

# **Appendix C:**

## **Rare, Threatened, and Endangered Species Data**

CSO Outfall ID	Element Occurrence ID	State Status	Global Rank	State Rank	Last Observation	Species
Colchester Avenue CSO 004  44.4881173 -73.1874781	9690	Rare	5	2/3	11/2/2007	<i>Hybognathus hankinsoni</i> Brassy Minnow
	2924	Rare	5	1	8/13/1985	<i>Caripodes cyprinus</i> Quillback
	6982	Rare	5	2	2019	<i>Ichthyomyzon unicuspis</i> Silver Lamprey
	6886	Threatened	4	1	2015	<i>Lethenteron appendix</i> American Brook Lamprey
	6978	Rare	5	2	4/2/2010	<i>Necturus maculosus</i> Mudpuppy
	5664	Endangered	5	2	8/30/2005	<i>Lasmigona costata</i> Flutedshell
	5269	Endangered	5	2	8/31/2015	<i>Lampsilis ovata</i> Pocketbook
	1199	Threatened	5	2/3	10/10/2012	<i>Pyganodon grandis</i> Giant Floater
	6385	Endangered	4	1	10/4/2018	<i>Percina copelandi</i> Channel Darter
	4905	Endangered	5	2	10/10/2012	<i>Leptodea fragilis</i> Fragile Papershell
	8025	Rare	4Q	2	6/18/2020	<i>Symphytotrichum tradescantii</i> Tradescant Aster
	124	Threatened	4	1	10/4/2018	<i>Ammocrypta pellucida</i> Eastern Sand Darter
	9884	Rare	5	1	1997	<i>Moxostoma macrolepidotum</i> Shorthead Redhorse
	10344	Rare	NR	1	6/10/2013	<i>Tetragonoderus fasciatus</i> A Ground Beetle
	1935	Threatened	3/4	1	2018	<i>Acipenser fulvescens</i> Lake Sturgeon
	4674	Endangered	5	2	8/31/2015	<i>Potamilus alatus</i> Pink Heelsplitter
	8147	Rare	5 (T3)	1	6/18/2020	<i>Solidago racemosa</i> River-ledge Goldenrod
	32200	Rare	5	2/3	9/19/2020	<i>Cyperus erythrorhizos</i> Red-root Flatsedge
	32202	Rare	5	1?	9/18/2020	<i>Sagittaria australis</i> Appalachian Arrowhead
	32159	Rare	2	2	9/25/2017	<i>Eleocharis diandra</i> Wright's Spikerush
33686	Rare	3	3	6/8/2019	<i>Glyptemys insculpta</i> Wood Turtle	
7569	Threatened	2	1	8/21/2005	<i>Cicindela marginipennis</i> Cobblestone Tiger Beetle	
Gazo Avenue CSO 003  44.5174293 -73.2401054	9690	Rare	5	2/3	11/2/2007	<i>Hybognathus hankinsoni</i> Brassy Minnow
	2924	Rare	5	1	8/13/1985	<i>Caripodes cyprinus</i> Quillback
	6982	Rare	5	2	2019	<i>Ichthyomyzon unicuspis</i> Silver Lamprey
	6978	Rare	5	2	4/2/2010	<i>Necturus maculosus</i> Mudpuppy
	5664	Endangered	5	2	8/30/2005	<i>Lasmigona costata</i> Flutedshell
	5269	Endangered	5	2	8/31/2015	<i>Lampsilis ovata</i> Pocketbook

	1199	Threatened	5	2/3	10/10/2012	<i>Pyganodon grandis</i> Giant Floater
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	9884	Rare	5	2	1997	<i>Moxostoma macrolepidotum</i> Shorthead Redhorse
	1935	Endangered	3/4	1	2018	<i>Acipenser fulvescens</i> Lake Sturgeon
	7569	Threatened	2	1	8/21/2005	<i>Cicindela marginipennis</i> Cobblestone Tiger Beetle
	4674	Endangered	5	2	8/31/2015	<i>Potamilus alatus</i> Pink Heelsplitter
<b>Pine Street LC44.0 / CSO 005</b>  <b>44.4623715 -73.2158693</b>	10613	Rare	5 (T5)	1	7/14/1902	<i>Lythrum alatum ssp. Alatum</i> Winged-loosestrife
<b>Manhattan @ North Champlain CSO 001</b>  <b>44.4879991 -73.2183476</b>	32355 *Mapped 700 ft. downstream of outfall*	Threatened	5 (T5)	1	5/1/2018	<i>Allium canadense var. canadense</i> Wild Garlic
<b>Manhattan @ Park Street CSO 002</b>  <b>44.4876704 -73.2198277</b>	None mapped					

**LEGEND FOR VERMONT  
SPECIES AND NATURAL COMMUNITY RANKING AND STATUS**  
Nongame and Natural Heritage Program  
Vermont Fish and Wildlife Department

**GRANK = Global Rank**, see explanation of ranks attached

**SRANK = State Rank**, see explanation of ranks attached

**SPROT = State Protection Status**

**As per the Vermont Endangered Species Law (10 V.S.A. Chap. 123)**

**E:** Endangered: in immediate danger of becoming extirpated in the state

**T:** Threatened: with high possibility of becoming endangered in the near future

**ANR\_STATUS**

**Information categories only; not established by this law**

**SC:** Special Concern: rare; status should be watched

**PE:** Proposed for endangered

**PT:** Proposed for threatened

**PD:** Proposed for delisting

**FPROT = Federal Protection Status**

**LE:** Listed Endangered

**LT:** Listed Threatened

**PDL:** Proposed for delisting

**EO TRACK? Indicates whether Element Occurrence (EOs) of the Element are tracked by the agency.**

**Y** - Track all extant and selected historical EOs

**P** - Track selected extant EOs (i.e., partial tracking)

**W** - Track on a watch list only

**N** - Do not track; includes mostly common species

**(null)** - Not assessed or unknown

## EXPLANATION OF STATE AND GLOBAL RANKS

**State (S) Rank** - Value that best characterizes the relative rarity (abundance) or endangerment of a native taxon within Vermont's geographic boundary.

**Global (G) Rank** - Value that best characterizes the relative rarity (abundance) or endangerment of a native taxon throughout its range.

**1 - Critically imperiled (very rare):** At very high risk of extinction or extirpation due to extreme rarity (often 5 or fewer populations or occurrences), very steep declines, or other factors

**2 - Imperiled (rare):** At high risk of extinction or extirpation due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors

**3 - Vulnerable (uncommon to rare):** At moderate risk of extinction or extirpation due to restricted range, relatively few populations or occurrences (often 80 or fewer), recent and widespread declines, or other factors

**4 - Apparently secure (common to uncommon):** locally common or widely scattered to uncommon, but not rare; some cause for long-term concern due to declines or other factors; or stable over many decades and not threatened but of restricted distribution or other factors

**5 - Secure (common):** widespread and abundant

**H - Possibly extinct/extirpated:** Missing; known from only historical occurrences but still some hope of rediscovery

**X - Presumed extinct/extirpated:** Not located despite intensive searches and virtually no likelihood of rediscovery

**U = unrankable:** Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

**NR = not ranked:** Not yet assessed.

**NA = not applicable** (Element is not a suitable target for conservation for one of the following reasons:

**Hybrid:** Element represents an interspecific hybrid without conservation value.

**Exotic Origin:** Element is not native to the State.

**Accidental/Nonregular:** Element is not regularly found in the State, in other words, infrequent and outside usual range.

**Not Confidently Present:** Element's presence in the State has been reported, but the report is unconfirmed or doubtful; Element has been falsely reported, and may or may not potentially occur; Element may potentially occur (e.g., habitat is suitable); Element was never present in the State despite presence in surrounding areas.

**No Definable Occurrences:** Element is native and appears regularly but lacks practical conservation concern in the State because it is transient or occurs in a dispersed, unpredictable manner.

**Synonym:** Element reported as occurring in the State, but the Vermont Nongame and Natural Heritage Program does not recognize the taxon; therefore the Element is not assigned a State rank.

*An indicator of uncertainty about the rank, either in the form of a range rank or a ? qualifier, may follow a numeric basic rank.*

*For national and state ranks, a suffix that describes the population of a migratory species may follow:*

**B = breeding population**

**N = nonbreeding population**

**M = transient/migratory population**

*Colchester Ave CSO  
with Surrounding Rare/Endangered/  
Threatened Areas  
2021*

**Manhole**

- Access
- Diversion
- Overflow
- Peak
- Special\_Structure
- Weir
- <all other values>
- Inlet
- Clean Out
- Control Valve
- Discharge Point
- Virtual Drainline
- Pressurized Main
- Gravity Main (Abandoned)

**Gravity Main**

- Abandoned
- Combined Waste Water
- Sewage
- Storm Runoff
- Stormwater Combined Sewer System Relief
- Unknown
- <all other values>

**Culverts**

- Culverts

**Storm Infiltration System**

- Storm Infiltration System
- PreTreatment Structure
- Flow Diversion Structure
- Detention

**Rare/Threatened/Endangered Species**

**US\_TE\_DESC**

- Rare
- Endangered
- Threatened
- <all other values>



*Gazo Ave CSO  
with Surrounding Rare/Endangered/  
Threatened Areas  
2021*

**Manhole**

- Access
- Diversion
- Overflow
- Peak
- Special\_Structure
- Weir
- <all other values>
- Inlet
- Clean Out
- Control Valve
- Discharge Point
- Virtual Drainline
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**Gravity Main**

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- Unknown
- <all other values>
- Culverts
- Storm Infiltration System
- PreTreatment Structure
- Flow Diversion Structure
- Detention

**Rare/Threatened/Endangered Species**

**US\_TE\_DESC**

- Rare
- Endangered
- Threatened
- <all other values>



# Pine St CSO with Surrounding Rare/ Endangered/Threatened Areas 2021

**Manhole**

- Access
- Diversion
- Overflow
- Peak
- Special\_Structure
- Weir
- <all other values>

**Inlet**

- Clean Out
- Control Valve
- Discharge Point
- Virtual Drainline
- Pressurized Main
- Gravity Main (Abandoned)

**Gravity Main**

- Abandoned
- Combined Waste Water
- Sewage
- Storm Runoff
- Stormwater Combined Sewer System Relief
- Unknown
- <all other values>

**Culverts**

- Storm Infiltration System
- PreTreatment Structure
- Flow Diversion Structure
- Detention

**Rare/Threatened/Endangered Species**

**US\_TE\_DESC**

- Rare
- Endangered
- Threatened
- <all other values>





**Park St and North Champlain St  
CSOs with Surrounding Rare/  
Endangered/Threatened Areas  
2021**

**Manhole**

- Access
- Diversion
- Overflow
- Peak
- Special\_Structure
- Weir
- <all other values>
- Inlet
- Clean Out
- Control Valve
- Discharge Point
- Virtual Drainline
- Pressurized Main
- Gravity Main (Abandoned)

**Gravity Main**

- Abandoned
- Combined Waste Water
- Sewage
- Storm Runoff
- Stormwater Combined Sewer System Relief
- Unknown
- <all other values>
- Culverts
- Storm Infiltration System
- PreTreatment Structure
- Flow Diversion Structure
- Detention

**Rare/Threatened/Endangered Species**

**US\_TE\_DESC**

- Rare
- Endangered
- Threatened
- <all other values>

