

	Title: Timber Harvesting Protocol	
	Date: September 6, 2007	Revision: 01

I. Purpose and Applicability

This protocol is intended to avoid and minimize take of the Karner blue butterfly (Kbb) that is incidental to timber harvesting activities. This protocol applies to sites known to be occupied by Kbb, and to lupine sites within the Kbb High Potential Range where Kbb presence is not known.

II. Conservation Measures

- a.** To avoid take do not operate in lupine areas that are known to be occupied by Kbb or in lupine areas where Kbb presence is not known, to the greatest extent practicable.

- b.** To minimize take follow these measures to the greatest extent practicable.
 - i.** Conduct pre-management surveys on pre-planned timber harvest sites. (Required)
 - ii.** Do not concentrate slash piles on Kbb-occupied lupine sites. Slash should be dispersed, not piled.
 - iii.** Leave scattered occupied sites undisturbed as refugia for existing Kbb populations whenever practicable.
 - iv.** Leave scattered pockets of trees to provide shaded resting areas for Kbb on occupied sites.
 - v.** Timber harvesting activities on private residential and non-regulated properties are exempt from this protocol.
 - vi.** Post management surveys are needed only if the partner has agreed to participate in cause-effect surveys, or if it is required as part of the partner's SHCA. Refer to the Monitoring Protocol for specific information.

III. Special Activities

1. For construction and abandonment of access roads, trails, and landings associated with timber harvesting refer to the Construction Guideline.
2. For emergency salvage cutting or sanitation cutting operations resulting from forest fires, windstorms, or other natural disasters, refer to the Emergency Guideline.

IV. Background

“Tree harvesting operations that remove canopy and disturb soil can have beneficial effects on lupine and Karner blue. ...In general, many of the methods for removing and suppressing tree and shrub canopy can have a net positive effect on lupine and the Karner blue and should be timed and carried out in ways that minimize harm to the butterfly and its food resources (lupine and nectar plants).” (Karner Blue Butterfly Recovery Plan, September 2003).

“Based on the timber type and management goal or objective, a forest land manager may apply a variety of harvesting methods. The variables of the land, vegetation type, goals of land/forest management, and opportunities to 1) minimize adverse effects on the occupied habitat and species, and 2) promote habitat continuation or enhancement vary greatly with each stand. ...In addition, forest partners intend to apply harvesting strategies to land currently not occupied but having the potential for occupation because of the proximity to occupied habitat which serves to replace habitat lost through active management or natural loss, even though they have no legal obligation to mitigate or replace habitat lost naturally (e.g. succession of competing vegetation).” (Karner Blue Butterfly Habitat Conservation Plan, Appendix F. March 2000).

V. Reference Documents

Karner Blue Butterfly Habitat Conservation Plan, Appendix F. *March 2000.*

Karner Blue Butterfly Recovery Plan, (*September 2003*).

Karner Blue Butterfly Conservation Protocols For Forest Management By HCP Partners, Appendix F. *Zastrow et al. April 27, 1998.*

Wisconsin DNR Silviculture Handbook 2431.5