

Fly Rod Lake Plan

September, 2008

INTRODUCTION

In 2007, the Lakes and Watershed Board (LWB) of the Village of Whispering Pines (WP) initiated a planning effort for all its lakes. The purpose of this planning is, in part, to fulfill a component of the WP Land Development Plan. The specific purpose of each lake plan is to ascertain current status of each lake, perceptions of WP residents on lake uses, and identify and prioritize management needs for each lake. The integration of individual lake plans is anticipated to contribute to a Comprehensive Lakes Management Plan, which should form the basis for prioritization of management by the Village.

Fly Rod Lake is somewhat unique among Village Lakes in that it is among the smallest of the lakes.

I. STATUS:

Built in 1963, Fly Rod Lake is 8 acres in area. It is 325 feet above sea level and the height of the dam is 36 feet. The dam, traversed by Sunset Drive, is 1,000 feet long and 17 feet wide at the top. Fly Rod Lake is classified as Low Hazard. The average depth ranges from 4 feet to 6 feet with the middle channel at the dam about 30 feet. This was determined about 30 years ago by a retired naval officer, Paul Richards. Fly Rod Lake has a maximum storage capacity of 182 acre-feet or approximately 59 M gallons. Water contained to crest is 100 acre-feet with a drainage area of 226 acres.

Inflow is primarily from wetlands runoff and springs upstream. Significant sedimentation has occurred at one inflow site. Outflow is a single culvert on the lower end of the lake at the dam.

There are 25 lake front property owners. Only 2 vacant buildable sites are available. There are 17 docks and 9 bulkheads. Access to Fly Rod Lake is via an earthen ramp at the northeast end of the dam.

Water quality of Fly Rod Lake is good, as indicated by the 2001 Buck Survey (Appendix 1) and the 2004 Foster Lake Survey (Appendix 2). In both studies, water clarity was high (3.0-4.3 ft.). The WP LWB has recently obtained equipment and supplies for conducting basic water quality management, and has trained lake representatives in doing water quality sampling. .

Water testing for coliform bacteria has been conducted annually. No adverse levels have been detected recently.

At the time of the Foster evaluation, a small amount of bladderwort, spikerush, and chara were visible.

The Foster survey indicated four different types of fish species: largemouth bass, bluegill, shellcracker (red ear sunfish), and warmouth. There was an overcrowding of largemouth bass resulting in an unbalanced fish population.

Of the 10 respondents to the LWB lake questionnaire, half indicated that they use Fly Rod Lake for recreation. All 5 use the lake for fishing, with lesser use for swimming (2), boating (1), and kayak/canoeing (1).

The Fly Rod lake representative to the LWB is the principal conduit for information transfer. Lake representatives are identified in the Village website, and contact information provided.

Village ordinances (Article II) govern use of water for irrigation, operation of watercraft, codes of conduct and dress, piers and floats, vegetation control, access areas, regulations and safety rules (for watercraft and swimming), fishing, permits, penalties, and maintenance of aquatic ecology.

Responsibility for management of the Village lakes rests with the Village Council, generally upon recommendation of the Lake and Watershed Board (LWB), made in accordance with the individual lake plan and the comprehensive lakes management plan. Fly Rod Lake interests are brought to the LWB by the lake representative. Enforcement is via the Village Police Department, except as otherwise appropriate.

II. PERCEPTIONS:

In response to the 2007 LWB questionnaire, 10 residents of Fly Rod Lake (noted as “residents” or “ON” in data presented”) provided inputs to the plan. In addition, 5 WP residents who live off the lake (noted as “OFF” in data presented) chose Fly Rod Lake as their lake of interest, and completed questions specific to Fly Rod Lake. These respondents also provided comments, which, in addition to those of the LWB lake representative, contributed to perceptions of the status and management of Fly Rod Lake.

II.1.Lake Infrastructure

II.1.1. Dam/Spillway

Recent dam inspections indicate maintenance will be required in the near future to meet state regulations.

II.1.2. Access

Although Fly Rod residents and other WP users generally consider access areas to be satisfactory, the earthen boat ramp is in need of ~~paving~~ replacement.

(5.) Adequacy of parks and access areas

No Problem → Big Problem

ON	8	2	0	1	0
OFF	1	1	0	0	1

Highly Unsatisfactory→Highly Satisfactory

(17.) Access for boat launching.

0 0 3 6 1

II.1.3. Docks and Retaining Walls

Fly Rod residents feel that there should be better control over construction of docks and bulkheads.

Strongly Disagree→Strongly Agree

(34.) Construction and maintenance of private docks and bulkheads are effectively monitored and controlled.

0 3 2 4 0

II.2. Watershed Activities and Effects

II.2.1. Watershed Disturbance

Fly Rod residents expressed concern that watershed activities are harming the lake, and that more control is needed to reduce watershed impacts.

Strongly Disagree→Strongly Agree

(44.) New construction in the watershed is being effectively supervised in terms of controlling silt and sediment runoff.

1 4 4 0 0

(52.) Storm water run off is not effectively controlled and is harming the lakes

0 0 5 2 2

Further control over water inflows is needed at the lake inlets. In addition, a storm drainage pipe which comes across the road from the golf course carries debris into the corner of the lake where a mini-park and swimming area is planned. The drainage pipe should be removed or relocated.

II.2.2. Sedimentation

Watershed activities are perceived to be causing sedimentation of coves in Fly Rod Lake.

Highly Unsatisfactory→Highly Satisfactory

(15.) Siltation of cove areas.

5 2 3 1 0

Silt and sedimentation buildup, which have reduced water depths in coves, should be more closely monitored. Use of upstream silt barriers should be enforced. Sedimentation basins on the principal inlets should be installed.

II.2.3. Dredging

Dredging of silted inlet coves should be conducted.

Strongly Disagree→Strongly Agree

(53.) The Village should dredge areas where siltation has occurred.

0 1 3 3 2

II.2.4. Water Withdrawals

Fly Rod residents have no particular concern about use of lake water for residential irrigation.

Strongly Disagree→Strongly Agree

(51.) Residential irrigation systems drawing from the lakes are managed effectively by the Village.

0 1 2 6 0

II.3. Water Quality

All Fly Rod residents indicated that they are concerned about water quality. However, most did perceived there to be no problems with Fly Rod Lake water quality.

(10.) The WP Land Development and Use survey indicated high importance for maintaining water quality, which is affected by a variety of factors.

- () I am concerned about lake water quality. **10**
- () I have no concerns about water quality **0**
in WP lakes.

(1.) Overall water quality.

No Problem → Big Problem

ON **2 4 1 0 1**
OFF **0 3 0 0 0**

II.3.1. Water Clarity

Most residents considered water clarity satisfactory.

Highly Unsatisfactory → Highly Satisfactory

(18.) Water clarity.

1 1 1 7 0

II.3.2. Pollution Sources

Despite general satisfaction with water quality, individuals indicated concern for most potential pollution sources, including yard debris, which accumulates in shallow, protected areas of the lake. Septic system leakage was considered of highest concern, and need for better monitoring of septic system contamination was noted.

(11.) If concerned, CHECK all that apply.

- () Septic tank leakage **9**
- () Fecal coliform levels **8**
- () Stormwater inflow **6**
- () Lawn runoff [pesticides/herbicides] **5**
- () Animal wastes **4**
- () Yard debris **1**

Highly Unsatisfactory → Highly Satisfactory

(13.) Trash and debris in the lakes.

1 2 2 3 1

(2.) Lake pollution due to faulty/substandard septic systems

No Problem → Big Problem

ON **0 4 1 0 2**
OFF **1 2 0 0 0**

(40.) Monitoring for septic contamination in Village lakes is adequate.

Strongly Disagree → Strongly Agree

1 3 3 2 0

Residents expressed concern about the impacts of lawn herbicides and felt that their use should be restricted. Better information on best management practices are desired.

Strongly Disagree → Strongly Agree

(46.) Use of lawn herbicides near shorelines should be restricted.

0 0 3 4 2

Strongly Disagree → Strongly Agree

(54.) The Village should provide residents with technical information on watershed and lake management “best practices.”

0 0 0 5 4

II.3.3. General Water Quality Monitoring

A system of regular water quality monitoring is needed and results should be made available to residents.

(39.) Periodic monitoring of lake water quality should be conducted. Strongly Disagree → Strongly Agree
0 0 1 4 6

(43.) The water quality and fishery testing program for our lakes Strongly Disagree → Strongly Agree
should be formalized and results published. 0 2 1 4 2

II.4. Aquatic Vegetation

Aquatic weeds have not been a problem in the recent past with a few exceptions. Those exceptions apparently are strongly expressed by residents.

(3.) Algae/aquatic weed growth No Problem → Big Problem
ON 0 4 2 1 2
OFF 1 1 1 0 0

(14.) Aquatic weeds. Highly Unsatisfactory → Highly Satisfactory
0 5 2 2 0

(41.) Aquatic vegetation in the lakes is adequately monitored. Strongly Disagree → Strongly Agree
1 2 3 3 0

(45.) Aquatic weeds are being adequately controlled. 2 4 2 1 0

Those interested in fishing realize that some aquatic vegetation is valuable as fish habitat, so control should be limited.

Although Fly Rod Lake is used by a variety of waterfowl, no strong feelings on wildlife habitat were expressed.

(47.) The management of the lakes as habitat for waterfowl is adequate. Strongly Disagree → Strongly Agree
0 2 3 3 0

II. 5. Winter Water Level Drawdown

Winter drawdown of Fly Rod Lake would benefit weed control and fisheries, while providing opportunity for maintenance of docks and bulkheads. Strong sympathy was expressed for drawdown.

(49.) Water levels should be drawn down periodically. Strongly Disagree → Strongly Agree
1 0 3 2 3

II.6. Boating

Fly Rod residents are satisfied with the boating situation and boating regulations; but are not supportive of changing after-dark boating regulations. Emphasis on enforcement of decals is strongly supported.

- | | |
|---|--|
| | Strongly Disagree → Strongly Agree |
| (29.) Boating regulations are appropriate as currently written. | 0 0 4 5 1 |
| (30.) Boating regulations are posted where required and are easily understandable. | 0 3 4 3 0 |
| | Strongly Disagree → Strongly Agree |
| (33.) After-dark use of watercraft should be extended provided that proper safety lights are displayed. | 2 2 2 3 1 |
| | Strongly Disagree → Strongly Agree |
| (32.) Fees for boat decals are reasonable and should be collected. | 0 0 2 5 3 |
| | No Problem → Big Problem |
| (9.) Presence of boats without current lake sticker | ON 6 1 1 0 1
OFF 2 1 0 0 0 |
| | Strongly Disagree → Strongly Agree |
| (31.) Current decals for all watercraft should be stringently enforced by the Village. | 0 0 2 4 4 |

II.7. Fisheries

Respondents to the questionnaire were divided on the quality of fishing in Fly Rod Lake. Comments indicated that fish quality is improving slightly, but the populations remain unbalanced. Strong interest was expressed for better monitoring and communication of results.

- | | |
|---|---|
| | Highly Unsatisfactory → Highly Satisfactory |
| (16.) Fishing. | 0 3 3 3 1 |
| | Strongly Disagree → Strongly Agree |
| (42.) Status of fish populations is adequately monitored. | 1 3 2 3 0 |
| (43.) The water quality and fishery testing program for our lakes should be formalized and results published. | 0 2 1 4 2 |

Management of fisheries, including stocking as needed, should be conducted specific to Fly Rod Lake. It is recognized by some that the low alkalinity and tan water color of Fly Rod Lake needs to be improved by liming for fish productivity to increase.

- | | |
|--|--|
| | Strongly Disagree → Strongly Agree |
| (48.) The Village should stock the lakes for fishing when needed. | 0 0 2 3 4 |
| (50.) Fish management programs should be tailored to individual lakes. | 0 0 1 4 4 |

II.8. Parks

Fly Rod Lake has no park, but one is needed. It could be developed in conjunction with improvement of the boat launch if the water pipe under Sunset Drive is relocated. It could include a mini park with a dock and swimming area.

II.9. Swimming

There is no public swimming area; swimming is limited to those areas at homeowners' docks and bulkheads. Plans have been discussed for a swimming area near the current boat ramp.

The water color of Fly Rod Lake is dark (tannic), and the bottom is mucky and not inviting for swimming. Establishment of a swimming area would involve both shoreline and local lake bottom improvement.

Fly Rod Lake residents expressed no problem with the current situation regarding temporary swimming floats, but have strong opposition to anchoring of large offshore floats, in part due to the small size of Fly Rod Lake. If allowed, they definitely should be removable.

	No Problem → Big Problem				
(8.) Presence of semi-permanent floats	ON	7	0	0	0
	OFF	2	1	0	0
		Strongly Disagree → Strongly Agree			
(35.) Offshore anchoring of large inflatable floats should be allowed.		3	2	1	2
(36.) If so, floats should be restricted in size.		0	1	2	2
(37.) If allowed, distance offshore should be restricted.		0	0	3	2
(38.) If so, how far out into the lake should they be allowed? 20; 25; 100 feet					

II.10. Enforcement

Despite specific needs for enforcement noted in earlier responses in this questionnaire, respondents indicated that they were generally satisfied with enforcement.

	No Problem → Big Problem				
(4.) Enforcement of current lake ordinances	ON	3	2	1	0
	OFF	2	1	0	0
		Strongly Disagree → Strongly Agree			
(57.) Village lakes are adequately patrolled and regulations enforced.		1	1	2	5

II. 11. Communication

Fly Rod residents feel strongly that higher levels of communication are needed to assist them in understanding the lake and practices to maintain its quality.

	Strongly Disagree → Strongly Agree				
(43.) The water quality and fishery testing program for our lakes should be formalized and results published.		0	2	1	4
(54.) The Village should provide residents with technical information on watershed and lake management "best practices."		0	0	0	5

II.12. General Satisfaction with Lake Management

Lake management is important to residents of Fly Rod Lake, and they are quite satisfied.

	Strongly Disagree→Strongly Agree
(56.) Effective management of Village lakes is important to maintaining a high quality of life for Village residents.	0 0 0 5 5
(58.) Overall, I am satisfied with the current management of Village lakes.	1 1 2 5 0
(55.) The overall quality of the Village lakes is adequately maintained.	1 1 2 4 0

II.13. Other

Leeches, associated with bottom organic debris, is bothersome to swimmers. These need to be identified, the factors contributing to the problem identified, and the residents educated on how to limit them.

III. ACTION PLAN:

Goal 1. To maintain and enhance the esthetic values and recreational opportunities of Fly Rod Lake.

Objectives:

1. Comply with state regulations regarding dam maintenance.

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	High
Timeline (Short/Long)	Immediate
Responsibility:	Village

2. Renovate and pave boat ramp, establish a swimming/fishing mini park, and improve signage.

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	Medium
Timeline (Short/Long)	Short
Responsibility:	Village

3. Relocate drainage pipe coming from golf course.

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	Medium
Timeline (Short/Long)	Immediate
Responsibility:	Village

4. Install a settling basin at the principal inflow tributary.

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	Medium
Timeline (Short/Long)	Short
Responsibility:	Village

5. Dredge inlet cove.

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	Medium
Timeline (Short/Long)	Short
Responsibility:	Village; LWB

6. Implement annual drawdown for control of aquatic vegetation, improvement of fisheries, and opportunity to conduct maintenance on docks and bulkheads.

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	Low
Timeline (Short/Long)	Short
Responsibility:	Village

7. Increase fish populations through stocking.

Action:

Priority (High/Med/Low)	Medium
Cost (High/Med/Low)	Medium
Timeline (Short/Long)	Short
Responsibility:	Village

8. Conduct a lime treatment to improve hardness/alkalinity and water color.

Action:

Priority (High/Med/Low)	Medium
Cost (High/Med/Low)	Medium
Timeline (Short/Long)	Long
Responsibility:	Village

9. Strictly enforce all Village ordinances.

- use of silt barriers for construction activities in the watershed
- construction and maintenance of docks and bulkheads
- boat decals
- swimming floats

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	Low
Timeline (Short/Long)	Short
Responsibility:	Village

Goal 2. To base management on a thorough and reliable data base.

Objectives:

1. Monitor sedimentation of cove areas.

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	Low
Timeline (Short/Long)	Short
Responsibility:	Lake Rep

2. Conduct water quality monitoring at fixed sites on a regular schedule.

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	Low
Timeline (Short/Long)	Short
Responsibility:	Lake Rep

3. Conduct periodic fish surveys at 5-year intervals.

Action:

Priority (High/Med/Low)	Med
Cost (High/Med/Low)	Med
Timeline (Short/Long)	Long
Responsibility:	LWB; Village

Goal 3. To effectively communicate needs and actions (among residents, lake representatives, LWB, and the Village.

Objectives:

1. Educate public regarding red leeches.

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	Low
Timeline (Short/Long)	Short
Responsibility:	Lake Rep

2. Provide residents with information on Best Management Practices, to include use of chemicals (herbicides, pesticides, fertilizers) and disposition of lawn wastes.

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	Low
Timeline (Short/Long)	Short
Responsibility:	Lake Rep

3. To communicate annually on status of lake management plan implementation and obtain inputs of lake users on management impacts and needs.

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	Low
Timeline (Short/Long)	Ongoing
Responsibility:	Lake Rep

4. To use all avenues of communication available to keep lake users apprised of lake status, LWB actions, and management activities.

Action:

Priority (High/Med/Low)	High
Cost (High/Med/Low)	Low
Timeline (Short/Long)	Short
Responsibility:	Lake Rep; LWB; Village

APPENDIX 1. Water quality data was provided by Buck Engineering, July, 2001.

Trophic State: Mesotrophic (moderate productivity)

Average Surface Conditions: (mg/l)

Total N: 0.73 NH3: <0.05 NO2+NO3: <0.05

Total KN: 0.64 TotalP: 0.03 PO4: <0.01

Total DS: 28 Total SS: <5.0

pH: 7.59 Sp. Conductivity: 44 *umhos* Chl. a: 5.07 *ug/l*

Alkalinity: (taken, not reported)

Water Clarity: 4.3 ft Stratification Depth: 6.5 ft

APPENDIX 2. Water quality data provided by Foster Lake and Pond Management in October, 2004.

Hardness - 30 ppm;

Alkalinity - 16 ppm;

pH - 6.5 ppm;

Dissolved Oxygen -- 6.7 mg/L - 10.3 mg/L (6 foot depth and up);

Visibility - >36 inches.
