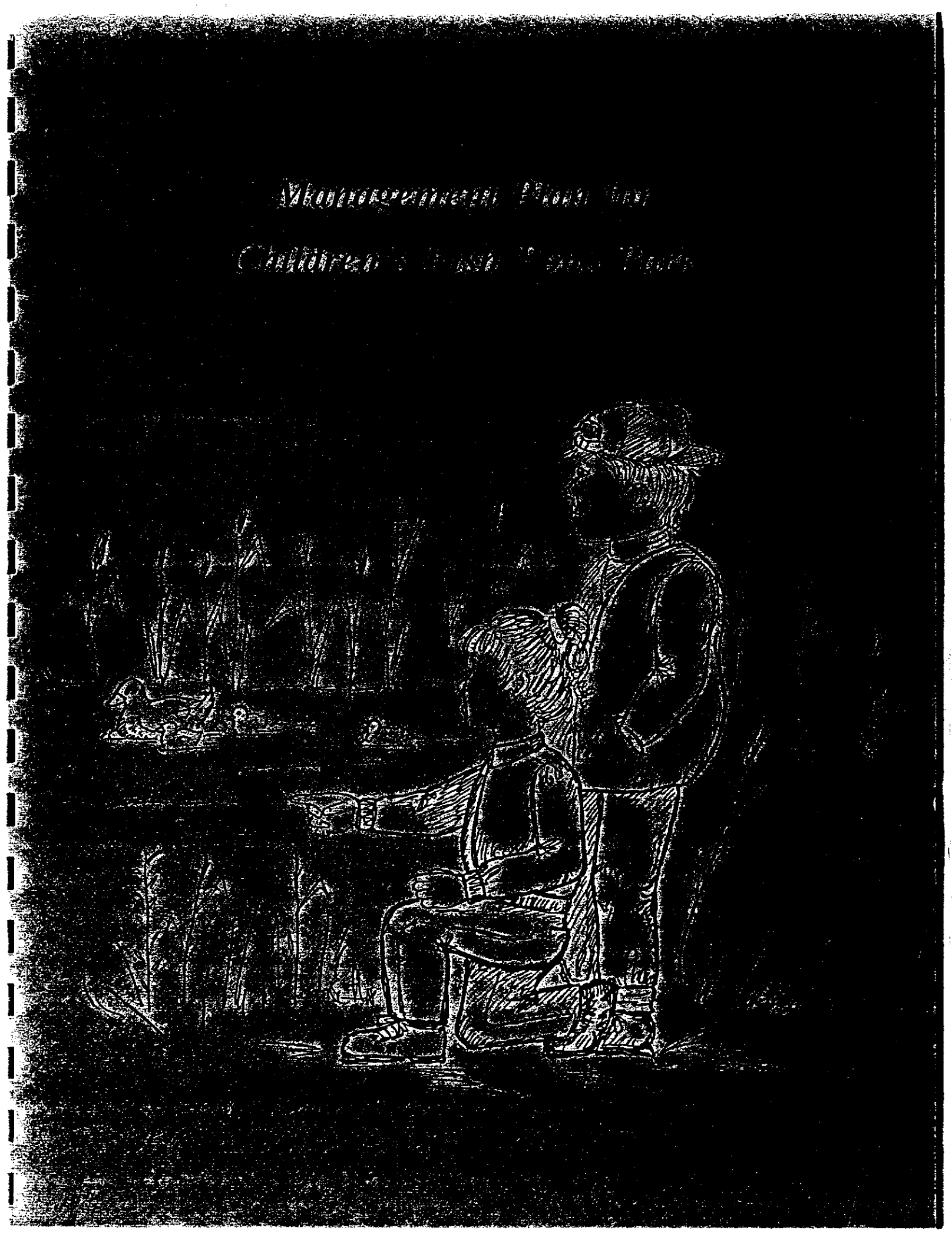
Unconventional Food for Children's Hour Parties



INTRODUCTION

The Children's Fish Pond Park is managed by the Missoula Parks and Recreation Department. It covers approximately five acres and is bordered by Thirty-fourth Street, Bancroft Street, and Stephens Avenue. The land consists primarily of an open field containing three shallow ponds. The main pond varies in depth from several inches to roughly two and a half feet, while the other two are much shallower and often dry up when the water supply from Pattee Creek is not abundant.

This park comprises a unique wetland habitat, supporting riparian vegetation such as willows, cottonwoods, and aspen. The park also serves as breeding and wintering grounds for many species of songbirds and waterfowl, including the Sora, a marsh bird seldom seen in western Montana. The ponds house numerous species of aquatic life, and the area is also visited by deer, muskrat, and racoon.

The Children's Fish Pond Park was created in the 1960's by dredging the area of the main pond and stocking it with fish. Over the years, however, the ponds have gradually filled with silt, decreasing the depth and destroying the fish habitat. This decrease in depth has led to the marsh-like habitat found at the present time. The park is now mainly used for wildlife viewing, dog walking, and as a play area for children. There is little active management of the park, consisting mostly of mowing the grasses several times per year.

Concerns about the park's future have recently arisen, the most obvious being the decreasing rate of the ponds' depth. If this rate is allowed to continue, it is believed the marsh-like habitat will disappear in the near future.

Another problem concerns the disturbance of wildlife by children and dogs. A picture printed in The Missoulian (summer, 1991) showing a child throwing a turtle brought attention to the park. It is believed that children playing in the pond cause significant impacts on the wildlife. Also, dogs have been frequently seen chasing and frightening birds.

Because of these concerns, it is believed necessary to develop a detailed management plan for the park.

ISSUES

The primary issue concerns the level of development of the park. One argument is to not have any management of the park, while the other side of the spectrum would see extensive human developments. Most specific issues stem from this larger question.

1. Use of the park: Should the primary use be nature oriented, or should the park be developed with more traditional city park facilities, such as playgrounds and picnic tables?

2. Water Levels: Should management objectives include regulation of the water level of the ponds, or should they be left as they are? If no management is used, the ponds will eventually silt over.

3. Flora: Should vegetation be managed to introduce and maintain indigenous species, and eliminate foreign species, or should the present system of simply mowing the area twice a year continue? This current method does not allow much species diversity.

4. Fauna: Should facilities be developed to protect species that utilize the area and to encourage other species to visit it? Currently little is done to accomplish this, and there is a perceived problem of wildlife disturbance.

5. Access: Should accessibility be increased by improving bridges and trails?

6. Education and Recreation: What types of facilities and/or organizations should be developed to enhance educational opportunities provided by the park?

7. Enforcement of Objectives: Should the protection and maintenance of the park and natural areas be enforced primarily by regulation, or by education? This leads to the question of who should conduct the enforcement, the Missoula Department of Parks and Recreation, or other interest groups, such schools, nature organization, or private citizens.

8. Safety: Should the safety of children and other users be managed by regulations, education, or physical barriers (around the ponds, for example)? It is possible that any development of the park will make it more of an attractive nuisance.

9. Encroachment: Should encroachment onto the park property by neighboring residents continued to be permitted. Currently several residents use park property for firewood and vehicle storage, and use park land for access to their properties.

GOALS AND OBJECTIVES

The primary goal of this plan is to preserve the natural qualities of the park, including the restoration and improvement of the marsh habitat. In concordance with this goal is to provide the public with educational and recreational opportunities focused on the marsh area. Specific objectives are as follows:

1. Within five years the park will support a riparian habitat that is primarily natural but is also visually aesthetic. The flora and fauna capable of existing in the urban setting will be determined in an environmental assessment.

2. Visitors to the park will increase their knowledge, awareness, and appreciation of the riparian habitat. This objective will be attained within five years.

3. Within five years recreational activities that do not negatively impact the flora and fauna and do not detract from the natural aesthetic setting of the park will be emphasized.

4. Any man-made facilities installed to meet the management objectives will not be prominently visible from a distance greater than one block.

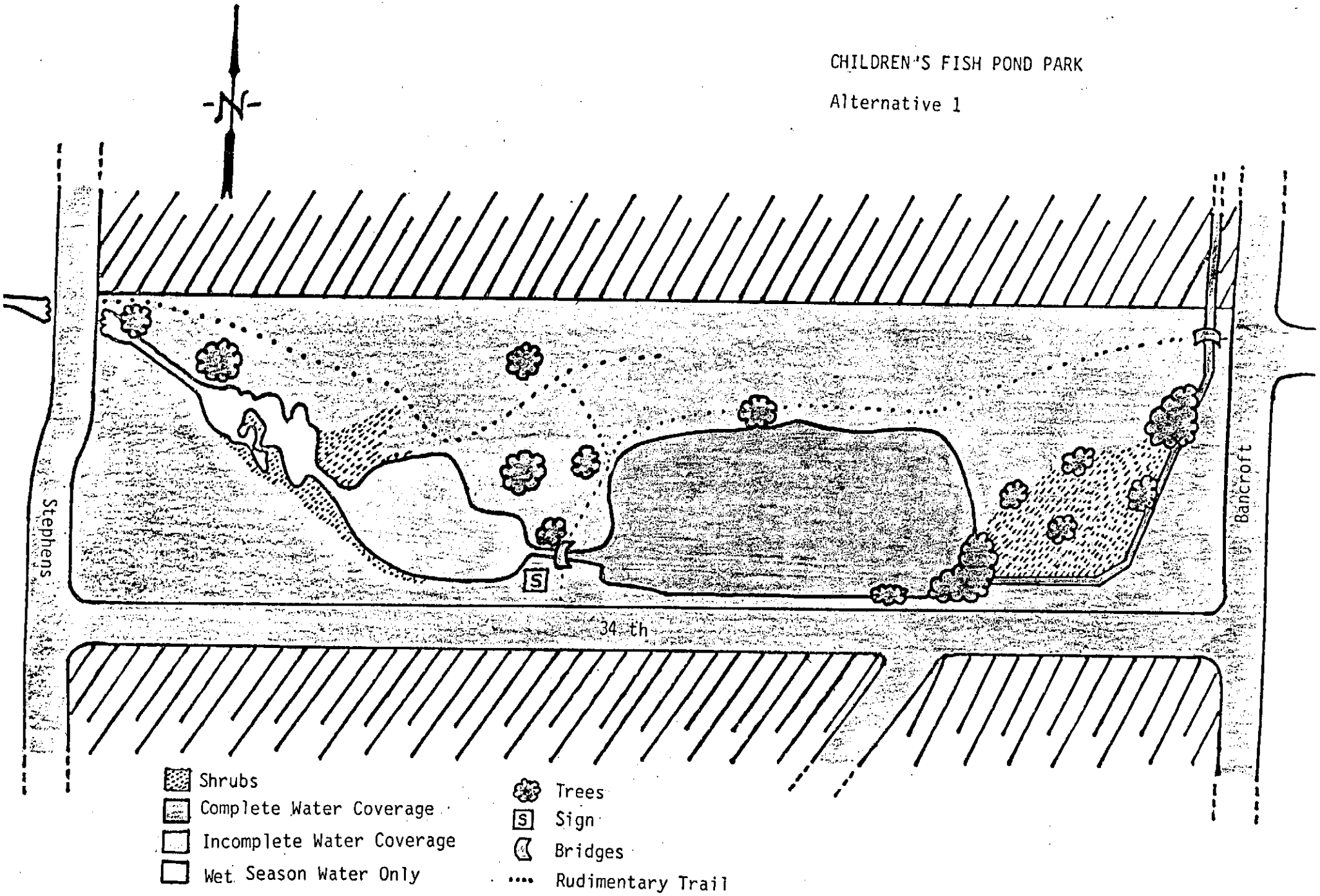
ALTERNATIVES

ALTERNATIVE #1.

1. Water Level: Make no efforts to alter the current water flow.
2. Flora: Continue to mow the area twice a year to provide weed control and reduce fire danger.
3. Fauna: Make no efforts to increase protection of the existing species or to introduce new species.
4. Access: Make no efforts to change the present state of the trails. Build rudimentary foot bridges at the east end of the park over Pattee Creek, and near the south boundary of the park, spanning the gap between the main and secondary ponds.
5. Education and Recreation: Install one sign briefly describing the riparian habitat.
6. Rules: Make no efforts to change present rules or enforcement of them.
7. Safety: Make no efforts to change safety levels.
8. Encroachment: Make no efforts to eliminate encroachment onto park lands.

CHILDREN'S FISH POND PARK

Alternative 1

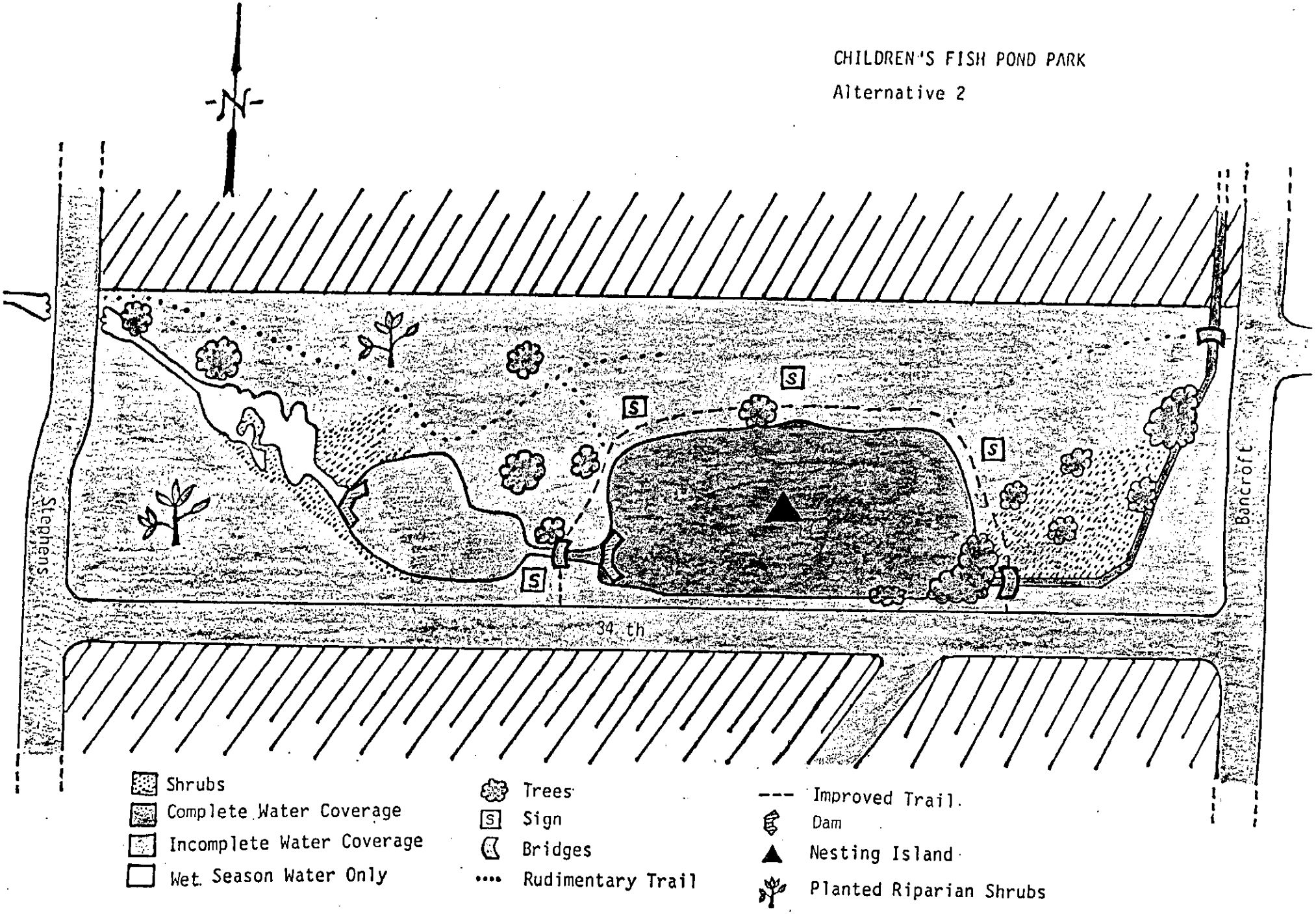


ALTERNATIVE #2.

1. Water Level: Build a dam at foot of main pond to hold more water. Build a dam to enlarge second pond.
2. Flora: Plant a small number of indigenous species on the borders of the ponds. Continue to mow the rest of park twice a year.
3. Fauna: Create a small island in the center of the main pond as a nesting habitat.
4. Access: Widen and level the trail around the main pond. Build bridges that are more accessible to cyclists at the east end of the park over Pattee Creek, and at the south boundary at both the head and foot of the main pond.
5. Education and Recreation: Install four signs along the trail around the main pond describing marsh habitat and different aspects of it, including aquatic vegetation, land vegetation, and wildlife.
6. Rules: Install a sign stating the park's name and the standard Missoula Parks and Recreation rules. Organize a volunteer litter clean-up group.
7. Safety: Make no efforts to change safety levels.
8. Encroachment: Make no efforts to eliminate encroachment onto park lands.

CHILDREN'S FISH POND PARK

Alternative 2

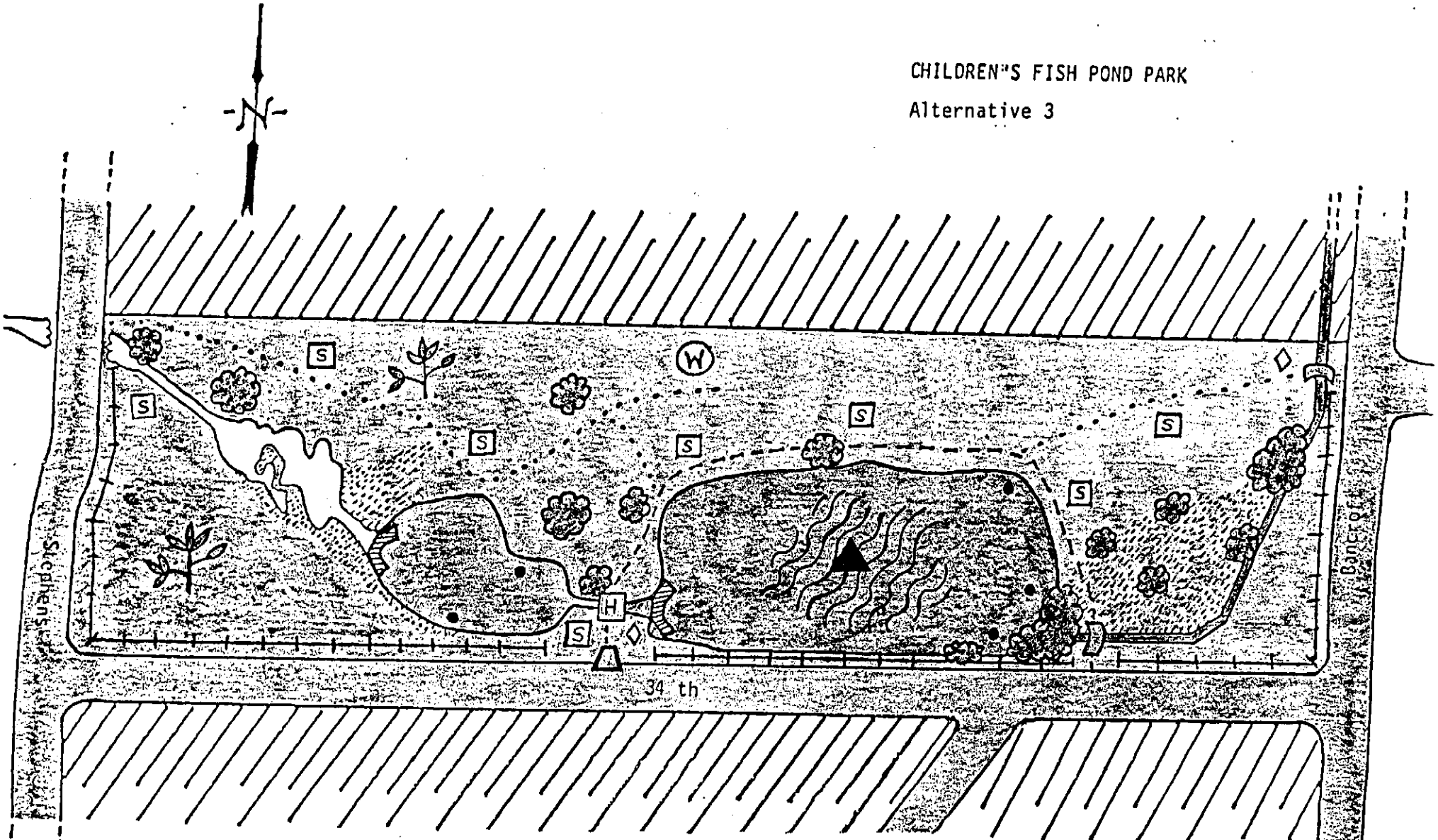


ALTERNATIVE #3.

1. Water Level: Dig a well and install a pump in order to provide the ponds with an easily regulated flow of water. Dredge ponds of silt to deepen.
2. Flora: Eliminate all exotic species, and make extensive efforts to introduce species typical to a riparian habitat.
3. Fauna: Create a small island in the center of the main island as a nesting habitat, and install nesting boxes along the ponds.
4. Access: Widen and level the main trail around the pond, covering it with crushed gravel to make it handicapped accessible. Build bridges more easily accessible to cyclists on the east end of the park over Pattee Creek and at the south side at the head of the main pond. Build a handicapped accessible bridge over the span between the main pond and the secondary pond. Install a handicapped accessible ramp on the street curb in front of this bridge.
5. Education and Recreation: Install eight signs around the park, with four describing the general habitat, and four giving more detailed information about selected species. Install two wooden benches along the trail around the main pond.
6. Rules: Install a sign stating the name of the park and the standard Missoula Parks and Recreation rules. Install two trash receptacles and have hired personnel periodically patrol for litter. Build a four-foot high double beam wooden fence around the area, with two entrances on the south side of the park, and one each on the east and west ends. This will help delineate the area as a special resource, encouraging the public to treat it with respect.
7. Safety: Make no efforts to change safety levels.
8. Encroachment: Require all neighboring residents to remove any and all possessions from park land. Build the entranceways to the fence too small for vehicle entry.

CHILDREN'S FISH POND PARK

Alternative 3



Shrubs
Complete Water Coverage
Incomplete Water Coverage
Wet Season Water Only
Handicap Accessable Bridge
Trees
Sign
Bridges
Rudimentary Trail
Nesting Boxes
Improved Trail
Dam
Nesting Island
Planted Riparian Shrubs
Trash Receptacle
Well
Fence
Dredged Area
Ramp

ALTERNATIVE #4.

Any combination of the above alternatives.

PREFERRED ALTERNATIVE

The preferred alternative involves a combination of alternatives one through three.

In managing the water level, the main aspect of the park, a dam at the foot of the main pond will be constructed. This will allow more water to be contained in the pond. The dam will be adjustable, allowing varying rates of water flow. This adjustability will help in providing the optimal habitat for the flora and fauna, and will also allow for flood control.

The center of the main pond will be dredged to remove one to two feet of silt, thereby increasing the depth and delaying the silting-over of the pond.

Flora will be introduced by planting riparian shrubs and trees in the marshy areas. Mowing will only continue on the permanently dry areas, thereby allowing the native vegetation to resume growth.

The presence of additional riparian fauna will be encouraged by the introduction of vegetative habitat. Nesting boxes will be installed in the main pond to encourage Wood Duck habitation. A small island will be created in the center of the main pond to provide protection of birds from disturbance by dogs and visitors.

Access to the park will be improved in several ways. A bridges easily accessible to bicyclists will be constructed on the east side of the park over Pattee Creek and on the south side at the head of the main pond. A handicapped accessible bridge will be built over the juncture between the main pond and the secondary pond. This bridge will be part of the "main loop" trail bordering the west, north, and east sides of the main pond. This main loop will start on the curbside directly in front of the bridge with a handicapped accessible ramp, and end on the east side of the main pond. The trail will be widened and leveled in order to make it handicapped accessible. No alterations will be made to the other trails, as it is believed that foot traffic will continue to sufficiently delineate those paths.

Educational and recreational opportunities will be increased by installing four interpretive signs along the main loop, briefly describing different components of the riparian habitat. Two wooden benches will be installed along the main loop, allowing relaxed viewing

of the pond areas.

A wooden sign will be placed at the beginning of the main loop, stating the name and the rules and regulations of the park. These rules will encompass the standard Missoula Parks and Recreation Department regulations.

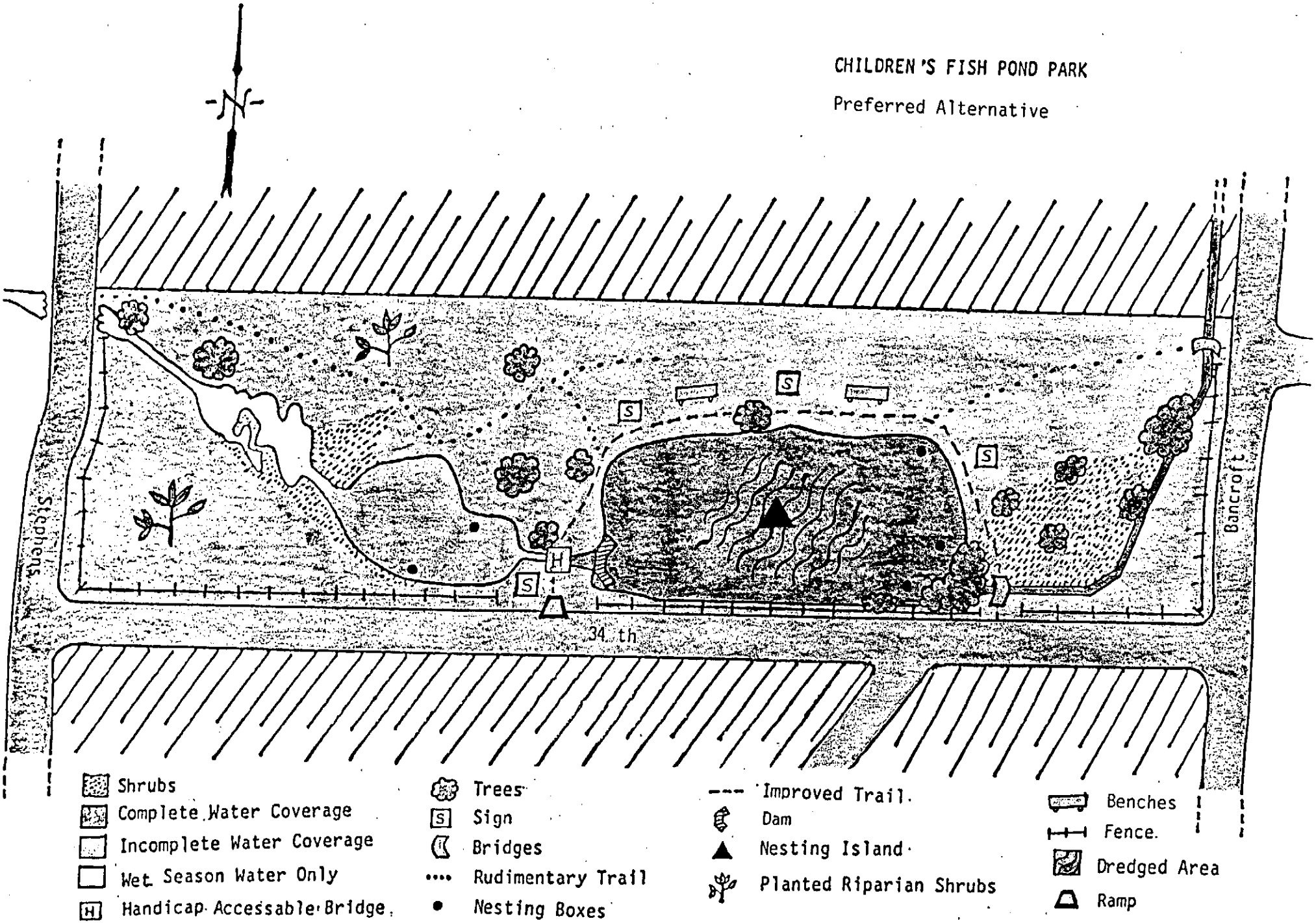
A three- to four-foot high double beam wooden fence will be constructed around the east, south, and west borders of the park. Entranceways will be at the east end in front of the bridge, the south end at the start and end of the main loop trail, and the west end. This fence will help eliminate the unwanted trails in the park. It will also noticeably delineate the park as a special area, thereby increasing the parks aesthetic pleasure and the respect given it. Posted at each entranceway will be small signs asking visitors to leash their dogs.

The entranceways of the fence will have barriers making them inaccessible to vehicles. These barriers will be easily removable by authorized personnel, permitting vehicle entry when necessary for park maintenance. This restriction of public vehicles will eliminate the neighboring residents from using the park as an access point to their yards. Those residents will also be required to remove any and all possessions from park property within the first year.

Control of litter will be continued by unorganized volunteers for the first two years. If after that period the amount of litter is deemed to be a problem, a trash receptacle will be installed at the beginning of the main trail, and paid personnel will periodically remove litter.

CHILDREN'S FISH POND PARK

Preferred Alternative



DECISION CRITERIA

The decision criteria used to develop the preferred alternative stemmed mainly from the perceived need for such an area. An inventory of the resource was first conducted, examining the current and potential presence of wildlife, unusual vegetation, and recreational and educational opportunities. The parks near the Children's Fish Pond park were then inventoried to determine how many other areas possessed these qualities. The Children's Fish Pond park was found to unique in these aspects, as no other parks within several miles are primarily nature based.

Using these criteria of naturalness, the planners determined the public's felt need for such an area. Both the Missoula Parks and Recreation Dept. and the state Fish Wildlife and Parks Dept. expressed strong interest in keeping the park nature-based, citing the value of such a park in the area. The planners then conducted an informal telephone survey, polling fifteen residents who live adjacent to the park. Most expressed interest in preserving the natural qualities of the park.

Following the telephone interviews, a public meeting was held on October 30, 1991. Approximately 150 invitations were issued on October 23 to residences bordering the park. In addition, about fifteen other special interest groups, such as the Parks and Recreation Dept, Montana Fish Wildlife and Parks Dept., and the Audubon Society were contacted and invited to send representatives. Sixteen people attended the meeting.

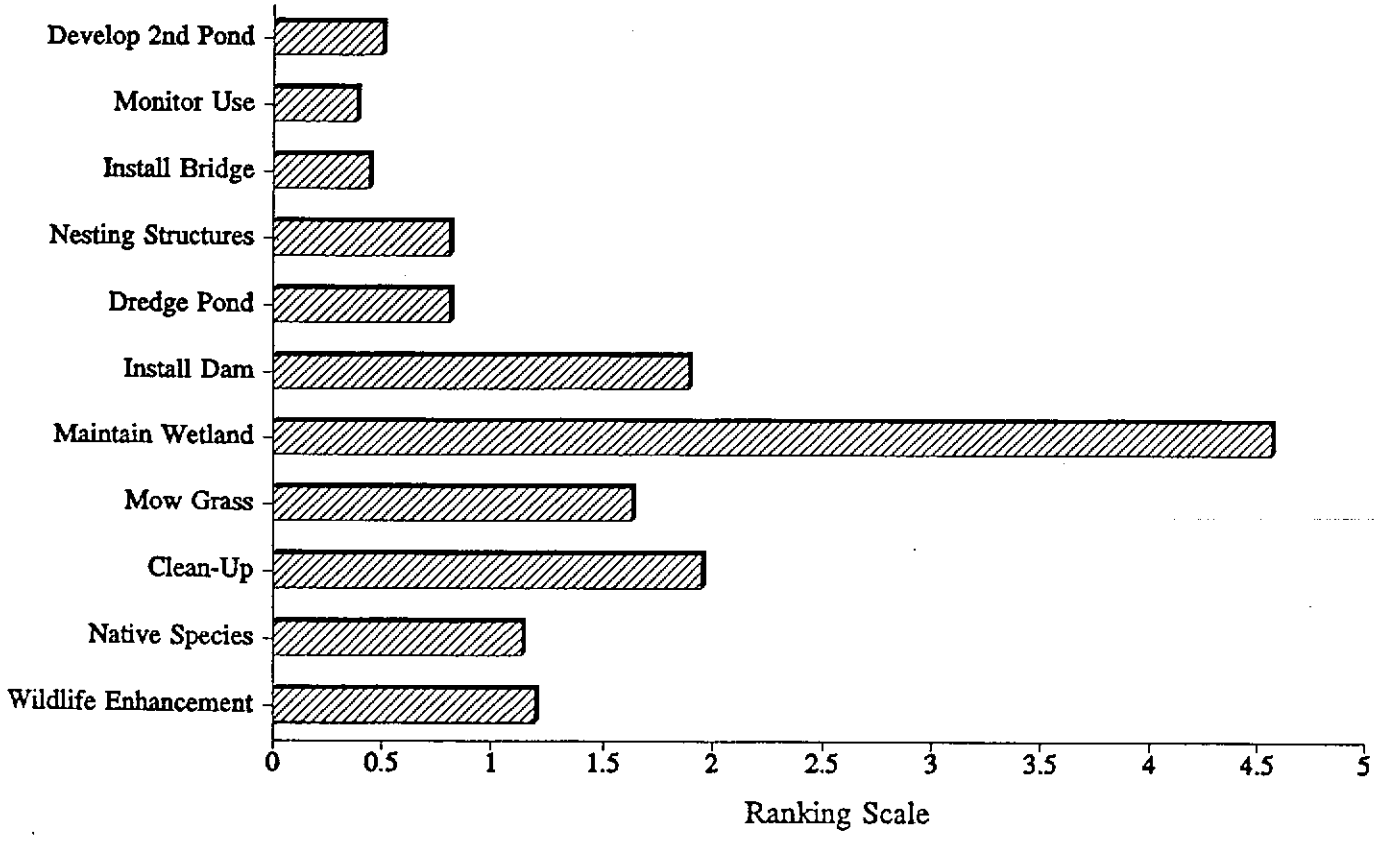
This meeting was structured by the nominal group process, which involves input from all attendants. The question "What facilities or projects should be developed in the park?" was asked, and all ideas were listed on a sheet of poster board. A list of these suggestions is shown in Appendix B. Each individual was then asked to rank their top five ideas, with "one" being of the lowest importance, and "five" the highest. A bar-graph of the highest ranked ideas is shown on page 16. The graph respresents ranked suggestions for the park which were representative of the group as a whole. By far, the desires to keep the park natural and to preserve the riparian habitat for wildlife were most important.

Although there were many different suggestions for how to reach these goals, a consensus was reached that not only should the park be kept as a natural setting for wildlife use, but also that some form of management is needed to do so. It was also recognized that the attendants at the meeting may not have been representative of the surrounding residents as a whole. It is believed that those who felt strongly about keeping the park natural were more likely to attend than those who did not have strong opinions.

This goal of preserving and enhancing the riparian habitat was the primary influence in the development of the preferred alternative. Secondarily, but also playing a strong role was the desire to enhance recreational and educational opportunities in the park. The park is presently not easily accessible to walkers (because of lack of bridges) and those wanting to sit and relax in the park. Also, the educational focus of the park was thought to be lacking. Increased education about the park and its habitat could enhance the respect and appreciation for such areas and also help eliminate the current disturbances of wildlife and vegetation.

Also considered in developing the preferred alternative was the minimal amount of funding available for managing the park.

Rank Order of Park Issues



FIVE-YEAR BUDGET

CAPITAL EXPENDITURES

Interpretive signs	$6,500
Dam	$2,890
Bridges	$4,250
Handicapped ramp	$2,000
Bird nesting boxes	$150
Island in center of pond	$350
Tree planting	$360
Fence	$3,500
TOTAL CAPITAL EXPENDITURES	$20,000

OPERATING AND MAINTENANCE COSTS

Mowing	$6,500
Litter clean-up	$540
General maintenance/ repair	$3,471
Trails	$500
Benches	$604
Dredging main pond	$800
Tree evaluation	$200
Rules and regulations sign	$1,175
TOTAL OPERATING COSTS	$8,290

TOTAL FIVE-YEAR EXPENDITURES	$28,290

PLAN IMPLEMENTATION

YEAR-ONE EXPENDITURES:

Capital		Operating	
Build dam	$2,890	Mowing	$200
Tree planting	$360	Dredging pond	$800
Small bridge	$750	Trail improvement	$500
TOTAL CAPITAL	$4,000	TOTAL OPERATING	$1,500

TOTAL YEAR-ONE EXPENDITURES $4,500

YEAR-TWO EXPENDITURES:

Capital		Operating	
Handicapped bridge	$3,500	Mowing	$200
Nesting boxes	$150	Tree evaluation	$200
Island in pond	$350	Regulations sign	$1,175
TOTAL CAPITAL	$4,000	TOTAL OPERATING	$1,575

TOTAL YEAR-TWO EXPENDITURES $5,575

YEAR-THREE EXPENDITURES:

Capital		Operating	
Interpretive signs	$2,000	Mowing	$200
Handicapped ramp	$2,000	Litter clean-up	$180
TOTAL CAPITAL	$4,000	Maint./ repair	$670
		Benches	$604
		TOTAL OPERATING	$1,654

TOTAL YEAR-THREE EXPENDITURES $5,654

YEAR-FOUR EXPENDITURES:

Capital		Operating	
Fence	$3,500	Mowing	$200
Replacement signs	$500	Litter clean-up	$180
TOTAL CAPITAL	$4,000	Maint./repair	$1,357
		TOTAL OPERATING	$1,737

TOTAL YEAR-FOUR EXPENDITURES $5,737

YEAR-FIVE EXPENDITURES:

Capital		Operating	
Replacement signs	$4,000	Mowing	$200
TOTAL CAPITAL	$4,000	Litter clean-up	$180
		Maint./repair	$1,444
		TOTAL OPERATING	$1,824

TOTAL YEAR-FIVE EXPENDITURES $5,824

MONITORING

Throughout and following the plan implementation, certain aspects of the park must be monitored to ensure they are meeting the stated objectives. These aspects include water level, flora and fauna introduction and preservation, trail erosion, facility deterioration, and litter amounts.

By regulating the flow of water through the dam, water levels will be maintained to best preserve the riparian habitat. These levels will be determined through an environmental assessment and the determination of who owns the water rights of Pattee Creek.

The water levels will highly influence the species of flora and fauna capable of existing. The appropriate species of flora and fauna will also be determined during the environmental assessment. The vegetation will also be monitored to reduce the overgrowth of weeds that would detract from the visual aesthetics of the park. The survival of the planted trees will also be monitored.

The trails will be monitored to determine if their layout matches the travel patterns of the users. Also, the main trail will be monitored to ensure it remains passable to wheelchairs.

The facilities (fence, signs, bridges, dam) will be monitored for deterioration from vandalism or weathering. Funds are allocated for repair of these structures and the purchasing of replacement signs.

The litter levels will be monitored, and if deemed necessary, trash receptacles will be installed and personnel will be paid to clean up litter, starting in the third year.

APPENDICES

Appendix A.	Literature Cited
Appendix B.	Suggestions from Public Meeting
Appendix C.	List of Birds Sighted in Park
Appendix D.	Key Contacts

A. LITERATURE CITED

Farran, John Jr. 1988. Western Birds. McGraw-Hill Book Co., New York, NY.

Mitsch, William J. and James G. Gosselink. 1986. Wetlands. Van Nostrand and Reinhold Inc., New York, NY.

Rutledge, Albert J. 1971. Anatomy of a Park. McGraw-Hill Book Co., New York, NY.

B. SUGGESTIONS FROM PUBLIC MEETING, OCT. 30, 1991

Install a log or island in the main pond for ducks and turtles
Create an additional pond on the west end of the park
Build wood duck nests
Prevent flooding of the park and neighboring residences
Make trails more accessible to bicycles
Build bridges across culverts and between ponds
Clean up litter
Control weeds
Build a covered picnic area
Deepen main pond by dredging
Start educational programs with schools
Make at least one trail handicapped accessible
Reduce algae in ponds
Increase water flow in summer
Install interpretive signs
Keep dogs on leashes
Continue mowing grasses
Manage to maintain natural wetlands
Leave as is
Keep maintenance costs low
Keep development to a minimum
Monitor condition of wetlands
Introduce native species of flora
Introduce plants to increase food supply of ducks
Create natural protective barrier around ponds
Manage brush and grass to be aesthetically pleasing
Leave trails in present condition
Create access road
Build playground equipment
Divert more water into pond
Build dams
Protect wildlife
Stock ponds with fish
Determine who owns water rights

C. LIST OF BIRDS SIGHTED IN PARK

Bird Name	Presence	Habits
American Coot (Fulica Americana)	Possible	Breeding, wintering
American Crow (Corvus Brachyrhynchos)	Confirmed	Breeding, wintering
American Goldfinch (Carduelis tristis)	Confirmed	Breeding, wintering
American Kestrel (Falco Sparverius)	Confirmed	Breeding, wintering
American Redstart (Setophaga ruticilla)	Possible	Breeding only
American Robin (Turdus migratorius)	Confirmed	Breeding, wintering
American Tree Sparrow (Spizella arborea)	Possible	Wintering only
Barn Swallow (Hirundo rustica)	Confirmed	Breeding only
Belted Kingfisher (Ceryle alcyon)	Possible	Breeding, wintering
Black-billed Magpie (Pica pica)	Confirmed	Breeding, wintering
Black-capped Chickadee (Parus atricapillus)	Confirmed	Breeding, wintering
Black-chinned Hummingbird (Archilochus alexandri)	Possible	Breeding only
Black-headed Grosbeak (Pheucticus melanocephalus)	Possible	Breeding only
Blue Jay (Cyanocitta cristata)	Possible	Breeding, wintering
Bohemian Waxwing (Bombycilla garrulus)	Confirmed	Breeding, wintering
Brewer's Blackbird (Euphagus cyanocephalus)	Confirmed	Breeding, wintering
Broad-tailed Humingbird (Selasphorus platycerus)	Possible	no data
Calliope Hummingbird (Stellula calliope)	Possible	Breeding only
Cedar Waxwing (Bombycilla cedorum)	Confirmed	Breeding, wintering
Chipping Sparrow (Spizella passerina)	Possible	Breeding only
Cliff Swallow (Hirundo pyrrhonota)	Possible	Breeding only
Common Nighthawk (Chordeiles minor)	Confirmed	Breeding only

Bird name	Presence	Habits
Common Snipe (Gallinago gallinago)	Possible	Breedi
ng, wintering		
Common Yellowthroat (Geothlypis trichas)	Possible	Breeding only
Downy Woodpecker (Picoides pubescens)	Confirmed	Breeding, wintering
Eastern Kingbird (Tyrannus tyrannus)	Possible	Breeding only
European Starling (Sturnus vulgaris)	Confirmed	Breeding, wintering
Evening Grosbeak (Coccothraustes vespertinus)	Confirmed	Breeding, wintering
Field Sparrow (Spizella pusilla)	Possible	Breeding only
Golden-crowned Kinglet (Regulus satrapa)	Confirmed	Breeding, wintering
Great Horned Owl (Bubo virginianus)	Possible	Breeding, wintering
Hairy Woodpecker (Picoides villosus)	Possible	Breeding, wintering
House Finch (Carpodacus mexicanus)	Confirmed	Breeding, wintering
House Wren (Troglodytes aedon)	Confirmed	Breeding only
Killdeer (Charadrius vociferus)	Possible	Breeding, wintering
Lazuli Bunting (Passerina amoena)	Confirmed	Breeding only
MacGillivray's Warbler (Oporornis tolmiei)	Possible	Breeding only
Mallard (Anas platyrhynchos)	Confirmed	Breeding, wintering
Merlin (Falco columbarius)	Possible	Breeding, wintering
Mountain Chickadee (Parus gambeli)	Possible	Breeding, wintering
Mourning Dove (Zenaida macroura)	Possible	Breeding only
Nashville Warbler (Vermivora ruficapilla)	Possible	Breeding only
Northern Flicker (Colaptes auratus)	Confirmed	Breeding, wintering
Northern Oriole (Icterus galbula)	Confirmed	Breeding, wintering
Northern Pygmy Owl (Glaucidium gnoma)	Confirmed	Breeding, wintering
Northern Rough-winged Swallow (Stelgidopteryx serripennis)	Possible	Breeding only
Northern Shrike (Lanius excubitor)	Confirmed	Wintering
Orange-crowned Warbler (Vermivora celata)	Possible	Breeding only
Pine Siskin (Carduelis pinus)	Confirmed	Breeding, wintering

Bird Name	Presence	Habits
Red-eyed Vireo (Vireo olivaceus)	Possible	Breeding only
Red-tailed Hawk (Buteo jamaicensis)	Confirmed	Breeding, wintering
Red-winged Blackbird (Agelaius phoeniceus)	Confirmed	Breeding, wintering
Ring-necked Pheasant (Phasianus colchicus)	Possible	Breeding, wintering
Rufous Hummingbird (Selasphorous rufus)	Possible	Breeding only
Rufous-sided Towhee (Pipilo erythrophthalmus)	Possible	Breeding, wintering
Savanna Sparrow (Passerculus sandwichensis)	Possible	Breeding only
Sharp-shinned Hawk (Accepiter striatus)	Confirmed	Breeding, wintering
Solitary Vireo (Vireo solitarius)	Possible	Breeding only
Song Sparrow (Melospiza melodia)	Confirmed	Breeding, wintering
Sora (Porana carolina)	Confirmed	Breeding only
Tree Swallow (Tachycineta bicolor)	Possible	Breeding only
Varied Thrush (Ixoreus naevius)	Possible	Breeding, wintering
Vaux's Swift (Chaetura vauxi)	Confirmed	Breeding only
Violet-green Swallow (Tachycineta thalassina)	Possible	Breeding only
Warlbing Vireo (Vireo gilvus)	Possible	Breeding only
Western Kingbird (Tyrannus verticalis)	Possible	Breeding only
Western Meadowlark (Sturnella neglecta)	Confirmed	Breeding, wintering
Western Tanager (Piranga ludoviciana)	Possible	Breeding only
Western WoodPewee (Contopus sordidulus)	Confirmed	Breeding only
White-crowned Sparrow (Zonotrichia leucophrys)	Confirmed	Breeding only
Wilson's Warbler (Wilsonia pusilla)	Confirmed	Breeding only
Yellow Warbler (Dendroica petechia)	Confirmed	Breeding only
Yellow-rumped Warbler (Dendroica coronata)	Confirmed	Breeding, wintering

D. KEY CONTACTS

Audubon Society	Audubon Society	
Bruce Bender	Missoula Public Works Dept.	523-4623
Connie Carson	Humane Society	549-3934
Rich Clough	Montana Fish, Wildlife, and Parks Dept.	542-5500
Hank Fisher	Defenders of Wildlife	549-0761
Byron Lamphear		721-7704
Bob O'Connor	Missoula City Parks Board	549-1258
Deborah Ritchie	Watchable Wildlife	
Sue Reel	Watchable Wildlife	
Richard Sheridan	University of Montana, Botany Dept.	243-3176
Jim VanFossen	Missoula Dept. of Parks and Recreation	721-7275
Doug Waters	Missoula Dept. of Parks and Recreation	721-7275
Chuck Wright	Missoula County Surveying	721-5700