

SECTION VII – APPENDICES

- APPENDIX A:** RESPONSE TO PUBLIC COMMENTS
- APPENDIX B:** TRACTS AND PARCELS
- APPENDIX C:** POND DESCRIPTIONS
- APPENDIX D:** AMPHIBIAN AND REPTILE HABITAT ASSOCIATIONS
- APPENDIX E:** NATURAL HERITAGE PROGRAM ELEMENTS
- APPENDIX F:** BREEDING BIRD ATLAS DATA AND WILDLIFE MAPS
- APPENDIX G:** TRAIL CLASSIFICATION SYSTEM
- APPENDIX H:** ARCHAEOLOGICAL AND CULTURAL RESOURCES
- APPENDIX I:** ALTERNATIVES DISCUSSION – SNOWMOBILES TRAILS
- APPENDIX J:** ALTERNATIVES DISCUSSION – ROADS
- APPENDIX K:** ALTERNATIVES DISCUSSION – ACCESS FOR PERSONS WITH DISABILITIES
- APPENDIX L:** MAPS OF ROUTES TO FACILITATE SNOWMOBILE ACCESS BETWEEN COMMUNITIES
- APPENDIX M:** MAPS OF INDIVIDUAL MANAGEMENT ACTIONS
- APPENDIX N:** SNOWMOBILE PLAN BRIEFING DOCUMENT
- APPENDIX O:** APSLMP WILD FOREST GUIDELINES FOR MANAGEMENT AND USE
- APPENDIX P:** UNIT MANAGEMENT PLANNING PROCESS
- APPENDIX Q:** ALL-TERRAIN BICYCLE (ATB) TRAIL STANDARDS AND GUIDELINES
- APPENDIX R:** STANDARD OPERATING PROCEDURE: TRAILHEAD REGISTER MAINTENANCE
- APPENDIX S:** INITIAL PRESS RELEASE
- APPENDIX T:** INTERESTED PARTY LETTER
- APPENDIX U:** AGENDA FOR UMP OPEN HOUSE
- APPENDIX V:** INVASIVE PLANT LOCATION MAP
- APPENDIX W:** INVASIVE PLANTS BEST MANAGEMENT PRACTICES
- APPENDIX X:** EXISTING FACILITIES MAP
- APPENDIX Y:** PROPOSED FACILITIES MAP
- APPENDIX Z:** HYDROLOGY AND WETLANDS MAPS

APPENDIX A: RESPONSE TO PUBLIC COMMENTS

To be added following the public comment period.

APPENDIX B: TRACTS AND PARCELS

Bergen's Purchase

portions of Patents 2, 3, and 4

Patent 5

portions of Lots 5 and 6

Patent 6

North ½

Lots 1 and 2

portions of Lots 3 and 5

South ½

Lots 1, 2 and 3

portions of Lots 4, 5, 6 and 7

Patent 7

Lot 2

portion of Sub-lot 2

Lot 4

Sub-lots 7 and 9

Lots 5 and 6

Patent 8 & 9

Lots 7, 8, 9, 12, 13, 14, 15, 17 and 18

portions of Lots 3, 4, 11, and 16

Patent 10

Lots 5 and 6

Patent 11

Lot 5

portion of Lot 6

Patent 12

Lot 8

portions of Lots 10 and 11

Dartmouth Patent

Great Tract

Range 3

Lot 7

portions of Lots 4 and 5

Range 4

Lots 4, 5 and 7

Range 5

Lots 3, 4, 5, 7, 8, 11, 12 and 13

Range 6

Lots 5, 6, 7, 11, 12 and 13

Range 7

Lots 5, 6, 9, 10, 11, 12 and 13

Range 8

Lots 5, 6, 7, 8, 9, 10, 11, 12 and 13

Range 9

Lots 5, 6, 7, 8, 9, 10, 11, 12 and 13

Range 10

Lots 6, 7, 9, 10, 11, 12 and 13

portions of Lots 5 and 8

Small Tract

Range 1

portion of Lot 1

Range 2

Lot 9

Range 4

Lots 3 and 4

portion of Lot 5

portion of Range 11

Upper River Division

portions of Lots 5 and 6

Glen and Yates Patent

Lots 6, 7, and 16

portions of Lots 13 and 21

Gore Between Township 11 and Dartmouth Patent

Lots 1, 2, 3, 4, 5, 6, 7, 8, 13, 14, 15, 16, 17, 18, 24, 25, 26, 28, 33, 34, 35, 36 and 39

portions of Lots 27, 40 and 43

Gore Between Township 12 and Hyde Township

West of River

Lots 5, 8, 13, 26, 30 and 31

portion of Lot 1

Hyde Township

Lot 37

Sub-lots 1 and 2

portions of Lots 17, 35 and 39

John Glen and 44 Others Patent

Lot 39

portions of Lots 51, 53, 54, and 112

Lots 85, 86, 87, and 88

Sub-lots 3, 6, 7, 9, and 10

Kayaderoseras Patent, 24th Allotment

Great Lot 1
Lot 1
portions of Sub-lot B
Lot 2
portions of Sub-lots 1 and 2
Great Lot 2
Lot 1
portions of Sub-lots A and 1
Great Lot 3
Lot 1
Lots A, B, and C
Great Lot 4
Lot 1
Sub-lot 2
Great Lot 5
portion of Lot 2
Great Lot 6
portions of Lots 1 and 2
Great Lot 8
portion of Lot 2

Palmer's Purchase

General Allotment

Lot 1
Sub-lot 2
portion of Sub-lot 3
Lot 2
Sub-lots 4, 5, 6 and 7
portions of Sub-lots 1 and 3
Lot 3
Sub-lots 6, 7 and 8
Lot 4
Sub-lots 5, 7, 8, 9 and 10
portions of sub-lots 5 and 6
Lots 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22 and 23
portions of Lots 20 and 21
Lot 24
Sub-lots 1 and 5
portion of Sub-lot 2
Lot 25
Sub-lots 2, 3, 4 and 5
portion of sub-lot 1
Lots 26 and 27
portions of Lots 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44 and 45

Lot 47 & 48
 portion of Sub-lot 7
 Middle Division
 Remsen Lot
 portion of the Livingston Lot
 Great Lot 1
 Lots 2, 3, 4, 8, 9 and 10
 portions of Lots 5, 6 and 7
 Great Lot 2
 portions of the East Part
 West Part, Bruce Tract
 Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19 and 20
 Great Lot 3
 Lots 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 24, 25, 26, 27, 28,
 29, 30, 31, 32, 33, 34 and 35
 portions of Lots 21, 22 and 23
 portion of H.T.P.
 Rear Division
 Great Lot 1
 Lots 1, 2, 3, 4, 10, 11, 12, 26, 27, 34, 35, 37, 38, 39, 40, 45, 46, 47, 48, 49, 50, 51,
 52, 57, 58, 59, 60, 61, 62, 64, 69, 70, 73, 74, 75, 76, 81, 82, 83, 84, 85, 86, 87 and
 88
 portions of Lots 63, 71 and 72
 Great Lot 2
 Lots 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25,
 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 43, 44, 45, 46, 47, 48, 49, 50, 51,
 52, 53, 54, 55, 56, 57, 58, 59 and 60
 portion of Great Lot 3
 Great Lot 4
 H.T.P.
 Great Lot 6
 H.T.P.
 Leffert's Tract
 North ½
 Range 1
 Lots 4, 5, 6, 7, 8, 9 and 10
 Range 2
 Lots 3, 6, 7, 8, 9 and 10
 Range 3
 Lots 2, 3, 4, 6, 7, 8, 9 and 10
 portion of Lot 5
 Range 4
 Lots 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10
 major portion of the South ½

River Division

portions of Great Lots 2 and 3
portion of Lefferts 903 Acre Lot

Peckham Tract

Lots 5 and 10

Sacandaga Patent

portion of Lot 3

Sanders Patent

Lots 1, 15, 17, 21, 22, 29, 30, 31, 32, 33, 34, 35, 37, 44, and small lot 3
portion of Lot 23

Totten and Crossfield's Purchase

Township 10

portions of Lots 8, 9, 10, 11, 12, 13, 14 and 15

Township 11

Lots 6, 7, 8, 9, 10, 11, 12, 56, 57, 58, 59, 60, 61, 62, 63, 64, 78, 81, 82, 83 and 84
portions of Lots 37, 38, 39, 40, 42, 55, 65, 66, 67, 68, 77 and 80

Township 29

portions of Lots 16, 17, 18, 19 and 20

portions of the Russell Tract

portions of the unallotted sections of the Township

APPENDIX C: POND DESCRIPTIONS

Pond Management Classifications:

Adirondack Brook Trout Ponds – Adirondack Zone ponds which support and are managed for populations of brook trout, sometimes in company with other salmonid fish species. These waters generally lack warmwater fishes but frequently support bullheads. Management may include stocking.

Coldwater Ponds and Lakes – Lakes and ponds which support and are managed for populations of several salmonids. These waters generally lack warmwater fishes but frequently support bullheads. Management may include stocking.

Other Ponds and Lakes – Fishless waters and waters containing fish communities consisting of native and nonnative fishes which will be managed for their intrinsic ecological value.

Two-Story Ponds and Lakes – Waters which simultaneously support and are managed for populations of coldwater and warmwater game fishes. The bulk of the lake trout and rainbow trout resource fall within this class of waters. Management may include stocking.

Unknown Ponds and Lakes – Waters which could not be assigned to the subprogram categories specifically addressed in this document due to a lack of or paucity of survey information.

Warmwater Ponds and Lakes – Waters which support and are managed for populations of warmwater game fishes and lack significant populations of salmonid fishes. Management may include stocking.

Individual Pond Descriptions:

This list of ponded waters in and around the Wilcox Lake Wild Forest was obtained from the NYS Biological Survey. The water bodies listed are either contained entirely within the unit or bordered partially by lands in the unit.

1. **Albia Pond** (UH-P138)

Albia Pond is a 4-acre pond. Based on a report in a 1967 DEC survey, it contains native-but-widely-introduced brown bullhead and pumpkinseed; and, nonnative chain pickerel. The same species reported in 1967 were collected during the 1932 biological survey. The pond was stocked with brook trout in 1968 but the policy was discontinued in 1969. Albia Pond is located on a isolated small parcel of state land and its outlet flows across private land.

Albia Pond will be managed as a warmwater pond to preserve its native fishes in the presence of nonnative species.

Management Class: Warmwater

2. **Bennett Lake** (UH-P182)

Bennett Lake is a 37-acre pond. Based on a 1987 Adirondack Lakes Survey Corporation (ALSC) survey, it has a fish community consisting of brook trout and blacknose dace; and, nonnative golden shiner and killifish. The 1932 biological survey collected brown bullhead, creek chub, yellow perch and killifish. Bennett Lake was reclaimed on July 20, 1954. Brook trout were stocked in 1955 following the reclamation. A survey in 1969 found a brook trout monoculture sustained by stocking. A 1993 reconnaissance survey established that the outlet does not have a natural fish barrier dam, but several sites were found where one could be constructed. A road crosses the outlet 100 yards from the mouth.

Bennett Lake will be managed as an Adirondack brook trout pond. A fish barrier dam will be constructed on the outlet. After the construction of the fish barrier dam, Bennett Lake will be reclaimed to enhance and restore a native fish community.

Management Class: Adirondack brook trout

3. **Black Pond** (UH-P128)

Black Pond is a 52-acre pond. Based on a 1987 ALSC survey, it contains native-but-widely-introduced brown bullhead and creek chub; and nonnative golden shiner, yellow perch, and smallmouth bass. The same species collected in 1987 were observed during the 1932 biological survey, except for creek chub. The pond was stocked once in 1928 with brook trout. Smallmouth bass were stocked in 1928 and 1929.

Black Pond will be managed as a warmwater pond to preserve its native fishes in the presence of nonnative species.

Management Class: Warmwater

4. **Cod Pond** (UH-P286)

Cod Pond is a shallow, 50-acre pond with abundant floating aquatic vegetation. Based on a 1987 ALSC survey, it contains native-but-widely-introduced brown bullhead and pumpkinseed; and, nonnative chain pickerel and golden shiner. Chain pickerel and brown bullhead were collected during the 1932 biological survey. White sucker (native) were added to the list of species present in 1959. Largemouth bass were introduced to Cod Pond in 1994 by DEC. An angling survey conducted in 1998 captured no bass, and none were observed. The marginal pH of Cod Pond may be below the threshold for suitability for largemouth bass. Cod Pond has a large wetland on its outlet which precludes effective treatment with rotenone.

Cod Pond will be managed as a warmwater pond to preserve its native fishes in the presence of nonnative species.

Management Class: Warmwater

5. Crane Mountain Pond (UH-P519)

Crane Mt. Pond is a 14-acre pond with a history of trout management. Brook trout were stocked before the 1932 biological survey. Although only brown bullhead (NBWI) were collected during a daylight gill net set in 1932, brook trout were reported up to 3.5 pounds. A survey in the summer of 1981 collected brook trout, brown bullhead, white sucker (native) and golden shiner (nonnative). The pond was reclaimed in the fall of 1981. A 1988 survey collected only brook trout. Good catches of brook trout were observed in 1983 and continued through 1992. A DEC ranger reported observing golden shiner at Crane Mtn. Pond during the summer of 1994. The pond was gill netted in 1996 and brook trout, golden shiner and creek chub (NBWI) were collected. The pond was again reclaimed in the fall of 1998 and restocked with brook trout shortly thereafter. The outlet of Crane Mt. Pond has a natural fish barrier. The brook trout population in this water is sustained by stocking. Crane Mountain Pond was most recently surveyed in August of 2004. This survey showed that the pond is currently a brook trout monoculture that has significant natural reproduction of brook trout. Quite possibly, natural reproduction will increase overtime and hopefully the pond will establish a self-sustaining population of brook trout.

Crane Mt. Pond will be reclaimed upon the establishment of additional fish(es) to enhance and restore a native fish community. When a reclamation is determined to be necessary, the UMP will be amended to include it in the Schedule for Implementation and the pond narrative will be revised to reflect the new survey.

Management Class: Adirondack brook trout

6. Eagle Pond (UH-P290a)

Eagle Pond is a 5-acre pond. Based on a 1987 ALSC survey, it has a fish community consisting of brook trout and native-but-widely-introduced brown bullhead. Eagle Pond was not surveyed before 1987. Anglers reported catching small brown bullhead in 1974. Brook trout stocking was initiated in the fall of 1975 and by May of 1977, anglers reported good brook trout catches sustained by stocking. Good brook trout fishing continued from 1977 through 1987, but fishing was reported to be "slow" for smaller trout in 1993 and 1994. The outlet of Eagle Pond has a natural fish barrier.

Eagle Pond will be reclaimed upon the establishment of additional fish(es) to enhance and restore a native fish community. When a reclamation is determined to be necessary, the UMP will be amended to include it in the Schedule for Implementation and the pond narrative will be revised to reflect the new survey.

Management Class: Adirondack brook trout

7. Fish Ponds (Lower) (UH-P287)

Lower Fish Pond is a 19-acre pond. Based on a 1987 ALSC survey, it has a fish community consisting of white sucker; native-but-widely-introduced brown bullhead and pumpkinseed; and, nonnative chain pickerel. The pond was not netted in 1932 but pickerel were reported. In 1953,

white sucker and chain pickerel were collected. The outlet of Lower Fish Pond flows approximately 3 miles to the East Branch of the Sacandaga River. The outlet is a slow meandering stream with extensive wetlands along its entire length. There is no known location to construct a fish barrier on the outlet of Lower Fish Pond.

Lower Fish Pond will be managed as a warmwater pond to preserve its native fishes in the presence of nonnative species.

Management Class: Warmwater

8. Fish Ponds (Upper) (UH-P288)

Upper Fish Pond is an 18-acre pond which connects to Lower Fish Pond via a 0.5-mile long outlet. Based on a 1987 ALSC survey, it has a fish community consisting of white sucker; native-but-widely-introduced brown bullhead and pumpkinseed; and nonnative chain pickerel. The outlet of the pond has extensive wetlands. Survey notes taken in 1953 indicate that it would be difficult to construct a fish barrier on the outlet of Upper Fish Pond and that reclamation would be difficult. The survey in 1953 collected brook trout, white sucker, brown bullhead and chain pickerel.

Upper Fish Pond will be managed as a warmwater pond to preserve its native fishes in the presence of nonnative species.

Management Class: Warmwater

9. Garnet Lake (UH-P520)

Garnet Lake is a 302-acre lake. Based on a 1963 DEC survey, it has a fish community consisting of native-but-widely-introduced brown bullhead, pumpkinseed, native redbreast sunfish and, nonnative chain pickerel, yellow perch, largemouth bass, smallmouth bass, northern pike, rock bass and killifish. Smallmouth bass, chain pickerel, white sucker (native), golden shiner and yellow perch were collected during a survey in 1932. By 1951, creek chub (NBWI), brown bullhead (NBWI), pumpkinseed (NBWI) and rock bass (nonnative) were added to the species list. Smallmouth bass were stocked in 1957 and in 1961 there was a transfer of largemouth bass. A 1961 survey collected chain pickerel, brown bullhead, yellow perch, pumpkinseed, and golden shiner and smallmouth bass; northern pike and rock bass were reported.

Garnet Lake will be managed as a warmwater pond to preserve its native fishes in the presence of nonnative species.

Management Class: Warmwater

10. Greenfield Lake (UH-P 205)

Greenfield Lake is a 4-acre lake that has never been netted, and thus has an unknown fish community. The lake was reported to be a bog pond that was "filling in" in 1932.

Greenfield Lake will be managed to preserve the species present for their intrinsic value.

Management Class: Unknown

11. **Kibby Pond** (UH-P291)

Kibby Pond is a 41-acre pond. Based on a 1993 DEC survey, it has a fish community consisting of brook trout and native-but-widely-introduced brown bullhead and creek chub, and nonnative banded killifish. In 1932, the lake was reported to be a good brook trout pond, but only brown trout were collected along with creek chub and killifish. Brook trout, white sucker, brown bullhead and golden shiner (nonnative) were collected and creek chub and killifish were observed in 1960. In 1985, brook trout, brown bullhead, creek chub, golden shiner and killifish were collected. The pond was reclaimed with rotenone in 1987 and excellent brook trout angling was reported through 1990. A 1993 survey collected brook trout (sustained by stocking), brown bullhead, creek chub and killifish. Kibby Pond was most recently surveyed in July of 2005. Creek chubs and banded killifish were again captured, but the brook trout population remains strong with quality size fish. Apparently the successful elimination of golden shiner and white sucker has allowed the brook trout to do well in this pond.

The outlet of Kibby Pond has a natural fish barrier, but difficult to treat tributaries flowing into the outlet beaver flow complicate effective treatment. Another rotenone treatment of Kibby Pond may be undertaken in the future, but is not anticipated during the current planning period.

Kibby Pond will be managed as an Adirondack brook trout pond to preserve its native fishes in the presence of a nonnative species.

Management Class: Adirondack brook trout

12. **Lens Lake** (UH-P332)

Lens Lake is a 68-acre lake. Based on 1969 DEC survey, it has a fish community consisting of white sucker; native-but-widely-introduced brown bullhead; and nonnative golden shiner. In 1932 brook trout, white sucker and brown bullhead were collected. In 1963, brook trout, brown trout, golden shiner, brown bullhead and white sucker were collected. Brook trout were stocked from about 1962 through 1975 but stocking was discontinued in 1975 because of poor survival. Lens Lake has large wetlands which precludes effective treatment with rotenone. Lens Lake will be experimentally stocked with brown trout to see if this species can utilize the fish forage base and provide a fishery.

Lens Lake will be managed as a two-story pond to preserve its native fishes in the presence of nonnative species and historically associated species. It may be experimentally stocked with largemouth bass.

Management Class: Two story.

13. **Little Joe Pond** (UH-P282a)

Little Joe Pond is a 6-acre pond. Little Joe Pond was not netted during the 1932 biological survey. Good brook trout fishing was reported in the 1950's by Conservation Officer Morehouse. A 1959 survey collected brook trout and unidentified minnows. Numerous brook trout up to 14" were caught by anglers in 1983 and a survey in that year collected brook trout and northern redbelly dace and nonnative golden shiners. A 1993 reconnaissance survey found a natural fish barrier on the outlet, 100 feet downstream from the pond. The reconnaissance survey indicated that the pond could be successfully reclaimed with rotenone to restore a native fish community. Little Joe Pond was reclaimed in 1996 to enhance and restore a native fish community and was restocked with brook trout. Little Joe Pond was most recently surveyed in July of 2003. This survey showed that Little Joe Pond remains a brook trout monoculture since the reclamation. The brook trout population in this water is sustained by stocking.

Little Joe Pond will be reclaimed upon the establishment of additional fish(es) to enhance and restore a native fish community. When a reclamation is determined to be necessary, the UMP will be amended to include it in the Schedule for Implementation and the pond narrative will be revised to reflect the new survey.

Management Class: Adirondack brook trout

14. Little Pond (UH-P333)

Little Pond is a 5-acre, shallow pond. Based on a 1993 DEC survey, it contains only native-but-widely-introduced brown bullhead. The pond was not studied during the 1932 biological survey but brook trout and native-but-widely-introduced brown bullhead were reported present. The trailhead to Little Pond is private and posted. One-half of the pond is privately owned and half of the pond is on state land. Brook trout and brown bullhead were collected in 1970. In 1993 only brown bullhead were collected because stocking had been discontinued due to lack of public access. The 1993 survey determined that the pond is surrounded by a tall grass wetland with standing pockets of water that could not be effectively treated with rotenone.

Little Pond will be managed to preserve its native fish community.

Management Class: Other

15. Lizard Pond (UH-P197)

Lizard Pond is a 24-acre pond. Based on a 1993 DEC survey, it has a fish community consisting of brook trout. In 1932 white sucker, native-but-widely-introduced pumpkinseed and nonnative yellow perch were collected. In 1973 white sucker, nonnative golden shiner, pumpkinseed, brown bullhead (NBWI) and yellow perch were collected. Lizard Pond was reclaimed in fall of 1973. In 1975 brook trout up to 16 inches were collected. Good brook trout fishing was reported in 1979, 1981, and 1987. An ALSC survey collected only brook trout in 1987. This pond has remained a brook trout monoculture, sustained by stocking, for almost thirty years following its reclamation in 1973. Although the location of a natural fish barrier on the outlet is not known, its presence is assured by the long standing success of the reclamation project. The lack of extensive

wetlands or significant tributaries make this pond a good reclamation candidate if competitive species should again become established. Its outlet flows to Garnet Lake. Lizard Pond was most recently surveyed in July of 2005. This survey reaffirmed that Lizard Pond remains a brook trout monoculture.

Lizard Pond will be reclaimed upon the establishment of additional fish(es) to enhance and restore a native fish community. When a reclamation is determined to be necessary, the UMP will be amended to include it in the Schedule for Implementation and the pond narrative will be revised to reflect the new survey.

Management Class: Adirondack brook trout

16. Middle Flow (UH-P 211A)

Middle Flow is a 37-acre pond that has never been surveyed, and thus its fish community is unknown. Middle Flow is bounded by a parcel of state land along its western shore, but the majority of the pond is located on private and posted land.

Middle Flow will be managed to preserve the species present for their intrinsic value.

Management Class: Unknown

17. Middle Lake (UH-P184)

Middle Lake is a 31-acre lake. Based on a 1987 ALSC survey, it has a fish community consisting of historically associated brown trout and nonnative golden shiner. A 1932 survey collected native-but widely-introduced brown bullhead and pumpkinseed, and nonnative yellow perch. The lake was reclaimed in 1954. A 1962 survey collected only brook trout. A 1969 confirmed that nonnative golden shiners had become established. A 1975 survey collected brook trout, brown trout (sustained by stocking) and golden shiner. A 1993 reconnaissance survey located a natural fish barrier on the outlet of Middle Lake about 3/4 mile downstream from the pond. The 1993 survey also established that the pond could be effectively treated with rotenone.

Middle Lake will be reclaimed to enhance and restore a native fish community.

Management Class: Adirondack brook trout

18. Mud Pond (UH-P522)

Mud Pond is a 16-acre pond. Based on 1954 DEC survey, it has a fish community consisting of native-but-widely-introduced pumpkinseed; and nonnative northern pike and yellow perch. The 1954 survey established that a large wetland bog surrounded the pond and outlet that precludes effective treatment with rotenone.

Mud Pond will be managed as a warmwater pond to preserve its native fishes in the presence of nonnative species.

Management Class: Warmwater

19. Murphy Lake (UH-P213)

Murphy Lake is a 33-acre lake. Based on a 1987 ALSC survey, it has a fish community consisting of brook trout; native-but-widely-introduced creek chub; and nonnative golden shiner. When surveyed in 1932 the pond was dominated by nonnative yellow perch and smallmouth bass and also contained native-but-widely-introduced pumpkinseed and brown bullhead. A similar fish community was found in a 1950 survey. The lake was reclaimed in 1954. The brook trout population in this water is sustained by stocking. By 1987, nonnative golden shiner and creek chub (NBWI) had become reestablished. A 1993 reconnaissance survey established that most of the pond has a hard shoreline and that the pond could be effectively treated. A sparse band of emergent vegetation occurs around the shoreline, most of which is arrowhead. A natural fish barrier exists on the outlet of Murphy Lake 100 yards downstream from the pond.

Murphy Lake will be reclaimed and managed as an Adirondack brook trout pond to enhance and restore a native fish community.

Management Class: Adirondack brook trout

20. New Lake (UH-P 187)

New Lake is a 23-acre lake. Based on a 1987 ALSC survey, it has a fish community consisting of white sucker and blacknose dace; native-but-widely-introduced creek chub and brown bullhead and nonnative golden shiner. The 1932 biological survey collected white sucker and reported that the lake was stocked with brook trout from 1925-1931. The survey recorded that good trout fishing was reported from 1930-32. A 1956 survey collected brook trout and white sucker. In 1973 DEC crews collected brook trout, white sucker, golden shiner and brown bullhead. Brown trout were introduced in 1993 and are sustained by stocking. A 1988 reconnaissance survey could not locate a site for a fish barrier dam that would assure effective treatment with rotenone.

New Lake will be managed as a coldwater pond to preserve its native fishes in the presence of a nonnative species.

Management Class: Coldwater

21. Palmer Lake (UH-P 127b)

Palmer Lake is a 10-acre lake. Based on a 1994 DEC survey, it has a fish community consisting of white sucker; native-but-widely-introduced bluntnose minnow, creek chub, and brown bullhead; and nonnative golden shiner and brown trout (historically associated). The 1932 biological survey collected white sucker, creek chub and blacknose dace and reported that occasionally brook trout were caught by anglers. Public access to Palmer Lake is across lands owned by the Mettowee Lumber Company and is permitted seasonally via a Fish and Wildlife Management Area agreement. A 1985 survey collected white sucker and brown bullhead. In 1985 it was determined that no site existed for a fish barrier dam and that large wetlands

preclude effective treatment with rotenone. A 1994 survey collected brown trout (sustained by stocking), white sucker, golden shiner, brown bullhead, creek chub and bluntnose minnow.

Palmer Lake will be managed as a coldwater pond to preserve its native fishes in the presence of a nonnative species.

Management Class: Coldwater

22. **Round Pond** (UH-P521)

Round Pond is a 83-acre pond. Based on 1985 DEC survey, it has a fish community consisting of white sucker; native-but-widely-introduced creek chub and pumpkinseed; and, nonnative yellow perch, rock bass and golden shiner. A 1932 biological survey collected northern pike, yellow perch, pumpkinseed and golden shiner. A 1954 survey collected brown bullhead, yellow perch and pumpkinseed. A 1969 survey collected white sucker, pumpkinseed, brown bullhead, yellow perch, rock bass, and golden shiner. The 1969 survey reported that northern pike were not collected or observed. Brown trout stocking commenced in 1978 but was discontinued because a 1985 survey found no evidence of brown trout survival. A 1985 survey collected white sucker, pumpkinseed, creek chub, yellow perch, golden shiner and rock bass. Largemouth bass were introduced to Round Pond in 1994 by the DEC.

Round Pond will be managed as a warmwater pond to preserve its native fishes in the presence of nonnative species.

Management Class: Warmwater

23. **Shiras Pond** (UH-P282)

Shiras Pond is a 7-acre pond. Based on a 1987 ALSC survey, it has a fish community consisting of brook trout and northern redbelly dace. Shiras Pond was not netted during the 1932 biological survey. Brook trout stocking began in about 1964. In 1973 anglers reported catching brook trout sustained by stocking, up to 3.5 pounds. Shiras Pond was most recently surveyed in 1998 by DEC. This survey again documented the presence of large brook trout and redbelly dace. Creek chubs (NBWI) were also present. This survey documented a suitable site to build a barrier dam if the need should arise to reclaim Shiras Pond. No reclamation is anticipated during the planning period. Shiras Pond will be managed as an Adirondack brook trout pond to preserve its native fishes in the presence of a native-but-widely-introduced species.

Management Class: Adirondack brook trout

24-47. **Unnamed Ponds**

Twenty-four unnamed ponds located within the unit range in size from 0.7 acres to 22 acres and comprise a total of 91.8 acres. Although these ponds have never been surveyed, they probably contain native and nonnative fish communities. All of the unnamed ponds except two, have either large wetlands or no barrier dam site, or both; which precludes consideration for restoration by reclamation with rotenone.

Six-acre Unnamed Pond (5297) and six-acre Unnamed Pond (196A) have potential fish barrier dam sites and no wetlands are shown on the USGS quadrangle. Both of these unnamed ponds will be scheduled for surveys to determine their suitability for further management.

For the planning period the unnamed ponds will be managed to protect the fish species present for their intrinsic value.

Management Class: Unknown

48. **Wilcox Lake** (UH-P188)

Wilcox Lake is a 133-acre lake. Based on a 1987 ALSC survey it has a fish community consisting of brook trout, redbreast sunfish and common shiner; native-but-widely-introduced white sucker, creek chub, brown bullhead, and nonnative golden shiner. The 1932 biological survey reported that brook trout were stocked from 1925 through 1931 and that the lake had a history of excellent brook trout angling. In 1932, brook trout, cutlips minnow, creek chub, white sucker, redbreast sunfish, and golden shiner were collected. A 1956 survey added common shiner (native) to the species list. Surveys in 1973 and 1987 collected the same species. Brook trout are sustained by stocking in this water. A 1993 reconnaissance survey documented that the pond could be effectively treated with rotenone and that suitable site to construct a fish barrier exists on the outlet immediately downstream of the pond.

Wilcox Lake will be reclaimed and managed as an Adirondack brook trout pond to enhance and restore a native fish community. A fish barrier dam will be constructed prior to the reclamation.

Management Class: Adirondack brook trout

49. **Willis Lake** (UH-P215)

Willis Lake is a 36-acre pond which has both private and public ownership. Based on a 1987 ALSC survey it has a fish community consisting of native-but-widely-introduced pumpkinseed and brown bullhead and nonnative largemouth bass and yellow perch. The 1932 biological survey reports that smallmouth bass were stocked from 1922-26 and in 1929. The 1932 survey collected brown bullhead, yellow perch, chain pickerel (nonnative) and smallmouth bass. A 1969 survey collected the same species. Largemouth bass are probably a relatively recent introduction because they were not collected in 1932 or in 1969.

Willis Lake will be managed as a warmwater pond to preserve its native fishes in the presence of nonnative species.

Management Class: Warmwater

Note: For purposes of this plan, only waters officially recognized (those with P numbers) by the NYS Biological Survey are included. The Wilcox Lake Wild Forest contains a number of small (less than 1 acre) wetland/beaver ponds which have not been assigned P numbers. In some years these pond/wetland complexes may be a nearly dry wetland, while during some wet years or

during years when beaver are active they contain a small impoundment. These pond/wetlands will be managed to preserve and protect the existing fish communities for their intrinsic value.

Table 1. Physical Inventory Data for Ponded Waters in the Wilcox Lake Wild Forest

Name	Pond #	Wshed	File #	County	Quad Name	Area (acres) NYSBU	Max Depth (m)	Mean Depth (m)	Management Class
Albia Pond	P138	UH	277	Saratoga	Edinburg	4.4	9.1		Warmwater
Bennett Lake	P182	UH	346	Hamilton	Hope Falls	37.3	9.1	4.4	Adirondack brook trout
Black Pond	P128	UH	258	Saratoga	Porter Corners	52.1	11	2.4	Warmwater
Cod Pond	P286	UH	519	Warren	South Pond Mountain	49.9	1.9	0.9	Warmwater
Crane Mtn. Pond	P519	UH	891	Warren	Johnsburg	13.8	6.1	2.2	Adirondack brook trout
Eagle Pond	P290A	UH	525A	Warren	Bakers Mills	4.9	8.8	3.3	Adirondack brook trout
Fish Ponds (Lower)	P287	UH	520	Warren	Bakers Mills	19.3	4.5	2.5	Warmwater
Fish Ponds (Upper)	P288	UH	521	Warren	Bakers Mills	18.3	4.3	1.9	Warmwater
Garnet Lake	P520	UH	893	Warren	Bakers Mills	301.7	7.6	-	Warmwater
Greenfield Lake	P205	UH	383	Saratoga	Hope Falls	4.0	-	-	Unknown
Kibby Pond	P291	UH	527	Warren	Bakers Mills	41.0	11	3.2	Adirondack brook trout
Lens Lake	P332	UH	602	Warren	Harrisburg	67.7	2.4	-	Two-story
Little Joe Pond	P282A	UH	525A	Warren	South Pond Mountain	8.0	6.9	3.9	Adirondack brook trout
Little Pond	P333	UH	607	Warren	Harrisburg	4.9	4.9	-	Adirondack brook trout
Lizard Pond	P197	UH	370	Warren	Bakers Mills	23.2	4	1.3	Adirondack brook trout
Middle Flow	P211A	UH		Warren	Harrisburg	37.1	-	-	Unknown
Middle Lake	P184	UH	348	Hamilton	Hope Falls	31.3	7.3	3.3	Adirondack brook trout
Mud Pond	P522	UH	895	Warren	Johnsburg	16.1	-	-	Warmwater
Murphy Lake	P213	UH	400	Hamilton	Hope Falls	32.6	12.2	5.1	Adirondack brook trout
New Lake	P187	UH	354	Warren	Griffin	23.2	7	4.5	Coldwater
Old Pond	P204	UH	382	Saratoga	Hope Falls	6.4	-	-	Unknown
Palmer Lake	P127B	UH	255	Saratoga	Porter Corners	9.6	6.4	2.7	Coldwater
Round Pond	P521	UH	894	Warren	Johnsburg/ Bakers Mills	83.3	12.2	-	Warmwater
Russell Pond	P281B	UH	511B	Warren	Griffin	-	-	-	Other

Shiras Pond	P282	UH	512	Warren	Griffin	7.4	3.7	2.2	Adirondack brook trout
Unnamed Water	P194A	UH		Warren	Bakers Mills	1.0	-	-	Unknown
Unnamed Water	P194	UH		Warren	Bakers Mills				Unknown
Unnamed Water	P196A	UH		Warren	Bakers Mills	5.9	-	--	Unknown
Unnamed Water	P196	UH		Warren	Bakers Mills	2.9	-	-	Unknown
Unnamed Water	P204A	UH		Saratoga	Hope Falls	3.5	-	-	Unknown
Unnamed Water	P204B	UH		Saratoga	Hope Falls	1.2	-	-	Unknown
Unnamed Water	P208B	UH		Saratoga	Hope Falls	0.7	-	-	Unknown
Unnamed Water	P281A	UH		Hamilton	Griffin	4.9	-	-	Unknown
Unnamed Water	P288A	UH		Warren	Bakers Mills	2.2	-	-	Unknown
Unnamed Water	P5163	UH		Fulton	Galway	0.7	-	-	Unknown
Unnamed Water	P5172	UH		Saratoga	Porter Corners	22.4	-	-	Unknown
Unnamed Water	P5228	UH		Warren	South Pond Mountain	2.9	-	-	Unknown
Unnamed Water	P5270	UH		Saratoga	Hope Falls	2.0	-	-	Unknown
Unnamed Water	P5286	UH		Hamilton	Griffin	1.2	-	-	Unknown
Unnamed Water	P5287	UH		Warren	Harrisburg	5.2	-	-	Unknown
Unnamed Water	P5288	UH		Warren	Harrisburg	9.8	-	-	Unknown
Unnamed Water	P5289	UH		Warren	Harrisburg	1.9	-	-	Unknown
Unnamed Water	P5290	UH		Warren	Harrisburg	4.7	-	-	Unknown
Unnamed Water	P5297	UH		Warren	Bakers Mills	5.7	-	-	Unknown
Wilcox Lake	P188	UH	355	Warren	Griffin	133.0	15.1	5.45	Adirondack brook trout
Willis Lake	P215	UH	405	Hamilton	Hope Falls	36.1	2.7	1.8	Warmwater

Table 2. Chemical and Biological Survey Data for Ponded Waters in the Wilcox Lake Wild Forest.

Name	Pond #	Wshed	Most Recent Chemical Survey					Most Recent Biological Survey			
			Date	Source	ANC (ueq/l)	pH	Conductivity	Year	Source	Fish Species and Number Caught*	
Albia Pond	P138	UH	10/13/67	DEC		5.50		1967	DEC	BB (observed), PKS and PKL reported by ranger.	
Bennett Lake	P182	UH	06/24/03	DEC	25.4	6.54	16.1	2003	DEC	ST(22). No minnow gear set. BND, GS and BKF present.	
Black Pond	P128	UH	09/25/97	DEC	63.8	6.86	22.6	1997	DEC	BB(59), GS(5), SMB(6).	
Cod Pond	P286	UH	07/21/98	DEC	89.8	7.08	23.6	1987	ALSC	PKS(2), PKL(16),GS(2), BHC(18).	
Crane Mtn Pond	P519	UH	08/10/04	DEC	58.2	6.9	19.0	2004	DEC	ST(25).	
Eagle Pond	P290A	UH	09/18/97	DEC	30.54	6.38	19.1	1997	DEC	BB(106).	
Fish Ponds (Lower)	P287	UH	08/12/87	ALSC	149.9	7.18	28.1	1987	ALSC	PKL(10), WS(9), BB(12), PKS(5).	
Fish Ponds (Upper)	P288	UH	08/12/87	ALSC	198.3	7.36	31.5	1987	ALSC	PKL(14), WS(1), BB(5), PKS(5).	
Garnet Lake	P520	UH	06/27/51	DEC	-	7.20	-	1963	DEC	PKS(96), YP(12), PKL(19), LMB(1), BB(10), GS(53), RB(21), YP(140), WS.	
Greenfield Lake	P205	UH	-	-	-	-	-	-	-	-	
Kibby Pond	P291	UH	07/13/93	DEC	33.1	6.59	35.27	2005	DEC	ST(31), CC(146), BKF(130).	
Lens Lake	P332	UH	06/12/69	DEC	-	6.0	-	1969	DEC	GS(7), BB(27), WS(82).	
Little Joe Pond	P282A	UH	07/29/03	DEC	51.12	6.81	19.7	2003	DEC	ST(14).	
Little Pond	P333	UH	07/14/93	DEC	19.25	5.76	13.84	1993	DEC	BB (102).	
Lizard Pond	P197	UH	07/13/93	DEC	157.54	7.31	29.12	2005	DEC	ST(87).	
Middle Flow	P211A	UH	-	-	-	-	-	-	-	-	
Middle Lake	P184	UH	08/12/87	ALSC	29.1	6.51	17.6	1987	ALSC	GS (181), BT(23).	
Mud Pond	P522	UH	06/07/54	DEC	-	6.81	-	1954	DEC	NP(7), PKS(1), YP(24).	
Murphy Lake	P213	UH	08/12/87	ALSC	27.9	6.28	18.5	1987	ALSC	ST(19), GS(447), CC(19).	

New Lake	P187	UH	09/25/96	DEC	66.0	6.96	22.6	1996	DEC	BT(3), ST(1), GS(59), CC(61), WS(56), BB(60).
Old Pond	P204	UH	-	-	-	-	-	-	-	-
Palmer Lake	P127B	UH	05/24/94	DEC	32.5	6.51	21.1	1994	DEC	BT(8), GS(66), BNM(7), CC(17), WS(26), BB(23).
Round Pond	P521	UH	07/15/85	DEC	12.07	7.39	44.0	1985	DEC	GS(21), CC(7), WS(80), RB(44), YP(28), PKS(42).
Russell Pond	P281B	UH	-	-	-	-	-	-	-	-
Shiras Pond	P282	UH	08/03/98	DEC	68.28	6.98	20	1998	DEC	ST(14), NRBD(98), CC(37).
Unnamed Water	P194A	UH	-	-	-	-	-	-	-	-
Unnamed Water	P194	UH	-	-	-	-	-	-	-	-
Unnamed Water	P196A	UH	-	-	-	-	-	-	-	-
Unnamed Water	P196	UH	-	-	-	-	-	-	-	-
Unnamed Water	P204A	UH	-	-	-	-	-	-	-	-
Unnamed Water	P204B	UH	-	-	-	-	-	-	-	-
Unnamed Water	P208B	UH	-	-	-	-	-	-	-	-
Unnamed Water	P281A	UH	-	-	-	-	-	-	-	-
Unnamed Water	P288A	UH	-	-	-	-	-	-	-	-
Unnamed Water	P5163	UH	-	-	-	-	-	-	-	-
Unnamed Water	P5172	UH	-	-	-	-	-	-	-	-
Unnamed Water	P5228	UH	-	-	-	-	-	-	-	-
Unnamed Water	P5270	UH	-	-	-	-	-	-	-	-
Unnamed Water	P5286	UH	-	-	-	-	-	-	-	-

Unnamed Water	P5287	UH	-	-	-	-	-	-	-	-
Unnamed Water	P5288	UH	-	-	-	-	-	-	-	-
Unnamed Water	P5289	UH	-	-	-	-	-	-	-	-
Unnamed Water	P5290	UH	-	-	-	-	-	-	-	-
Unnamed Water	P5297	UH	-	-	-	-	-	-	-	-
Wilcox Lake	P188	UH	08/12/87	ALSC	87.3	&.0	25.2	1987	ALSC	ST(21), GS(26), CS(10), CC(46), WS(83), BB(11), RBS(47).
Willis Lake	P215	UH	08/13/87	ALSC	58.8	6.73	21.4	1987	ALSC	GS(60), BB(3), PKS(16), LMB(11), YP(18).

* Fish species caught by various gear. Entries without numbers indicate fish species thought to be present or reported during earlier surveys.

Species Abbreviations

A-Alewife	C-Cisco	GS-Golden shiner
LLS-Landlocked Salmon	RbS-Redbreast sunfish	ST-Brook trout
BND-Blacknose dace	CC-Creek chub	KOK-Kokanee Salmon
NOP-Northern pike	RT-Rainbow trout	WS-White Sucker
Bhc-Brown Bullhead	CCS-Creek chub sucker	LND-Longnose dace
PD-Pearl dace	S-Smelt	YP-Yellow perch
BK-Banded killifish	CS-Common shiner	LmB-Largemouth bass
PKL-Chain Pickerel	SFS-Spotfin shiner	WF-Whitefish
BnM-Bluntnose minnow	LT-Lake trout	PkS-Pumpkinseed
SmB-Smallmouth bass	Spl-Splake	BT-Brown trout
FF-Fallfish	NRD-Northern redbelly dace	RB-Rock bass

Unknown - No biological survey

APPENDIX D: AMPHIBIAN AND REPTILE HABITAT ASSOCIATIONS

Spotted Salamander (*Ambystoma maculatum*).-- The spotted salamander prefers vernal pools for breeding, but its jelly-like globular egg masses are found in a variety of wetland habitats. Because of its fossorial habits, the spotted salamander is rarely encountered except during the breeding season. At that time they can be found under rocks, logs, and debris near the edges of the breeding pools.

Red-spotted Newt (*Notophthalmus viridescens*).-- One of the most fascinating life histories of any salamander is that of the Red-spotted Newt, with four stages in its life cycle (egg, aquatic larva, terrestrial immature red eft, and aquatic adult). Interestingly, the red eft remains on land from two (Bishop 1941) to seven years (Healy 1974) before they transform into their final life stage, the aquatic adult.

Northern Dusky Salamander (*Desmognathus fuscus*).-- The Northern Dusky Salamander inhabits rocky stream ecotones, hillside seeps and springs, and other seepage areas in forested or partially forested habitat. They are typically found under rocks and other cover objects such as logs adjacent to, or in the water (Harding 1997).

Allegheny Dusky Salamander (*Desmognathus ochrophaeus*).-- The Allegheny Dusky Salamander is more terrestrial than its congener, the Northern Dusky Salamander, being found under rocks and woodland debris in moist forests usually near a seep or stream.

Northern Redback Salamander (*Plethodon cinereus*).-- The Northern Redback Salamander is found in deciduous, coniferous or mixed forest where it nests in moist, rotten logs. It favors pine logs in advanced stages of decay rather than deciduous tree logs that appear to be more susceptible to molds, thus attributing to possible fungal infections in the eggs (Pfingsten and Downs 1989).

Northern Spring Salamander (*Gyrinophilus porphyriticus*).-- Although Northern Spring Salamanders inhabit cool, well-oxygenated streams in forested areas where they can be found under rocks and logs, they sometimes can be found foraging in the open on rainy nights. This species also uses underground springs that are a considerable distance away from their natal habitat (Harding 1997).

Northern Two-lined Salamander (*Eurycea bislineata*).-- Northern Two-lined Salamanders inhabit springs and seeps in forested wetlands, edges of brooks and streams, and terrestrial areas many meters from water. They are usually found under rocks, logs, and debris (Pfingsten and Downs 1989).

Eastern American Toad (*Bufo americanus*).-- Although Eastern American Toads can be found in almost every habitat from cultivated gardens to woodlands, they are typically found in moist upland forest. Special habitat requirements include shallow water for breeding (DeGraaf and Rudis 1983).

Northern Spring Peeper (*Pseudacris crucifer*).-- Northern Spring Peepers inhabit coniferous, deciduous and mixed forested habitat where they typically breed in ponds, emergent marshes or shrub swamps. However, their spring chorus is commonly heard from just about any body of water, especially in areas where trees or shrubs stand in and near water (Hunter et al. 1999).

Gray Treefrog (*Hyla versicolor*).-- Gray Treefrogs are found in forested areas where they hibernate near the soil surface, tolerating temperatures as cold as -6 degrees C for as long as five consecutive days. Due to the production of glycerol which serves as an antifreeze, gray treefrogs can freeze up to 41.5% of their total body fluids. The frogs breed in both permanent or temporary ponds or wetlands (Hunter et al. 1999).

Bullfrog (*Rana catesbeiana*).-- Bullfrogs require permanent bodies of water with adequate emergent and edge cover. Their aquatic habitats include shallow lake coves, slow-moving rivers and streams, and ponds (Hunter et al. 1999).

Green Frog (*Rana clamitans*).-- Green frogs are rarely found more than several meters from some form of water, including lakes and ponds, streams, quarry pools, springs, and vernal pools (DeGraaf and Rudis 1983).

Mink Frog (*Rana septentrionalis*).-- Mink frogs prefer cool, permanent water with adequate emergent and floating-leaved vegetation where they feed on aquatic insects and other invertebrates. Here they also hibernate on the bottom in the mud (Harding 1997).

Wood Frog (*Rana sylvatica*).-- Wood frogs prefer cool, moist, woodlands where they select temporary pools for breeding. However, where vernal pools are absent, wood frogs will breed in a variety of habitats including everything from cattail swamps to roadside ditches (Hunter et al. 1999).

Northern Leopard Frog (*Rana pipiens*).-- Although sometimes found in wet woodlands, Northern Leopard Frogs are the frog of wet meadows and open fields, breeding in ponds, marshes, and slow, shallow, vegetated streams (DeGraaf and Rudis 1983).

Pickerel Frog (*Rana palustris*).-- Whether the habitat selected is a bog, fen, pond, stream, spring, slough, or cove, Pickerel Frogs prefer cool, clear waters, avoiding polluted or stagnant habitats. Grassy streambanks and inlets to springs, bogs, marshes, or weedy ponds are preferred habitats (Harding 1997).

Common Snapping Turtle (*Chelydra serpentina*).-- Snapping Turtles are found in most permanent and semipermanent bodies of fresh and brackish water. Areas that have dense aquatic vegetation with deep, soft, organic substrates and plenty of cover are favored (Mitchell 1994).

Wood Turtle (*Glyptemys insculpta*).-- The Wood Turtle is a semiaquatic turtle that inhabits both the terrestrial and aquatic environment. It favors streams with sandy-pebbly substrates that are deep enough so that they do not freeze during hibernation, are well-oxygenated, and have good

water quality. Terrestrial habitat includes a variety of wetlands, upland successional fields, and deciduous woodlands with open areas for basking (Tuttle and Carroll 1997).

Eastern Box Turtle (*Terrapene carolina*).-- The Eastern Box Turtle is typically found in well-drained forest bottomlands and open deciduous forests. Preferred habitats include woodlands, field edges, marshes, bogs, and stream banks. The young are semiaquatic. The Eastern Box Turtle hibernates from late fall to April in loose soil, decaying vegetation, mud, or stream banks (DeGraaf and Rudis 1986).

Painted Turtle (*Chrysemys picta*).-- Painted Turtles most often inhabit ponds, lakes, and other slow-moving bodies of water with soft substrates and abundant aquatic vegetation. A critical habitat parameter is adequate basking sites such as logs, rocks, and mats of aquatic vegetation.

Northern Water Snake (*Nerodia s. sipedon*).-- This species is found in many aquatic habitats including lakes, ponds, rivers, and wetlands. Northern Water Snakes prefer fish and amphibians as their primary food source (Mitchell 1994).

Northern Brown Snake (*Storeria d. dekayi*).-- Northern Brown Snakes are found in the soil-humus layer of hardwood forests, mixed hardwood-pine forests, pine woods, grasslands, early successional agricultural land, and urban areas where they are frequently found in gardens (Mitchell 1994).

Northern Redbelly Snake (*Storeria occipitomaculata*).-- Although the Northern Redbelly Snake prefers wetland-upland ecotones, it is found in a variety of terrestrial habitats. This extremely secretive nocturnal species may be found under rocks, logs, bark, and leaves; but if conditions are dry, they are apt to go underground in unused rodent borrows (Mitchell 1994).

Common Garter Snake (*Thamnophis sirtalis*).-- Garter Snakes are found in a wide variety of habitats including, but not limited to, woodlands, meadows, wetlands, streams, drainage ditches, and even city parks and cemeteries (Conant and Collins 1998). But large populations of Common Garter Snakes are usually found in moist, grassy areas near the edges of water (Harding 1997).

Ribbon Snake (*Thamnophis sauritus*).--This semiaquatic snake requires shallow, permanent waterbodies in open, grassy habitats. Examples of these habitats include damp meadows, grassy marshes, northern sphagnum bogs, and the borders of ponds, lakes, and streams (DeGraaf and Rudis 1986).

Eastern Hognose Snake (*Heterodon platirhinos*).-- The Eastern Hognose Snake prefers sandy soils and open woodlands (typically pine or deciduous forest) where it preys on toads, frogs, salamanders, insects, and worms (DeGraaf and Rudis 1986).

Northern Ringneck Snake (*Diadophis punctatus edwardsi*).-- The Northern Ringneck Snake is a secretive woodland snake and is usually more common where abundant hiding structure exists,

including stones, logs, and other rotting wood. Rocky, wooded hillsides are favored.

Smooth Green Snake (*Liochlorophis vernalis*).-- The Smooth Green Snake is a snake of moist, grassy areas of wetland edges, meadows and old fields, and of deciduous and coniferous woods and woodland ecotones where they feed on insects, their forage of choice (Harding 1997).

Black Rat Snake (*Elaphe o. obsoleta*).--The Black Rat Snake uses a variety of habitats, including woodlands, field edges, farmlands, rocky hillsides and mountaintops. This species can be found in dry oak, oak-hickory, and mesic bottomland forests. Small mammals (primarily rodents) account for the majority of its diet. Black Rat Snakes may use talus slopes for hibernation during the winter (DeGraaf and Rudis 1986).

Eastern Milk Snake (*Lampropeltis triangulum*).-- The Milk Snake is the snake of farm outbuildings and barns, taking cover under rocks, logs, firewood, or building materials. Natural habitat includes open woodlands, wetlands, old fields and pastures (Harding 1997).

APPENDIX E: NATURAL HERITAGE PROGRAM ELEMENTS

Natural Heritage Program Elements

