

**APPENDIX E  
WETLANDS INFORMATION**

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**Types and Acreages of Palustrine and Lacustrine National Wetland Inventory Types that Occur in Cumberland Gap National Historical Park.<sup>1, 2</sup>**

NW I Code Abbreviation/Number of Acres Within Park	NW I Classification	Class/SubClass	Modifiers
PEM1A  0.5 Acres	[P] Palustrine, [EM] Emergent, [1] Persistent, [A] Temporarily Flooded	<p>[EM] Emergent - Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.</p> <p>(1) Persistent - Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine systems.</p>	[A] Temporarily Flooded - Surface water is present for brief periods during growing season, but the water table usually lies well below the soil surface. Plants that grow both in uplands and wetlands may be characteristic of this water regime.
PEM1C  0.1 Acres	[P] Palustrine, [EM] Emergent, [1] Persistent, [C] Seasonally Flooded	<p>[EM] Emergent - Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.</p> <p>(1) Persistent - Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine systems.</p>	[C] Seasonally Flooded - Surface water is present for extended periods especially early in the growing season but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

**Types and Acreages of Palustrine and Lacustrine National Wetland Inventory Types that Occur in Cumberland Gap National Historical Park.<sup>1, 2</sup> (continued)**

NWI Code Abbreviation/Number of Acres Within Park	NWI Classification	Class/SubClass	Modifiers
PFO4A  19.5 Acres	[P] Palustrine, [FO] Forested, [4] Needle-Leaved Evergreen, [A] Temporarily Flooded	[FO] Forested - Characterized by woody vegetation that is 6 m tall or taller.  (4) Needle-leaved Evergreen - Woody gymnosperms with green, needle-shaped, or scale-like leaves that are retained by plants throughout the year; e.g. black spruce ( <i>Picea mariana</i> ).	[A] Temporarily Flooded - Surface water is present for brief periods during growing season, but the water table usually lies well below the soil surface. Plants that grow both in uplands and wetlands may be characteristic of this water regime.
PFO1Ah  21.2 Acres	[P] Palustrine, [FO] Forested, [1] Broad-Leaved Deciduous, [A] Temporarily Flooded, [h] Diked/Impounded	[FO] Forested - Characterized by woody vegetation that is 6 m tall or taller.  (1) Broad-leaved Deciduous - Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash ( <i>Fraxinus nigra</i> ).	[A] Temporarily Flooded - Surface water is present for brief periods during growing season, but the water table usually lies well below the soil surface. Plants that grow both in uplands and wetlands may be characteristic of this water regime.  [h] Diked / Impounded - Created or modified by a man-made barrier or dam which obstructs the inflow or outflow of water.
PFO1C  18.3 Acres	[P] Palustrine, [FO] Forested, [1] Broad-Leaved Deciduous, [C] Seasonally Flooded	[FO] Forested - Characterized by woody vegetation that is 6 m tall or taller.  (1) Broad-leaved Deciduous - Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash ( <i>Fraxinus nigra</i> ).	[C] Seasonally Flooded - Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.
PFO1A  22.7 Acres	[P] Palustrine, [FO] Forested, [1] Broad-Leaved Deciduous, [A] Temporarily Flooded	[FO] Forested - Characterized by woody vegetation that is 6 m tall or taller.  (1) Broad-leaved Deciduous - Woody angiosperms (trees or shrubs) with relatively wide, flat	[A] Temporarily Flooded - Surface water is present for brief periods during growing season, but the water table usually lies well below the soil surface. Plants that grow both in

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		leaves that are shed during the cold or dry season; e.g., black ash ( <i>Fraxinus nigra</i> ).	uplands and wetlands may be characteristic of this water regime.
PFO1Eh  1.2 Acres	[P] Palustrine, [FO] Forested, [1] Broad-Leaved Deciduous, [E] Seasonally Flooded/Saturated, [h] Diked/Impounded	[FO] Forested - Characterized by woody vegetation that is 6 m tall or taller.  (1) Broad-leaved Deciduous -- no definition given	[E] Seasonally Flooded/Saturated - Surface water is present for extended periods especially early in the growing season and when surface water is absent substrate remains saturated near the surface for most of the growing season.  [h] Diked / Impounded - Created or modified by a man-made barrier or dam which obstructs the inflow or outflow of water.
PFO1/4A  25.9 Acres	[P] Palustrine, [FO] Forested, [1] Broad-Leaved Deciduous / , [FO] Forested, [4] Needle-Leaved Evergreen, [A] Temporarily Flooded	[FO] Forested - Characterized by woody vegetation that is 6 m tall or taller.  (1) Broad-leaved Deciduous --no definition given  (4) Needle-leaved Evergreen - Woody gymnosperms with green, needle-shaped, or scale-like leaves that are retained by plants throughout the year; e.g. black spruce ( <i>Picea mariana</i> ).	[A] Temporarily Flooded - Surface water is present for brief periods during growing season, but the water table usually lies well below the soil surface. Plants that grow both in uplands and wetlands may be characteristic of this water regime.
PSS1/EM1C  1.8 Acres	[P] Palustrine, [SS] Scrub-Shrub, [1] Broad-Leaved Deciduous / , [EM] Emergent, [1] Persistent, [C] Seasonally Flooded	[SS] Scrub-Shrub - Includes areas dominated by woody vegetation less than 6 m (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions  (1) Broad-leaved Deciduous -- no definition given	[C] Seasonally Flooded - Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the

**Types and Acreages of Palustrine and Lacustrine National Wetland Inventory Types that Occur in Cumberland Gap National Historical Park.<sup>1, 2</sup> (continued)**

NWJ Code Abbreviation/Number of Acres Within Park	NWJ Classification	Class/SubClass	Modifiers
		<p>[EM] Emergent - Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.</p> <p>(1) Persistent - Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine systems.</p>	ground surface.

**Types and Acreages of Palustrine and Lacustrine National Wetland Inventory Types that Occur in Cumberland Gap National Historical Park.<sup>1, 2</sup> (continued)**

NW I Code Abbreviation/Number of Acres Within Park	NW I Classification	Class/SubClass	Modifiers
PSS1/FO4A  13.0 Acres	[P] Palustrine, [SS] Scrub-Shrub, [1] Broad-Leaved Deciduous / , [FO] Forested, [4] Needle-Leaved Evergreen, [A] Temporarily Flooded	[SS] Scrub-Shrub - Includes areas dominated by woody vegetation less than 6 m (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions  (1) Broad-leaved Deciduous – no definition given  [FO] Forested - Characterized by woody vegetation that is 6 m tall or taller.  (4) Needle-leaved Evergreen - Woody gymnosperms with green, needle-shaped, or scale-like leaves that are retained by plants throughout the year; e.g. black spruce ( <i>Picea mariana</i> ).	[A] Temporarily Flooded - Surface water is present for brief periods during growing season, but the water table usually lies well below the soil surface. Plants that grow both in uplands and wetlands may be characteristic of this water regime.

Types and Acreages of Palustrine and Lacustrine National Wetland Inventory Types that Occur in Cumberland Gap National Historical Park.<sup>1, 2</sup> (continued)

NWI Code Abbreviation/Number of Acres Within Park	NWI Classification	Class/SubClass	Modifiers
PSS1/FO4C  1.9 Acres	[P] Palustrine, [SS] Scrub-Shrub, [1] Broad-Leaved Deciduous / , [FO] Forested, [4] Needle-Leaved Evergreen, [C] Seasonally Flooded	[SS] Scrub-Shrub - Includes areas dominated by woody vegetation less than 6 m (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions  [FO] Forested - Characterized by woody vegetation that is 6 m tall or taller.  (4) Needle-leaved Evergreen - Woody gymnosperms with green, needle-shaped, or scale-like leaves that are retained by plants throughout the year; e.g. black spruce ( <i>Picea mariana</i> ).	[C] Seasonally Flooded - Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.
PSS3/FO4A  4.8 Acres	[P] Palustrine, [SS] Scrub-Shrub, [3] Broad-Leaved Evergreen / , [FO] Forested, [4] Needle-Leaved Evergreen, [A] Temporarily Flooded	[SS] Scrub-Shrub - Includes areas dominated by woody vegetation less than 6 m (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions  4) Needle-leaved Evergreen - Woody gymnosperms with green, needle-shaped, or scale-like leaves that are retained by plants throughout the year; e.g. black spruce ( <i>Picea mariana</i> ).	[A] Temporarily Flooded - Surface water is present for brief periods during growing season, but the water table usually lies well below the soil surface. Plants that grow both in uplands and wetlands may be characteristic of this water regime.

**Types and Acreages of Palustrine and Lacustrine National Wetland Inventory Types that Occur in Cumberland Gap National Historical Park.<sup>1, 2</sup> (continued)**

NW I Code Abbreviation/Number of Acres Within Park	NW I Classification	Class/SubClass	Modifiers
PUBFh  0.5 Acres	[P] Palustrine, [UB] Unconsolidated Bottom, [F] Semipermanently Flooded, [h] Diked/Impounded	[UB] Unconsolidated Bottom - Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.	[F] Semipermanently Flooded - Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land's surface.  [h] Diked / Impounded - Created or modified by a man-made barrier or dam which obstructs the inflow or outflow of water.
PUBHh  0.4 Acres	[P] Palustrine, [UB] Unconsolidated Bottom, [H] Permanently Flooded, [h] Diked/Impounded	[UB] Unconsolidated Bottom - Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.	[H] Permanently Flooded - Water covers the land surface throughout the year in all years.  [h] Diked / Impounded - Created or modified by a man-made barrier or dam which obstructs the inflow or outflow of water.
PUBHx  1.2 Acres	[P] Palustrine, [UB] Unconsolidated Bottom, [H] Permanently Flooded, [x] Excavated	[UB] Unconsolidated Bottom - Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.	[H] Permanently Flooded - Water covers the land surface throughout the year in all years.  [x] Excavated - Lies within a basin or channel excavated by man.

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NW I Code Abbreviation/Number of Acres Within Park	NW I Classification	Class/SubClass	Modifiers
L1UBHh  108.7 Acres	[L] Lacustrine, [1] Limnetic, [UB] Unconsolidated Bottom, [H] Permanently Flooded, [h] Diked/Impounded	[UB] Unconsolidated Bottom - Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.	[H] Permanently Flooded - Water covers the land surface throughout the year in all years.  [h] Diked / Impounded - Created or modified by a man-made barrier or dam which obstructs the inflow or outflow of water.

<sup>1</sup> [P] Palustrine - The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, emergents, mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 ppt. Wetlands lacking such vegetation are also included if they exhibit all of the following characteristics: are less than 8 hectares ( 20 acres ); do not have an active wave-formed or bedrock shoreline feature; have at low water a depth less than 2 meters (6.6 feet) in the deepest part of the basin; have a salinity due to ocean-derived salts of less than 0.5 ppt.

[L] Lacustrine – The Lacustrine System includes wetlands and deepwater habitats with all of the following characteristics: 1. situated in a topographic depression or a dammed river channel; 2. lacking trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30% areal coverage. 3. Total area exceeds 8 hectares (20 acres).

<sup>2</sup> Source: USFWS National Wetland Inventory, 2007.