Lupine Areas in 2008*). Activities encompassed 2485.45 acres of Kbb occupied habitat (lupine) impacted (taken), with many more acres on Kbb occupied sites where Kbb were avoided, resulting in beneficial disturbance with no negative Kbb impacts. Activities included timber harvest, mechanical site prep, timber stand improvement, mowing, brushing, prescribed burning, habitat restoration and invasive plant control.
- ☞ There was no permanent take by full partners in 2008.

Limited Partner Activities:

In 2008, the following activities occurred on lupine sites along road side rights-of-way:

- ☞ Nine townships and county highway departments (Limited Partners) reported mowing approximately 22.94 acres of Karner blue potential habitat in 2008 along roadsides. All mowing took place after September 1st in compliance with the mowing protocol. Some partners actually have installed permanent markers for these areas. Two Limited partners did not do any mowing of lupine areas, and one partner no longer has Kbb on their roadside lupine areas. Partners surveyed sites for lupine and followed management guidelines, including mowing in late fall with a blade six inches in height for areas where lupine occurred. Limited partners are not required to do Karner blue presence/absence surveys. Therefore, many of these sites are of unknown Karner occupation, but nevertheless partners apply appropriate conservation measures.
- ☞ There was no permanent take by limited partners in 2007.
- ☞ Other partners, particularly limited partners who manage roadside rights-of-way are being faced with the need to do permanent take or complete, but temporary removal of habitat. Minor ditch repairs to return adequate drainage is a common event. While the habitat may be removed on part of the site, new habitat is replaced. Since the use of the land is returning to KBB habitat and not permanently changed as in paving over habitat, the DNR and Service do not consider this “permanent take”, but simply another type of “short-term incidental take”. Streamlined procedures for dealing with the more routine types of take in this category, e.g. road shoulder and ditch maintenance and repairs in a more efficient and appropriate system was drafted by the end of 2007 and was being implemented in 2008. These include a streamlined standardized mitigation guidance and restoration protocols to facilitate easier and faster plan development and will eliminate the need to wait for DNR and FWS approval. No take of this kind was reported in 2008. Please see ([Appendix E: Limited Partner Activities 2008](#)).

Outreach and Education Activities

As part of their commitment to the HCP, partners have pledged to encourage Karner blue conservation among all land managers in the Karner blue range, including some voluntary, non-partner participants. Twenty partners reported outreach and education activities in 2008. DNR

and other partners supported each other on many activities. An attempt was made to avoid double counting. For many activities it was difficult to estimate numbers of people reached; for some none were claimed. Thus, a conservative estimate of people directly reached is over 2,205,746. Many activities indirectly reach many more unknown numbers of people second-handed through environmental and other resource management organizations, socio-environmental research, the newspaper and TV media and very likely many others in partner organizations and others by word of mouth. Outreach and education can take the form of brochures included in meetings, workshops, open houses, mailers, newsletters, company environmental reports, Newspaper and TV interviews, presentations at festivals and conferences to private landowners, resource professionals and public officials, website development, and one-on-one conversations with neighboring landowners, among others. For a detailed list of those activities that were able to be captured, refer to ([Appendix F: Outreach and Education Activities Conducted in 2008](#)). As in past years, we worked with others attempting collaborative conservation efforts, such as FWS, state agencies, and consultants. Numerous “think tanks” and universities studying innovative conservation activities find the Wisconsin HCP very fascinating. Partners hosted several field trips and inter-organizational information presentations. The Wisconsin DNR has encouraged more diligent reporting of outreach activities. Many partners continue to remark that Karner blue-related outreach has become routine and they sometimes forget to report it.

Highlights of HCP Partners’ Outreach & Education Activities

Conservation Weekend at the Milwaukee County Zoo

Again this year, American Transmission Company (ATC) provided a variety of outreach and educational venues to the public at large and children in general. ATC staff shared the Karner blue posters and handouts at their KBB Booth with as many as 15,000 people of all ages.

Northwestern Wisconsin Electric Company shared Karner blue information with 8,300 customers, While Polk-Burnett Electric Cooperative outreached to 20,000 people.

Brad Kildow, the DNR Forester at Whiting has been teaching Wildland Firefighter training to UWSP students for years. In 2008 Brad taught 174 students. A mandatory part of Brad’s curriculum is to give the students a good dose of Karner blue information. He always manages to get his students to do a fair amount of beneficial Karner blue habitat disturbance and restoration as under the disguise of ditching, trenching and making firebreaks on the Little Plover River Fishery Area. A

side effect has been students going on to do other elective Kbb conservation related work in their other college coursework. Other education Brad did with UWSP in 2008 included Karner blue habitat restoration work and seeding by Society of Ecological Restoration **at UWSP.**

The Wisconsin Dept. of Transportation Karner blue kiosk is seen by 1,900,000 visitors annually. The Karner blue butterfly and barrens habitat is featured in displays at the southbound I-94 Rest Area in Jackson County.

Karner Blue Festival and Jackson County Barrens Tours

Karner Blue outreach and education has become second nature. The continued efforts of the partners have created a momentum and an awareness of the plight of the Karner blue butterfly that goes beyond the partners' direct audiences. Despite all this, the crown jewel of Karners in Wisconsin has become the Karner Blue Festival in Black River Falls, WI. This distinction has made Black River Falls the Mecca of Karnerdom in the state and arguably the nation.

The Karner Blue Butterfly Festival in Black River Falls continues to be a perennial favorite. Over 2,500 people attended thanks mainly to the efforts of the local chamber of commerce and the Bauer Brockway Barrens Committee. The committee is a public/private grass roots community group committed to restoration of area barrens. The Committee provides educational displays, barrens tours and Karner activities for children of all ages. Activities at the Karner Blue Education Center and Main Street exhibits comes to a halt during the crowning of the new Karner Blue Princess. To vie for the crown the young ladies are required to become very Karner savvy and provide public service to the community.

DNR Division of Forestry Karner Blue HCP Website

The DNR's Karner Blue HCP website has gone through a major facelift in 2007. The addition of an interactive HCP User's Guide is the keystone of the web-based learning approach. This is greatly expanding the information available and user-friendly accessibility to HCP partners, other agencies, environmental consultants and engineers, municipalities, developers, students and general public. In 2008 the HCP web page received 173,516 hits.

HCP Management and Process Improvement (Adaptive Management)

The Five-Point Plan: HCP Program Gives KBB Recovery Program a Boost

The DNR and the other HCP Partners and Participants in the Wisconsin's Karner blue butterfly (KBB) conservation program have finite resources available to apply to the KBB. They have realized that in order to finish the conservation program successfully that they must assist in recovery efforts for the species.

Current economic and budget constraints have forced the WDNR and all partners to improve the efficiency of HCP processes. In addition, the HCP Team became aware of the likelihood that the HCP may need to be implemented for a number of additional decades while recovery takes place. Partners are pursuing new approaches to HCP goals that add to the success of the plan while reducing costs and workload. Late in 2005, the DNR developed and proposed an approach that encompasses the needs and conditions for success of the HCP program now and into an uncertain future. As a guide to accomplishing this, the primary goals of the Five Point Plan are as follows:

THE FIVE POINT PLAN FOR A STATEWIDE HCP

1. FOCUS HCP implementation on recovery areas.
2. STREAMLINE PROCESSES and redirect resources.
3. IMPROVE PROTOCOLS AND GUIDELINES, i.e. monitoring and management protocols and guidelines.
4. Support and assist the RECOVERY effort of the KBB in Wisconsin.
5. Extend the TERM of the permit: Develop 10-Year ITP RENEWAL proposal

The HCP Partners adopted this Five Point Plan in 2006. Using it as a guide, significant strides were made in 2006 and 2007 on Points 1-3 of the plan to improve HCP implementation, and in 2007 - 2008 support of Recovery in Point 4 provided needed assistance to the Endangered Resources Program in establishing the DNR's Recovery Program and developing Recovery Program infrastructure and initiating Recovery monitoring strategies and associated GIS resources.

Some improvements in 2008 respective of the Five Point Plan are as follows:

1. FOCUS

New Karner sites added to High Potential Range (HPR) maps and some outliers were disqualified.

New Kbb sites identified by partners were added to the HPR maps. Surveys by HCP staff in 2007 investigated old NHI element occurrences which were significantly away from the bulk of the HPR. These were all found to be invalid and were removed from the HPR maps.

2. STREAMLINE

KBB Emergence Model greatly improves monitoring planning

A model that predicts the emergence and “peak of flight” for Kbb in Wisconsin was completed and put in use in 2008. The model was developed by Sarah Pratt of the Forest Landscape Ecology Lab, Department of Forest and Wildlife Ecology, University of Wisconsin-Madison.

To learn more about the model, see the HCP web page:

<http://dnr.wi.gov/forestry/karner/emergence.htm>

Streamlined annual report form

- Measuring acres of “take” only on natal (lupine) areas impacted
- Specific conservation measures applied are no longer reported. It is understood that the conservation measures in the management protocols defined in the User’s Guide are applied. Conservation measures applied are recorded by Partners. This documentation is subject to compliance audits.
- Reporting new landowner contact information following a partner land sale has been discontinued. Since we are no longer actively recruiting new partners unless they are in BRZs, it is not important to report purchaser’s contact information. This information was important early on. Today it is more important to focus on direct contact of landowners in BRZ’s where the Local Recovery Teams need recovery assistance from adjacent landowners.
- Annual Reporting for DNR Recovery Properties was streamlined. *(For details, refer to 11-04-08 HCP 6-Month Review meeting minutes on the HCP web page at http://dnr.wi.gov/forestry/karner/pdf/HCP_6-month_review_minutes_11-04-08.pdf*

Monitoring System Further Streamlined

Monitoring was greatly simplified and further focused on important aspects of implementing the HCP and performing conservation of Kbb habitat. The corrected High Potential Range and new Biological Recovery Zones has provided a biologically valid focus for HCP implementation efforts. The shifting of random effectiveness monitoring using relative abundance indices to population estimates on long-term recovery sites has eliminated a huge workload that resulted in

knowledge of little benefit. The model and years of surveying for Karners also narrowed down the prediction of where Karners are likely to occur. This eliminated the continued need for mass, comprehensive inventory surveys. These strategies and improvements were firmed up in 2007 and as of 2008 all partners do pre-management surveys in the newly defined HPR prior to an activity to determine if an approved conservation measure need be applied. As of 2008, trends and recovery monitoring is being accommodated through Distance Sampling on Recovery properties (*Please refer to monitoring section of this report for more information.*)

Shifting Mosaic (forest management activities) conservation measures validated. Cause-Effect surveying discontinued.

The MIT recommended performing C-E surveys over a several year period to accrue data to support the conservation measures used by forestry partners in the HCP. It was realized after two years of surveys that the data in fact existed and was applied in the original EIS from 1999. The MIT completely overlooked the EIS analysis, which by statement in the EIS, was based very much on the published work of Cynthia Lane (*Forestry Management Guidelines: Developing Management Plans Compatible with Karner Blue Butterfly Persistence. February 1997 prepared by Cynthia Lane, for the Wisconsin Department of Natural Resources (Madison, WI) and the United States Fish and Wildlife Service (Fort Snelling, MN)*). At the time the MIT directed Shifting Mosaic partners to do C-E studies the EIS and HCP had already been approved by the DNR, FWS and the public. (*Reference report to FWS titled, Karner Blue HCP Cause and Effect Monitoring Proposal to Withdraw Forestry Activities SM 1-6 from the C-E Study Plan February 10, 2008; D. Lentz*)

3. IMPROVE GUIDELINES

Construction Guidelines

More progress was made in developing a system of construction guidelines and associated protocols. Of greatest importance in 2008 was the understanding the difference in impacts to Kbb populations between major and minor construction projects. It was determined that some construction activities that do not result in permanent take by HCP definition and are only “short-term” incidental take. Streamlined approaches are being provisionally applied that include both concepts. Final guidelines and protocols are expected to be completed in 2009.

4. RECOVERY

The Wisconsin KBB Recovery effort becomes fully engaged in 2008.

In 2008 the DNR's Karner Blue Recovery program made significant strides under the leadership of Bob Hess, Karner Blue Recovery Coordinator in the Endangered Resources Program. Bob and Gregor Schuurman (BER statistician and conservation ecologist) along with an assist from the DNR Division of Forestry's HCP crew mounted a massive population estimate monitoring effort. Individual Local Recovery Teams in each Recovery Unit were organized and met during 2008. Much was learned from this exercise, which has shaped the Recovery program's strategies for the near future.

Continuing in 2008 the Division of Forestry supported GIS based recovery research through the Department of Forest Ecology and Management at the University of Wisconsin-Madison. Recovery related activities completed in 2008 refinement of phase-1 Biological Recovery Zones which used the Kbb probability model to integrate state, private and federal recovery properties with lands of potential habitat in the surrounding areas. A Kbb Emergence Model was needed for Distance Sampling. The model was completed and in use in 2008.

The HCP Program provided needed supplies, services and travel support to BER recovery staff in 2008 and continues to do so in 2009.

Implementation Monitoring – Compliance Audits

Compliance Audits are a required condition of the federal Incidental Take Permit TE010064-4 for the Karner Blue Butterfly. Compliance audits as designed for this HCP, serve to fulfill the intent of Implementation Monitoring, which is described in the ESA monitoring guidance for HCP's. The term Compliance Audit originated with the HCP before the ESA guidance describing it was available. The purpose of these audits is to assess the status and conditions of the management strategies and management activities actually being applied, and the degree to which partners comply with their individual conservation agreements.

The audit process (1) validates whether or not partners are honoring their legal commitments, (2) provides opportunities for continuous improvement through one-on-one contact with individual

partners and their local staff, and (3) provides valuable information for adaptive management for the HCP partners and the implementation process.

In 2008, audits were performed for 16 partners or DNR properties:

- 6 utility corridor managers
- 3 forest industry companies
- 3 DNR properties or area offices
- 1 private conservation organization
- 1 other state agency
- 2 limited partner
- 0 county forests

A summary of HCP compliance audits conducted by the Wisconsin DNR in 2008 is attached as

[Appendix G. Wisconsin Karner Blue Butterfly HCP; Compliance Audits – Audit Year 2008](#)

[Summary](#)

If you have questions about this report or would like to receive a copy of the cited appendices, please contact Dave Lentz (608-261-6451); David.Lentz@Wisconsin.gov. You may request a copy by writing to Wisconsin Department of Natural Resources, Attn: Dave Lentz FR/4 101 S. Webster St., PO Box 7921, Madison, WI 53707-7921.