

	Title: Snowplowing Protocol	
	Date: August 29, 2006	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 snow plowing activities, specifically “winging operations” along road rights-of-way. Winging operations (the manipulation of snow beyond highway shoulders) should define the shoulder pivot point.

Important: This protocol applies to sites within the KBB High Potential Range known to be occupied by Kbb, and to lupine sites where Kbb presence or absence is unknown.

II. Conservation Measures

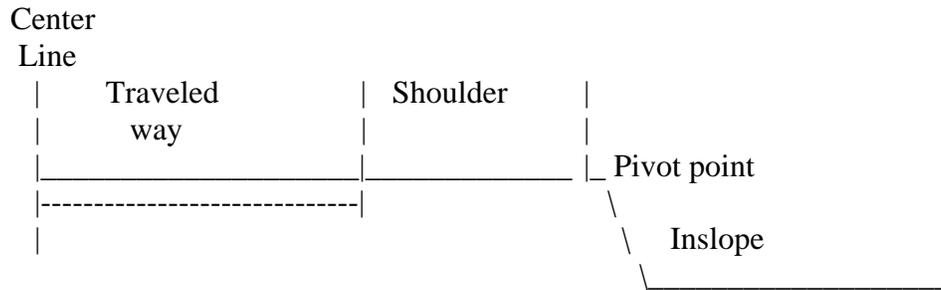
- 1) To avoid take
 - i. Do not wing plow beyond the traveled way.
 - ii. When wing plowing beyond the traveled way, do so at a sufficient height to avoid displacing shoulder gravel onto the sodded (vegetated/duff) area on the right-of way and to avoid damage to the sod (vegetation/duff) under the snow.
- 2) To minimize take and of Karner blue butterfly and habitat
 - i. When wing plowing beyond the traveled way, take care to not displace shoulder gravel onto the sodded (vegetated) area or cause damage to the sod (vegetation) under the snow. It is understood that all ROW surfaces are not completely level and smooth. If it is not practicable to raise the wing plow high enough to assure complete avoidance of all contact with the gravel and sod, and some impacts result, minimize disturbance to the greatest extent practicable.

III. Definitions/Background

Snowplowing/snow removal: For the purpose of this protocol snowplowing and snow removal includes the use of plows, blades and wing plows mounted on front end loaders, graders and other mechanized equipment to wing, bench and otherwise remove snow from the traveled way and road shoulder.

Definition and diagram of terms used:

Traveled Way	lane, driving surface
Shoulder	paved or unpaved portion of the roadtop – able to accommodate vehicles between traveled way and inslope
Pivot Point	transition area between shoulder and inslope
Inslope	non-drivable bank between shoulder and ditch bottom
ROW	The land over which a public road legally passes, normally described in terms of distance from the centerline of the road.



IV. Referenced Documents

- 1) State Highway Maintenance Manual, Exhibit 32.10 Storm Cleanup Winging and Benching, Effective January 1, 2001.