5. Protection and Safety

Objectives

- *Protect from wind or snow*
- *Increase biological pest control*
- *Protect from flood waters*
- *Create a safe environment*

Buffer functions

1. Reduce wind energy
2. Modify microclimate
3. Enhance habitat for predators of pests
4. Reduce flood water levels and erosion
5. Reduce hazards

Design Guidelines for Protection and Safety	Buffer Functions: Reduce wind energy	Modify microclimate	Enhance habitat for predators of pests	Reduce flood water levels and erosion	Reduce hazards
5.1 Managing insect pests with buffers	✓	✓	✓		
5.2 Plants that attract beneficial insects		✓	✓		
5.3 Buffers and spray drift	✓	✓	✓		✓
5.4 Weed control with buffers	✓		✓		
5.5 Buffers and road intersections					✓
5.6 Managing shade		✓			✓
5.7 Managing drifting snow	✓	✓			✓
5.8 Windbreaks for livestock	✓	✓			
5.9 Flood attenuation and buffers				✓	✓

Design Guidelines for Protection and Safety	Buffer Functions: Reduce wind energy	Modify microclimate	Enhance habitat for predators of pests	Reduce flood water levels and erosion	Reduce hazards
5.10 Waterbreaks				✓	✓
5.11 Wildfire defensible buffer zones	✓	✓			✓

Additional Design Guidelines that may Benefit Protection and Safety	Buffer Functions: Reduce wind energy	Modify microclimate	Enhance habitat for predators of pests	Reduce flood water levels and erosion	Reduce hazards
1.18 Allowances for bank erosion				✓	✓
2.2 Patch primer		✓	✓		
2.9 Corridor width		✓	✓	✓	
2.13 Roads and wildlife crossings					✓
2.14 Roadside corridors					✓
3.2 Windbreaks for wind erosion	✓	✓	✓		✓
3.3 Herbaceous wind barriers	✓	✓	✓		✓
4.4 Windbreaks and crop yields	✓	✓	✓		
4.5 Alley cropping	✓	✓	✓		
4.7 Energy conservation: site	✓	✓			
4.8 Energy conservation: landscape	✓	✓			
4.9 Crop pollinator habitat	✓	✓	✓		
6.2 Windbreaks for odor control	✓	✓			✓
6.3 Air quality buffers	✓	✓			✓