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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES *For NRCS Planning and Program Implementation*

The *Maryland NRCS Practice Effects on Threatened and Endangered Species* (NRCS Practice Effects) was developed in coordination with NRCS and USFWS biologists. The purpose of the document is to provide conservation planners in Maryland with a consistent process for determining the potential effects of NRCS conservation practices on T&E species. The protection and conservation of T&E species is consistent with the NRCS mission, and is required for compliance with NRCS policy, the National Environmental Policy Act (NEPA), and the Endangered Species Act (ESA).

The *NRCS Practice Effects* document is not intended to be the only source of guidance for protecting and conserving T&E species, but is provided as a planning tool for evaluating the potential effects of NRCS practices. Further guidance on NEPA and ESA compliance for T&E species can be found in the document, *Guidance for Endangered Species Act Compliance and T&E Species Conservation in Maryland*, which includes the standard operating procedure for use of the *NRCS Practice Effects* document. A decision diagram has been developed to assist with determining the course of action when making an effects determination using the *NRCS Practice Effects* document.

The *NRCS Practice Effects* document lists the potential effects of NRCS conservation practices on T&E species, and provides recommendations for avoiding adverse effects, identifying beneficial effects, implementing beneficial management activities, and identifying the need for consultation or coordination. Potential effects and recommendations on the document are shown as abbreviations and codes. The format of the recommendation code is a letter followed by a number, in which the letter identifies the type of recommendation. Definitions of the effects and recommendation categories, and recommendation code key are provided below.

The *NRCS Practice Effects* document is provided in two formats:

1. Grouped by practice
2. Grouped by species

*Currently, the NRCS Practice Effects document only provides potential effects for the federal-listed species that are likely to be encountered in the environments in which NRCS activities are typically conducted. State-listed species must also be considered when determining the potential effects of proposed practices.*

## DEFINITIONS

**Effects Categories.** The following terms are used for effects determinations:

**May Affect** – This category includes both potentially beneficial and potentially adverse effects.

**May Benefit (MB)** – The proposed practice may benefit T&E species. A practice that affects T&E species beneficially is required to do so without adverse effects (unless an incidental take permit has been issued).

**May Benefit and/or Adversely Affect (MBAA)** – The proposed practice may benefit and/or adversely affect T&E species, depending on how the practice is implemented. Even though a practice is potentially beneficial, requirements to avoid adverse effects must be implemented.

**May Adversely Affect (MAA)** – The proposed practice may adversely affect T&E species. If adverse effects can not be avoided, consultation is required.

**Not Likely to Adversely Affect (NLTAA)** – The proposed practice is determined to be *not likely to adversely affect* T&E species. When a NLTAA determination is made, planning can proceed. Conditions are often applied to a NLTAA determination. A NLTAA determination can be made when:

- The proposed practice is determined to have a beneficial effect on T&E species, without any adverse effects; or,
- The practice can be implemented in a manner that avoids adverse effects on T&E species.

**No Effect (NE)** – The proposed practice is determined to have no effect, either beneficial or adverse, on T&E species. When a *no effect* determination is made, planning can proceed.

**Recommendation Categories.** The following categories are used in the *NRCS Practice Effects* document:

**Adverse (X)** – Specific conditions for when a proposed practice may adversely affect T&E species.

**Avoid (A)** – Conditions that when met, can avoid adverse effects on T&E species. If these conditions can not be met, and alternatives to the practice are not available, consultation is required.

**Beneficial (B)** – Conditions when a practice may beneficially affect T&E species. This information can be used for the purposes of proactive T&E species conservation.

**BMP's Required (R)** – A BMP is required to be implemented to avoid adverse effects on T&E species.

**Consult/Coordination (C)** – Consultation or coordination with an appropriate agency is required. Consultation or coordination may be required when an effect is beneficial or potentially adverse. Coordination typically refers to situations in which the fish and wildlife agency has previously analyzed the effects of the practice, but coordination with the agency is needed to avoid adverse effects. Situations in which practices are being implemented for the specific benefit of a species (e.g. habitat restoration) often require coordination.

**Management Recommendation (M)** – Recommendation to support T&E species conservation, but not required to avoid adverse effects.

**NLTAA (N)** – Condition required to avoid adverse effects on T&E species. This category may provide an alternative to “avoid” recommendations.

**RECOMMENDATION CODE KEY****ADVERSE**

- X1 May adversely affect if earthmoving or placement occurs adjacent to stream at or upstream of known species locations. If practice must be placed adjacent to stream, not likely to adversely affect (NLTA) provided best management practices to abate sediment are implemented.
- X2 Tree removal associated with the practice may adversely affect Indiana bat if conducted within a 2 mile radius of known maternity colonies. Any tree removal within this radius should be conducted between November 15th and March 31st. Trees over 5-inch DBH with the following characteristics should not be removed at any time: Tree species with exfoliating bark such as shellbark or shagbark hickories and white oak; dead and dying trees with exfoliating bark, broken tree tops, and splintered or split areas; trees with cavities or hollowed areas. If this recommendation cannot be met, consult with FWS.
- X3 Will adversely affect Puritan tiger beetle if implemented on cliffs providing PTB habitat.
- X4 Potentially adverse if being constructed/implemented within occupied habitat or within 300 feet upstream of occupied habitat; consult with FWS. Otherwise, may be beneficial if it reduces trampling or vehicle use in these areas, or increases stream stability.

**AVOID**

- A1 Avoid placement/practice within 100 feet of habitat supporting the species.
- A2 Avoid placement within 300 feet of wetland or waterway supporting the species.
- A3 Avoid tree and shrub planting within 300 feet of habitat supporting the species.
- A4 Avoid practice within habitat supporting species.
- A5 Avoid animal waste application within 100 feet of wetland or waterway supporting the species.
- A6 Avoid impacts to surface and groundwater hydrology of habitat supporting the species.
- A7 Avoid clearing trees over 10-inch DBH in woodlands within known distribution of Delmarva fox squirrel.
- A8 Avoid use of herbicide within 100 feet of known species population.
- A9 Avoid cutting trees or brush within a 100-foot buffer along habitat streams or wetlands.
- A10 Avoid herbicide use within species known habitat; limit herbicide use to ground-based foliar application adjacent (within 200 feet) to species habitat.
- A11 Avoid placing water intake in immediate vicinity of mussel beds.
- A12 Avoid direct discharge into streams or wetlands providing habitat for species.
- A13 Avoid practice within 300 feet of habitat supporting species.

**BENEFICIAL**

- B1 Beneficial if practice implemented adjacent to streams at or upstream of known species locations.
- B2 Beneficial if practice implemented adjacent to wetlands supporting species.
- B3 Beneficial if grazing is restricted within 100 feet of habitat stream or wetland.
- B4 May benefit from reduced pesticide use within 2-mile radius of known Indiana bat maternity colonies.
- B5 May be beneficial if it involves tree-planting within known Delmarva fox squirrel or Indiana bat distribution. Particularly beneficial to DFS if it provides corridor between isolated woodlands. Particularly beneficial to Indiana bat if it involves planting of shagbark hickory or other trees with exfoliating bark within a 2 mile radius of known maternity colonies (Carroll County).
- B6 Beneficial (reduction of sediment) within subwatershed of aquatic and wetland species, provided it does not involve conversion from pasture or woodlands to cropland.

- B7 May be beneficial as a water quality buffer, provided it does not increase siltation or impact hydrology of habitat supporting species.
- B8 May be beneficial if used to prevent livestock or off-road-vehicles from entering streams supporting the species.
- B9 Beneficial in existing heavy use areas if it reduces sediment and livestock waste reaching stream or wetland habitat of the species.
- B10 Beneficial if addressing existing pollution source to habitat.
- B11 Beneficial if practice implemented adjacent to streams at or upstream of known species locations, provided no brush or tree removal involved.
- B12 Beneficial if implemented in drainage area within 1,000 feet of waters or wetlands supporting species.

**BMP'S REQUIRED**

- R1 Implement BMP's to address transport of nutrients, sediments or toxic substances to wetlands and waters supporting the species.
- R2 If practice is placed adjacent to wetland providing habitat for this species, use best management practices to abate sediment.

**CONSULT/COORDINATE**

- C1 Maintenance grazing is beneficial in bog turtle habitat if criteria in MD NRCS *Bog Turtle Habitat Maintenance Grazing Guidance* and applicable conservation measures in FWS March 10, 2006 Biological Opinion and appendices are followed. Otherwise, requires further consultation with FWS.
- C2 Beneficial in bog turtle habitat if done as part of a bog turtle management plan approved by DNR-WHS and in accordance with conservation measures in FWS March 10, 2006 Biological Opinion and appendices. Otherwise, requires further consultation with FWS.
- C3 May be beneficial if designed for restoration of bog turtle habitat, but would require coordination with DNR-WHS and/or FWS.
- C4 May be beneficial if planned and conducted in coordination with DNR-WHS for benefit of species.
- C5 Consult with FWS if within or adjacent to Puritan tiger beetle habitat. May be beneficial if used for cliff habitat restoration.
- C6 Consult with FWS if practice is within 200 feet of known habitat of Northeastern bulrush (Cherry Run USGS Quad).
- C7 Can be beneficial if conducted as part of a sandplain gerardia management plan in coordination with DNR-WHS.
- C8 Coordination with FWS and/or DNR-WHS required if within, or less than 1000 feet upstream of stream segment or wetland supporting species.
- C9 Requires consultation in streams known to support species, but potentially beneficial at some locations.

**MANAGEMENT RECOMMENDATION**

- M1 Maintaining connections between blocks of habitat is recommended for the benefit the species.
- M2 Maintenance of forested buffers along streams is recommended for the benefit of the species.

**NOT LIKELY TO ADVERSELY AFFECT (NLTA)**

- N1 NLTA provided not planting reed canarygrass or similarly aggressive wetland-tolerant species within 1,000 feet of habitat supporting the species.
- N2 NLTA if tapping deep aquifer not controlling hydrology of habitat.
- N3 NLTA provided any clearing of woodlands and treelines with trees over 10-inch DBH is less than or equal to 1/2 acre, within known species occurrence.

**Practices Not Likely to Adversely Affect (NLTAAs)**

Practices determined to have no effect (NE), or to be potentially beneficial without potential adverse effects (MB) are considered NLTAAs. The following practices have been determined NLTAAs for all 13 species included in the *Maryland NRCS Practice Effects* document:

Amendments for the Treatment of Agricultural Waste (591)  
Contour Farming (330)  
Cover Crop (340)  
Irrigation System, Tailwater Recovery (447)  
Residue and Tillage Management, Mulch Till (345)  
Residue and Tillage Management, No-Till/Strip-Till/Direct Seed (329)  
Residue and Tillage Management, Seasonal (344)  
Roof Runoff Structure (558)  
Stripcropping (585)  
Transition to Organic Production (789)

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Access Control (472)</b>					
Animal	Bog Turtle	MBAA	C2	B8	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B8	
	Indiana Bat	NE			
	Maryland Darter	MB		B8	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MB		B8	
	Harperella	MB		B8	
	Northeastern Bulrush	MB		B8	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MB		B8	
	Swamp Pink	MB		B8	
<b>Access Road (560)</b>					
Animal	Bog Turtle	MAA	A2 A6		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	X1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	X1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A1 A6		
	Harperella	MAA	A1 A6		
	Northeastern Bulrush	MAA	A1 A6		
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MAA	A1 A6		
	Swamp Pink	MAA	A1 A6		
<b>Agrichemical Mixing Facility (702)</b>					
Animal	Bog Turtle	MAA	A2 R1		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A2 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A2 R1		
	Northeastern Beach Tiger Beetle	MAA	A13 R1		
	Puritan Tiger Beetle	MAA	A13 R1		
Plant	Canby's Dropwort	MAA	A2 A12 R1		
	Harperella	MAA	A2 A12 R1		
	Northeastern Bulrush	MAA	A2 A12 R1		
	Sandplain Gerardia	MAA	A13		
	Sensitive Joint-vetch	MAA	A2 A12 R1		
	Swamp Pink	MAA	A2 A12 R1		

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

<b>Animal/Plant</b>	<b>Species</b>	<b>Potential Effect</b>	<b>Recommendation</b>	<b>Benefit</b>	<b>Mgmt</b>
<b>Amendments for the Treatment of Agricultural Waste (591)</b>					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
<b>Anaerobic Digester, Controlled Temperature (366)</b>					
Animal	Bog Turtle	MAA	A2	R1	
	Delmarva Fox Squirrel	MAA	A7	N3	M1
	Dwarf-wedge Mussel	MAA	A2	R1	
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A2	R1	
	Northeastern Beach Tiger Beetle	MAA	A1		
	Puritan Tiger Beetle	MAA	A1		
Plant	Canby's Dropwort	MAA	A2	R1	
	Harperella	MAA	A2	R1	
	Northeastern Bulrush	MAA	A2	R1	
	Sandplain Gerardia	MAA	A1		
	Sensitive Joint-vetch	MAA	A2	R1	
	Swamp Pink	MAA	A2	R1	
<b>Animal Mortality Facility (316)</b>					
Animal	Bog Turtle	MAA	A2	R1	
	Delmarva Fox Squirrel	MAA	A7	N3	M1
	Dwarf-wedge Mussel	MAA	A2	R1	
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A2	R1	
	Northeastern Beach Tiger Beetle	MAA	A1		
	Puritan Tiger Beetle	MAA	A1		
Plant	Canby's Dropwort	MAA	A2	R1	
	Harperella	MAA	A2	R1	
	Northeastern Bulrush	MAA	A2	R1	
	Sandplain Gerardia	MAA	A1		
	Sensitive Joint-vetch	MAA	A2	R1	
	Swamp Pink	MAA	A2	R1	

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Brush Management (314)</b>					
Animal	Bog Turtle	MBAA	C2 R1		
	Delmarva Fox Squirrel	MAA	A7		
	Dwarf-wedge Mussel	MAA	R1		M2
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	R1		M2
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	MBAA	C5		
Plant	Canby's Dropwort	MBAA	A4 A10 C4 R1		
	Harperella	MAA	A4 A10 R1		M2
	Northeastern Bulrush	MBAA	A4 A10 C6 R1		
	Sandplain Gerardia	MBAA	A1 A10 C7		
	Sensitive Joint-vetch	MAA	A4 A10 R1		
	Swamp Pink	MAA	A4 A10		
<b>Closure of Waste Impoundment (360)</b>					
Animal	Bog Turtle	MAA	R1		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	R1		
	Indiana Bat	NE			
	Maryland Darter	MAA	R1		
	Northeastern Beach Tiger Beetle	MAA	R1		
	Puritan Tiger Beetle	MAA	R1		
Plant	Canby's Dropwort	MAA	A12 R1		
	Harperella	MAA	A12 R1		
	Northeastern Bulrush	MAA	A12 R1		
	Sandplain Gerardia	MAA	R1		
	Sensitive Joint-vetch	MAA	A12 R1		
	Swamp Pink	MAA	A12 R1		
<b>Composting Facility (317)</b>					
Animal	Bog Turtle	MAA	A2 A6 R1		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A2 A6 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A2 A6 R1		
	Northeastern Beach Tiger Beetle	MAA	A1		
	Puritan Tiger Beetle	MAA	A1		
Plant	Canby's Dropwort	MAA	A2 A6 R1		
	Harperella	MAA	A2 A6 R1		
	Northeastern Bulrush	MAA	A2 A6 R1		
	Sandplain Gerardia	MAA	A1		
	Sensitive Joint-vetch	MAA	A2 A6 R1		
	Swamp Pink	MAA	A5 A6 R1		

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

<b>Animal/Plant</b>	<b>Species</b>	<b>Potential Effect</b>	<b>Recommendation</b>			<b>Benefit</b>	<b>Mgmt</b>
<b>Conservation Cover (327)</b>							
Animal	Bog Turtle	MBAA	A3	A4	N1	B12	
	Delmarva Fox Squirrel	MBAA	A7	N3		B5	
	Dwarf-wedge Mussel	MB				B6	B11 M2
	Indiana Bat	MBAA	X2			B5	
	Maryland Darter	MB				B6	B11 M2
	Northeastern Beach Tiger Beetle	NE					
	Puritan Tiger Beetle	MAA	X3				
Plant	Canby's Dropwort	MBAA	A3	A4	A10 N1	B12	
	Harperella	MBAA	A10			B6	B11 M2
	Northeastern Bulrush	MBAA	A3	A4	A10 N1	B12	
	Sandplain Gerardia	MAA	A1	A10			
	Sensitive Joint-vetch	MBAA	A4	A10	N1	B12	
	Swamp Pink	MBAA	A3	A4	A10 N1	B12	
	<b>Conservation Crop Rotation (328)</b>						
Animal	Bog Turtle	MB				B12	
	Delmarva Fox Squirrel	NE					
	Dwarf-wedge Mussel	MB				B6	
	Indiana Bat	NE					
	Maryland Darter	MB				B6	
	Northeastern Beach Tiger Beetle	NE					
	Puritan Tiger Beetle	NE					
Plant	Canby's Dropwort	MB				B12	
	Harperella	MB				B6	
	Northeastern Bulrush	MB				B12	
	Sandplain Gerardia	NE					
	Sensitive Joint-vetch	MB				B12	
	Swamp Pink	MB				B12	
	<b>Constructed Wetland (656)</b>						
Animal	Bog Turtle	MBAA	A4	A12		B10	
	Delmarva Fox Squirrel	MAA	A7	N3			M1
	Dwarf-wedge Mussel	MBAA	A12			B10	
	Indiana Bat	MAA	X2				
	Maryland Darter	MBAA	A12			B10	
	Northeastern Beach Tiger Beetle	NE					
	Puritan Tiger Beetle	NE					
Plant	Canby's Dropwort	MBAA	A2	A12	R1	B10	
	Harperella	MBAA	A2	A12	R1	B10	
	Northeastern Bulrush	MBAA	A2	A12	R1	B10	
	Sandplain Gerardia	NE					
	Sensitive Joint-vetch	MBAA	A2	A12	R1	B10	
	Swamp Pink	MBAA	A2	A12	R1	B10	

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Contour Buffer Strips (332)</b>					
Animal	Bog Turtle	MBAA	A4 N1	B12	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B6	
	Indiana Bat	MAA	X2		
	Maryland Darter	MB		B6	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	N1	B12	
	Harperella	MB		B6	
	Northeastern Bulrush	MBAA	N1	B12	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MBAA	N1	B12	
	Swamp Pink	MBAA	N1	B12	
<b>Contour Farming (330)</b>					
Animal	Bog Turtle	MB		B12	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B6	
	Indiana Bat	NE			
	Maryland Darter	MB		B6	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MB		B12	
	Harperella	MB		B6	
	Northeastern Bulrush	MB		B12	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MB		B12	
	Swamp Pink	MB		B12	
<b>Cover Crop (340)</b>					
Animal	Bog Turtle	MB		B12	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B6	
	Indiana Bat	NE			
	Maryland Darter	MB		B6	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MB		B12	
	Harperella	MB		B6	
	Northeastern Bulrush	MB		B12	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MB		B12	
	Swamp Pink	MB		B12	

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation				Benefit	Mgmt
<b>Critical Area Planting (342)</b>								
Animal	Bog Turtle	MBAA	A3	A4	A10	N1	B12	
	Delmarva Fox Squirrel	MB					B5	
	Dwarf-wedge Mussel	MB					B6	B11 M2
	Indiana Bat	MBAA	X2				B5	
	Maryland Darter	MB					B6	B11 M2
	Northeastern Beach Tiger Beetle	NE						
	Puritan Tiger Beetle	MAA	X3					
Plant	Canby's Dropwort	MBAA	A3	A4	A10	N1	B12	
	Harperella	MBAA	A10				B6	B11 M2
	Northeastern Bulrush	MBAA	A3	A4	A10	N1	B12	
	Sandplain Gerardia	MAA	A1	A10				
	Sensitive Joint-vetch	MBAA	A4	A10	N1		B12	
	Swamp Pink	MBAA	A3	A4	A10	N1	B12	
	<b>Diversion (362)</b>							
Animal	Bog Turtle	MAA	A4	A6	R1			
	Delmarva Fox Squirrel	MAA	A7	N3				M1
	Dwarf-wedge Mussel	MAA	X1	R1				
	Indiana Bat	MAA	X2					
	Maryland Darter	MAA	X1	R1				
	Northeastern Beach Tiger Beetle	NE						
	Puritan Tiger Beetle	NE						
Plant	Canby's Dropwort	MAA	A4	A6	R1			
	Harperella	MAA	X1	A6	R1			
	Northeastern Bulrush	MAA	A1	R1				
	Sandplain Gerardia	MAA	A4					
	Sensitive Joint-vetch	MAA	R1					
	Swamp Pink	MAA	A4	A6	R1			
	<b>Dry Hydrant (432)</b>							
Animal	Bog Turtle	MAA	A6					
	Delmarva Fox Squirrel	NE						
	Dwarf-wedge Mussel	MAA	A11					
	Indiana Bat	NE						
	Maryland Darter	MAA	A4					
	Northeastern Beach Tiger Beetle	NE						
	Puritan Tiger Beetle	NE						
Plant	Canby's Dropwort	MAA	A4					
	Harperella	MAA	A4					
	Northeastern Bulrush	MAA	A4					
	Sandplain Gerardia	NE						
	Sensitive Joint-vetch	MAA	A4					
	Swamp Pink	MAA	A4					

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Fence (382)</b>					
Animal	Bog Turtle	MBAA	C2	B8	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B8	
	Indiana Bat	MAA	X2		
	Maryland Darter	MB		B8	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MB		B8	
	Harperella	MB		B8	
	Northeastern Bulrush	MB		B8	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MB		B8	
	Swamp Pink	MB		B8	
<b>Field Border (386)</b>					
Animal	Bog Turtle	MBAA	A3 A4 A10 N1	B12	
	Delmarva Fox Squirrel	MAA	A7		
	Dwarf-wedge Mussel	MB		B6 B11 M2	
	Indiana Bat	MAA	X2		
	Maryland Darter	MB		B6 B11 M2	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	MAA	X3		
Plant	Canby's Dropwort	MBAA	A3 A4 A10 N1	B12	
	Harperella	MBAA	A10	B6 B11 M2	
	Northeastern Bulrush	MBAA	A3 A4 A10 N1	B12	
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MBAA	A4 A10 N1	B12	
	Swamp Pink	MBAA	A3 A4 A10 N1	B12	
<b>Filter Strip (393)</b>					
Animal	Bog Turtle	MBAA	A4 N1	B12	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MB		B6 B11 M2	
	Indiana Bat	MAA	X2		
	Maryland Darter	MB		B6 B11 M2	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	MAA	X3		
Plant	Canby's Dropwort	MBAA	A4 A10 N1	B12	
	Harperella	MBAA	A10	B6 B11 M2	
	Northeastern Bulrush	MBAA	A4 A10 N1	B12	
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MBAA	A4 A10 N1	B12	
	Swamp Pink	MBAA	A4 A10 N1	B12	

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Fish Passage (396)</b>					
Animal	Bog Turtle	MBAA	C3		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	C9		
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	C8		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	MAA	A4		
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
<b>Fishpond Management (399)</b>					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	MAA	A10		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
<b>Forage Harvest Management (511)</b>					
Animal	Bog Turtle	MAA	A4		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Forest Stand Improvement (666)</b>					
Animal	Bog Turtle	MBAA	C2		
	Delmarva Fox Squirrel	MBAA	A7 C4		M1
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MBAA	X2	B5	
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A6 A13		
	Harperella	MAA	A9 A10		
	Northeastern Bulrush	MAA	A6 A13		
	Sandplain Gerardia	MBAA	C7		
	Sensitive Joint-vetch	MBAA	A6 A13 C4		
	Swamp Pink	MBAA	A6 A13 C4		
<b>Grade Stabilization Structure (410)</b>					
Animal	Bog Turtle	MBAA	C3	B7	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	A4	B10	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	C8	B10	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MB		B10	
	Harperella	MBAA	C9	B10	
	Northeastern Bulrush	MB		B10	
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MB		B10	
	Swamp Pink	MB		B10	
<b>Grassed Waterway (412)</b>					
Animal	Bog Turtle	MBAA	A4 R1	B10	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	R1	B10	M2
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	R1	B10	M2
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A4 R1	B10	
	Harperella	MBAA	R1	B10	M2
	Northeastern Bulrush	MBAA	A4 R1	B10	
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MBAA	A4 R1	B10	
	Swamp Pink	MBAA	A4 R1	B10	

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Heavy Use Area Protection (561)</b>					
Animal	Bog Turtle	MBAA	A2 A6 R1	B9	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MB		B9	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	A2 A6 R1	B9	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A2 A6 R1	B9	
	Harperella	MBAA	A4	B9	
	Northeastern Bulrush	MBAA	A4 R1	B9	
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MBAA	A2 A6 R1	B9	
	Swamp Pink	MBAA	A4 A6 R1	B9	
<b>Hedgerow Planting (422)</b>					
Animal	Bog Turtle	MAA	A3 N1		
	Delmarva Fox Squirrel	MB		B5	
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MB		B5	
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	MAA	X3		
Plant	Canby's Dropwort	MAA	A3 A10 N1		
	Harperella	MAA	A10		
	Northeastern Bulrush	MAA	A3 A10 N1		
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MAA	A4 A10 N1		
	Swamp Pink	MAA	A3 A10 N1		
<b>Irrigation System, Microirrigation (441)</b>					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A6		
	Indiana Bat	NE			
	Maryland Darter	MAA	A6		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A6		
	Harperella	MAA	A6		
	Northeastern Bulrush	MAA	A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A6		
	Swamp Pink	MAA	A6		

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Irrigation System, Sprinkler (442)</b>					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	MAA	A7	N3	M1
	Dwarf-wedge Mussel	MAA	A6		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A6		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A1	A6	R1
	Harperella	MAA	A6	R1	
	Northeastern Bulrush	MAA	A1	A6	R1
	Sandplain Gerardia	MAA	R1		
	Sensitive Joint-vetch	MAA	A1	A6	R1
	Swamp Pink	MAA	A1	A6	R1
<b>Irrigation System, Tailwater Recovery (447)</b>					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
<b>Irrigation Water Management (449)</b>					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A6		
	Indiana Bat	NE			
	Maryland Darter	MAA	A6		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A6		
	Harperella	MAA	A6		
	Northeastern Bulrush	MAA	A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A6		
	Swamp Pink	MAA	A6		

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Lined Waterway or Outlet (468)</b>					
Animal	Bog Turtle	MBAA	A4 R1	B10	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	R1	B10	M2
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	R1	B10	M2
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A4 R1	B10	
	Harperella	MBAA	R1	B10	M2
	Northeastern Bulrush	MBAA	A4 R1	B10	
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MBAA	A4 R1	B10	
	Swamp Pink	MBAA	A4 R1	B10	
	<b>Manure Transfer (634)</b>				
Animal	Bog Turtle	MAA	A2 R1		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A1 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A1 R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2 R1		
	Harperella	MAA	A1 R1		
	Northeastern Bulrush	MAA	A1 R1		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A2 R1		
	Swamp Pink	MAA	A2 R1		
	<b>Nutrient Management (590)</b>				
Animal	Bog Turtle	MAA	A5		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A5		
	Indiana Bat	NE			
	Maryland Darter	MAA	A5		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A5		
	Harperella	MAA	A5		
	Northeastern Bulrush	MAA	A5		
	Sandplain Gerardia	MAA	A5		
	Sensitive Joint-vetch	MAA	A5		
	Swamp Pink	MAA	A5		

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Pasture and Hay Planting (512)</b>					
Animal	Bog Turtle	MAA	A4	N1	
	Delmarva Fox Squirrel	MAA	A7		
	Dwarf-wedge Mussel	MAA	A9		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A9		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A1	A10	N1
	Harperella	MAA	A9	A10	
	Northeastern Bulrush	MAA	A1	A10	N1
	Sandplain Gerardia	MAA	A1	A10	
	Sensitive Joint-vetch	MAA	A1	A10	N1
	Swamp Pink	MAA	A1	A10	N1
<b>Pest Management (595)</b>					
Animal	Bog Turtle	MBAA	C2		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MB			B4
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A10		
	Harperella	MAA	A10		
	Northeastern Bulrush	MAA	A10		
	Sandplain Gerardia	MBAA	C7		
	Sensitive Joint-vetch	MBAA	A10	C4	
	Swamp Pink	MAA	A10		
<b>Pipeline (516)</b>					
Animal	Bog Turtle	MAA	A4		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A4		
	Indiana Bat	MAA	X2		
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4		
	Harperella	MAA	A4		
	Northeastern Bulrush	MAA	A4		
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A4		

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

<b>Animal/Plant</b>	<b>Species</b>	<b>Potential Effect</b>	<b>Recommendation</b>	<b>Benefit</b>	<b>Mgmt</b>
<b>Pond (378)</b>					
Animal	Bog Turtle	MAA	A1 A6		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A4		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A1 A6		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4 A6 R1		
	Harperella	MAA	A4 A6 R1		
	Northeastern Bulrush	MAA	A4 A6 R1		
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MAA	A4 A6 R1		
	Swamp Pink	MAA	A13 A6 R1		
<b>Pond Sealing or Lining, Bentonite Sealant (521C)</b>					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4 A6		
	Harperella	MAA	A4 A6		
	Northeastern Bulrush	MAA	A4 A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A4 A6		
	Swamp Pink	MAA	A13 A6		
<b>Pond Sealing or Lining, Flexible Membrane (521A)</b>					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4 A6		
	Harperella	MAA	A4 A6		
	Northeastern Bulrush	MAA	A4 A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A4 A6		
	Swamp Pink	MAA	A13 A6		

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Pond Sealing or Lining, Soil Dispersant (521B)</b>					
Animal	Bog Turtle	MAA	A1		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4 A6 R1		
	Harperella	MAA	A4 A6 R1		
	Northeastern Bulrush	MAA	A4 A6 R1		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A4 A6 R1		
	Swamp Pink	MAA	A13 A6 R1		
<b>Prescribed Forestry (409)</b>					
Animal	Bog Turtle	MBAA	C3		
	Delmarva Fox Squirrel	MBAA	A7 C4		M1
	Dwarf-wedge Mussel	MAA	A9		
	Indiana Bat	MBAA	X2	B5	
	Maryland Darter	MAA	A9		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A6 A13		
	Harperella	MAA	A9 A10		
	Northeastern Bulrush	MAA	A6 A13		
	Sandplain Gerardia	MBAA	C7		
	Sensitive Joint-vetch	MBAA	A6 A13 C4		
	Swamp Pink	MBAA	A6 A13 C4		
<b>Prescribed Grazing (528)</b>					
Animal	Bog Turtle	MBAA	C1		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	A9	B8	
	Indiana Bat	NE			
	Maryland Darter	MBAA	A9	B8	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4		
	Harperella	MBAA	A9	B8	
	Northeastern Bulrush	MAA	A4		
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MAA	A4		
	Swamp Pink	MAA	A4		

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Residue and Tillage Management, Mulch Till (345)</b>					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
<b>Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)</b>					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
<b>Residue Management, Seasonal (344)</b>					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Restoration and Management of Rare or Declining Habitats (643)</b>					
Animal	Bog Turtle	MBAA	C4		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MAA	X2		
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	C4		
	Harperella	NE			
	Northeastern Bulrush	MBAA	C6		
	Sandplain Gerardia	MBAA	C7		
	Sensitive Joint-vetch	MBAA	C4		
	Swamp Pink	MBAA	C4		
<b>Riparian Forest Buffer (391)</b>					
Animal	Bog Turtle	MBAA	A3		B12
	Delmarva Fox Squirrel	MB			B5
	Dwarf-wedge Mussel	MB			B6
	Indiana Bat	MB			B5
	Maryland Darter	MB			B6
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A3 A10		B12
	Harperella	MBAA	A10		B6
	Northeastern Bulrush	MBAA	A3 A10		B12
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MBAA	A4 A10		B12
	Swamp Pink	MBAA	A3 A10		B12
<b>Riparian Herbaceous Cover (390)</b>					
Animal	Bog Turtle	MBAA	A4 N1		B12
	Delmarva Fox Squirrel	MAA	A7		
	Dwarf-wedge Mussel	MB			B6 B11 M2
	Indiana Bat	MAA	X2		
	Maryland Darter	MB			B6 B11 M2
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A4 A10 N1		B12
	Harperella	MBAA	A10		B6 B11 M2
	Northeastern Bulrush	MBAA	A4 A10 N1		B12
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MBAA	A4 A10 N1		B12
	Swamp Pink	MBAA	A4 A10 N1		B12

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Roof Runoff Structure (558)</b>					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
<b>Sediment Basin (350)</b>					
Animal	Bog Turtle	MBAA	A1 A6	B7	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	A6 A9	B11	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	A6 A9	B11	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A4 A6 R1	B7	
	Harperella	MBAA	A4 A6 R1	B11	
	Northeastern Bulrush	MBAA	A4 A6 R1	B7	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MBAA	A4 A6 R1	B7	
	Swamp Pink	MBAA	A4 A6 R1	B7	
<b>Shallow Water Development and Management (646)</b>					
Animal	Bog Turtle	MAA	A1 A6		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MAA	X2		
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A1 A6		
	Harperella	NE			
	Northeastern Bulrush	MAA	A1 A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A1 A6		
	Swamp Pink	MAA	A1 A6		

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Sinkhole and Sinkhole Area Treatment (725)</b>					
Animal	Bog Turtle	MAA	A4		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	MAA	A4 A6 R1		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
<b>Spring Development (574)</b>					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MAA	X2		
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A6		
	Harperella	MAA	A6		
	Northeastern Bulrush	MAA	A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A6		
<b>Stream Crossing (578)</b>					
Animal	Bog Turtle	MBAA	C3	B8	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	X4	B8	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	X4	B8	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A4	B8	
	Harperella	MBAA	X4	B8	
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MBAA	A4	B8	

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Stream Habitat Improvement and Management (395)</b>					
Animal	Bog Turtle	MBAA	C3		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	C8		
	Indiana Bat	NE			
	Maryland Darter	MBAA	C8		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	MBAA	C8		
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A4		
<b>Streambank and Shoreline Protection (580)</b>					
Animal	Bog Turtle	MBAA	C3		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	C8		
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	C8		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	MBAA	C8		
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A4		
<b>Stripcropping (585)</b>					
Animal	Bog Turtle	MB		B12	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B6	
	Indiana Bat	NE			
	Maryland Darter	MB		B6	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MB		B12	
	Harperella	MB		B6	
	Northeastern Bulrush	MB		B12	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MB		B12	
	Swamp Pink	MB		B12	

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

<b>Animal/Plant</b>	<b>Species</b>	<b>Potential Effect</b>	<b>Recommendation</b>	<b>Benefit</b>	<b>Mgmt</b>
<b>Structure for Water Control (587)</b>					
Animal	Bog Turtle	MBAA	C3		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A4		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A4	A6	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2	A6	
	Harperella	MAA	A4	A6	
	Northeastern Bulrush	MAA	A4	A6	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A4	A6	
<b>Subsurface Drain (606)</b>					
Animal	Bog Turtle	MAA	A2	A6	R1
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2	A6	R1
	Harperella	MAA	R1		
	Northeastern Bulrush	MAA	A2	A6	R1
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A2	A6	R1
<b>Surface Drainage, Field Ditch (607)</b>					
Animal	Bog Turtle	MAA	A2	A6	R1
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2	A6	R1
	Harperella	MAA	R1		
	Northeastern Bulrush	MAA	A2	A6	R1
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A2	A6	R1

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Surface Drainage, Main or Lateral (608)</b>					
Animal	Bog Turtle	MAA	A2 A6 R1		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2 A6 R1		
	Harperella	MAA	R1		
	Northeastern Bulrush	MAA	A2 A6 R1		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A2 A6 R1		
<b>Terrace (600)</b>					
Animal	Bog Turtle	MBAA	A2 A6 R1		B12
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	R1		B6
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	R1		B6
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A2 A6 R1		B12
	Harperella	MBAA	R1		B6
	Northeastern Bulrush	MBAA	A2 A6 R1		B12
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MBAA	A2 A6 R1		B12
<b>Transition to Organic Production (789)</b>					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MB			B4
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Tree/Shrub Establishment (612)</b>					
Animal	Bog Turtle	MBAA	A3		B12
	Delmarva Fox Squirrel	MB			B5
	Dwarf-wedge Mussel	MB			B6
	Indiana Bat	MBAA	X2		B5
	Maryland Darter	MB			B6
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A6 A13		B12
	Harperella	MBAA	A9 A10		B6
	Northeastern Bulrush	MBAA	A6 A13		B12
	Sandplain Gerardia	MAA	A13		
	Sensitive Joint-vetch	MBAA	A6 A13		B12
	Swamp Pink	MBAA	A6 A13		B12
<b>Underground Outlet (620)</b>					
Animal	Bog Turtle	MAA	A2 A6 R1		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2 A6 R1		
	Harperella	MAA	R1		
	Northeastern Bulrush	MAA	A2 A6 R1		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A2 A6 R1		
<b>Upland Wildlife Habitat Management (645)</b>					
Animal	Bog Turtle	MBAA	A3 C3		
	Delmarva Fox Squirrel	MAA	A7		
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MAA	X2		
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	MBAA	C7		
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Vegetated Treatment Area (635)</b>					
Animal	Bog Turtle	MBAA	A2 A12	B10	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	A4 A12	B10	
	Indiana Bat	NE			
	Maryland Darter	MBAA	A12	B10	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A2 A12	B10	
	Harperella	MBAA	A12	B10	
	Northeastern Bulrush	MBAA	A2 A12	B10	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MBAA	A2 A12	B10	
	Swamp Pink	MBAA	A2 A12	B10	
<b>Waste Storage Facility (313)</b>					
Animal	Bog Turtle	MAA	A2 A6 R1		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A2 A6 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A2 A6 R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2 A6 R1		
	Harperella	MAA	A2 A6 R1		
	Northeastern Bulrush	MAA	A2 A6 R1		
	Sandplain Gerardia	MAA	A1		
	Sensitive Joint-vetch	MAA	A2 A6 R1		
	Swamp Pink	MAA	A2 A6 R1		
<b>Waste Treatment Lagoon (359)</b>					
Animal	Bog Turtle	MAA	A2 A6 R1		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A2 A6 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A2 A6 R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2 A6 R1		
	Harperella	MAA	A2 A6 R1		
	Northeastern Bulrush	MAA	A2 A6 R1		
	Sandplain Gerardia	MAA	A1		
	Sensitive Joint-vetch	MAA	A2 A6 R1		
	Swamp Pink	MAA	A2 A6 R1		

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

<b>Animal/Plant</b>	<b>Species</b>	<b>Potential Effect</b>	<b>Recommendation</b>	<b>Benefit</b>	<b>Mgmt</b>
<b>Waste Utilization (633)</b>					
Animal	Bog Turtle	MAA	A5		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A5		
	Indiana Bat	NE			
	Maryland Darter	MAA	A5		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A5		
	Harperella	MAA	A5		
	Northeastern Bulrush	MAA	A5		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A5		
	Swamp Pink	MAA	A5		
<b>Water and Sediment Control Basin (638)</b>					
Animal	Bog Turtle	MBAA	A1 A6 R1	B7	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	A6 A9 R1	B11	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	A6 A9 R1	B11	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A4 A6 R1	B7	
	Harperella	MBAA	A4 A6 R1	B11	
	Northeastern Bulrush	MBAA	A4 A6 R1	B7	
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MBAA	A4 A6 R1	B7	
	Swamp Pink	MBAA	A4 A6 R1	B7	
<b>Water Well (642)</b>					
Animal	Bog Turtle	MAA	A6 N2		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A6 N2		
	Indiana Bat	NE			
	Maryland Darter	MAA	A6 N2		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A6 N2		
	Harperella	MAA	A6 N2		
	Northeastern Bulrush	MAA	A6 N2		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A6 N2		
	Swamp Pink	MAA	A6 N2		

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**MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES**

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Watering Facility (614)</b>					
Animal	Bog Turtle	MBAA	A1 C3		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	A4	B8	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	A4	B8	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A1		
	Harperella	MBAA	A4	B8	
	Northeastern Bulrush	MAA	A1		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A1		
	Swamp Pink	MAA	A1		
<b>Wetland Creation (658)</b>					
Animal	Bog Turtle	MAA	A1 A6		
	Delmarva Fox Squirrel	MAA	A7		
	Dwarf-wedge Mussel	MAA	A6 A9		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A6 A9		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A1 A6		
	Harperella	MAA	A1 A6 A9 A10		
	Northeastern Bulrush	MAA	A1 A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A1 A6		
<b>Wetland Restoration (657)</b>					
Animal	Bog Turtle	MBAA	A1 A6 C3		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	A6 A9	B11	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	A6 A9	B11	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A1 A6 C4		
	Harperella	MBAA	A1 A6 A9 A10	B11	
	Northeastern Bulrush	MBAA	A1 A6 C4		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A1 A6 A10		
	Swamp Pink	MBAA	A1 A6 C4		

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
<b>Wetland Wildlife Habitat Management (644)</b>					
Animal	Bog Turtle	MBAA	C2		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4		
	Harperella	NE			
	Northeastern Bulrush	MAA	A4		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A4		
	Swamp Pink	MAA	A4		
<b>Windbreak/Shelterbelt Establishment (380)</b>					
Animal	Bog Turtle	MBAA	A3		B12
	Delmarva Fox Squirrel	MB			B5
	Dwarf-wedge Mussel	MB			B6
	Indiana Bat	MBAA	X2		B5
	Maryland Darter	MB			B6
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A3 A10		B12
	Harperella	MBAA	A10		B6
	Northeastern Bulrush	MBAA	A3 A10		B12
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MBAA	A4 A10		B12
	Swamp Pink	MBAA	A3 A10		B12

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Bog Turtle

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	MBAA	C2	B8	
Access Road (560)	MAA	A2 A6		
Agrichemical Mixing Facility (702)	MAA	A2 R1		
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	A2 R1		
Animal Mortality Facility (316)	MAA	A2 R1		
Brush Management (314)	MBAA	C2 R1		
Closure of Waste Impoundment (360)	MAA	R1		
Composting Facility (317)	MAA	A2 A6 R1		
Conservation Cover (327)	MBAA	A3 A4 N1	B12	
Conservation Crop Rotation (328)	MB		B12	
Constructed Wetland (656)	MBAA	A4 A12	B10	
Contour Buffer Strips (332)	MBAA	A4 N1	B12	
Contour Farming (330)	MB		B12	
Cover Crop (340)	MB		B12	
Critical Area Planting (342)	MBAA	A3 A4 A10 N1	B12	
Diversion (362)	MAA	A4 A6 R1		
Dry Hydrant (432)	MAA	A6		
Fence (382)	MBAA	C2	B8	
Field Border (386)	MBAA	A3 A4 A10 N1	B12	
Filter Strip (393)	MBAA	A4 N1	B12	
Fish Passage (396)	MBAA	C3		
Fishpond Management (399)	NE			
Forage Harvest Management (511)	MAA	A4		
Forest Stand Improvement (666)	MBAA	C2		
Grade Stabilization Structure (410)	MBAA	C3	B7	
Grassed Waterway (412)	MBAA	A4 R1	B10	
Heavy Use Area Protection (561)	MBAA	A2 A6 R1	B9	
Hedgerow Planting (422)	MAA	A3 N1		
Irrigation System, Microirrigation (441)	MAA	A6		
Irrigation System, Sprinkler (442)	MAA	A6		
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	MAA	A6		
Lined Waterway or Outlet (468)	MBAA	A4 R1	B10	
Manure Transfer (634)	MAA	A2 R1		
Nutrient Management (590)	MAA	A5		
Pasture and Hay Planting (512)	MAA	A4 N1		
Pest Management (595)	MBAA	C2		
Pipeline (516)	MAA	A4		
Pond (378)	MAA	A1 A6		
Pond Sealing or Lining, Bentonite Sealant (521C)	MAA	A6		
Pond Sealing or Lining, Flexible Membrane (521A)	MAA	A6		

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Bog Turtle

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	MAA	A1		
Prescribed Forestry (409)	MBAA	C3		
Prescribed Grazing (528)	MBAA	C1		
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	MBAA	C4		
Riparian Forest Buffer (391)	MBAA	A3		B12
Riparian Herbaceous Cover (390)	MBAA	A4 N1		B12
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	MBAA	A1 A6		B7
Shallow Water Development and Management (646)	MAA	A1 A6		
Sinkhole and Sinkhole Area Treatment (725)	MAA	A4		
Spring Development (574)	MAA	A6		
Stream Crossing (578)	MBAA	C3		B8
Stream Habitat Improvement and Management (395)	MBAA	C3		
Streambank and Shoreline Protection (580)	MBAA	C3		
Stripcropping (585)	MB			B12
Structure for Water Control (587)	MBAA	C3		
Subsurface Drain (606)	MAA	A2 A6 R1		
Surface Drainage, Field Ditch (607)	MAA	A2 A6 R1		
Surface Drainage, Main or Lateral (608)	MAA	A2 A6 R1		
Terrace (600)	MBAA	A2 A6 R1		B12
Transition to Organic Production (789)	NE			
Tree/Shrub Establishment (612)	MBAA	A3		B12
Underground Outlet (620)	MAA	A2 A6 R1		
Upland Wildlife Habitat Management (645)	MBAA	A3 C3		
Vegetated Treatment Area (635)	MBAA	A2 A12		B10
Waste Storage Facility (313)	MAA	A2 A6 R1		
Waste Treatment Lagoon (359)	MAA	A2 A6 R1		
Waste Utilization (633)	MAA	A5		
Water and Sediment Control Basin (638)	MBAA	A1 A6 R1		B7
Water Well (642)	MAA	A6 N2		
Watering Facility (614)	MBAA	A1 C3		
Wetland Creation (658)	MAA	A1 A6		
Wetland Restoration (657)	MBAA	A1 A6 C3		
Wetland Wildlife Habitat Management (644)	MBAA	C2		
Windbreak/Shelterbelt Establishment (380)	MBAA	A3		B12

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Canby's Dropwort

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	MB		B8	
Access Road (560)	MAA	A1 A6		
Agrichemical Mixing Facility (702)	MAA	A2 A12 R1		
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	A2 R1		
Animal Mortality Facility (316)	MAA	A2 R1		
Brush Management (314)	MBAA	A4 A10 C4 R1		
Closure of Waste Impoundment (360)	MAA	A12 R1		
Composting Facility (317)	MAA	A2 A6 R1		
Conservation Cover (327)	MBAA	A3 A4 A10 N1	B12	
Conservation Crop Rotation (328)	MB		B12	
Constructed Wetland (656)	MBAA	A2 A12 R1	B10	
Contour Buffer Strips (332)	MBAA	N1	B12	
Contour Farming (330)	MB		B12	
Cover Crop (340)	MB		B12	
Critical Area Planting (342)	MBAA	A3 A4 A10 N1	B12	
Diversion (362)	MAA	A4 A6 R1		
Dry Hydrant (432)	MAA	A4		
Fence (382)	MB		B8	
Field Border (386)	MBAA	A3 A4 A10 N1	B12	
Filter Strip (393)	MBAA	A4 A10 N1	B12	
Fish Passage (396)	NE			
Fishpond Management (399)	NE			
Forage Harvest Management (511)	NE			
Forest Stand Improvement (666)	MAA	A6 A13		
Grade Stabilization Structure (410)	MB		B10	
Grassed Waterway (412)	MBAA	A4 R1	B10	
Heavy Use Area Protection (561)	MBAA	A2 A6 R1	B9	
Hedgerow Planting (422)	MAA	A3 A10 N1		
Irrigation System, Microirrigation (441)	MAA	A6		
Irrigation System, Sprinkler (442)	MAA	A1 A6 R1		
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	MAA	A6		
Lined Waterway or Outlet (468)	MBAA	A4 R1	B10	
Manure Transfer (634)	MAA	A2 R1		
Nutrient Management (590)	MAA	A5		
Pasture and Hay Planting (512)	MAA	A1 A10 N1		
Pest Management (595)	MAA	A10		
Pipeline (516)	MAA	A4		
Pond (378)	MAA	A4 A6 R1		
Pond Sealing or Lining, Bentonite Sealant (521C)	MAA	A4 A6		
Pond Sealing or Lining, Flexible Membrane (521A)	MAA	A4 A6		

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Canby's Dropwort

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	MAA	A4 A6 R1		
Prescribed Forestry (409)	MAA	A6 A13		
Prescribed Grazing (528)	MAA	A4		
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	MBAA	C4		
Riparian Forest Buffer (391)	MBAA	A3 A10	B12	
Riparian Herbaceous Cover (390)	MBAA	A4 A10 N1	B12	
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	MBAA	A4 A6 R1	B7	
Shallow Water Development and Management (646)	MAA	A1 A6		
Sinkhole and Sinkhole Area Treatment (725)	NE			
Spring Development (574)	MAA	A6		
Stream Crossing (578)	MBAA	A4	B8	
Stream Habitat Improvement and Management (395)	NE			
Streambank and Shoreline Protection (580)	NE			
Stripcropping (585)	MB		B12	
Structure for Water Control (587)	MAA	A2 A6		
Subsurface Drain (606)	MAA	A2 A6 R1		
Surface Drainage, Field Ditch (607)	MAA	A2 A6 R1		
Surface Drainage, Main or Lateral (608)	MAA	A2 A6 R1		
Terrace (600)	MBAA	A2 A6 R1	B12	
Transition to Organic Production (789)	NE			
Tree/Shrub Establishment (612)	MBAA	A6 A13	B12	
Underground Outlet (620)	MAA	A2 A6 R1		
Upland Wildlife Habitat Management (645)	NE			
Vegetated Treatment Area (635)	MBAA	A2 A12	B10	
Waste Storage Facility (313)	MAA	A2 A6 R1		
Waste Treatment Lagoon (359)	MAA	A2 A6 R1		
Waste Utilization (633)	MAA	A5		
Water and Sediment Control Basin (638)	MBAA	A4 A6 R1	B7	
Water Well (642)	MAA	A6 N2		
Watering Facility (614)	MAA	A1		
Wetland Creation (658)	MAA	A1 A6		
Wetland Restoration (657)	MBAA	A1 A6 C4		
Wetland Wildlife Habitat Management (644)	MAA	A4		
Windbreak/Shelterbelt Establishment (380)	MBAA	A3 A10	B12	

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Delmarva Fox Squirrel

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	NE			
Access Road (560)	MAA	A7 N3		M1
Agrichemical Mixing Facility (702)	MAA	A7 N3		M1
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	A7 N3		M1
Animal Mortality Facility (316)	MAA	A7 N3		M1
Brush Management (314)	MAA	A7		
Closure of Waste Impoundment (360)	NE			
Composting Facility (317)	MAA	A7 N3		M1
Conservation Cover (327)	MBAA	A7 N3	B5	
Conservation Crop Rotation (328)	NE			
Constructed Wetland (656)	MAA	A7 N3		M1
Contour Buffer Strips (332)	NE			
Contour Farming (330)	NE			
Cover Crop (340)	NE			
Critical Area Planting (342)	MB		B5	
Diversion (362)	MAA	A7 N3		M1
Dry Hydrant (432)	NE			
Fence (382)	NE			
Field Border (386)	MAA	A7		
Filter Strip (393)	MAA	A7 N3		M1
Fish Passage (396)	NE			
Fishpond Management (399)	NE			
Forage Harvest Management (511)	NE			
Forest Stand Improvement (666)	MBAA	A7 C4		M1
Grade Stabilization Structure (410)	MAA	A7 N3		M1
Grassed Waterway (412)	MAA	A7 N3		M1
Heavy Use Area Protection (561)	MAA	A7 N3		M1
Hedgerow Planting (422)	MB		B5	
Irrigation System, Microirrigation (441)	NE			
Irrigation System, Sprinkler (442)	MAA	A7 N3		M1
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	NE			
Lined Waterway or Outlet (468)	MAA	A7 N3		M1
Manure Transfer (634)	NE			
Nutrient Management (590)	NE			
Pasture and Hay Planting (512)	MAA	A7		
Pest Management (595)	NE			
Pipeline (516)	NE			
Pond (378)	MAA	A7 N3		M1
Pond Sealing or Lining, Bentonite Sealant (521C)	NE			
Pond Sealing or Lining, Flexible Membrane (521A)	NE			

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Delmarva Fox Squirrel

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	NE			
Prescribed Forestry (409)	MBAA	A7 C4		M1
Prescribed Grazing (528)	NE			
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	NE			
Riparian Forest Buffer (391)	MB		B5	
Riparian Herbaceous Cover (390)	MAA	A7		
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	MAA	A7 N3		M1
Shallow Water Development and Management (646)	MAA	A7 N3		M1
Sinkhole and Sinkhole Area Treatment (725)	NE			
Spring Development (574)	NE			
Stream Crossing (578)	NE			
Stream Habitat Improvement and Management (395)	NE			
Streambank and Shoreline Protection (580)	NE			
Stripcropping (585)	NE			
Structure for Water Control (587)	NE			
Subsurface Drain (606)	NE			
Surface Drainage, Field Ditch (607)	NE			
Surface Drainage, Main or Lateral (608)	NE			
Terrace (600)	NE			
Transition to Organic Production (789)	NE			
Tree/Shrub Establishment (612)	MB		B5	
Underground Outlet (620)	NE			
Upland Wildlife Habitat Management (645)	MAA	A7		
Vegetated Treatment Area (635)	NE			
Waste Storage Facility (313)	MAA	A7 N3		M1
Waste Treatment Lagoon (359)	MAA	A7 N3		M1
Waste Utilization (633)	NE			
Water and Sediment Control Basin (638)	MAA	A7 N3		M1
Water Well (642)	NE			
Watering Facility (614)	NE			
Wetland Creation (658)	MAA	A7		
Wetland Restoration (657)	MAA	A7 N3		M1
Wetland Wildlife Habitat Management (644)	NE			
Windbreak/Shelterbelt Establishment (380)	MB		B5	

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Dwarf-wedge Mussel

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	MB		B8	
Access Road (560)	MAA	X1		
Agrichemical Mixing Facility (702)	MAA	A2 R1		
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	A2 R1		
Animal Mortality Facility (316)	MAA	A2 R1		
Brush Management (314)	MAA	R1		M2
Closure of Waste Impoundment (360)	MAA	R1		
Composting Facility (317)	MAA	A2 A6 R1		
Conservation Cover (327)	MB		B6 B11	M2
Conservation Crop Rotation (328)	MB		B6	
Constructed Wetland (656)	MBAA	A12	B10	
Contour Buffer Strips (332)	MB		B6	
Contour Farming (330)	MB		B6	
Cover Crop (340)	MB		B6	
Critical Area Planting (342)	MB		B6 B11	M2
Diversion (362)	MAA	X1 R1		
Dry Hydrant (432)	MAA	A11		
Fence (382)	MB		B8	
Field Border (386)	MB		B6 B11	M2
Filter Strip (393)	MB		B6 B11	M2
Fish Passage (396)	MBAA	C9		
Fishpond Management (399)	NE			
Forage Harvest Management (511)	NE			
Forest Stand Improvement (666)	NE			
Grade Stabilization Structure (410)	MBAA	A4	B10	
Grassed Waterway (412)	MBAA	R1	B10	M2
Heavy Use Area Protection (561)	MB		B9	
Hedgerow Planting (422)	NE			
Irrigation System, Microirrigation (441)	MAA	A6		
Irrigation System, Sprinkler (442)	MAA	A6		
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	MAA	A6		
Lined Waterway or Outlet (468)	MBAA	R1	B10	M2
Manure Transfer (634)	MAA	A1 R1		
Nutrient Management (590)	MAA	A5		
Pasture and Hay Planting (512)	MAA	A9		
Pest Management (595)	NE			
Pipeline (516)	MAA	A4		
Pond (378)	MAA	A4		
Pond Sealing or Lining, Bentonite Sealant (521C)	NE			
Pond Sealing or Lining, Flexible Membrane (521A)	NE			

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Dwarf-wedge Mussel

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	NE			
Prescribed Forestry (409)	MAA	A9		
Prescribed Grazing (528)	MBAA	A9	B8	
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	NE			
Riparian Forest Buffer (391)	MB		B6	
Riparian Herbaceous Cover (390)	MB		B6	B11 M2
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	MBAA	A6 A9	B11	
Shallow Water Development and Management (646)	NE			
Sinkhole and Sinkhole Area Treatment (725)	NE			
Spring Development (574)	NE			
Stream Crossing (578)	MBAA	X4	B8	
Stream Habitat Improvement and Management (395)	MBAA	C8		
Streambank and Shoreline Protection (580)	MBAA	C8		
Stripcropping (585)	MB		B6	
Structure for Water Control (587)	MAA	A4		
Subsurface Drain (606)	MAA	R1		
Surface Drainage, Field Ditch (607)	MAA	R1		
Surface Drainage, Main or Lateral (608)	MAA	R1		
Terrace (600)	MBAA	R1	B6	
Transition to Organic Production (789)	NE			
Tree/Shrub Establishment (612)	MB		B6	
Underground Outlet (620)	MAA	R1		
Upland Wildlife Habitat Management (645)	NE			
Vegetated Treatment Area (635)	MBAA	A4 A12	B10	
Waste Storage Facility (313)	MAA	A2 A6 R1		
Waste Treatment Lagoon (359)	MAA	A2 A6 R1		
Waste Utilization (633)	MAA	A5		
Water and Sediment Control Basin (638)	MBAA	A6 A9 R1	B11	
Water Well (642)	MAA	A6 N2		
Watering Facility (614)	MBAA	A4	B8	
Wetland Creation (658)	MAA	A6 A9		
Wetland Restoration (657)	MBAA	A6 A9	B11	
Wetland Wildlife Habitat Management (644)	NE			
Windbreak/Shelterbelt Establishment (380)	MB		B6	

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Harperella

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	MB		B8	
Access Road (560)	MAA	A1 A6		
Agrichemical Mixing Facility (702)	MAA	A2 A12 R1		
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	A2 R1		
Animal Mortality Facility (316)	MAA	A2 R1		
Brush Management (314)	MAA	A4 A10 R1		M2
Closure of Waste Impoundment (360)	MAA	A12 R1		
Composting Facility (317)	MAA	A2 A6 R1		
Conservation Cover (327)	MBAA	A10	B6 B11	M2
Conservation Crop Rotation (328)	MB		B6	
Constructed Wetland (656)	MBAA	A2 A12 R1	B10	
Contour Buffer Strips (332)	MB		B6	
Contour Farming (330)	MB		B6	
Cover Crop (340)	MB		B6	
Critical Area Planting (342)	MBAA	A10	B6 B11	M2
Diversion (362)	MAA	X1 A6 R1		
Dry Hydrant (432)	MAA	A4		
Fence (382)	MB		B8	
Field Border (386)	MBAA	A10	B6 B11	M2
Filter Strip (393)	MBAA	A10	B6 B11	M2
Fish Passage (396)	MAA	A4		
Fishpond Management (399)	NE			
Forage Harvest Management (511)	NE			
Forest Stand Improvement (666)	MAA	A9 A10		
Grade Stabilization Structure (410)	MBAA	C9	B10	
Grassed Waterway (412)	MBAA	R1	B10	M2
Heavy Use Area Protection (561)	MBAA	A4	B9	
Hedgerow Planting (422)	MAA	A10		
Irrigation System, Microirrigation (441)	MAA	A6		
Irrigation System, Sprinkler (442)	MAA	A6 R1		
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	MAA	A6		
Lined Waterway or Outlet (468)	MBAA	R1	B10	M2
Manure Transfer (634)	MAA	A1 R1		
Nutrient Management (590)	MAA	A5		
Pasture and Hay Planting (512)	MAA	A9 A10		
Pest Management (595)	MAA	A10		
Pipeline (516)	MAA	A4		
Pond (378)	MAA	A4 A6 R1		
Pond Sealing or Lining, Bentonite Sealant (521C)	MAA	A4 A6		
Pond Sealing or Lining, Flexible Membrane (521A)	MAA	A4 A6		

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Harperella

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	MAA	A4 A6 R1		
Prescribed Forestry (409)	MAA	A9 A10		
Prescribed Grazing (528)	MBAA	A9	B8	
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	NE			
Riparian Forest Buffer (391)	MBAA	A10	B6	
Riparian Herbaceous Cover (390)	MBAA	A10	B6 B11 M2	
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	MBAA	A4 A6 R1	B11	
Shallow Water Development and Management (646)	NE			
Sinkhole and Sinkhole Area Treatment (725)	NE			
Spring Development (574)	MAA	A6		
Stream Crossing (578)	MBAA	X4	B8	
Stream Habitat Improvement and Management (395)	MBAA	C8		
Streambank and Shoreline Protection (580)	MBAA	C8		
Stripcropping (585)	MB		B6	
Structure for Water Control (587)	MAA	A4 A6		
Subsurface Drain (606)	MAA	R1		
Surface Drainage, Field Ditch (607)	MAA	R1		
Surface Drainage, Main or Lateral (608)	MAA	R1		
Terrace (600)	MBAA	R1	B6	
Transition to Organic Production (789)	NE			
Tree/Shrub Establishment (612)	MBAA	A9 A10	B6	
Underground Outlet (620)	MAA	R1		
Upland Wildlife Habitat Management (645)	NE			
Vegetated Treatment Area (635)	MBAA	A12	B10	
Waste Storage Facility (313)	MAA	A2 A6 R1		
Waste Treatment Lagoon (359)	MAA	A2 A6 R1		
Waste Utilization (633)	MAA	A5		
Water and Sediment Control Basin (638)	MBAA	A4 A6 R1	B11	
Water Well (642)	MAA	A6 N2		
Watering Facility (614)	MBAA	A4	B8	
Wetland Creation (658)	MAA	A1 A6 A9 A10		
Wetland Restoration (657)	MBAA	A1 A6 A9 A10	B11	
Wetland Wildlife Habitat Management (644)	NE			
Windbreak/Shelterbelt Establishment (380)	MBAA	A10	B6	

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Indiana Bat

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	NE			
Access Road (560)	MAA	X2		
Agrichemical Mixing Facility (702)	MAA	X2		
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	X2		
Animal Mortality Facility (316)	MAA	X2		
Brush Management (314)	MAA	X2		
Closure of Waste Impoundment (360)	NE			
Composting Facility (317)	MAA	X2		
Conservation Cover (327)	MBAA	X2	B5	
Conservation Crop Rotation (328)	NE			
Constructed Wetland (656)	MAA	X2		
Contour Buffer Strips (332)	MAA	X2		
Contour Farming (330)	NE			
Cover Crop (340)	NE			
Critical Area Planting (342)	MBAA	X2	B5	
Diversion (362)	MAA	X2		
Dry Hydrant (432)	NE			
Fence (382)	MAA	X2		
Field Border (386)	MAA	X2		
Filter Strip (393)	MAA	X2		
Fish Passage (396)	MAA	X2		
Fishpond Management (399)	NE			
Forage Harvest Management (511)	NE			
Forest Stand Improvement (666)	MBAA	X2	B5	
Grade Stabilization Structure (410)	MAA	X2		
Grassed Waterway (412)	MAA	X2		
Heavy Use Area Protection (561)	MAA	X2		
Hedgerow Planting (422)	MB		B5	
Irrigation System, Microirrigation (441)	NE			
Irrigation System, Sprinkler (442)	MAA	X2		
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	NE			
Lined Waterway or Outlet (468)	MAA	X2		
Manure Transfer (634)	MAA	X2		
Nutrient Management (590)	NE			
Pasture and Hay Planting (512)	MAA	X2		
Pest Management (595)	MB		B4	
Pipeline (516)	MAA	X2		
Pond (378)	MAA	X2		
Pond Sealing or Lining, Bentonite Sealant (521C)	NE			
Pond Sealing or Lining, Flexible Membrane (521A)	NE			

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Indiana Bat

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	NE			
Prescribed Forestry (409)	MBAA	X2	B5	
Prescribed Grazing (528)	NE			
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	MAA	X2		
Riparian Forest Buffer (391)	MB		B5	
Riparian Herbaceous Cover (390)	MAA	X2		
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	MAA	X2		
Shallow Water Development and Management (646)	MAA	X2		
Sinkhole and Sinkhole Area Treatment (725)	NE			
Spring Development (574)	MAA	X2		
Stream Crossing (578)	MAA	X2		
Stream Habitat Improvement and Management (395)	NE			
Streambank and Shoreline Protection (580)	MAA	X2		
Stripcropping (585)	NE			
Structure for Water Control (587)	MAA	X2		
Subsurface Drain (606)	MAA	X2		
Surface Drainage, Field Ditch (607)	MAA	X2		
Surface Drainage, Main or Lateral (608)	MAA	X2		
Terrace (600)	MAA	X2		
Transition to Organic Production (789)	MB		B4	
Tree/Shrub Establishment (612)	MBAA	X2	B5	
Underground Outlet (620)	MAA	X2		
Upland Wildlife Habitat Management (645)	MAA	X2		
Vegetated Treatment Area (635)	NE			
Waste Storage Facility (313)	MAA	X2		
Waste Treatment Lagoon (359)	MAA	X2		
Waste Utilization (633)	NE			
Water and Sediment Control Basin (638)	MAA	X2		
Water Well (642)	NE			
Watering Facility (614)	MAA	X2		
Wetland Creation (658)	MAA	X2		
Wetland Restoration (657)	MAA	X2		
Wetland Wildlife Habitat Management (644)	NE			
Windbreak/Shelterbelt Establishment (380)	MBAA	X2	B5	

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Maryland Darter

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	MB		B8	
Access Road (560)	MAA	X1		
Agrichemical Mixing Facility (702)	MAA	A2 R1		
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	A2 R1		
Animal Mortality Facility (316)	MAA	A2 R1		
Brush Management (314)	MAA	R1		M2
Closure of Waste Impoundment (360)	MAA	R1		
Composting Facility (317)	MAA	A2 A6 R1		
Conservation Cover (327)	MB		B6 B11	M2
Conservation Crop Rotation (328)	MB		B6	
Constructed Wetland (656)	MBAA	A12	B10	
Contour Buffer Strips (332)	MB		B6	
Contour Farming (330)	MB		B6	
Cover Crop (340)	MB		B6	
Critical Area Planting (342)	MB		B6 B11	M2
Diversion (362)	MAA	X1 R1		
Dry Hydrant (432)	MAA	A4		
Fence (382)	MB		B8	
Field Border (386)	MB		B6 B11	M2
Filter Strip (393)	MB		B6 B11	M2
Fish Passage (396)	MBAA	C8		
Fishpond Management (399)	NE			
Forage Harvest Management (511)	NE			
Forest Stand Improvement (666)	NE			
Grade Stabilization Structure (410)	MBAA	C8	B10	
Grassed Waterway (412)	MBAA	R1	B10	M2
Heavy Use Area Protection (561)	MBAA	A2 A6 R1	B9	
Hedgerow Planting (422)	NE			
Irrigation System, Microirrigation (441)	MAA	A6		
Irrigation System, Sprinkler (442)	MAA	A6		
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	MAA	A6		
Lined Waterway or Outlet (468)	MBAA	R1	B10	M2
Manure Transfer (634)	MAA	A1 R1		
Nutrient Management (590)	MAA	A5		
Pasture and Hay Planting (512)	MAA	A9		
Pest Management (595)	NE			
Pipeline (516)	NE			
Pond (378)	MAA	A1 A6		
Pond Sealing or Lining, Bentonite Sealant (521C)	NE			
Pond Sealing or Lining, Flexible Membrane (521A)	NE			

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Maryland Darter

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	NE			
Prescribed Forestry (409)	MAA	A9		
Prescribed Grazing (528)	MBAA	A9	B8	
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	NE			
Riparian Forest Buffer (391)	MB		B6	
Riparian Herbaceous Cover (390)	MB		B6	B11 M2
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	MBAA	A6 A9	B11	
Shallow Water Development and Management (646)	NE			
Sinkhole and Sinkhole Area Treatment (725)	NE			
Spring Development (574)	NE			
Stream Crossing (578)	MBAA	X4	B8	
Stream Habitat Improvement and Management (395)	MBAA	C8		
Streambank and Shoreline Protection (580)	MBAA	C8		
Stripcropping (585)	MB		B6	
Structure for Water Control (587)	MAA	A4 A6		
Subsurface Drain (606)	MAA	R1		
Surface Drainage, Field Ditch (607)	MAA	R1		
Surface Drainage, Main or Lateral (608)	MAA	R1		
Terrace (600)	MBAA	R1	B6	
Transition to Organic Production (789)	NE			
Tree/Shrub Establishment (612)	MB		B6	
Underground Outlet (620)	MAA	R1		
Upland Wildlife Habitat Management (645)	NE			
Vegetated Treatment Area (635)	MBAA	A12	B10	
Waste Storage Facility (313)	MAA	A2 A6 R1		
Waste Treatment Lagoon (359)	MAA	A2 A6 R1		
Waste Utilization (633)	MAA	A5		
Water and Sediment Control Basin (638)	MBAA	A6 A9 R1	B11	
Water Well (642)	MAA	A6 N2		
Watering Facility (614)	MBAA	A4	B8	
Wetland Creation (658)	MAA	A6 A9		
Wetland Restoration (657)	MBAA	A6 A9	B11	
Wetland Wildlife Habitat Management (644)	NE			
Windbreak/Shelterbelt Establishment (380)	MB		B6	

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Northeastern Beach Tiger Beetle

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	NE			
Access Road (560)	NE			
Agrichemical Mixing Facility (702)	MAA	A13 R1		
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	A1		
Animal Mortality Facility (316)	MAA	A1		
Brush Management (314)	NE			
Closure of Waste Impoundment (360)	MAA	R1		
Composting Facility (317)	MAA	A1		
Conservation Cover (327)	NE			
Conservation Crop Rotation (328)	NE			
Constructed Wetland (656)	NE			
Contour Buffer Strips (332)	NE			
Contour Farming (330)	NE			
Cover Crop (340)	NE			
Critical Area Planting (342)	NE			
Diversion (362)	NE			
Dry Hydrant (432)	NE			
Fence (382)	NE			
Field Border (386)	NE			
Filter Strip (393)	NE			
Fish Passage (396)	NE			
Fishpond Management (399)	NE			
Forage Harvest Management (511)	NE			
Forest Stand Improvement (666)	NE			
Grade Stabilization Structure (410)	NE			
Grassed Waterway (412)	NE			
Heavy Use Area Protection (561)	NE			
Hedgerow Planting (422)	NE			
Irrigation System, Microirrigation (441)	NE			
Irrigation System, Sprinkler (442)	NE			
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	NE			
Lined Waterway or Outlet (468)	NE			
Manure Transfer (634)	NE			
Nutrient Management (590)	NE			
Pasture and Hay Planting (512)	NE			
Pest Management (595)	NE			
Pipeline (516)	NE			
Pond (378)	NE			
Pond Sealing or Lining, Bentonite Sealant (521C)	NE			
Pond Sealing or Lining, Flexible Membrane (521A)	NE			

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Northeastern Beach Tiger Beetle

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	NE			
Prescribed Forestry (409)	NE			
Prescribed Grazing (528)	NE			
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	NE			
Riparian Forest Buffer (391)	NE			
Riparian Herbaceous Cover (390)	NE			
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	NE			
Shallow Water Development and Management (646)	NE			
Sinkhole and Sinkhole Area Treatment (725)	NE			
Spring Development (574)	NE			
Stream Crossing (578)	NE			
Stream Habitat Improvement and Management (395)	NE			
Streambank and Shoreline Protection (580)	NE			
Stripcropping (585)	NE			
Structure for Water Control (587)	NE			
Subsurface Drain (606)	NE			
Surface Drainage, Field Ditch (607)	NE			
Surface Drainage, Main or Lateral (608)	NE			
Terrace (600)	NE			
Transition to Organic Production (789)	NE			
Tree/Shrub Establishment (612)	NE			
Underground Outlet (620)	NE			
Upland Wildlife Habitat Management (645)	NE			
Vegetated Treatment Area (635)	NE			
Waste Storage Facility (313)	NE			
Waste Treatment Lagoon (359)	NE			
Waste Utilization (633)	NE			
Water and Sediment Control Basin (638)	NE			
Water Well (642)	NE			
Watering Facility (614)	NE			
Wetland Creation (658)	NE			
Wetland Restoration (657)	NE			
Wetland Wildlife Habitat Management (644)	NE			
Windbreak/Shelterbelt Establishment (380)	NE			

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Northeastern Bulrush

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	MB		B8	
Access Road (560)	MAA	A1 A6		
Agrichemical Mixing Facility (702)	MAA	A2 A12 R1		
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	A2 R1		
Animal Mortality Facility (316)	MAA	A2 R1		
Brush Management (314)	MBAA	A4 A10 C6 R1		
Closure of Waste Impoundment (360)	MAA	A12 R1		
Composting Facility (317)	MAA	A2 A6 R1		
Conservation Cover (327)	MBAA	A3 A4 A10 N1	B12	
Conservation Crop Rotation (328)	MB		B12	
Constructed Wetland (656)	MBAA	A2 A12 R1	B10	
Contour Buffer Strips (332)	MBAA	N1	B12	
Contour Farming (330)	MB		B12	
Cover Crop (340)	MB		B12	
Critical Area Planting (342)	MBAA	A3 A4 A10 N1	B12	
Diversion (362)	MAA	A1 R1		
Dry Hydrant (432)	MAA	A4		
Fence (382)	MB		B8	
Field Border (386)	MBAA	A3 A4 A10 N1	B12	
Filter Strip (393)	MBAA	A4 A10 N1	B12	
Fish Passage (396)	NE			
Fishpond Management (399)	MAA	A10		
Forage Harvest Management (511)	NE			
Forest Stand Improvement (666)	MAA	A6 A13		
Grade Stabilization Structure (410)	MB		B10	
Grassed Waterway (412)	MBAA	A4 R1	B10	
Heavy Use Area Protection (561)	MBAA	A4 R1	B9	
Hedgerow Planting (422)	MAA	A3 A10 N1		
Irrigation System, Microirrigation (441)	MAA	A6		
Irrigation System, Sprinkler (442)	MAA	A1 A6 R1		
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	MAA	A6		
Lined Waterway or Outlet (468)	MBAA	A4 R1	B10	
Manure Transfer (634)	MAA	A1 R1		
Nutrient Management (590)	MAA	A5		
Pasture and Hay Planting (512)	MAA	A1 A10 N1		
Pest Management (595)	MAA	A10		
Pipeline (516)	MAA	A4		
Pond (378)	MAA	A4 A6 R1		
Pond Sealing or Lining, Bentonite Sealant (521C)	MAA	A4 A6		
Pond Sealing or Lining, Flexible Membrane (521A)	MAA	A4 A6		

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Northeastern Bulrush

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	MAA	A4 A6 R1		
Prescribed Forestry (409)	MAA	A6 A13		
Prescribed Grazing (528)	MAA	A4		
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	MBAA	C6		
Riparian Forest Buffer (391)	MBAA	A3 A10	B12	
Riparian Herbaceous Cover (390)	MBAA	A4 A10 N1	B12	
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	MBAA	A4 A6 R1	B7	
Shallow Water Development and Management (646)	MAA	A1 A6		
Sinkhole and Sinkhole Area Treatment (725)	MAA	A4 A6 R1		
Spring Development (574)	MAA	A6		
Stream Crossing (578)	NE			
Stream Habitat Improvement and Management (395)	NE			
Streambank and Shoreline Protection (580)	NE			
Stripcropping (585)	MB		B12	
Structure for Water Control (587)	MAA	A4 A6		
Subsurface Drain (606)	MAA	A2 A6 R1		
Surface Drainage, Field Ditch (607)	MAA	A2 A6 R1		
Surface Drainage, Main or Lateral (608)	MAA	A2 A6 R1		
Terrace (600)	MBAA	A2 A6 R1	B12	
Transition to Organic Production (789)	NE			
Tree/Shrub Establishment (612)	MBAA	A6 A13	B12	
Underground Outlet (620)	MAA	A2 A6 R1		
Upland Wildlife Habitat Management (645)	NE			
Vegetated Treatment Area (635)	MBAA	A2 A12	B10	
Waste Storage Facility (313)	MAA	A2 A6 R1		
Waste Treatment Lagoon (359)	MAA	A2 A6 R1		
Waste Utilization (633)	MAA	A5		
Water and Sediment Control Basin (638)	MBAA	A4 A6 R1	B7	
Water Well (642)	MAA	A6 N2		
Watering Facility (614)	MAA	A1		
Wetland Creation (658)	MAA	A1 A6		
Wetland Restoration (657)	MBAA	A1 A6 C4		
Wetland Wildlife Habitat Management (644)	MAA	A4		
Windbreak/Shelterbelt Establishment (380)	MBAA	A3 A10	B12	

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Puritan Tiger Beetle

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	NE			
Access Road (560)	NE			
Agrichemical Mixing Facility (702)	MAA	A13 R1		
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	A1		
Animal Mortality Facility (316)	MAA	A1		
Brush Management (314)	MBAA	C5		
Closure of Waste Impoundment (360)	MAA	R1		
Composting Facility (317)	MAA	A1		
Conservation Cover (327)	MAA	X3		
Conservation Crop Rotation (328)	NE			
Constructed Wetland (656)	NE			
Contour Buffer Strips (332)	NE			
Contour Farming (330)	NE			
Cover Crop (340)	NE			
Critical Area Planting (342)	MAA	X3		
Diversion (362)	NE			
Dry Hydrant (432)	NE			
Fence (382)	NE			
Field Border (386)	MAA	X3		
Filter Strip (393)	MAA	X3		
Fish Passage (396)	NE			
Fishpond Management (399)	NE			
Forage Harvest Management (511)	NE			
Forest Stand Improvement (666)	NE			
Grade Stabilization Structure (410)	NE			
Grassed Waterway (412)	NE			
Heavy Use Area Protection (561)	NE			
Hedgerow Planting (422)	MAA	X3		
Irrigation System, Microirrigation (441)	NE			
Irrigation System, Sprinkler (442)	NE			
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	NE			
Lined Waterway or Outlet (468)	NE			
Manure Transfer (634)	NE			
Nutrient Management (590)	NE			
Pasture and Hay Planting (512)	NE			
Pest Management (595)	NE			
Pipeline (516)	NE			
Pond (378)	NE			
Pond Sealing or Lining, Bentonite Sealant (521C)	NE			
Pond Sealing or Lining, Flexible Membrane (521A)	NE			

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Puritan Tiger Beetle

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	NE			
Prescribed Forestry (409)	NE			
Prescribed Grazing (528)	NE			
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	NE			
Riparian Forest Buffer (391)	NE			
Riparian Herbaceous Cover (390)	NE			
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	NE			
Shallow Water Development and Management (646)	NE			
Sinkhole and Sinkhole Area Treatment (725)	NE			
Spring Development (574)	NE			
Stream Crossing (578)	NE			
Stream Habitat Improvement and Management (395)	NE			
Streambank and Shoreline Protection (580)	NE			
Stripcropping (585)	NE			
Structure for Water Control (587)	NE			
Subsurface Drain (606)	NE			
Surface Drainage, Field Ditch (607)	NE			
Surface Drainage, Main or Lateral (608)	NE			
Terrace (600)	NE			
Transition to Organic Production (789)	NE			
Tree/Shrub Establishment (612)	NE			
Underground Outlet (620)	NE			
Upland Wildlife Habitat Management (645)	NE			
Vegetated Treatment Area (635)	NE			
Waste Storage Facility (313)	NE			
Waste Treatment Lagoon (359)	NE			
Waste Utilization (633)	NE			
Water and Sediment Control Basin (638)	NE			
Water Well (642)	NE			
Watering Facility (614)	NE			
Wetland Creation (658)	NE			
Wetland Restoration (657)	NE			
Wetland Wildlife Habitat Management (644)	NE			
Windbreak/Shelterbelt Establishment (380)	NE			

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Sandplain Gerardia

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	NE			
Access Road (560)	MAA	A4		
Agrichemical Mixing Facility (702)	MAA	A13		
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	A1		
Animal Mortality Facility (316)	MAA	A1		
Brush Management (314)	MBAA	A1 A10 C7		
Closure of Waste Impoundment (360)	MAA	R1		
Composting Facility (317)	MAA	A1		
Conservation Cover (327)	MAA	A1 A10		
Conservation Crop Rotation (328)	NE			
Constructed Wetland (656)	NE			
Contour Buffer Strips (332)	NE			
Contour Farming (330)	NE			
Cover Crop (340)	NE			
Critical Area Planting (342)	MAA	A1 A10		
Diversion (362)	MAA	A4		
Dry Hydrant (432)	NE			
Fence (382)	NE			
Field Border (386)	MAA	A1 A10		
Filter Strip (393)	MAA	A1 A10		
Fish Passage (396)	NE			
Fishpond Management (399)	NE			
Forage Harvest Management (511)	NE			
Forest Stand Improvement (666)	MBAA	C7		
Grade Stabilization Structure (410)	MAA	A4		
Grassed Waterway (412)	MAA	A4		
Heavy Use Area Protection (561)	MAA	A4		
Hedgerow Planting (422)	MAA	A1 A10		
Irrigation System, Microirrigation (441)	NE			
Irrigation System, Sprinkler (442)	MAA	R1		
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	NE			
Lined Waterway or Outlet (468)	MAA	A4		
Manure Transfer (634)	NE			
Nutrient Management (590)	MAA	A5		
Pasture and Hay Planting (512)	MAA	A1 A10		
Pest Management (595)	MBAA	C7		
Pipeline (516)	MAA	A4		
Pond (378)	MAA	A4		
Pond Sealing or Lining, Bentonite Sealant (521C)	NE			
Pond Sealing or Lining, Flexible Membrane (521A)	NE			

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Sandplain Gerardia

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	NE			
Prescribed Forestry (409)	MBAA	C7		
Prescribed Grazing (528)	MAA	A4		
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	MBAA	C7		
Riparian Forest Buffer (391)	MAA	A1 A10		
Riparian Herbaceous Cover (390)	MAA	A1 A10		
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	NE			
Shallow Water Development and Management (646)	NE			
Sinkhole and Sinkhole Area Treatment (725)	NE			
Spring Development (574)	NE			
Stream Crossing (578)	NE			
Stream Habitat Improvement and Management (395)	NE			
Streambank and Shoreline Protection (580)	NE			
Stripcropping (585)	NE			
Structure for Water Control (587)	NE			
Subsurface Drain (606)	NE			
Surface Drainage, Field Ditch (607)	NE			
Surface Drainage, Main or Lateral (608)	NE			
Terrace (600)	NE			
Transition to Organic Production (789)	NE			
Tree/Shrub Establishment (612)	MAA	A13		
Underground Outlet (620)	NE			
Upland Wildlife Habitat Management (645)	MBAA	C7		
Vegetated Treatment Area (635)	NE			
Waste Storage Facility (313)	MAA	A1		
Waste Treatment Lagoon (359)	MAA	A1		
Waste Utilization (633)	NE			
Water and Sediment Control Basin (638)	MAA	A4		
Water Well (642)	NE			
Watering Facility (614)	NE			
Wetland Creation (658)	NE			
Wetland Restoration (657)	NE			
Wetland Wildlife Habitat Management (644)	NE			
Windbreak/Shelterbelt Establishment (380)	MAA	A1 A10		

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Sensitive Joint-vetch

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	MB		B8	
Access Road (560)	MAA	A1 A6		
Agrichemical Mixing Facility (702)	MAA	A2 A12 R1		
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	A2 R1		
Animal Mortality Facility (316)	MAA	A2 R1		
Brush Management (314)	MAA	A4 A10 R1		
Closure of Waste Impoundment (360)	MAA	A12 R1		
Composting Facility (317)	MAA	A2 A6 R1		
Conservation Cover (327)	MBAA	A4 A10 N1	B12	
Conservation Crop Rotation (328)	MB		B12	
Constructed Wetland (656)	MBAA	A2 A12 R1	B10	
Contour Buffer Strips (332)	MBAA	N1	B12	
Contour Farming (330)	MB		B12	
Cover Crop (340)	MB		B12	
Critical Area Planting (342)	MBAA	A4 A10 N1	B12	
Diversion (362)	MAA	R1		
Dry Hydrant (432)	MAA	A4		
Fence (382)	MB		B8	
Field Border (386)	MBAA	A4 A10 N1	B12	
Filter Strip (393)	MBAA	A4 A10 N1	B12	
Fish Passage (396)	NE			
Fishpond Management (399)	NE			
Forage Harvest Management (511)	NE			
Forest Stand Improvement (666)	MBAA	A6 A13 C4		
Grade Stabilization Structure (410)	MB		B10	
Grassed Waterway (412)	MBAA	A4 R1	B10	
Heavy Use Area Protection (561)	MBAA	A2 A6 R1	B9	
Hedgerow Planting (422)	MAA	A4 A10 N1		
Irrigation System, Microirrigation (441)	MAA	A6		
Irrigation System, Sprinkler (442)	MAA	A1 A6 R1		
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	MAA	A6		
Lined Waterway or Outlet (468)	MBAA	A4 R1	B10	
Manure Transfer (634)	MAA	A2 R1		
Nutrient Management (590)	MAA	A5		
Pasture and Hay Planting (512)	MAA	A1 A10 N1		
Pest Management (595)	MBAA	A10 C4		
Pipeline (516)	NE			
Pond (378)	MAA	A4 A6 R1		
Pond Sealing or Lining, Bentonite Sealant (521C)	MAA	A4 A6		
Pond Sealing or Lining, Flexible Membrane (521A)	MAA	A4 A6		

MAA - May adversely affect; MB - May benefit; MBAA - May benefit and/or adversely affect; NE - No effect

## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Sensitive Joint-vetch

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	MAA	A4 A6 R1		
Prescribed Forestry (409)	MBAA	A6 A13 C4		
Prescribed Grazing (528)	MAA	A4		
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	MBAA	C4		
Riparian Forest Buffer (391)	MBAA	A4 A10	B12	
Riparian Herbaceous Cover (390)	MBAA	A4 A10 N1	B12	
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	MBAA	A4 A6 R1	B7	
Shallow Water Development and Management (646)	MAA	A1 A6		
Sinkhole and Sinkhole Area Treatment (725)	NE			
Spring Development (574)	NE			
Stream Crossing (578)	NE			
Stream Habitat Improvement and Management (395)	NE			
Streambank and Shoreline Protection (580)	NE			
Stripcropping (585)	MB		B12	
Structure for Water Control (587)	NE			
Subsurface Drain (606)	NE			
Surface Drainage, Field Ditch (607)	NE			
Surface Drainage, Main or Lateral (608)	NE			
Terrace (600)	NE			
Transition to Organic Production (789)	NE			
Tree/Shrub Establishment (612)	MBAA	A6 A13	B12	
Underground Outlet (620)	NE			
Upland Wildlife Habitat Management (645)	NE			
Vegetated Treatment Area (635)	MBAA	A2 A12	B10	
Waste Storage Facility (313)	MAA	A2 A6 R1		
Waste Treatment Lagoon (359)	MAA	A2 A6 R1		
Waste Utilization (633)	MAA	A5		
Water and Sediment Control Basin (638)	MBAA	A4 A6 R1	B7	
Water Well (642)	MAA	A6 N2		
Watering Facility (614)	MAA	A1		
Wetland Creation (658)	NE			
Wetland Restoration (657)	MAA	A1 A6 A10		
Wetland Wildlife Habitat Management (644)	MAA	A4		
Windbreak/Shelterbelt Establishment (380)	MBAA	A4 A10	B12	

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Swamp Pink

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)	MB		B8	
Access Road (560)	MAA	A1 A6		
Agrichemical Mixing Facility (702)	MAA	A2 A12 R1		
Amendments for the Treatment of Agricultural Waste (591)	NE			
Anaerobic Digester, Controlled Temperature (366)	MAA	A2 R1		
Animal Mortality Facility (316)	MAA	A2 R1		
Brush Management (314)	MAA	A4 A10		
Closure of Waste Impoundment (360)	MAA	A12 R1		
Composting Facility (317)	MAA	A5 A6 R1		
Conservation Cover (327)	MBAA	A3 A4 A10 N1	B12	
Conservation Crop Rotation (328)	MB		B12	
Constructed Wetland (656)	MBAA	A2 A12 R1	B10	
Contour Buffer Strips (332)	MBAA	N1	B12	
Contour Farming (330)	MB		B12	
Cover Crop (340)	MB		B12	
Critical Area Planting (342)	MBAA	A3 A4 A10 N1	B12	
Diversion (362)	MAA	A4 A6 R1		
Dry Hydrant (432)	MAA	A4		
Fence (382)	MB		B8	
Field Border (386)	MBAA	A3 A4 A10 N1	B12	
Filter Strip (393)	MBAA	A4 A10 N1	B12	
Fish Passage (396)	NE			
Fishpond Management (399)	NE			
Forage Harvest Management (511)	NE			
Forest Stand Improvement (666)	MBAA	A6 A13 C4		
Grade Stabilization Structure (410)	MB		B10	
Grassed Waterway (412)	MBAA	A4 R1	B10	
Heavy Use Area Protection (561)	MBAA	A4 A6 R1	B9	
Hedgerow Planting (422)	MAA	A3 A10 N1		
Irrigation System, Microirrigation (441)	MAA	A6		
Irrigation System, Sprinkler (442)	MAA	A1 A6 R1		
Irrigation System, Tailwater Recovery (447)	NE			
Irrigation Water Management (449)	MAA	A6		
Lined Waterway or Outlet (468)	MBAA	A4 R1	B10	
Manure Transfer (634)	MAA	A2 R1		
Nutrient Management (590)	MAA	A5		
Pasture and Hay Planting (512)	MAA	A1 A10 N1		
Pest Management (595)	MAA	A10		
Pipeline (516)	MAA	A4		
Pond (378)	MAA	A13 A6 R1		
Pond Sealing or Lining, Bentonite Sealant (521C)	MAA	A13 A6		
Pond Sealing or Lining, Flexible Membrane (521A)	MAA	A13 A6		

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## MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

### Swamp Pink

Practice	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)	MAA	A13 A6 R1		
Prescribed Forestry (409)	MBAA	A6 A13 C4		
Prescribed Grazing (528)	MAA	A4		
Residue and Tillage Management, Mulch Till (345)	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)	NE			
Residue Management, Seasonal (344)	NE			
Restoration and Management of Rare or Declining Habitats (643)	MBAA	C4		
Riparian Forest Buffer (391)	MBAA	A3 A10	B12	
Riparian Herbaceous Cover (390)	MBAA	A4 A10 N1	B12	
Roof Runoff Structure (558)	NE			
Sediment Basin (350)	MBAA	A4 A6 R1	B7	
Shallow Water Development and Management (646)	MAA	A1 A6		
Sinkhole and Sinkhole Area Treatment (725)	NE			
Spring Development (574)	MAA	A6		
Stream Crossing (578)	MBAA	A4	B8	
Stream Habitat Improvement and Management (395)	MAA	A4		
Streambank and Shoreline Protection (580)	MAA	A4		
Stripcropping (585)	MB		B12	
Structure for Water Control (587)	MAA	A4 A6		
Subsurface Drain (606)	MAA	A2 A6 R1		
Surface Drainage, Field Ditch (607)	MAA	A2 A6 R1		
Surface Drainage, Main or Lateral (608)	MAA	A2 A6 R1		
Terrace (600)	MBAA	A2 A6 R1	B12	
Transition to Organic Production (789)	NE			
Tree/Shrub Establishment (612)	MBAA	A6 A13	B12	
Underground Outlet (620)	MAA	A2 A6 R1		
Upland Wildlife Habitat Management (645)	NE			
Vegetated Treatment Area (635)	MBAA	A2 A12	B10	
Waste Storage Facility (313)	MAA	A2 A6 R1		
Waste Treatment Lagoon (359)	MAA	A2 A6 R1		
Waste Utilization (633)	MAA	A5		
Water and Sediment Control Basin (638)	MBAA	A4 A6 R1	B7	
Water Well (642)	MAA	A6 N2		
Watering Facility (614)	MAA	A1		
Wetland Creation (658)	MAA	A1 A6		
Wetland Restoration (657)	MBAA	A1 A6 C4		
Wetland Wildlife Habitat Management (644)	MAA	A4		
Windbreak/Shelterbelt Establishment (380)	MBAA	A3 A10	B12	

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