

Exploratory Co-Benefits Assessment – Derived from TerraCount and the Nature-Based Solutions (NBS) Explorer Tool

Climate Smart Activity	Total Co-Benefit Score	Human Wellbeing		Water Quality /Quantity								Biodiversity							
		Air Quality	Scenic Value	Urban Water Conservation	Improved Surface Water Storage	Improved Surface and Ground-water Quality	Ground-water Recharge/Storage Potential	Reduced Runoff/Erosion	Improved Flow Regime	Flood Protection	Watershed Integrity	Terrestrial Connectivity	Natural Habitat Area	Priority Conservation Areas	Terrestrial Habitat Value	Increased Native Animal Species	Increased Native Plant Species	Natural Pest Control	Support for Local Pollinators
Climate Smart Activity by Category	Sum of Co-benefits Across All Categories (+) = 1, (-) = -1, (+/-) = 0																		
Natural Lands																			
Restoration of Native Grasses ¹	11					(+)	(+)	(+)	(+)	(+)		(+)	(+)		(+)	(+)		(+)	
Oak Woodland Restoration ¹	5	(+)				(+)					(+)		(+)	(+)	(+/-)				
Riparian Restoration ¹	8	(+)	(+)	(-)							(+)		(+)	(+)	(+/-)				(+)
Compost Application ¹	10	(-)			(+)	(+)	(+)	(+)	(+)	(+)		(+)				(+)	(+)		(+)
Urban Lands																			
Urban Forestry ¹	6	(+)	(+)								(+)	(+)	(+)		(+)				
Agricultural Lands																			
Row Crops																			
Cover Crops ¹	9	(+)	(+)			(+)						(+)			(+)	(+)	(+)	(+)	(+)
Mulching ^{1,2}	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)			(+)
Compost Application ^{1,2}	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)			(+)
Hedgerow planting ^{1,2}	18	(+)	(+)		(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)
Windbreak Establishment ²	8	(+)	(+)									(+)			(+)	(+)	(+)	(+)	(+)
Riparian Forest Buffer ^{1,2}	12	(+)	(+)	(-)		(+)					(+)	(+)	(+)	(+)	(+/-)	(+)	(+)	(+)	(+)
Riparian Herbaceous Cover ^{1,2}	12	(+)	(+)	(-)		(+)					(+)	(+)	(+)	(+)	(+/-)	(+)	(+)	(+)	(+)
Field Border ²	8	(+)	(+)									(+)			(+)	(+)	(+)	(+)	(+)
Alley Cropping ²	8	(+)	(+)									(+)			(+)	(+)	(+)	(+)	(+)
Conservation Crop Rotation ²	8	(+)	(+)									(+)			(+)	(+)	(+)	(+)	(+)
Residue Management- Reduced Till ²	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)			(+)
Residue Management- No Till ²	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)			(+)
Orchards and Vineyards																			
Cover Crops ^{1,2}	9	(+)	(+)			(+)						(+)			(+)	(+)	(+)	(+)	(+)
Mulching ^{1,2}	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)			(+)
Compost Application ^{1,2}	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)			(+)
Hedgerow planting ²	18	(+)	(+)		(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)
Windbreak Establishment ²	8	(+)	(+)									(+)			(+)	(+)	(+)	(+)	(+)
Vineyard Only																			
Residue Management- Reduced Till ²	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)			(+)
Residue Management- No Till ²	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)			(+)
Orchard Only																			
Residue Management- Reduced Till ²	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)			(+)
Residue Management- No Till ²	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)			(+)
Whole Orchard Recycling**	0																		
Urban Farms																			
Cover Crops ^{1,2}	9	(+)	(+)			(+)						(+)			(+)	(+)	(+)	(+)	(+)
Mulching ²	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)			(+)
Compost Application ^{1,2}	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)			(+)
Hedgerow planting ^{1,2}	18	(+)	(+)		(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)
Windbreak Establishment ¹	8	(+)	(+)									(+)			(+)	(+)	(+)	(+)	(+)
Field Border ²	8	(+)	(+)									(+)			(+)	(+)	(+)	(+)	(+)
Alley Cropping ²	8	(+)	(+)									(+)			(+)	(+)	(+)	(+)	(+)
Conservation Crop Rotation ²	8	(+)	(+)									(+)			(+)	(+)	(+)	(+)	(+)

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Climate Smart Activity by Category	Sum of Co-benefits Across All Categories (+) = 1, (-) = -1, (+/-) = 0																		
Residue Management- Reduced Till ²	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)		(+)	
Residue Management- No Till ²	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)		(+)	
Rangeland and Pasture																			
Compost Application to Rangelands ^{1,2}	10				(+)	(+)	(+)	(+)	(+)	(+)		(+)			(+)	(+)		(+)	
Prescribed Grazing (Pasture) ²	10				(+)	(+)	(+)	(+)		(+)		(+)		(+)	(+)	(+)		(+)	
Prescribed Grazing (Rangelands) ²	10				(+)	(+)	(+)	(+)		(+)		(+)		(+)	(+)	(+)		(+)	
Native Oak Restoration/ Silvopasture ^{1,2}	13	(+)	(+)		(+)	(+)	(+)	(+)		(+)	(+)	(+)		(+)	(+)	(+)		(+)	
Riparian Restoration ^{1,2}	11	(+)	(+)	(-)							(+)	(+)	(+)	(+/-)	(+)	(+)	(+)	(+)	(+)
Range Planting ¹	8	(+)	(+)									(+)		(+)	(+)	(+)	(+)	(+)	

¹ Co-benefits derived from TerraCount

² Co-benefits derived from Nature-Based Solutions (NBS) Explorer Tool

**No co-benefits data was found in either source for this activity, row left blank for consistency of methodology; however there are co-benefits recognized in the literature for this activity.