WID Quinquennial Report

A compendium of 20 years of lake management ideas

Lake Barcroft Watershed Improvement District
Fairfax County, Virginia

CONTENTS

As the Lake Barcroft Watershed Improvement District celebrates its 20th Birthday, this Quinquennial Report recalls past episodes and reiterates some conservation concepts which are being practiced by WID staff and Lake Barcroft residents. This Report is made up primarily of past WID Bulletins which are published every month in the Lake Barcroft Newsletter for the information of community families. The Bulletins are arranged in reverse chronological order with the newest first. You can find the publication date noted in the upper left hand corner.

Quinquennial Report

At least every five years, a self-respecting government agency should look over the top of its accumulated pile of papers and make a summary report. Otherwise, it may lose sight of what it is supposed to be doing and how well it is achieving its objectives. Further, the taxpayers are entitled to look inside so they can know how their money is being spent.

Five years ago, we did this and, indeed, the little 60-page booklet on the 15th Anniversary of the establishment of the *Lake Barcroft Watershed Improvement District* was very well received. Lake Barcroft community residents and others commented that "we never knew" this or that. Now, it's time to add a five-year segment to that 15th Anniversary Report—time for WID's 20th Anniversary Quinquennial Report!

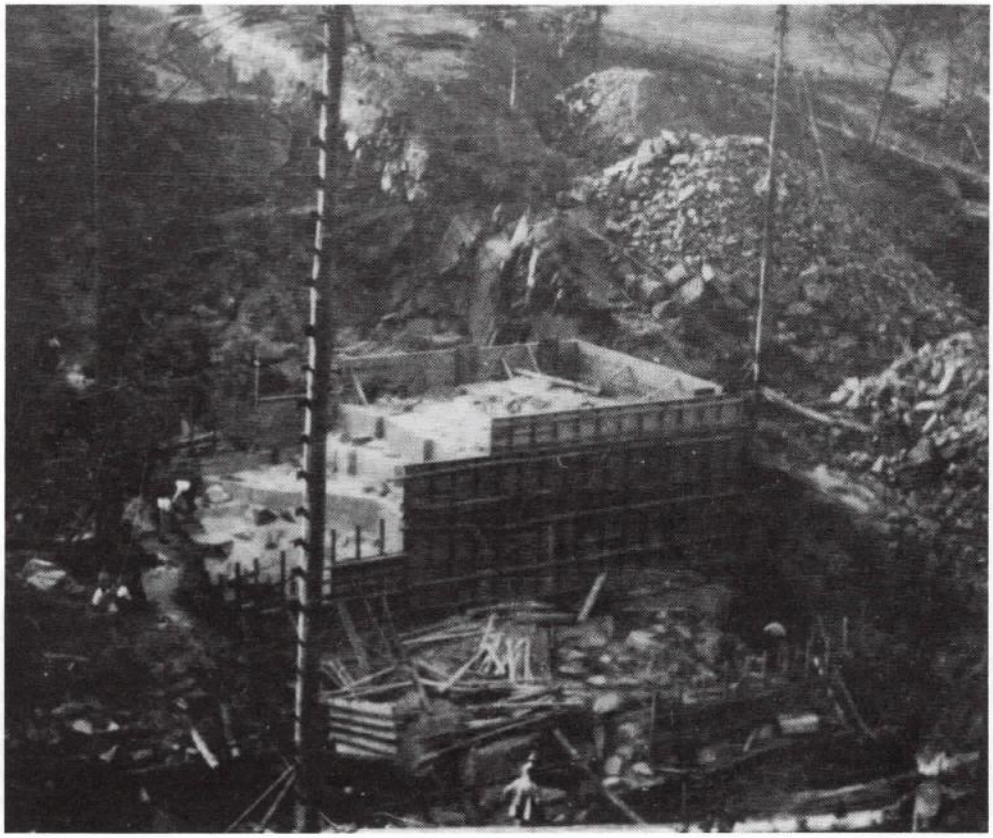
A part of our review is achieved by reprinting the WID Bulletins which we have carefully composed and published each month in the Lake Barcroft Newsletter. This process has the further advantage of economy since all of these one page essays have already been written, typeset, laid out and reviewed for policy. We said it once. . .why not twice, particularly for the benefit of newcomers.

In this collection of WID Bulletins, you will find helpful hints about how to thrive and survive in a lake community. . .how to practice good conservation. . .what to expect from the WID. . .what's inevitable, WID or no WID. . .who to call to get results. . .and what's going on inside that big old dam. Leave your copy on the coffee table so your guests can wonder why their community doesn't have a WID.

In addition to the WID Bulletins, there are occasional articles:

- *"Memories of the 1973 Referendum"* recalls the bedlam that existed in trying to conform to the Virginia Code edict that "a non-vote is a *no* vote" when trying to establish a WID.
- A two-page spread from an earlier article in VLA News which is published by the Virginia Lakes Association describes Lake Barcroft in lay terms.
- A reprint of *"WID: A New Kind of Conservation Organization"* by WID's attorney Randolph W. Church, Jr., reminds us that WID is a "public body corporate and politic...."
- *"The Barcroft Story,"* which was originally written in 1970 and has been updated from time to time, lets a newcomer catch up on some ancient history.
- The WID Chairman's *"Inside Our Little Government Agency"* tries to explain what makes WID tick.

Quinquennial Report is reverse-chronological. We start with today and work back month by month through the WID Bulletins. There is a date of publication in the upper left corner of each one. If interested in a particular subject, consult the Contents on the inside front cover. A few were composed many years ago but, like the Barcroft Dam, they still hold water.



The Old

Just think. . .80 years ago they were building the Barcroft dam. Here is a picture of the hectic activity of excavation and pouring successive lifts of concrete to build the cyclopean masonry gravity dam. It was 69 feet high and had a 52 foot wide base.

Inside Our Little Government Agency

by Dave Alne
Chairman, WID Trustees

The LBWID's primary purpose is to provide useful services to the Lake Barcroft Community that one cannot expect to be satisfied by regular government agencies. One cannot expect Fairfax County to intervene when we have too many geese, when the phosphorus content of fertilizers is too high or when we have too much vegetation on our lakebed.

In a sense, the WID is a fourth level of government below federal, state and county. The WID is closer to its taxpayers than its larger brothers and handles specific needs and desires at the local level—most of these needs and desires arising from our setting around a residential/urban lake. And yet all of what we do must be done within the framework of propriety, law and funding that larger governments must follow.

Now, our problem is to tell you what we do without making your eyes glaze over and your mind wander. Let us begin by abstracting some numbers:

- "What we do" falls into 24 identifiable categories (e.g., dredging, gypsy moth, nutrient control, etc.), some of them more important and demanding than others but none of them trivial.
- "What the WID staff does" on one recent day comprised a task list of 22 items (e.g., removal of dead tree, a small-cove dredging with Sam's Godzilla, planting grass, repairing Woman's Club bridge, etc.)
- Continuing professional service arrangements must be managed with 18 firms (e.g., Whitman Requardt & Assoc., Honeywell Process Control, National Gypsy Moth Management, etc.) each of which involves its own base of past-service data.
- Consultation must be maintained with at least eleven outside professional and governmental entities (e.g., Fairfax County Department of Public Works, County Office of Comprehensive Planning, Virginia Water Resources Board, Upper Holmes Run Environmental Monitoring Advisory Committee, etc.) each of which has its own dimension of involvement with Lake Barcroft.

Your best access to the substance of "what we do" is the reprinted WID Bulletins in this Report. As a group they represent well the preoccupations and the activities of the WID. I hope they also reflect well the justification of this Community's current annual tax investment of $550,000 and the expenditure thereof by the three Trustees, the Operations Director, the four permanent staff members and the eight WID Associates who manage and execute the functions of the LBWID.

We are coming up on 20 years of WID history. I would ask every resident to review this history, to think about how this Community should handle the special challenge of maintaining successfully a lake-centered 1,000-home enterprise, and to give us your views. While the WID has a number of sources of guidance, one of the more important of them is you, the tax-paying constituent.

Photo by Ken Kopka.

The New

Youngsters from the Franklin Intermediate School in Chantilly visit Lake Barcroft's dam compound under the auspices of the Chesapeake Bay Foundation. Most of them had never been in a canoe before. They seined Tripps Run searching for fish, insects and microscopic plants as their part of the Help Clean Up the Bay program.

A WID Bulletin

Fall 1992

WID's 20th Birthday

1973 lake restoration after Hurricane Agnes shows the Mud Cat dredge pumping silt into an up-lake decanting basin which is now under water preparatory to major surgery on the dam to install the Bascule Gate.

The Lake Barcroft Watershed Improvement District was approved in a formal referendum on April 24, 1973. Initially, it was the "savior" which revitalized the dam and restored the lake. Today, WID plays the less hectic but equally vital role of operating the dam and providing essential conservation services needed by a lake community.

Basically, today's maintenance team is a partnership between WID and the folks who live here. The residents inform WID of needed services and often assist in providing the solutions. Below is a partial list of community maintenance functions:

- **Floating debris** is often picked up by WID barges. Debris that a lakefront property owner can remove from the lake should be piled at the waterfront so WID can barge it away.
- **Weed harvesting** is performed by WID's weed harvester. Submerged aquatic vegetation is removed from places where it is a nuisance, however, in other places it serves a useful purpose as a fish habitat.
- **Storm drainage and erosion problems** can sometimes be solved by the WID. Often, WID assists by calling the County or the State to correct major problems.
- **Gypsy moth egg mass removal** is best done by the individual homeowner but often WID can provide assistance. WID's ground sprayer can kill an incipient "hot spot" or control Eastern Tent Caterpillar infestations during April.
- **Other problems** too numerous to mention may benefit from WID's attention but WID can't do personal favors.

WID needs to know about these problems. Phone 820-1300 and talk to **Ken Kopka**, **Sam Ellis**, **Kelly Wilson** or **Paul Gordon**. If the machine answers, talk to it. Leave short messages or request a callback. Remember to leave your name, address and phone number. For policy help, call the Operations Director or the WID Trustee Chairman.

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A WID Bulletin

November 1992

UHREMAC "New Directions"

Photo by Kelly Wilson

UHREMAC is the "Upper Holmes Run Environmental Monitoring Advisory Committee" to the Board of Supervisors of Fairfax County. It is a joint citizen-developer advisory committee given the task of monitoring the potential storm water impacts in the Upper Holmes Run Watershed following the rezoning and final development plan approval of 335 acre Chiles Tract by the Board of Supervisors. Its findings were to evaluate the effectiveness of the proposed storm water management facilities and the on-site sediment control devices that would be implemented concurrently with development.

UHREMAC is very important to the Lake Barcroft Community. It installed three stream gauging and sediment sampling stations along the Holmes Run stream channel between the Chiles Tract and Lake Barcroft. Barcroft members of the Committee include Stuart Finley, Chairman; Lloyd Swift; and recently-appointed T.J. Glauthier who was selected to replace the late Captain Frank Sanger. The monitoring stations became operational in October, 1982

When the County encountered its recent severe financial crunch, the County Executive removed future funding for UHREMAC and proposed that it be discontinued. Subsequent discussions with the Fairfax County Department of Public Works have been most productive. It has been tentatively decided to continue UHREMAC but change its nature to minimize County funding but maintain the Committee's valuable watershed management function by holding periodic meetings and depending largely on the private sector for financial support. In particular, the WID will contribute some of the staff services which previously had been contracted out by the County. Providence District Supervisor Kate Hanley moved and the Board of Supervisors approved $20,000 be appropriated the UHREMAC to complete it's affairs. Mason District Supervisor Tina Trapnell and Board Chairman Tom Davis are thoroughly familiar with and very supportive of UHREMAC.

Present plans being developed by the Department of Public Works and WID include:

- the preparation of a Summary Report which will be valuable to this watershed and the County as a whole;
- continuing measurement of stream bank transect contours to ascertain the amount of upstream stream bank erosion now taking place;
- investigation of the possibility of development of additional "best management practices" in the upstream watershed to minimize soil erosion and sediment transport to Barcroft.

Already UHREMAC has achieved exemplary results such as the design and construction of Reservoir 2-A upstream which is a flood control and sediment containment structure. Now the "New Directions" contemplated hold great future promise for additional best management practices which could minimize sediment dredging and debris removal activities by the WID and attempt to implement desirable nutrient control systems to minimize Barcroft algal blooms.

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A WID Bulletin

October 1992

Future Dredging

Photo by Kelly Wilson

By the late 1950's, the upper ends of Lake Barcroft had turned into swamps. This did not particularly please families who had bought "waterfront" lots near the Holmes and Tripps Run inlets to the lake. In fact, it didn't thrill anyone because it was already clear that the volume of sediment moving into the lake would soon close Beaches #2, #3, and #5.

In 1961, Barcroft's first dredging began. We have been dredging regularly ever since. Various techniques have been employed:

- big hydraulic dredge with a cutter head;
- drag line mounted on a crane working from "underwater roads";
- small Mud Cat hydraulic silt dredge;
- mechanical "wet" dredging with a floating excavator and hopper barges;
- "forebay" dredging from newly dug silt basins upstream from the lake.

It's been an evolutionary process designed to dig the most silt for the least money. Meantime, upstream erosion control projects have tended to diminish the input somewhat.

The current method of dredging is the most promising to date. The forebay dredging process requires only 3 kinds of gear.... an extended reach backhoe which will reach 60 feet, a bulldozer and one or more trucks. It is economical because this process eliminates expensive mobilization and only requires a staff of three persons.

Accordingly, WID plans to emphasize "dry" dredging over "wet" dredging. We plan to continue to dredge the substantial portion of incoming sediment from the forebays and increasingly strive to reach other areas with this ground-based equipment. A recent example was the shore-based dredging of Beach #1 which cost a fraction of what a floating rig would have cost.

WID's current dredging strategy plans to reach out into the major silt basins at the upper ends of the lake to remove major silt depositions there. A system of temporary access roads built with bank run gravel dredged from the forebays will permit the excavator and trucks to move out further to reach more material. When the dredging process is concluded for the year, these roads will be dissembled to a depth of at least three feet with the bank run gravel being put in place for the next year's operation. It will take a few years to dredge the silt basin completely. But when finished, it will be about eight feet deep except for the residual dredging access roads which will be three feet under water.

The merit of this procedure is shortening dredging time, saving money and having a comprehensive plan for future dredging which should assure that the problem won't overwhelm us in the future.

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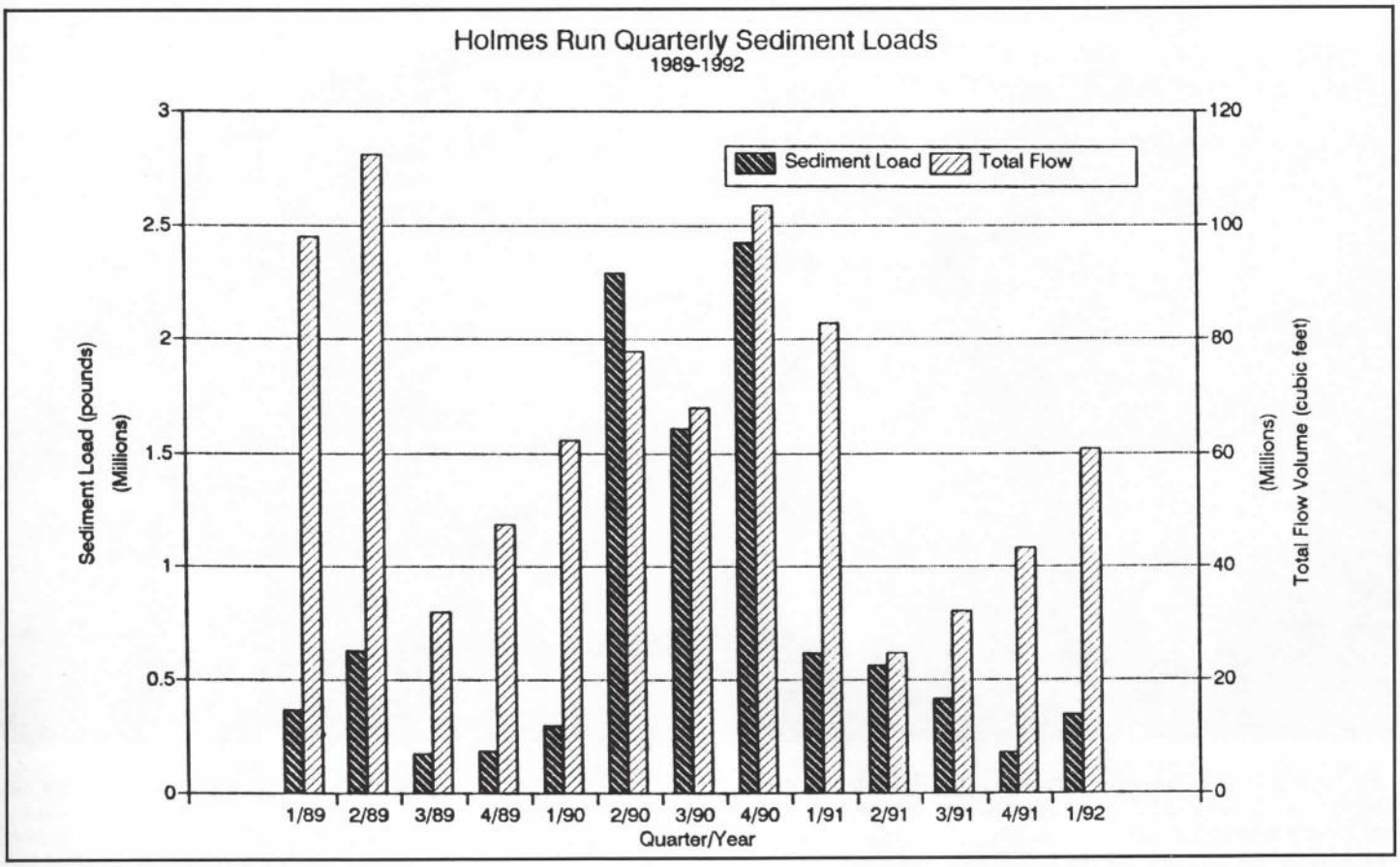
A WID Bulletin

September 1992

Sediment Yield



This data from the Upper Holmes Run Environmental Monitoring Advisory Committee (UHREMAC) shows sediment input to Lake Barcroft in the left-hand bar and total stream flow in the right-hand bar. This is for the Holmes Run half of Barcroft's upstream watershed only.

The Fairfax County Department of Public Works monitors stream flow and sediment transport in the Holmes Run stream valley portion of Lake Barcroft's upstream watershed. This is done by sampling baseflow and certain storm events to determine the amount of runoff which flows into the lake and calculating the quantity of sediment which this runoff delivers to Barcroft.

Here are the quarterly totals of cubic yards of sediment yield from the Holmes Run arm of the Barcroft Watershed since the beginning of UHREMAC's monitoring.

The high yield during 1984 and 1985 coincided with the construction of the major road network in Fairview Park and, indeed, did not peak as high as some had expected. Providence Lake (Reservoir 2-A) went on line in 1986 and this flood control reservoir can be credited with the lower yields which began to materialize in many quarters thereafter. The unexpected surge in late 1990 was probably caused primarily by several very large storms.

WID and the Fairfax County Department of Public Works are searching for more best management practices which can reduce sediment yield to diminish Barcroft dredging costs further.

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
1st Q	—	398	774	2143	659	175	322	260	222	458	257
2nd Q	—	398	1275	2018	250	313	470	459	1711	417	—
3rd Q	—	398	1332	1345	323	314	207	210	1217	309	—
4th Q	398	499	1676	624	564	126	150	252	1989	135	—

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A WID Bulletin

August 1992

Meet Your WID

The Holmes Run pedestrian crossing will be the setting for a WID Open House on Labor Day. This picture of the partially completed Woman's Club Bridge across Holmes Run was made 15 years ago.

Between 9 a.m. and 12 noon on Labor Day, Monday, September 7th, WID invites you to experience **A Day In the Life of the WID** and meet some of the people who serve the Barcroft community. Here are the activities you may experience:

Sam Ellis, WID Superintendent, will operate Godzilla, WID's miniature floating dredge, digging sediment from the lake bottom and moving it to a nearby location where it can be redredged and trucked away later.

Paul Gordon, WID Technician, will mow submerged aquatic vegetation with WID's weed harvester.

Ken Kopka, WID Staff Director, will seine fish and participate, along with **members of the Fish and Wildlife Committee**, in a demonstration of fishing techniques including the best way to catch the ever-elusive walleye.

Fred Chanania, WID Trustee, and **Kelly Wilson**, WID Operations Assistant, will lead a nature walk through a mini-wetland and go by boat to the Holmes Run Island with its bald cypress trees emphasizing wildflowers, birds and wildlife.

Ernie Rauth, LBA Improvements Committee, will show the newly developed gardens at both ends of the Woman's Club Bridge.

Dave Alne and **Freeman Williams**, WID Trustees, and **Stu Finley**, WID Operations Director, will be on hand to bore people with WID statistics and policy manifestos.

See you on Labor Day!
Bring the family!

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A WID Bulletin

July 1992

Phosphorus– Half Year Tally

Photo by Kelly Wilson

Staff Director Ken Kopka takes a water sample from WID's rain gauge. Tests show that even "clean rain" contains phosphorus.

WID's year-long phosphorus monitoring project just completed its first half year. **What did we learn?**

Although year-end results will be much more conclusive, we learned what we had surmised...that Lake Barcroft's sediment containment and removal functions are very significant.

Sediment Containment

Comparing inflow from streams and outflow over the dam, there was a reduction of 14.4% in the lake system. Using an earlier computed input figure of 4.8 tons of phosphorus per year, this means that about 1,400 pounds a year are being neutralized one way or another by the presence of the lake. Future figures which will include warm weather discharge may increase the 14.4% to about 40%...but we won't know for certain until the end of the monitoring project on October 1st.

Sediment Removal

Looked at another way, the monitoring program ascertained that the amount of phosphorus dredged and removed amounted to .22 pounds per cubic yard. Using an average annual removal rate of 7,000 cubic yards a year, this amounts to about 1,500 pounds removed per year not counting other phosphorus containing materials removed such as weeds, leaves, debris, etc.

The last half of the testing year includes hot summer months and thus conclusions must await the end of the test year. But even the first half measured during the winter indicates substantial improvement in intercepting algae-generating phosphorus. While WID has done it for the selfish reason of improving Lake Barcroft water quality, there is a downstream advantage to the Potomac and the Chesapeake Bay.

The moral of the story is: **To improve water quality, reduce applications of phosphorus-containing fertilizer on your lawn.**

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A WID Bulletin

June 1992

Litter

Photo by Kelly Wilson

This floating debris boom across Tripps Run above the Potterton Causeway traps large quantities of litter before it can get into the lake.

Back in the 1960's, Lake Barcroft decided to try to trap and remove litter before it got into the lake. But it was clearly impossible to build a simple barricade to catch this stuff because of the huge volume of water during major storm events. Thus, WID's consulting engineers designed an unusual "floating boom" which would rise and fall with the level of the incoming water and could trap much of this floating debris behind it.

This system actually manages to catch a significant portion of this incoming litter which can be subsequently removed by a mechanical clamshell and dump trucks. There are two functions:

The floating debris boom catches some of the flotsam which is subsequently removed and hauled to the landfill by the Fairfax County Department of Public Works.

- And the guard rails along Potterton Drive catch much of what escapes and this material is removed by the Virginia Department of Transportation.

WID appreciates this cooperation by Fairfax County and the Commonwealth of Virginia.

This immense problem can be blamed on both **people** and **Mother Nature**. People who discard litter in Barcroft's upstream 15 square mile watershed are thoughtless. But it is a natural function for a major storm to flush everything that will float downstream during big storms.

Incidentally, Barcroft has been trying to develop a comparable floating debris entrapment system for the Holmes Run half of our watershed but has been unable to do so because of unavailability of an acceptable location. A partial solution is Reservoir 2-A several miles upstream which traps the debris from a *portion* of the Holmes Run watershed.

Pictures in last month's Newsletter of upstream trapped debris awaiting pickup and removal implied that this pollution had actually reached Beach 5. While impatience about the presence of this trapped material is understandable, the on-going program of the WID and its two cooperating agencies will benefit from public recognition that this is a very difficult problem which cannot be instantaneously or completely controlled.

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A WID Bulletin

May 1992

Much Mulch

Photo by Kelly Wilson

40 to 45 cubic yards of still-steaming composted leaf mulch tumbles off this truck into the "Help Yourself" repository at Beach #5. Recently, WID received three such huge loads courtesy of the Arlington County Department of Environmental Services. Also arriving is a supply of double-chipped wood chips. All of this is available to Barcroft gardeners for the taking.

These materials plus dredged silt from the lake can satisfy various gardening needs. The leaf mulch or wood chips can protect plants from winter freezes and summer droughts. Or they can be added as a soil conditioner to existing gardens or to create new ones. This is consistent with the Extension Service's **YIMBY** recycling program... *"Yes In My Back Yard."* And the cost to you is just the energy of picking it up.

If you wish to drive in, call WID at 820-1300. Leave a message with your name and address and when you would like the security cable unlocked.

Fall lawn fertilization season is not far off. WID's *"No-Phos Watershed Protection Formula"* fertilizer costs just $30 for a 50 pound bag which is enough for most Barcroft lawns. We suggest that 50 pounds once a year is sufficient for 12,000 to 15,000 square feet of lawn. See the coupon below for details. We're our own worst enemy when we pour unnecessary phosphorus, herbicides and pesticides on our lawns and thus later into the lake!

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Please deliver _____ 50 pound bag(s) of "No-Phos Watershed Protection" fertilizer to my home at:

Address

Name

Enclose a check for $30 per bag made out to WID. Mail to WID at, 3650 Boat Dock Drive, Falls Church, VA 22041.

"Flood Insurance"

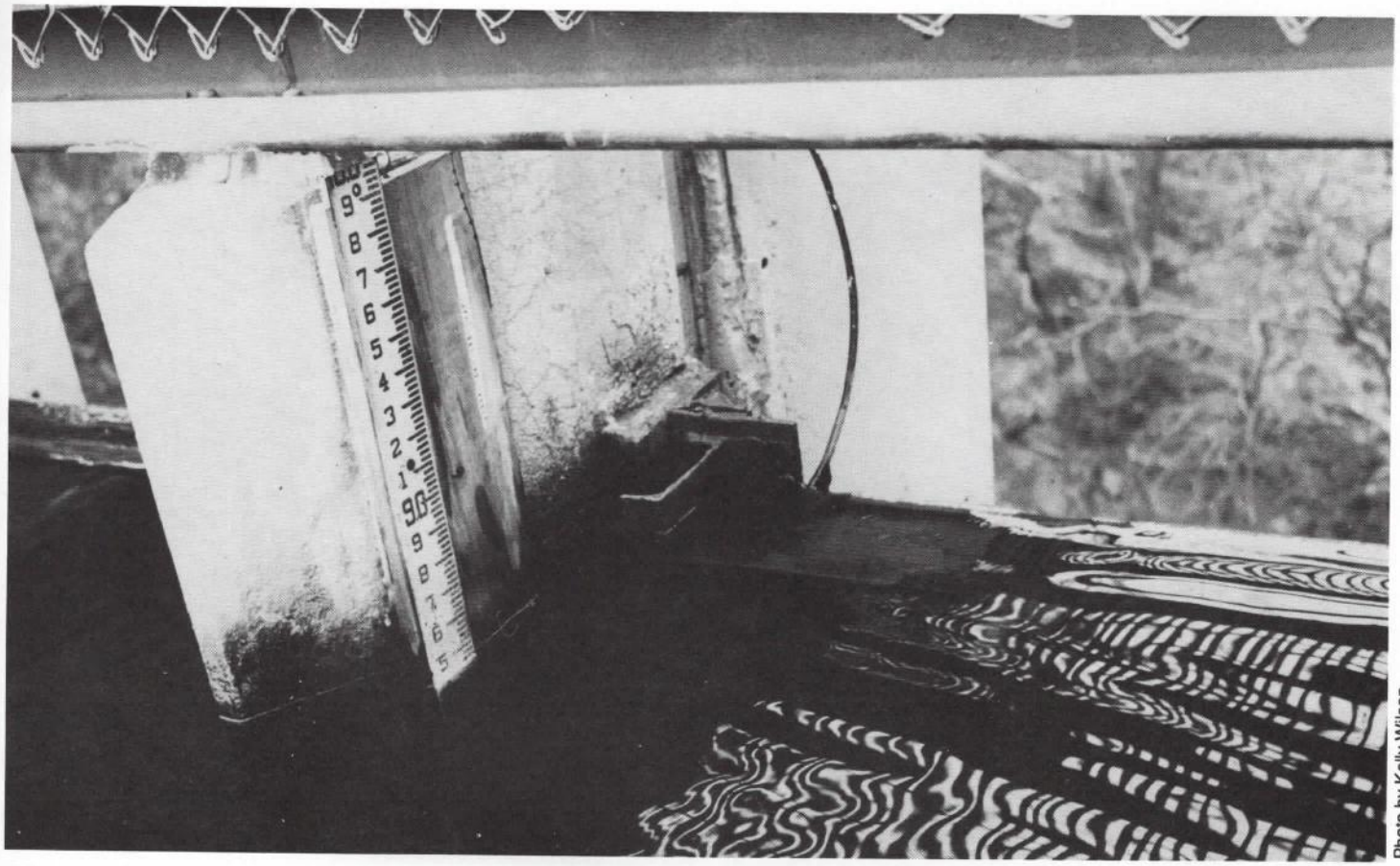

Photo by Kelly Wilson

The gauge at the Barcroft dam usually reads 208.5 feet above mean sea level, but in a very large storm it might rise six inches.

During Hurricane Agnes, the lake rose five feet above normal and threatened to flood several houses. When the dam was restored in 1973, the installation of the new "spillway" gate reduced the operating band from five feet to six inches. But it has taken 18 years for this news to be recognized officially.

This only mattered to the few people who bought homes after 1973 in certain low areas of Lake Barcroft. Some of them were required to buy federal flood insurance which is very expensive. To obtain a loan on their house, they had to buy the insurance whether or not they wanted it.

Now the Federal Insurance Administration of the Federal Emergency Management Agency has modified its official maps to recognize the current six inch operating band and thus all homes in the Lake Barcroft community are relieved of the requirement to buy unwanted flood insurance. Some lending institutions might not know this yet, but the official evidence is available from WID. If you have a real flooding threat, buy the insurance. But if you don't need it and don't want it, FEMA's letter will undoubtedly convince your lender.

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A WID BULLETIN

March 1992

Happy Birthday WID!

Ever see the inside of the Barcroft Dam? We did twenty years ago when Hurricane Agnes came storming through.

The Lake Barcroft Watershed Improvement District will be 20 years old this year. One way of celebrating will be to attend WID's spring meeting:

- **9 a.m., Saturday, April 4th**
- **Chi Chi's Restaurant, Baileys Crossroads**
- **Complementary fruit juice, donuts and coffee**

Last year's slide presentation was so well received that we'll have a new version this year. We'll show you how Agnes mistreated us and how Barcroft recovered. Current pictures will illustrate what's new in WID lake management activities. Guests will inform us how Mason District is making out in today's turbulent times. And, for the serious minded, we can discuss the budget for FY-93.

On that subject, the WID trustees have just prepared and the Northern Virginia Soil and Water Conservation District Board of Directors has just approved the FY-93 budget. Despite slightly higher prices, it totals the same as last year.

Spend a Saturday morning with the WID. Come armed with questions and suggestions.

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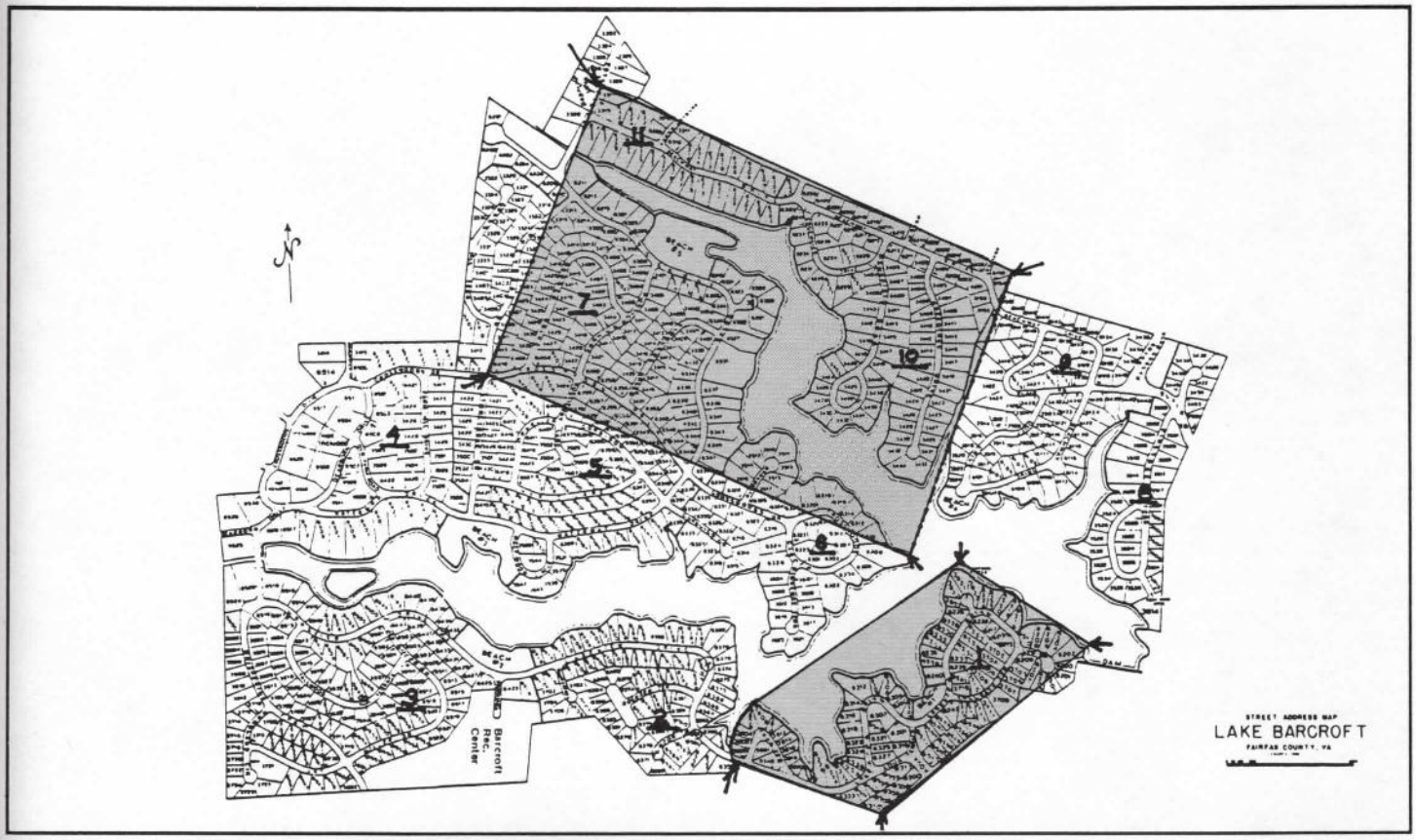
A WID BULLETIN

February 1992

"Nature on a Rampage II"



1992 Barcroft community gypsy moth aerial spray areas.

Six and a half years ago, WID published its first WID Bulletin about the gypsy moth. It was called *Gypsy Moth—Nature on a Rampage*. Describing the new pest control program, it concluded:

> "With the combined efforts of federal-state-county-WID and the interest of Barcroft citizens individually, the future may be more favorable than the gloomy disaster predictions you hear everywhere."

Today it appears that gypsy moth control in Barcroft has been achieved. WID's Barcroft spraying program and parasite release projects made the crucial difference. So far, there has been no tree defoliation and minimal personal nuisance in the Barcroft community from the gypsy moth while some other nearby communities have suffered substantially.

WID's gypsy moth monitoring program, organized by the National Gypsy Moth Management Group, provides data indicating a need to spray two portions of the community in 1992 as shown above. Last year, we did not need to aerially spray at all and possibly next year will permit another skip. Currently, the egg mass count averages 13.6 per acre—with some non-spray areas counting 5 or 6 and one spray area (Section 7) totalling 39.6.

It's a triple program:

- Aerial spraying of harmless Bt in April where needed;
- Community-wide springtime release of small gypsy moth parasites which sting and kill the gypsy moth caterpillars;
- Hotspot ground spraying of Bt by WID staff using WID's ground spray unit.

The 1992 parasite of choice is *Glytapanteles indiensis* which was first imported from India by USDA in 1981. This species has not yet been used in Barcroft. It is expected to overwinter and thus provide protection in future years. One earlier parasite species is already overwintering and another is possibly surviving.

Your Role!

If you suspect that your situation is sufficiently serious to merit special attention, fill out the coupon below and send it to the WID. During April a WID staff member will inspect your property and, if necessary, schedule WID's ground spray truck to blow Bt mist into your trees to provide additional protection.

1992 note.... Egg mass per acre ratio now down from 13.6 to only 2 per acre.

WID Dam Compound, 3650 Boat Dock Drive, Falls Church, VA 22041
Phone 820-1300
Ken Kopka, *WID Staff Director* Sam Ellis, *WID Superintendent*
Kelly Wilson, *Operations Assistant* Paul Gordon, *Technician*

We wish our property to be ground sprayed with Bt to control gypsy moth caterpillars.

Name _____

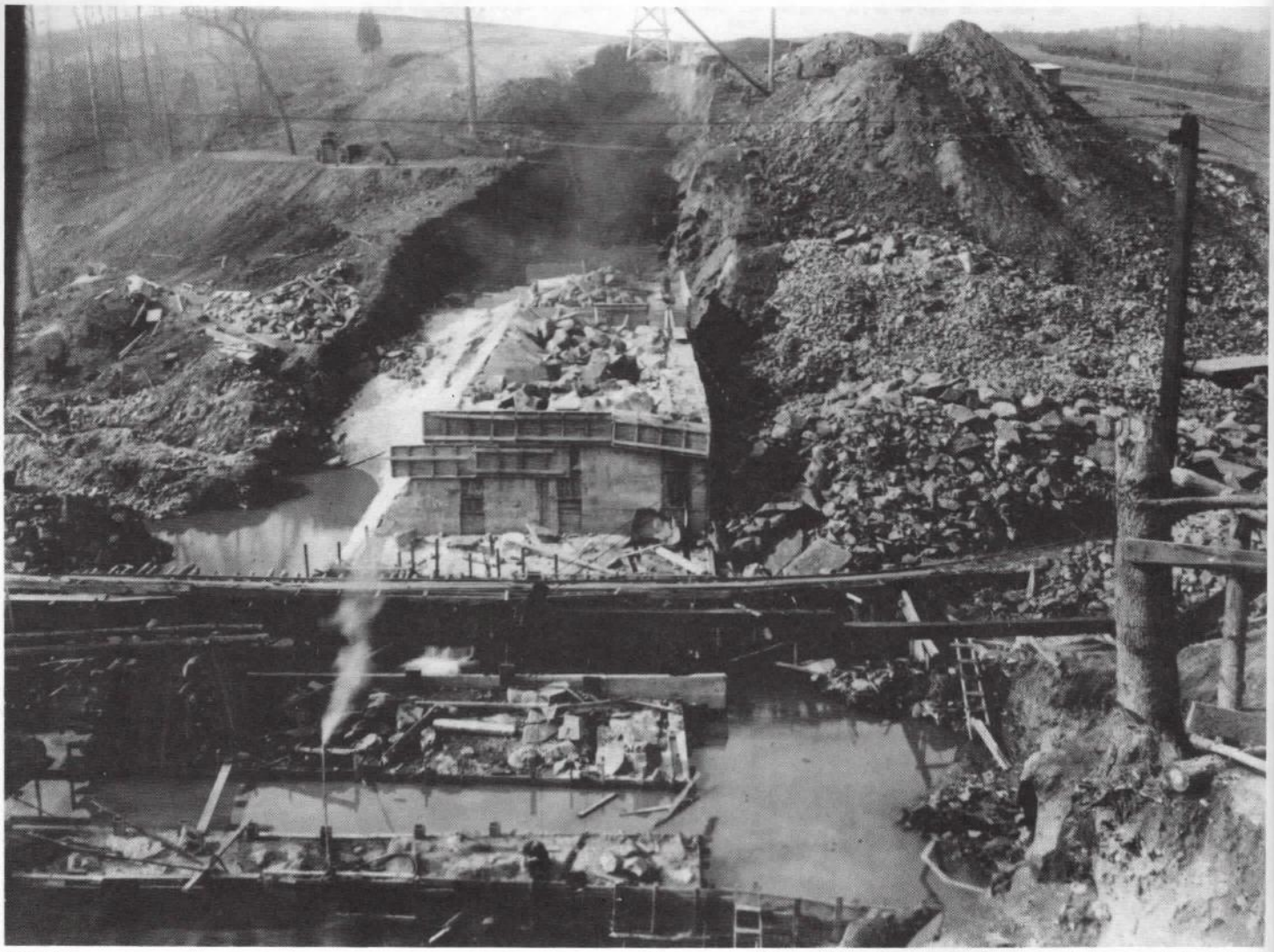
Address _____

☐ We grant permission to spray in our back yard.

☐ Last year we were bothered by the *Eastern Tent Caterpillar.*

January 1992

Best Kept Secret



THEN

A 1914 picture shows the Barcroft Dam being built. In the foreground, Holmes Run by-passes the construction activity. Slightly elevated is the temporary railroad which brought rock in from a quarry now flooded by the lake. The cyclopean masonry construction is visible showing huge rocks embedded in the interior of the concrete dam which is being poured in sections. Freeman William's house at 6202 Lakeview Drive is evidently located atop the huge pile of dirt in the upper right. In the right foreground, a tree stump supports a pole with cables extending in all directions. Columbia Pike is nowhere in sight.

NOW

"It's one of the best kept secrets in the Washington area," said Chairman-elect Tom Davis of the Fairfax Board of Supervisors, a 25-year resident of the Ravenwood community that adjoins Tripps Run, one of two watersheds along the lake. "It's near all the amenities of the city yet is very private and secluded. And the lake is a very unique feature which adds to the unity of the area," said Mr. Davis.

Neighbor Tom Davis was also quoted in a recent "Neighbors" article about Lake Barcroft in the *Washington Times*. Reporter Brian Reilly commented:

> "Nothing unites the residents of Lake Barcroft like the common concern they show for the 135-acre aquatic playground that forms the core of their private community. A bucolic oasis less than 10 miles from the congested District, Lake Barcoft is a wooded wonderland for the more than 1,000 households carefully hidden by hills and forests between Columbia Pike and Sleepy Hollow Road in Fairfax County."

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Jack Keith–820-8609
Gary Jewell–941-5643
Ernie Rauth–256-0646
Shirley Smith–256-5649
Lloyd Swift–820-1033
Dick Werling–820-4034

Phosphorus Monitoring

Photo by Kelly Wilson

Temporary downstream weir measures Barcroft dam outflow to calibrate phosphorus monitoring computer system performance curve.

Phosphorus is the villain. A study by GKY & Associates indicates that 4.8 tons of phosphorus washes down into Lake Barcroft each year from its upstream watershed. This stimulates the growth of algae which give the lake a green look in the summer. Sometimes algae float to the surface and form ugly scums. The Chesapeake Bay Preservation Act has established criteria to protect water quality which stipulate significant reductions in nutrient yield.

WID is undertaking a comprehensive phosphorus monitoring program which apparently is the only such study in existence today. The purpose is to measure *actual* phosphorus input to the lake from upstream and the output downstream to the Potomac and the Chesapeake Bay. This monitoring will measure the quantity of phosphorus arriving at Lake Barcroft and what happens to it. For example, how much phosphorus does WID remove by:

- dredging and removing sediment to which it is attached;
- harvesting and removing submerged aquatic vegetation (SAV);
- collecting and removing floating debris such as leaves;
- immobilizing phosphorus in the bottom muds with the aeration system.

Monitoring began October 1st, 1991 and will continue at least a year. WID staff collect water samples regularly and additionally during major storm events. Chemical laboratory analysis determines how much phosphorus there is in the water entering and leaving the lake...how much there is in a harvester load of SAV...how much in a load of leaves...how much in miscellaneous floating debris...and, most importantly, how much in a cubic yard of dredged sediment.

WID's consultants estimate that at the end of a year's study it will be ascertained that Lake Barcroft has removed 40 to 50 percent of incoming phosphorus from the transmission stream.

To measure the outflow during large storms, WID has developed a computer gauging system which will tell instantaneously and cumulatively how many cubic feet per second are being discharged downstream.

Barcroft residents should be interested to learn that 12.8% of the upstream load washes off Barcroft subbasins, mostly from Barcroft lawns. This amounts to over half a ton a year. This is why you should buy and use WID's *No-Phos Watershed Protection Formula* fertilizer. **Just send a check for $30 to WID and you will have a 50 pound bag delivered to your home promptly.**

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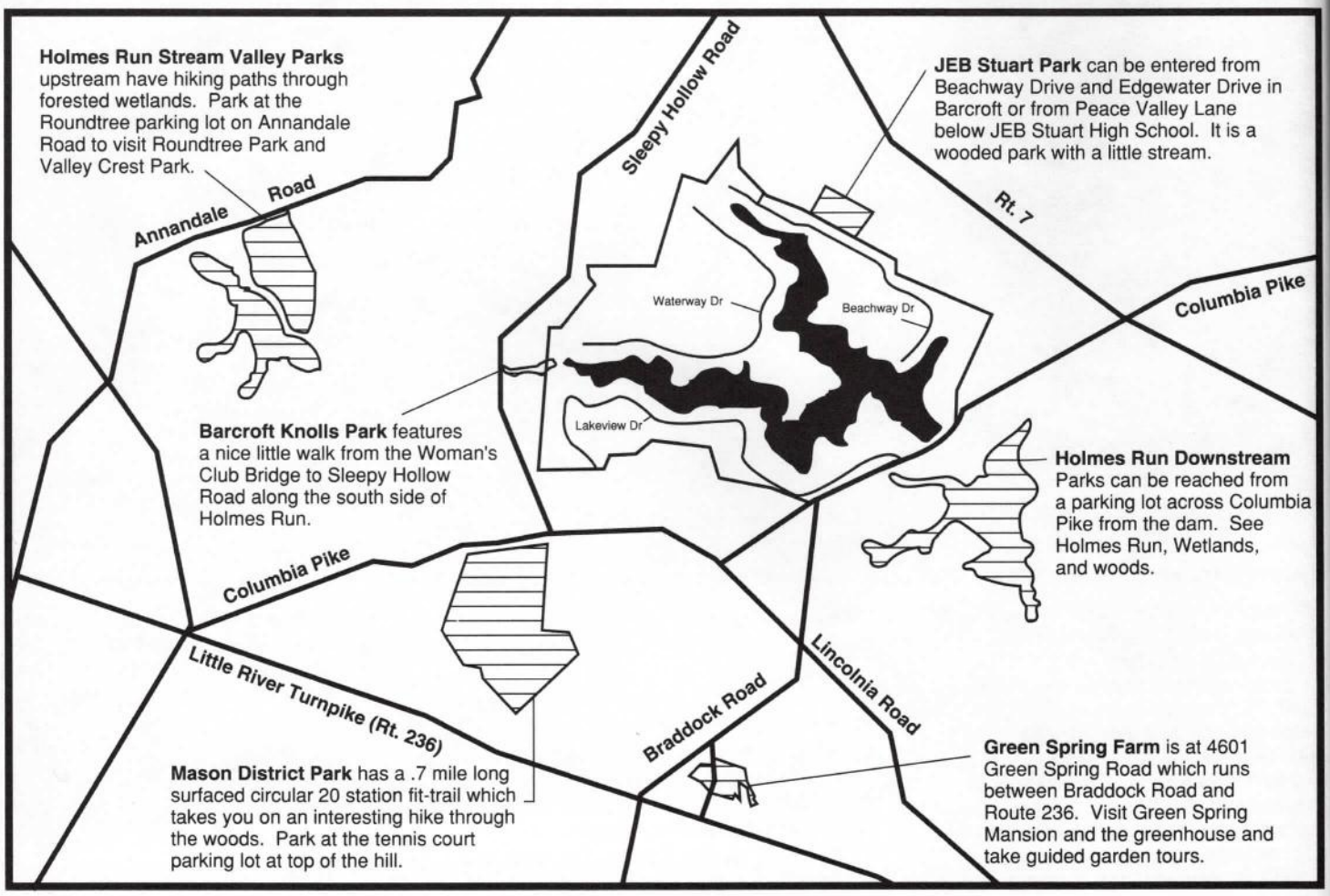
BARCROFT TRAILS

where to hike in and around Barcroft



Lake Barcroft hikes are shorter but closer:

- Walk up the little stream at Beach 2 and climb to the heights above.
- Visit Beach 5 which has newly established paths through the woods and on the peninsula.
- Boat to the Holmes Run Island to see the "knees" on the cypress trees which were planted after the 1961 dredging when the island was created.

More distant hikes include:

- **Eakin Community park** at 3400 Prosperity Avenue (unmanned 57 acre park with extensive trails).
- **Hidden Pond Nature Center** at 8511 Greeley Boulevard (walks, activities; call 451-9588).
- **Fountainhead Regional Park** on the Occoquan, (nature trails; boat rentals; call 250-9124).

The "Walkers" of the Lake Barcroft Woman's Club have been hiking and exploring for many years. For information, call Wendy Cline at 820-8868.

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Dam Maintenance

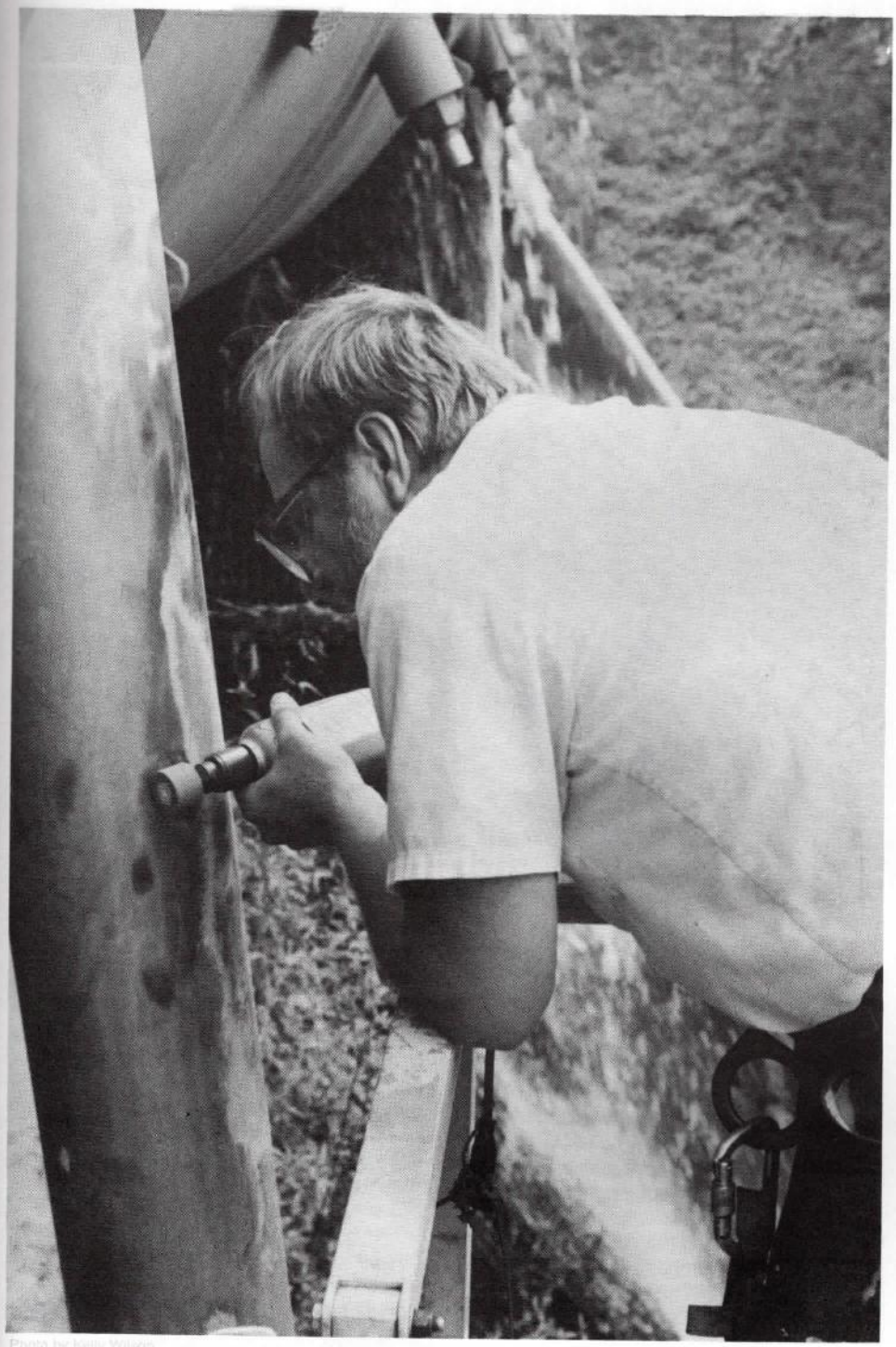

Photo by Kelly Wilson

Preventive maintenance keeps old dams young. WID's program for the Barcroft dam combines day-to-day functions by the WID staff and periodic contracts with engineering specialists. Here's what's going on now at the dam:

- **Brushtronics** maintains the chromium plating on the dam's hydraulic cylinders by removing corrosion, applying new chrome and a sacrificial protective coating. This protects the cylinders which would cost hundreds of thousands of dollars to replace.
- **Merit Construction, Inc.** is now completing the dam's concrete revitalization project by removing 50 year old spalling concrete on the dam's west end. A final SikaTop coating fills cracks and craters to prevent future deterioration.
- **HARCO Technologies Corporation** is now replacing all of the expended sacrificial anodes which prevent underwater rusting of the Bascule Gate and other underwater metal surfaces. A new system of anode circuit outputs will permit continuous monitoring of the system by WID staff.
- **Electronics consultant Richard Wagner** recently replaced key pads in the dam electronic control computer system as its only needed maintenance.
- **A/C Service and Repair, Inc.** is scheduled to inspect and maintain the dam's hydraulic system this fall.
- **Whitman, Requardt and Associates**, working in collaboration with all of these other technical contractors, will conduct a comprehensive dam inspection this fall as required by the Virginia Dam Safety program.

The Northern Virginia Soil and Water Conservation District has been heard referring to the Barcroft Dam as "our high-tech dam."

Brushtronics workers anneal the chromium plating on dam hydraulic cylinders working from WID's powered platform.

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September 1991

Help Yourself!

Stockpile of leaf mulch soil conditioner at Beach #5 silt storage area available to Barcroft gardeners. Photo by Kelly Wilson

Yard work often requires small quantities of topsoil and mulch. Now, WID is offering to help. In the silt drying area of Beach #5, there are separate stockpiles of dredged sediment, leaf mulch and wood chips. It's a "Help Yourself" arrangement.

Here are some ideas:

- ***Topsoil***—
  This dredged sediment is nutrient rich and reasonably friable (easily crumbled), but it may contain a few weed seeds. Often, a good method is to mix some leaf mulch in with the sediment to incorporate organic content. It won't be as good as expensive topsoil you might buy. . . but is much cheaper!
- ***Mulch***—
  WID has obtained leaf mulch from Arlington County which is so thoroughly composted that it can be used directly as a mulch or mixed with dredged soil to make topsoil. This dark material is actually a high quality soil conditioner.
- ***Wood Chips***—
  WID has a stockpile of wood chips obtained from professional tree trimming companies. This can be used as a mulch to maintain moisture in the soil and protect plants from freezing. You may decide to mix wood chips and composted leaves into mulch.

Here's how to help yourself. The *Beach #5* location has piles of all three. . . sediment, leaf mulch and wood chips. At *Beach #3*, there is a pile of sediment in the silt drying area. If you are willing to carry or wheelbarrow the material to your car, just walk in and help yourself. But if you want to drive closer, call 820-1300 to ask a WID staff member to unlock the barrier cable at Waterway Drive. Generally, they work 8 to 4, Monday through Friday. . . but are often away from the phone. If you leave a message, someone will call you back to arrange when the entrance can be left unlocked for you.

This is a new recycling service. WID is interested in your suggestions.

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Sizzling Issues

Photo by Kelly Wilson

When the hot summer sun beats down on us, there are some urban lake issues that become important to Barcroft folks. Water quality. . .or the lack of it. . .tops the list. Too much algae in the water and too much aquatic weed growth take some of the pleasure out of swimming. WID and you, together, can do something about it!

WID's assignment includes:

- lawn care nutrient control program
- phosphorus monitoring
- water quality "best management practices"
- sediment dredging
- aquatic weed harvesting
- floating debris pickup
- lake aeration
- street cleaning

What WID has done for you recently includes the "Please Don't Feed the Streams" regional brochure just sent to you and thousands of others upstream. . . the creation of Virginia's first comprehensive phosphorus monitoring project. . .the design of a storm water "trap" to catch debris and sediment before it gets into the lake. . .the recent forebay dredging to remove silt before it reaches the lake. . . and Virginia Department of Highways' first street sweeping program in our immediate watershed to clean up instead of allowing debris to wash into the lake.

But the **YOU** part requires concerted action by everyone. To prevent excessive algae and submerged aquatic vegetation, **you** should follow the recommendations in the "Please Don't Feed the Streams" brochure just mailed to you. Do you still have it? If not, call 820-1300 and ask for another copy to be sent to you. If you use a lawn care company, have you obtained our Cooperator's List of firms which have agreed to conform to WID's lawn care specifications regarding fertilization and pesticide practices? WID will send you this list too. And if your neighbors are using the big tank truck application method, talk to them about WID's recommendations.

Also, keep WID informed. Tell us your views. Vote in November for the candidates who convince you that they support sound environmental management and county cooperation.

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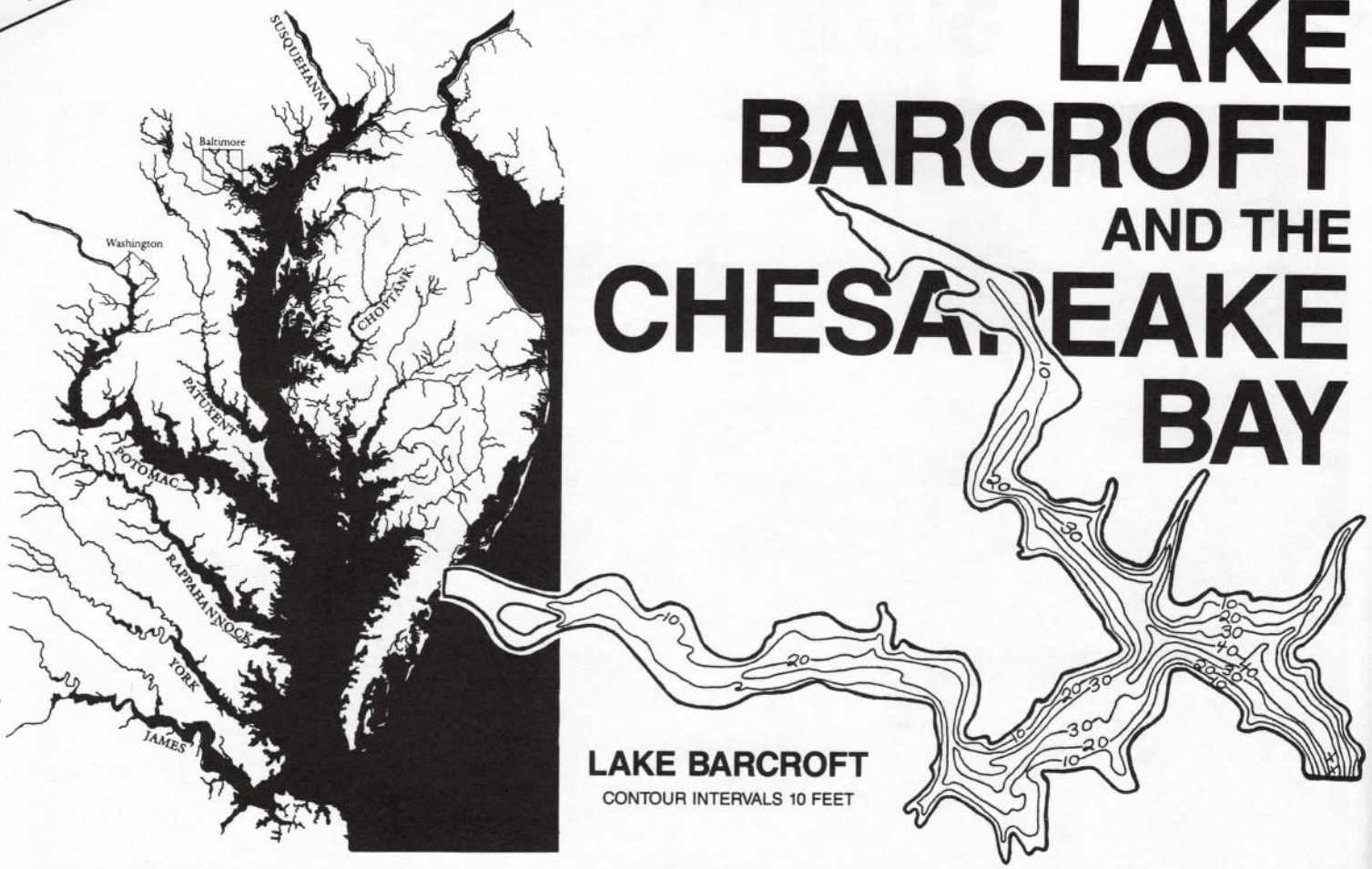
LAKE BARCROFT AND THE CHESAPEAKE BAY



Little Lake Barcroft and huge Chesapeake Bay are similar in the sense that both suffer from excess nutrients. Barcroft's "Please Don't Feed the Lake" program and the Chesapeake Bay Preservation Act both try to limit phosphorus to enhance water quality. What is good for the Bay is good for Barcroft. . .and vice versa.

Thus, it is advisable for Barcroft residents to support the Chesapeake Bay Preservation Act including its Virginia "Regulations" and its Fairfax County "Local Ordinance." This local ordinance will institute certain controls which promise to improve Lake Barcroft water quality. While the ordinance does impose certain development restrictions, in the case of our already developed community, residents should find them minimal, if indeed, even noticeable, in most cases.

The Lake Barcroft WID position on the Fairfax County local ordinance is supportive now that County officials have recognized the practical necessity of entering into a Maintenance Agreement between the WID and Fairfax County. This simple pact, which is generally agreed to and should materialize soon, permits WID to continue its sound conservation practices of lake dredging, debris removal, lake aeration and Please-Don't-Feed-the-Lake efforts without the disruptive processes of getting permits, paying fees and making redundant ecological studies.

Meantime, profiting from this intensified interest, the WID is developing a comprehensive phosphorus monitoring regimen to measure phosphorus transport in both the water column and sediment movement. This one-year project can verify the efficacy of Barcroft as a "Regional BMP" (Best Management Practice). In other words, this study will measure the amount of reduction in phosphorus yield to the Chesapeake Bay that can be attributed to Barcroft's several conservation programs. It is likely that the ratio is above the 40% reduction called for in the Virginia and Fairfax County regulations. This study is relatively inexpensive because it is a one-time year-long restructuring of WID's existing environmental monitoring program.

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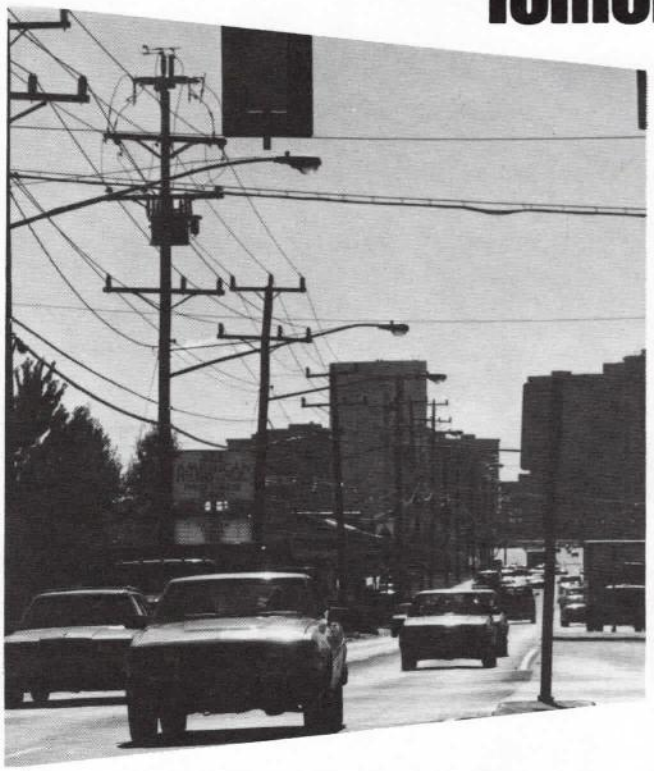
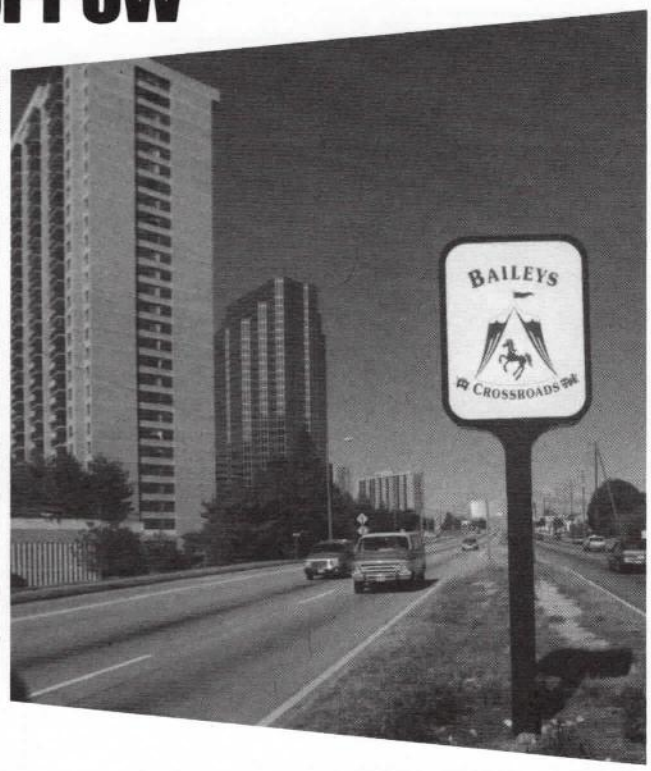
Baileys Crossroads Tomorrow



⇧ Route 7 blight including traffic and overhead wires.



Baileys Crossroads sign with Skyline Building in background. ⇧

WID salutes the Baileys Crossroads revitalization project. This historic intersection where Lincoln reviewed the Army of the Potomac during the Civil War. . .where Julia Ward Howe was inspired to write the Battle Hymn of the Republic. . .where Hachaliah Bailey wintered his circus. . . has suffered the indignities of urban blight. Fast food stores and gridlock traffic overwhelm nearby residents and visitors alike.

But tomorrow holds great promise. The Mason Magisterial District is sponsoring a revitalization program which will combine new quality development and historic restoration to replace present ugly, congested and sometimes dangerous conditions:

- Fairfax County voters have approved a $6,200,000 bond issue specifically dedicated to Baileys Crossroads improvements such as streetscape features and utility undergrounding.
- The Fairfax County Office of Comprehensive Planning has assigned a full-time project manager the task of developing a coordinated plan and stimulating action.
- A new tax exempt Baileys Crossroads Revitalization Corporation has been created by the Fairfax County Board of Supervisors. Barcrofters Sandy Augliere and Dick Waterval are on the Board of Directors.
- Funds are available from the bond issue, Fairfax County general funds and contributions made by private developers.
- A Baileys Crossroads Streetscape Committee which is a permanent subcommittee of the Revitalization Corporation is chaired by Barcroft resident John Guillory to create plans and promote cooperation among local merchants, citizen groups and government agencies.
- The Virginia Department of Transportation has developed a traffic plan which will be part of VDOT's long range highway improvement system. One initial manifestation will be the restoration of a practical and safe pedestrian system at the intersection of Route 7 and Columbia Pike with the removal of chain link fence obstructions and the construction of connecting sidewalks.

All of this relates to Lake Barcroft because its residents live within the greater Baileys Crossroads community which must include shops, open space, highways and public facilities for everyday living. Baileys and Barcroft can improve together to the benefit of both. While WID and other Barcroft organizations spend their limited funds within Barcroft, volunteers from the community contribute meaningfully to this exemplary regional revitalization project.

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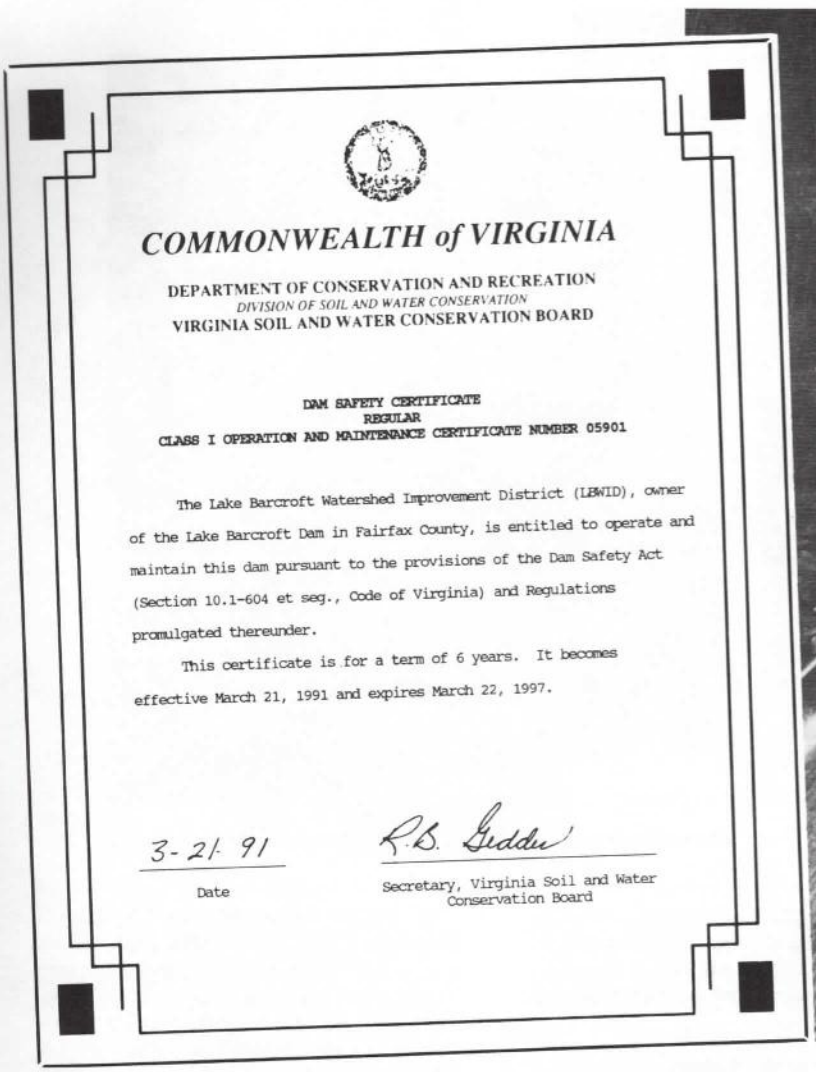
Dam Certification



COMMONWEALTH of VIRGINIA

DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF SOIL AND WATER CONSERVATION
VIRGINIA SOIL AND WATER CONSERVATION BOARD

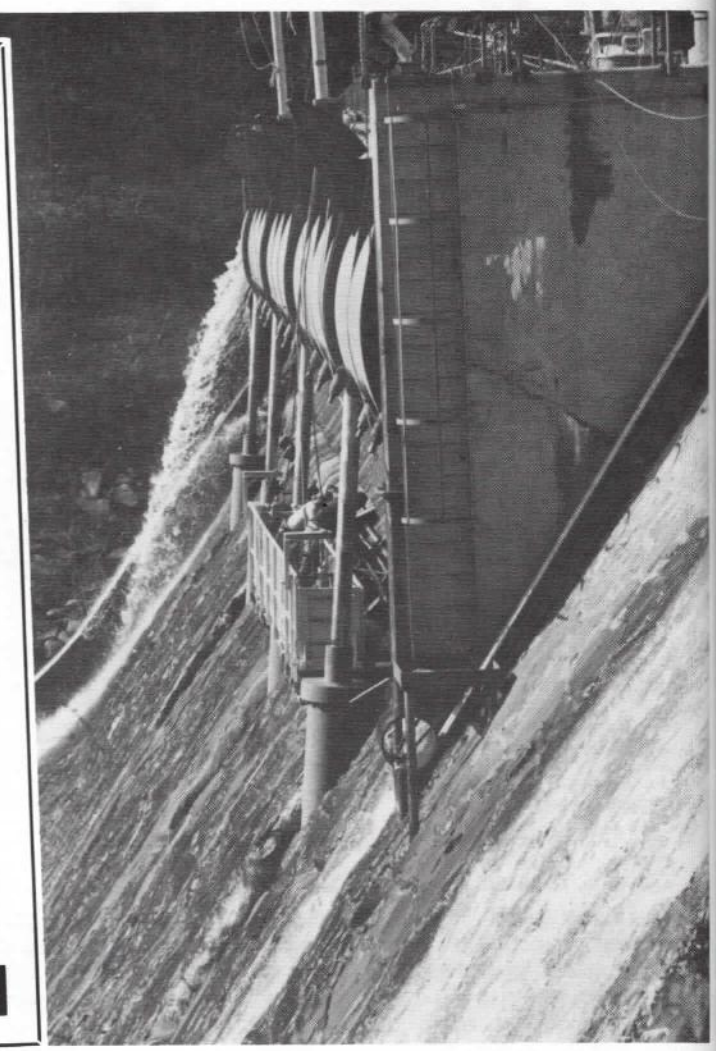
DAM SAFETY CERTIFICATE
REGULAR
CLASS I OPERATION AND MAINTENANCE CERTIFICATE NUMBER 05901

The Lake Barcroft Watershed Improvement District (LBWID), owner of the Lake Barcroft Dam in Fairfax County, is entitled to operate and maintain this dam pursuant to the provisions of the Dam Safety Act (Section 10.1-604 et seg., Code of Virginia) and Regulations promulgated thereunder.

This certificate is for a term of 6 years. It becomes effective March 21, 1991 and expires March 22, 1997.

3-21-91
Date

R.B. Gudde
Secretary, Virginia Soil and Water Conservation Board



The Lake Barcroft dam received its official certification by the Division of Soil and Water Conservation of the Virginia Department of Conservation and Recreation on March 21st.

What one might consider to be a routine procedure was actually the culmination of years of activity by WID, its consulting engineers and the Dam Safety Office. Unlike the average dam, the Barcroft dam has a large bascule gate functioning as its principal spillway, is 75 years old, serves a relatively large upstream urbanized watershed, discharges into another intensely urbanized area downstream and provides emergency action notification to two jurisdictions. . . Fairfax County and the City of Alexandria.

WID's initial responsibility was to modernize the old dam. The massive concrete structure was restored externally and grouted internally. The hydraulic system was converted into a redundant dual system. The electronic control system was computerized. The security system was upgraded to provide protection from possible intruders and equipment irregularity. Annual inspections verify these engineering improvements.

Meantime, both downstream jurisdictions included the Barcroft dam in their complex and comprehensive emergency preparedness programs. Primarily, this requires WID to notify public officials of large dam discharges from big storms. While WID is not directly involved in emergency notification activities, it must inform emergency action officials of large discharges during heavy storms while keeping the dam in sound operating condition.

Virginia's carefully conceived dam safety program protects the public from accidents and encourages competent engineering and operation. WID is happy to be an officially certified cooperator.

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Help Fight Algae

Photo by Kelly Wilson

WID Staff Director Ken Kopka points to a scum of algae on the surface of the lake.

A clear dry spring and hot summer bring out the worst in the lake... excessive growths of algae and submerged aquatic vegetation. Much of the algae stays suspended in the water, but some floats to the surface forming an unsightly scum. The submerged aquatic vegetation grows up from the bottom in the form of long trailing weeds which demoralize swimmers.

The cause is excessive nutrients. The source is primarily lawn fertilization. Homeowners have a natural tendency to spread fertilizer to encourage a lovely green turf. Often, they use too much, do it at the wrong time of year and include pesticides and herbicides (poisons!) to avoid insect or weed damage.

We, who live in the Lake Barcroft community, can be the most important offenders since we are the closest to the lake. Shall we turn over a new leaf?

- **Use a no-phosphorus fertilizer for your lawn.** Phosphorus is the nutrient which can be "limited" to minimize this phenomenon. Read the enclosed "Please Don't Feed the Streams" brochure for instructions on how you can buy an otherwise impossible-to-purchase no-phosphorus fertilizer formula. A 50 pound bag is enough for a whole season for a typical Barcroft lawn. This formula contains no herbicides or pesticides. Read the "Helpful Hints" in the brochure to learn how to prevent insect and weed difficulties naturally.
- **Fertilize only in the fall.** Never fertilize in the spring since this increases the lake's ecological difficulties. Once a year is often enough.
- **If you use a lawn service, employ one of our Barcroft recommended lawn care companies.** These firms, most of which are relatively small, have volunteered to conform to Lake Barcroft's nutrient control standards. They are professional companies which are interested in a balanced ecology and are capable of providing you with a beautiful green lawn in an ecologically sound manner. Don't use one of the "tank truck" services. See the recommended list on this page.

If you want to try Lake Barcroft's special "No-phosphorus Watershed Protection Formula," send a check for $30 (special Barcroft price) with your name and address to:

Lake Barcroft WID
3650 Boat Dock Drive
Falls Church, Virginia 22041.

The 50 pound bag of fertilizer will be delivered to your home quickly. The Lake Barcroft Watershed Improvement District thanks you.

★★★★★★★★★★★★★★★★★

P.S. Note that our Barcroft brochure has been expanded to include all of Northern Virginia. It's text was jointly developed by:

Lake Barcroft Watershed Improvement District
Northern Virginia Soil and Water Conservation District
Northern Virginia Planning District Commission
Extension Service.

It is being distributed to our upstream watershed and all of Northern Virginia.

★★★★★★★★★★★★★★★★★

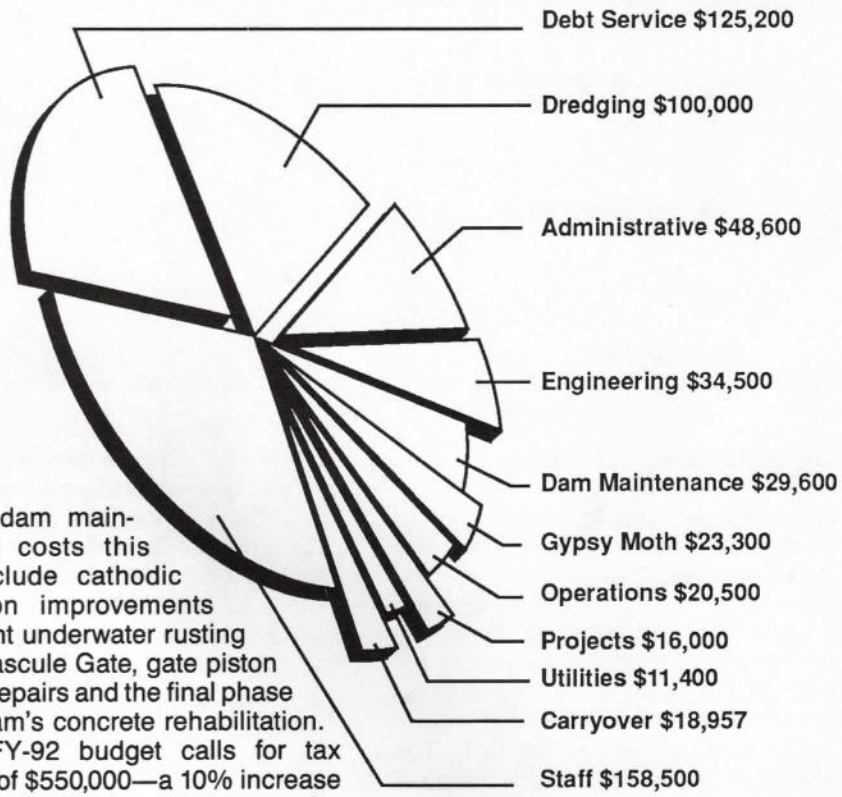
Cooperating Lawn Care Companies

Natural Lawns, Inc. 538-6226
NaturaLawn of America, Inc. 601-0112
NaturaLawns, Inc. .....(301) 253-0716
Landscaping Plus, Inc. 354-0575
Complete Lawn Service....560-LAWN
Weather Underground 438-0987
Plant-A-Plant .....(703) 690-2713
Natural Wonder Lawn Service 569-9585
Agro-Lawn Systems, Inc. 938-8844
Turf Builders Industries 455-5296
J.D. Lawn Service, Inc. 435-0859
Delmar 893-8624
White Oak Pest Management, Inc. ....(703) 754-4400
Area Landscaping, Inc.....323-0123
Lawn Doctor 698-7474
R.T.P. Landscaping & Maintenance.....(301) 946-2934
Reistrup Landscaping Services 848-8818

WID FY-92 Budget

WID Spring Meeting

- 9 a.m., Saturday, April 20, 1991
- Chi Chi's Restaurant, Baileys Crossroads
- Complimentary doughnuts and coffee



The WID Trustees have developed a proposed budget for FY-92 which begins July 1st of this year. It is graphically represented above in general categories and a more detailed budget will be mailed to you soon which contains over 30 individual line items.

65% of the budget consists of just three line items. . . .debt service, dredging and staff. Debt service is immutable. Sediment dredging is budgeted on a basis of an annualized cost of $100,000 which recent experience indicates to be optimal. There are five full-time staff members and three of them participate in the WID retirement plan.

Some of the remaining 35% of the budget is allocated to consultants and contractors providing such services as bookkeeping, annual audit, engineering consultation, legal counsel, solid waste removal, dam equipment maintenance, security system, median mowing and gypsy moth management. Special dam maintenance costs this year include cathodic protection improvements to prevent underwater rusting of the Bascule Gate, gate piston surface repairs and the final phase of the dam's concrete rehabilitation.

The FY-92 budget calls for tax receipts of $550,000—a 10% increase over the $500,000 level that was maintained for each of the four previous years. It turns out that the decreasing value of the dollar (28% down since 1986; 13% down since 1988) has finally caught up with our four-year practice of reducing the WID tax rate each year in proportion to rising real estate assessments. While we have taken pride in that practice, our costs have squeezed ineluctably upward and we believe that prudent management of lake affairs compels us to schedule expenditures of $567,000 during FY-92. We plan, therefore, to call on our taxpayers for $550,000, counting on carryover funds to make up the difference.

The annual WID Spring Meeting is scheduled for 9 a.m., Saturday, April 20th at Chi Chi's restaurant at Baileys Crossroads. Plan to attend to participate in an in-depth discussion of the proposed budget and WID programs and objectives.

WID Who's Who

WID Dam Compound, 3650 Boat Dock Drive, Falls Church, VA 22041—820-1300

Ken Kopka, *WID Staff Director* | Sam Ellis, *WID Superintendent* | Kelly Wilson, *Special Projects*

WID Trustees

Dave Alne, *Chairman*—941-3918
Fred Chanania, *Treasurer*—750-3925
Freeman Williams, *Secretary*—258-4250

WID Operations Director

Stuart Finley—820-7700

WID Associates

Walter Cate—642-0049
T. J. Glauthier—354-1588
Jack Keith—820-8609
Ernie Rauth—256-0646
Lloyd Swift—820-1033
Dick Werling—820-4034

Ground Spraying This Spring

Photo by Kelly Wilson

While others struggle to *control* gypsy moths, Barcroft would like to *exterminate* them. However, despite Barcroft's incredibly low egg mass detection rate of only 4.1 per acre, the "hot spot" phenomenon constantly threatens the community. A single undetected outbreak could spread like wildfire.

WID's gypsy moth consultant recommends an active Bt ground spraying program using WID's new ground spray equipment this spring . . . but no aerial spraying. WID's recent monitoring data provides clues on where to investigate and then ground spray. *But YOU can also help.* Fill out the coupon below if you have knowledge of egg masses on your property or nearby.

Here's how we go about it. WID staff conducts a reconnaissance of suspected gypsy moth hot spots by searching through the community. And this must include entering and inspecting your back yard! This is being done now. Then, at the appropriate time in April when the newly hatched gypsy moth caterpillars emerge, the WID ground spray unit springs into action for several weeks and squelches possible hot spot outbreaks.

So, help us detect potential suspect areas by filling out this coupon and returning it to WID.

C O U P O N

Please investigate the following to consider ground spraying for gypsy moths:

Addresses: _____

_____

_____

Also, please investigate the following for the possibility of tent caterpillar infections:

Addresses: _____

_____

_____

I give permission to WID staff to examine my property:

☐ Yes
☐ Yes, but please knock first.

Send to WID at 3650 Boat Dock Drive, Falls Church, VA 22041.

Ugly Ditches

Photo by Kelly Wilson

WID's **Beachway West Project** consists of the western end of Beachway Drive and Potterton Drive in the North Area where ugly and dangerous roadside ditches have never been improved. This is the remaining tag end of a number of earlier improvement projects along Whispering Lane, Stoneybrae Drive and Blair Road—eastern Beachway Drive where underground drainage and curb and gutter were installed in the 1960's to replace similar ditches.

Instead of curb and gutter, the current proposed Beachway West project plans to provide underground drainage along road frontage with grassed swales, grate drainage inlets and new sidewalks. Instead of trying to construct the entire 88 home project at once, it will be undertaken in reasonable sized increments. Construction costs are contemplated to be paid for from Fairfax County storm drainage funds and the WID will pay for the engineering design. The overall project has the approval of a majority of the 88 property owners. The specific owners in the first phase met recently and voted almost unanimously to approve the concept and the design.

Mason District Supervisor Tom Davis attended the most recent meeting and is working to arrange County financing. He says:

> "While nothing in this life is certain, I am hopeful that we can obtain County Board of Supervisors approval for funds to finance this needed improvement which will upgrade the area and will make the road safer for both drivers and pedestrians. I hope for quick approval, review and orderly commencement of construction in the next 18 months."

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Fish Flesh Testing

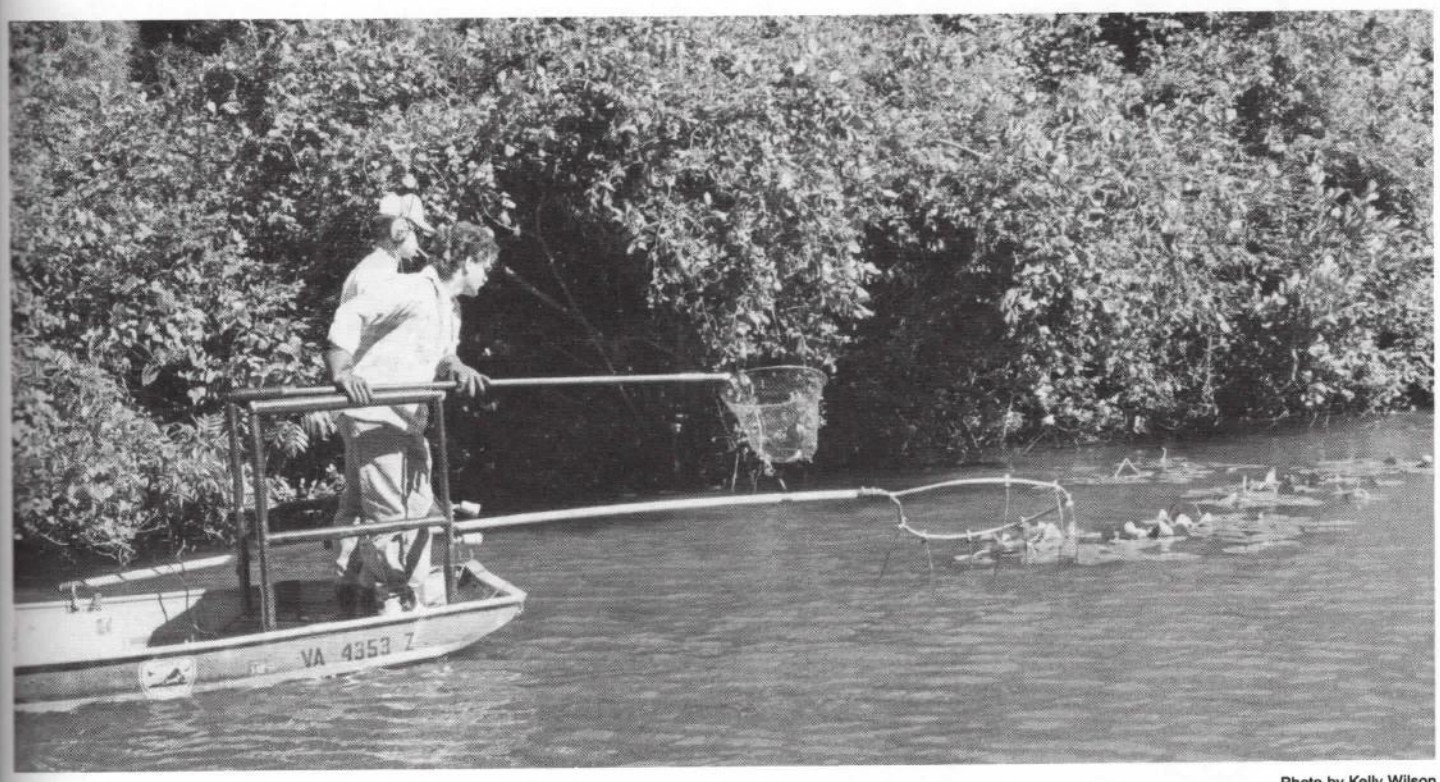


Photo by Kelly Wilson

WID Staff Director Ken Kopka and officials of Virginia Department of Game and Inland Fisheries electroshocking fish in Lake Barcroft.

As part of its water quality monitoring assignment, WID's consulting environmental engineering firm, GKY & Associates, Inc., has tested fish flesh for heavy metals. Five largemouth bass (the popular choice of Lake Barcroft fishermen) were taken at each of five sites, filleted and tested for cadmium, chromium, copper, lead, mercury, selenium, and zinc. No significant amount of any of these metals was found except for mercury which registered levels between 1.04 and 1.76 parts per million. The Food and Drug Administration has prohibited the sale of foodstuffs with mercury concentrations higher than 1 ppm.

Mercury is primarily dispersed in vapor form through the atmosphere from many sources including power plant combustion and incinerators. Unlike other heavy metals which drop out within a few miles of their source, mercury disperses slowly and into remote locations. When it descends into a body of water, mercury can be bioconcentrated in fish such as largemouth bass.

Florida discovered its mercury problem in 1982 and high mercury levels have been found in 49 of the 75 lakes and streams analyzed. Florida recently issued a health advisory to the public in certain areas. Dr. Tom Atkeson of Florida Health and Rehabilitative Services is quoted as saying "It is not the short-term consumer, such as an angler on a brief fishing trip, who is put at risk. Rather, it is the long-term consumer who considers bass a regular part of his/her diet, or high risk individuals such as pregnant women and children, for whom the advisories are intended."

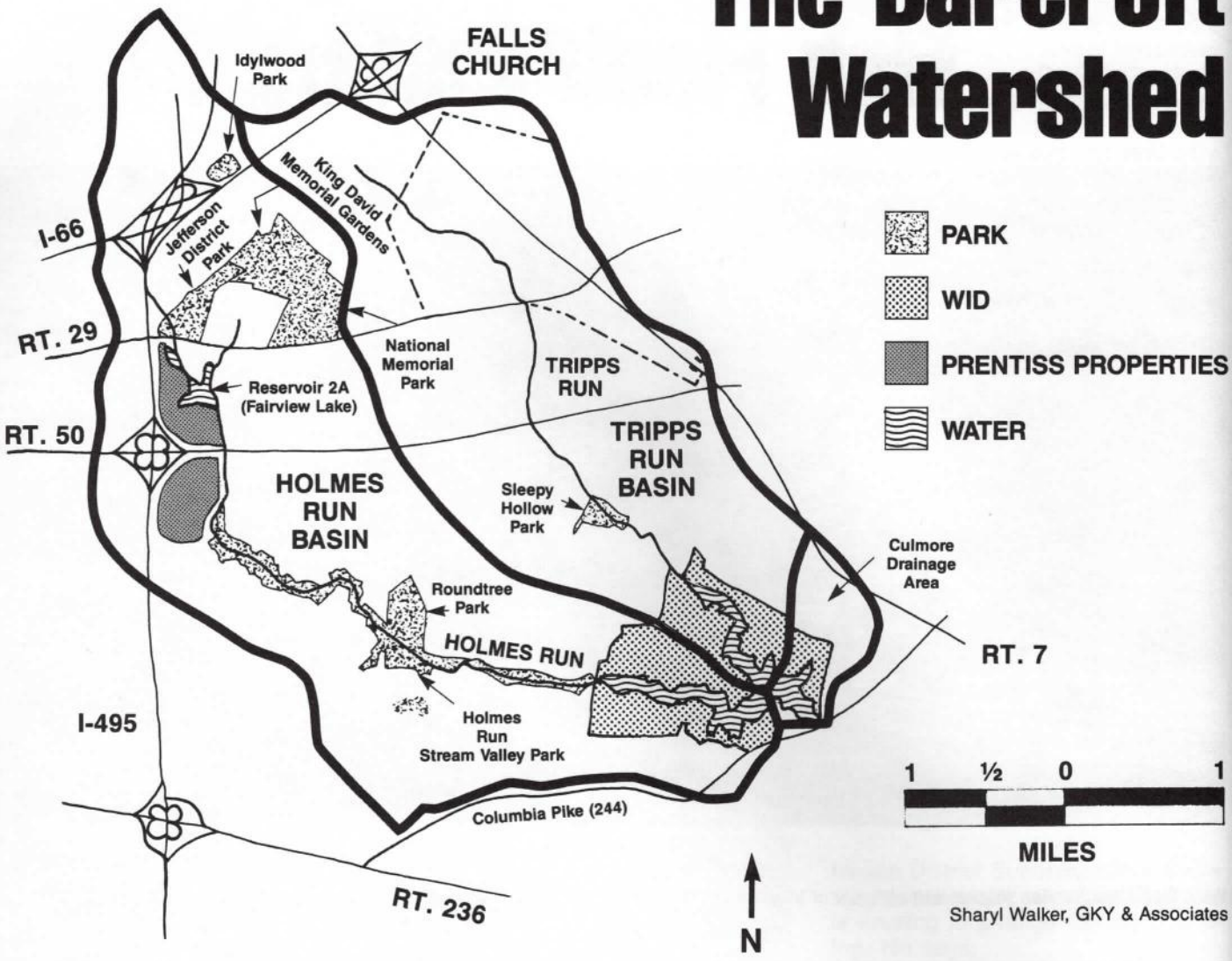
A 1987 report entitled "Mercury Hazards to Fish, Wildlife and Invertebrates: A Synoptic Review" prepared by the Fish and Wildlife Service of the Department of the Interior cites data collected in 1980 in some other states concerning accumulations of mercury in largemouth bass in parts per million, as follows:

Texas	0.1
Utah	0.3 – 7.3
California	0.1 – 0.6
Oregon	0.2 – 1.8
Washington	0.1 – 0.3
Georgia	0.1 – 5.4
Michigan	0.2 – 0.9
Illinois	0.03– 1.2
Arizona	0.03

Since boaters and swimmers are apparently not at risk, WID shares the information of this 1.04 to 1.76 ppm mercury presence in our largemouth bass with local fishermen some of whom may be "long term consumers" of these bass.

What does this mean to you? Can you eat the fish? Firm data are not yet available to us. Meantime, it seems wise to exercise caution! WID will do more testing and will report back to you. To obtain a free copy of the GKY Report, call or write WID at 820-1300; 3650 Boat Dock Drive, Falls Church, Virginia 22041.

The Barcroft Watershed



Sharyl Walker, GKY & Associates

Everyone in Barcroft knows there is a big watershed upstream. But where is it? And what is it like?

The size of Lake Barcroft is 135 acres. The Lake Barcroft Watershed Improvement District covers 700 acres. The total Lake Barcroft watershed amounts to 9,280 acres or 14.5 square miles. Thus, the Lake Barcroft community only covers 7.5% of the watershed which flows into its lake.

Barcroft's watershed yields water and pollution. Water flow ranges from a dry weather norm of about 5 CFS (cubic feet per second) during dry periods to 28,300 CFS during our largest storm of record, Hurricane Agnes in 1972.

The worst pollution is sediment. Through the years, the Barcroft community has spent about $1,750,000 dredging silt out of the lake. Currently, the annual WID budget for dredging is $100,000. Next is floating debris which consists of leaves, branches, grass clippings and miscellaneous unwanted objects such as styrofoam cups, plastic bags, tennis balls and occasionally a tree stump. Once a brand new airplane propeller floated in.

Upstream environmental consciousness benefits Lake Barcroft. For example, the former Chiles Tract, now known as Fairview Park, is a prime example of good environmental management. This tract was developed with good-to-excellent erosion controls in place and today Prentiss Properties continues the development process and maintains its land in a professionally competent manner.

Most upstream residents and businesses are considerate. But some folks continue to dump their grass clippings or leaves into streams or storm sewers. Even though free disposal facilities are available, some people persist in dumping their automobile oil into storm drains. Also, WID's "Please Don't Feed the Lake" campaign addresses the problem of over-fertilization and the excessive use of phosphorus-rich fertilizers.

Stream valley parks soften the blow by acting as buffers between people and the streams. A great as-yet unrealized potential exists in these stream valley parks to develop true "wetlands" which have a capability of filtering out nutrients. The great recreational potential of these parklands is gradually being realized by the public.

The major contributors to sensible environmental management are the Fairfax County Departments of Public Works and Environmental Management. These two agencies work together in the administration of the Upper Holmes Run Environmental Monitoring Advisory Committee. Public Works constructed Reservoir 2-A upstream which is a flood control and sediment catchment controlling a 2.6 square mile segment of the watershed. The Department of Environmental Management requires extensive erosion controls and continually inspects land development projects for violations.

Barcroft residents depend on their upstream neighbors for environmental sensitivity. We have a host of good friends including the Supervisors of the Mason and Providence Magisterial Districts and other members of the Fairfax County Board of Supervisors.

A WID Bulletin

October 1990

NVSWCD CANDIDATES

The governing body of the Lake Barcroft Watershed Improvement District is the Board of Directors of the Northern Virginia Soil and Water Conservation District. While entrusting the details of day-to-day management of the WID to the three Barcroft resident Trustees which they appoint, the NVSWCD Directors have the responsibility for WID, hear from a WID representative at each of their monthly meetings and approve major matters such as the annual budget.

Every three years, three positions on the NVSWCD are selected by popular election of the registered voters of Fairfax County. On Tuesday, November 6th, the regular election will include selection of three Directors from a field of four candidates. Their statements and pictures follow.

Remember to vote on November 6th!

A. Dewey Bond

Chairman, Soil & Water Conservation District; lifetime of agricultural experience; B.S., Ohio State; M.S., Cornell; Ph.D. (Agricultural Economics), Michigan State; 37 years with American Meat Institute; Member, Environmental Quality Advisory Council, Tree Commission, Citizens Advisory Committee for Solid Waste Disposal Matters, Lions; World War II Veteran; Fairfax resident 32 years.

The District Board needs to provide leadership that ensures conservation of our invaluable natural resources as Fairfax County continues to grow. Current emphasis is needed on: managing and protecting the functions of wetlands; controlling excessive soil erosion and sedimentation from construction; protecting agricultural and forest lands; and facilitating public awareness of local pollution control ordinances and to encourage citizens to become involved in the solutions to pollution problems.

I congratulate the WID for its issuance of the bulletin, "Don't Feed the Lake." The entire District population should be involved in conservation issues as are the WID homeowners.

Gloria T. Fisher

Vice-Chairman of the Northern Virginia Soil and Water Conservation District Board of Directors, currently serving second term. Graduate Civil Engineer, Registered Professional Engineer. Executive Vice-President of major research and education foundation. Fairfax County Engineering Standards Review Committee. Dulles Task Force. Virginia and National Associations of Conservation Districts. Former Transportation/Environmental Consultant. Board, Fairfax Federation Citizens Association, Chairman, Mount Vernon Council Civic Associations. President, Belle Haven Citizens Association. Holmes Run Environmental Monitoring Committee. Tree Commission. Member of numerous conservation/environmental and civic groups.

The Lake Barcroft WID thrives as an unique example of how innovative and cooperative efforts can both conserve natural resources and provide a beautiful residential community. As a two term member of the NVSWCD and WID Boards, I am proud to have participated in these accomplishments and look forward to continued service to the citizens of Lake Barcroft and Fairfax County.

No Photo Available

David C. Ray

Professional Research Analyst; active in several community organizations; resident, 20 years, Fairfax County; graduate, George Mason University.

As a 20-year resident of Fairfax County, I have a deep commitment to serving the interests of both the citizens and environment thereof. I do not view those interests as being mutually exclusive. Among those interests is to ensure that we preserve a healthy environment for future generations.

I support efforts by the NVSWCD to study the impacts of all measures it undertakes, both in the short and long runs. This includes considering the full economic cost and benefits of such measures.

By adopting this approach, Fairfax County can serve as a model for other regions around the country, and we can continue to make Fairfax County one of the most desirable places to live in Virginia.

Richard G. Terwilliger

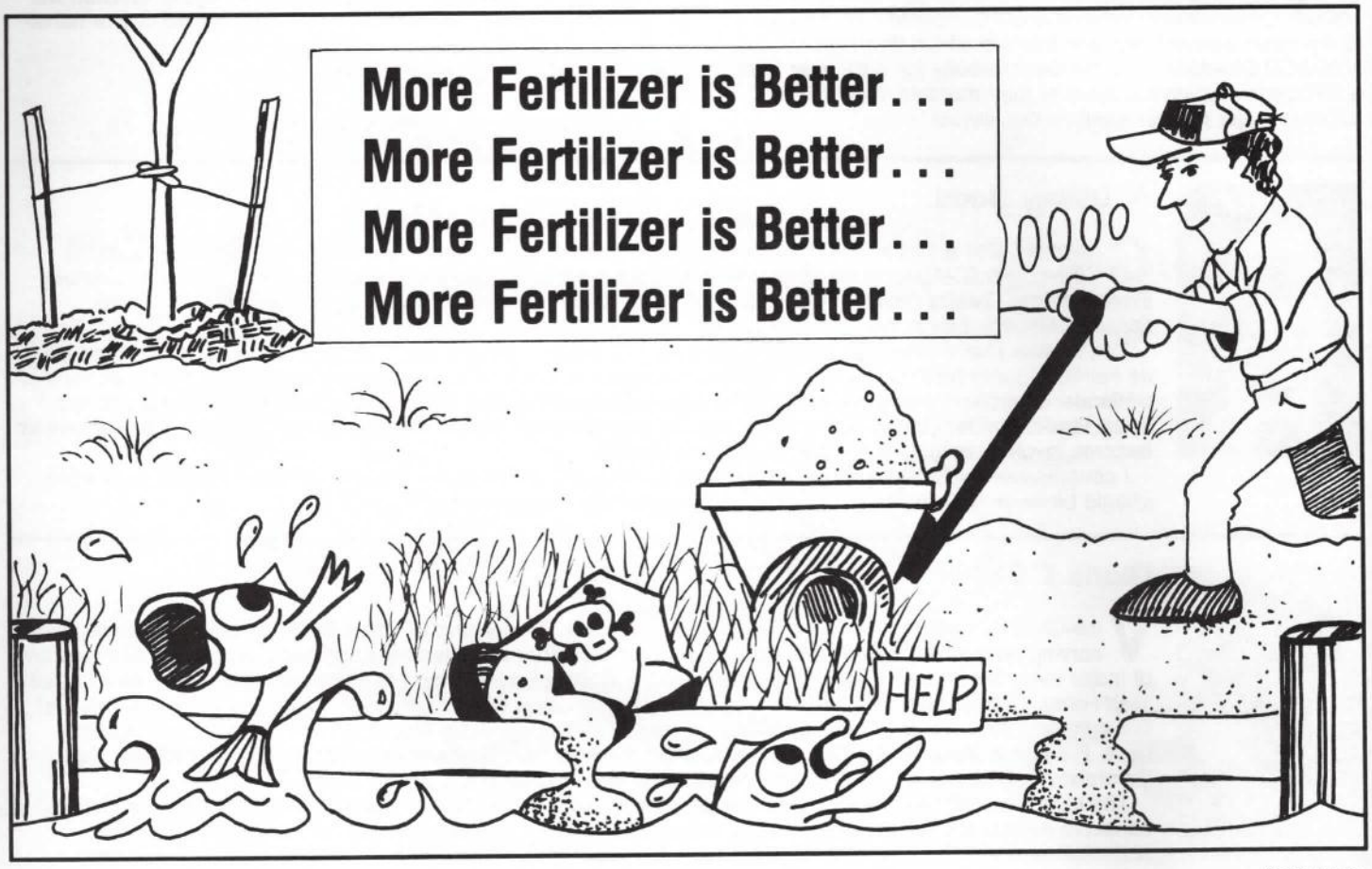
- NVSWCD: Nine-year incumbent Director
- Virginia Association of SWCDs: Incumbent Chairman, Area II; Member and Past Chairman, several Standing Committees
- Fairfax County Environmental Quality Advisory Council: eleven-year incumbent Providence District Member
- Holder of Engineering Degrees from University of Michigan and U.S. Naval Postgraduate School
- Retired Program Manager, NASA Headquarters.

During my six-year tenure as the NVSWCD's principal liaison with the LBWID, I have had an excellent opportunity to develop a close, firsthand working relationship with the WID Trustees, their Director of Operations, and their corps of Associates. Their imaginative and innovative conservation programs, whose main thrust is the improvement of the Lake's environment, have been conceived, organized, and executed in a truly outstanding and effective manner. As a NVSWCD Director, I shall continue to give my active, whole-hearted support to LBWID's conservation efforts. I invite your close scrutiny of my local-area and statewide track record in Virginia's soil and water conservation movement, and I solicit your vote.

A WID Bulletin

September 1990

Nutrient Control



Scott Farmer

Problem: Fertilizers from upstream lawns wash into storm drains and streams and enrich the lake causing excessive algae growth and the familiar green sums which take much of the pleasure out of swimming.

Solution: WID is initiating an ambitious nutrient control program to try to bring the watershed back into ecological balance. A special 4 page brochure describing this program and how *you* can help has been mailed to you.

The crux of the situation is the amount of phosphorus which washes into the lake. It is the "limiting" nutrient and, thus, minimizing it can diminish algal blooms.

If you've received the nutrient control brochure, read it carefully to see if you can help. If you've lost it, call 820-1300 and ask for a duplicate copy to be sent to you. In essence, it says:

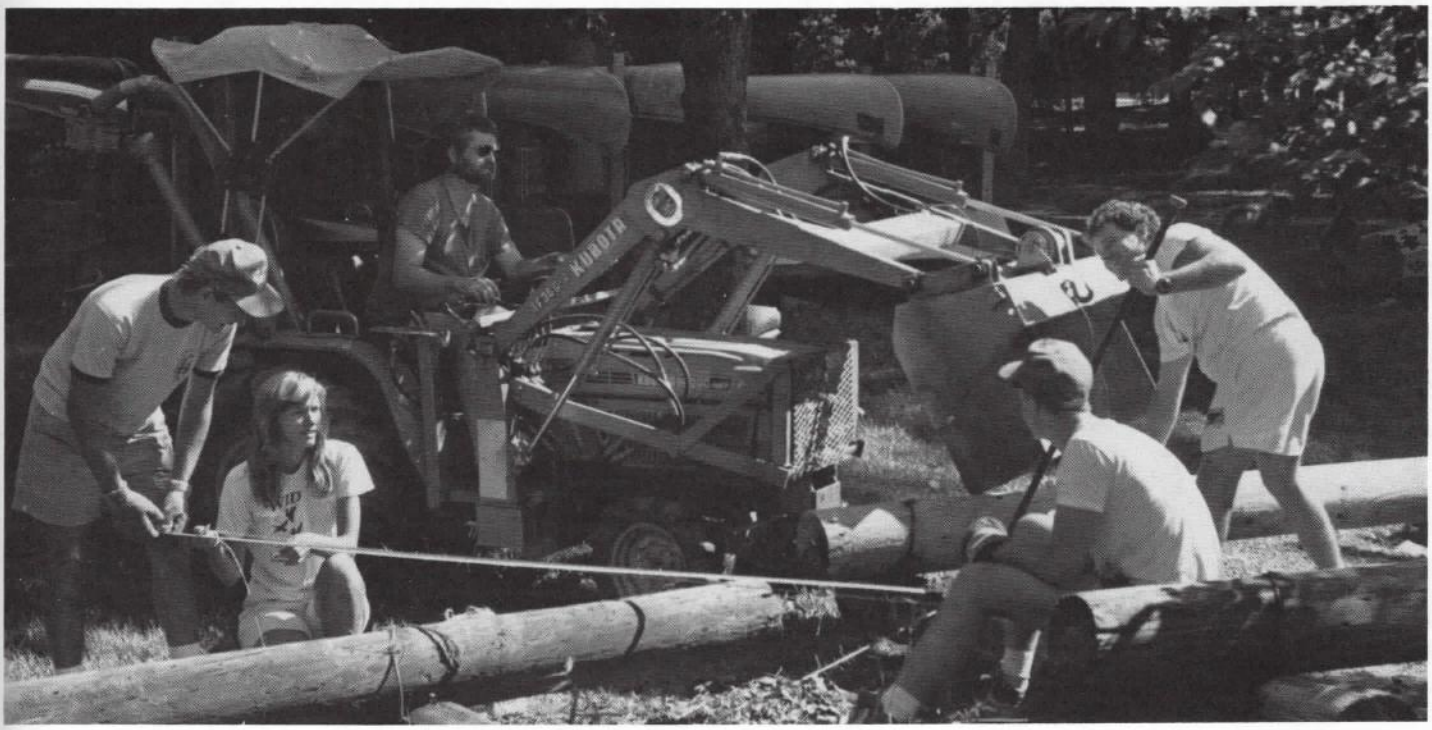
- ★ use less fertilizer
- ★ use a no-phosphorus fertilizer formula
- ★ use slow release fertilizers
- ★ apply at the right time (i.e., in the fall . . . not spring!)
- ★ spot treat for weeds and insects instead of using blanket applications.

Since no-phosphorus formula fertilizers are virtually impossible to obtain in stores. WID has made special arrangements to obtain them. See the brochure for details.

WID welcomes your comments and suggestions.

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

WID Staff



WID staff removing an old boat rack at Beach #3 preparatory to building a new one. Left to right: Paul Gordon, Kelly Wilson, Sam Ellis, Charles Simak and Ken Kopka.

Today's WID staff is a far cry from earlier days when Col. Barger had a single employee called the "dam-keeper." Currently, **Ken Kopka** is the WID Staff Director and he manages the lake's numerous programs.... **Sam Ellis** has been the WID Superintendent for over ten years....**Kelly Wilson** is the WID Operations Assistant and she specializes in such programs as gypsy moth control. Also, there are several Cooperative Education students from the Northern Virginia Community College who work part-time for the WID while going to school. They receive scholastic credit for their work when it is related to their curriculum major which might be Engineering, Biology or Parks and Recreation.

As its staff has grown, WID has assumed a greater responsibility for a wide variety of functions. The Watershed Improvement District has discovered that it is more economical and effective for in-house personnel to perform equipment maintenance and minor construction jobs compared to trying to contract out this work to private firms. Each NOVA student is quickly trained to operate the weed harvester, conduct gypsy moth egg mass searches, operate a work barge to pick up floating debris, conduct bathymetric measurements of sediment deposits and perform lake monitoring tests.

The three regular WID staff members and the NOVA students possess a remarkable capability to perform the unusual tasks required for sensitive lake management. And, best of all, they are all self-starters and skilled workers. WID appreciates NOVA's Cooperative Education Program and, more importantly, the energy and enthusiasm of the whole crew.

Honkers

Photo by Ted Jones

Canada geese do not breed the first year and very few breed the second year. However in spite of their late maturity, there are more of them in North America today than when the Pilgrims landed at Plymouth Rock. Most of the yearlings will pair off in the spring and once paired they will remain fixed throughout their life. However, when separated by death, the survivor will seek a new mate. There is a fairly even proportion of sexes, so finding a new mate is not difficult.

Canada geese will return to their same breeding grounds as a family unit and shortly afterwards the yearlings will leave their parents. The geese have a greater diversity of nesting sites than all other species of waterfowl. However, they will nest in the same area and use the same vegetative cover and nest foundation as their initial nest.

Canada geese at Lake Barcroft nest in April and egg laying begins shortly after nest construction. An egg is laid every 1.5 days and the clutch size is four to seven eggs. While the male stands nearby, the female incubates the eggs in twenty-six to twenty-eight days. The breeding adults lose their flight feathers about three weeks after the eggs hatch. They regain their flight feathers about the time their young reach flight stage.

Geese at Lake Barcroft feed on the aquatic plant Elodea, red and white clover, orchard grass, blue grasses and creeping red and Kentucky fescues.

The resident population of Canada geese at Lake Barcroft is thirty, however it is occasionally increased from the flock at Cameron Station. Approximately twenty-five young are reared each spring and summer. Presently our population is fairly stable due to mortality which runs at thirty-two to fifty-two percent. Mortality is due to hunting, crows, raccoons, fox, and skunks.

Bt Double Dose

Photo by Kelly Wilson

WID's new ground spray unit went to work this spring applying Bt to control both Eastern Tent Caterpillars and the Gypsy Moth. Spraying far up into trees from the ground, the sprayer was able to treat specific areas such as Eastern Tent Caterpillar nests and Gypsy Moth hot spots.

Eastern Tent Caterpillar infestations have been more intense this year than in the past. These pests, which mature a few weeks earlier than gypsy moth caterpillars, build silky nests in trees. . .usually cherry trees. Since they develop earlier than our aerial gypsy moth spraying, the only feasible method of control is ground spraying of Bt on infected trees which should be done after the leaves have sprouted but before the caterpillars are too large. A total of 219 trees were sprayed on 98 properties. Next year, WID will request homeowners to watch for the building of nests to permit an even more thorough spraying program.

Gypsy Moth hot spots were also sprayed with the new ground spray equipment. A list of these hot spots had been compiled in advance and permission to spray was requested individually by telephone. A total of 222 trees were sprayed on 39 properties. Thus, the potential trouble areas received two sprayings, one from the ground and the other from the air. The helicopter spraying took place in excellent weather on April 27th. In addition, 14,250 gypsy moth *Meteorus pulchricornis* parasites were released on April 30th.

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

Water Quality

Photo by Kelly Wilson

Lake Barcroft is a 135 acre sump terminating a 15 square mile urban watershed. Whether the lake is a pleasure or a nuisance depends on water quality. WID's comprehensive lake monitoring program continually measures numerous parameters which indicate the kind and extent of pollution and the relative health of the lake's ecological processes. GKY and Associates, Inc. has just completed a report on the first year of complete water quality monitoring which relates these data to earlier studies which preceded the installation of the lake's aeration system.

The summary says in part: "Overall, Lake Barcroft has shown some major improvements in water quality. With the installation of the aerators in 1983, oxygen levels have increased substantially at the bottom of the lake which has produced many direct and indirect effects. Phosphorus levels have decreased possibly because of the oxygen locking total phosphorus to bottom sediments; decreased nutrients have decreased plant life. This, in turn, has slowed eutrophication of the lake by decreasing the amount of plant material that will die and decompose on the bottom of the lake. As a result, less oxygen will be consumed in the process of decomposition. Slowing decomposition and adding oxygen to the bottom of the lake allow fish to survive at greater depths because of the overall increased supply of oxygen. With decreased nutrients, the lake is moving towards a more healthy mesotropic state."

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

Please send a complete copy of "Annual Lake Barcroft Water Quality Monitoring Report" to:

(name) _____

(address) _____

_____

Mail to: WID
3650 Boat Dock Drive
Falls Church, VA 22041

A WID Bulletin

April 1990

Upstream Silt Trap

Photo by Kelly Wilson

When a flowing stream slows, as when it meets a larger body of water, it drops whatever it is carrying. The "heavies" drop out first. For many years, Lake Barcroft has received the sediment carried by Holmes Run and Tripps Run . . . and, in recent years, the WID has removed it with a crane afloat, transit barges, a shoreside crane and trucks. This is an expensive process, but it would be more expensive *not to dredge* and endanger the value of the Lake.

Since dredging would be less expensive if the silt could be reached by the shoreside crane, the WID is trying a new technique which promises substantial savings. In January, we built a "forebay" just above each of the Holmes Run and Tripps Run entrances to the Lake. We widened (slightly) and deepened both streambeds to catch the silt and gravel before they get into the Lake.

Above is a picture of the completed forebay above the Potterton Causeway. Here the stream was narrow, shallow and clogged with no capacity to accumulate additional material. Now it is, in fact, a small lake, as much as 10 feet deep and with a capacity to accept possibly 2500 cubic yards of silt and gravel. The outer edges of the stream, meanders are armored with rip rap to prevent erosion.

There is a similar forebay in the Holmes Run inlet. If both turn out successfully, we may save as much as 25% of our dredging cost for that portion of the silt that they catch. We will, of course, have to mount periodically the more expensive floating crane removal mode for the silt that will still get into the lake.

WID Get-togethers

Photo by Kelly Wilson

Offishal Business

The WID Spring Meeting is scheduled for **9 a.m., Saturday, April 14th** at **Chi Chi's Restaurant** at Bailey's Crossroads.

A once-a-year opportunity to discuss the WID programs and WID budget. The WID Trustees and Associates will participate and Tom Davis, Mason District Supervisor, will explain ways in which Fairfax County cooperates with the Barcroft community. Complimentary coffee and doughnuts will be served and those wishing a full breakfast may purchase it for $5.50. No confirmation is required. Bring your spouse and invite a neighbor.

Fishal Business

The WID Fish and Wildlife Committee will conduct a second Annual Fishing Seminar at **10:00 a.m., Saturday, May 12th** at **Beach #4**.

This is a chance for lake residents, who have a fishing interest, to obtain information on how to fish successfully for bluegill, channel catfish, walleye, and large mouth bass. Fishing experts will give hints on catching these species of fish, demonstrate fishing techniques, discuss fishing gear and lures and answer your questions. This is an opportunity to become familiar with sport fish in the lake and how to catch them.

Lake Barcroft Watershed Improvement District
3650 Boat Dock Drive • Falls Church, VA 22041 • Phone 820-1300

A WID Bulletin

February 1990

Picture by Kelly Wilson

The Gypsy Moth and You

You and the WID are partners when it comes to wiping out the gypsy moth. Here is what you can do:

- **Search your property** thoroughly before spring to find and destroy egg masses. Scrape them off into a container of detergent solution. Don't drop any portions of the egg masses on the ground. You can recognize an egg mass by its buff color. They can be found almost anywhere but look particularly on your house, on fences, in woodpiles and on trees.
- **Send a letter to the WID** reporting the number found and removed. Mail to WID, 3650 Boat Dock Drive, Falls Church, Virginia 22041.
- **Put up your own burlap** so you can catch and remove caterpillars next spring. WID will provide the burlap if you request it. Indicate how many trees you plan to cover. Send a letter to the above address requesting WID to deliver your burlap. It will be delivered at the right time next spring. Simply follow the directions on the memo which will be attached. It is important that you remove the caterpillars daily during the caterpillar season.
- **Don't remove caterpillars from WID monitoring stations.** This would distort our statistics and reduce the possibility of justifying the County to spray us next season.
- **Understand that Bt spraying is not harmful to people or animals.** Also, recognize that it is normal to expect a certain number of caterpillars to be present. But if you encounter hundreds in one particular location, please phone the WID at 820-1300 so we can investigate.
- **Spraying of the Barcroft community** is scheduled for about late April. Bt will be used and no personal action is needed. If you have questions, please call the WID.

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

A WID Bulletin

January 1990

How to Kill a Lake!

Lawn fertilization companies pump nutrients on your lawn which run off into storm sewers and end up in the lake. The nitrogen and phosphorus from the entire watershed create an algae bloom which is a personal nuisance and an ecological disaster.

Remember last spring's wet weather? The fertilizer which was supposed to green your lawn ended up greening the lake. *People did it*. . .the people who hire lawn fertilization companies to spray their lawns. And, on a smaller scale, the do-it-yourselfers did it too by dousing their lawn with fertilizer.

Here are some good neighbor rules:

- **Don't hire a service firm** to spray your property with fertilizer, pesticides or anything.
- **Don't fertilize in the spring.** If you feel you must fertilize, do it in the fall when cool temperatures provide optimum growing conditions for lawn grasses.
- **Don't over-fertilize.** A little fertilizer is enough.
- **Don't use a high phosphorus formula.** Phosphorus is the "limiting factor" in this lake and the more you use the worse the algae bloom.

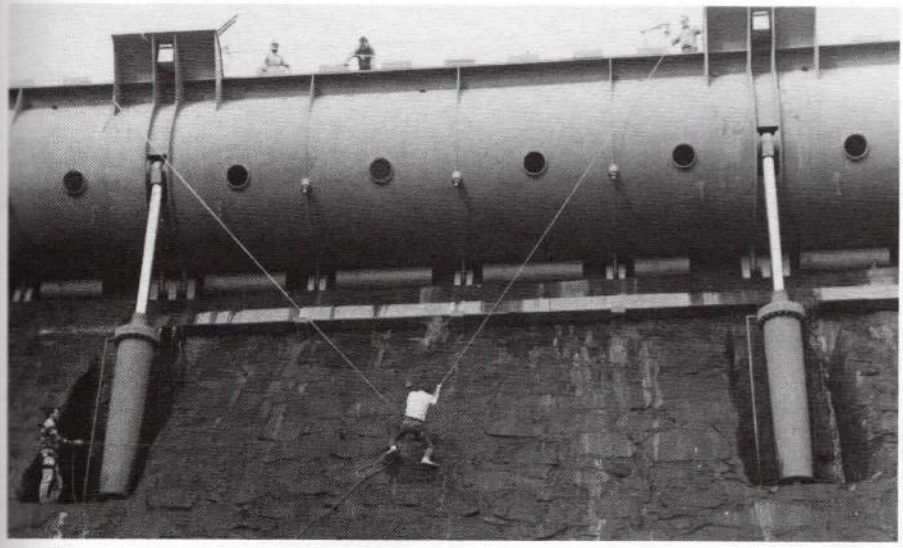
Thomas Schueler, of the Metropolitan Washington Council of Governments, says:

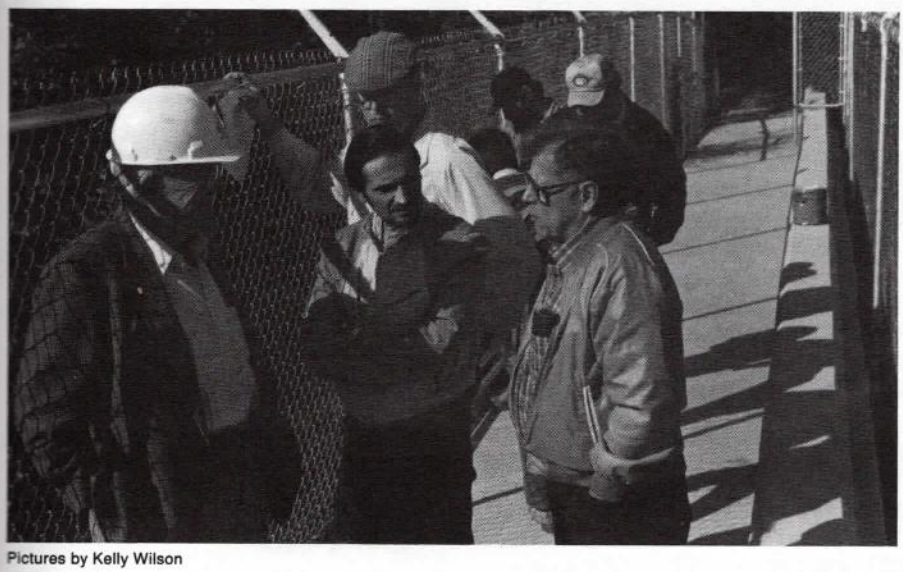
"Our efforts to have beautiful green lawns are at odds with having a clean Chesapeake Bay."

The WID, the Northern Virginia Soil and Water Conservation District and our Delegate to the Virginia General Assembly are cooperating in control efforts. But personal restraint is more effective than laws. Let's have a clean lake instead of a green lake!

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

Dam Inspection





Pictures by Kelly Wilson

Reminiscent of the days when Barcroft Manager Admiral Cal Laning used to go over the side or into the internal dam chamber in a bo's'n chair, the WID dam inspection on September 25, 1989, featured two engineers rapelling over the bascule gate in true rock climbing style. Whitman-Requardt engineer **Bill Wagner**, left, holds the line which controls **James Thompson**'s swing to inspect the piston on the right. Thompson is with A C Valve which is the company that conducts the hydraulic equipment aspect of the inspection.

Meantime, **Freeman Williams**, WID Trustee, **Shailesh Dave**, Whitman, Requardt and Associates, **Woody Snider**, Merit Construction Associates, and **Stuart Finley**, WID Operations Director, discuss the concrete rehabilitation project on the 75-year-old dam.

The new electronics system was inspected by WID Consultant **Richard Wagner**. This new system was installed recently and the dam was back on "automatic" within 8 hours of removing the old electronic controls.

Richard Dameron of the Virginia Dam Safety Office attended, marking the first time a dam safety regulatory official had participated in the official annual inspection of the dam.

The dam passed inspection with flying colors and the ultimate report is expected to suggest some further minor improvements such as internal epoxy grouting at the west end of the dam.

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

A WID Bulletin

November 1989

Adopt-A-Highway

Virginia Department of Transportation erects a sign indicating WID's participation in the Adopt-A-Highway program.

Recognizing that voluntary activities can augment and enhance traditional government programs, the Virginia Department of Transportation has initiated an "Adopt-A-Highway" program. Already, 1,591 miles of Virginia roads have been adopted and 42 miles of these are in Fairfax County.

Recognizing the value of this program, WID applied to VDOT indicating that it would "adopt" the approximately 14 miles of residential roads in the Lake Barcroft community. VDOT has accepted WID's offer. This promises to be a new era of cooperation between sister government agencies . . . each facilitating the other's program.

VDOT's Adopt-A-Highway program is primarily aimed at litter control and anticipates that the average participant will provide volunteers who will walk about 2 miles of roadway four times a year and perform a complete cleanup. WID plans a more comprehensive and mechanized approach. All year long, WID employees will pick up litter when they see it and thus minimize the magnitude of the quarterly pickup. But this project can extend beyond litter. Maintenance and improvement ideas can be channeled from local residents to WID and then to VDOT. Obviously, WID will evaluate these requests to eliminate those which clearly conflict with VDOT policy or seem unreasonable. But the rest stand a better chance of realization because of improved communications established through this inter-agency cooperative program.

Here is an example. The Pinetree Terrace exit into Blair Road is extremely hazardous because of a blind curve. WID is planning to respond to a resident's request for improvement by suggesting the cutting of shrubbery on VDOT property which blocks the view. In fact, WID can do the cutting once VDOT approves of the idea. This is the kind of a project which can demonstrate new concepts of cooperation.

You can play a valuable role also. Be a litter picker-upper in your immediate neighborhood . . . in front of your house and your neighbor's. This way, VDOT, WID and you are all cooperating.

Lake Barcroft Watershed Improvement District
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A WID Bulletin

October 1989

Dam Face Lift

Photo by Kelly Wilson

WID is rehabilitating the 76-year-old Barcroft dam. A firm which specializes in concrete restoration is removing spalled concrete and replacing it with new fibre-entrained concrete and special epoxies to provide greater structural strength and, incidentally, to improve its appearance.

Although concrete gets harder with age, exposed areas can chip and crumble primarily because of repeated wintertime freeze-thaw cycles. Also, internal voids can develop. Neglect could impair dam strength and ultimately become very difficult and expensive to repair.

A few years ago, the large east end of the dam was internally grouted with epoxy mortar to fill voids and externally stabilized with a layer of shot-crete. The current dam repairs are even more extensive. The entire upper walkway is being removed and replaced. Spalling edges are being removed and replaced with new epoxy mortar and, in some cases, restored reinforcement bars. Cracks are being tool sawed and grouted to prevent water intrusion. Any internal voids in the west end will be pressure grouted. When completed, sealing compounds will be applied periodically to protect the concrete from the effects of weather.

The Virginia Dam Safety program requires and the WID provides periodic professional examinations including a comprehensive annual inspection and remedial work as required. The Barcroft dam should be standing firm and strong 100 years from now.

Lake Barcroft Watershed Improvement District
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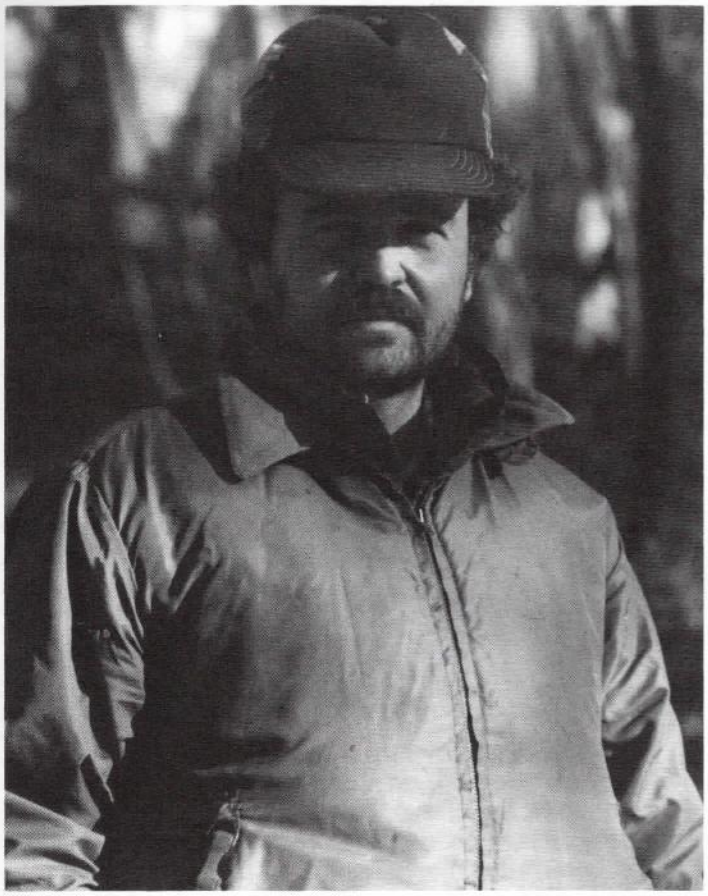
WID Superintendent



While our dam mechanisms operate automatically, the Honeywell security people constantly monitor a dozen different measures of system performance and telephone WID personnel in the event of any anomaly. In the middle of one dark and rainy night a few years ago, a Trustee was informed that something may be wrong at the dam. The Trustee called Sam Ellis, the WID Superintendent. Failing to reach him, he went to the dam . . . to find Sam already there. Asked why he was there, Sam said, "Well, my phone was out so I figured that if anyone had tried to call me they would fail."

There was nothing seriously wrong with the dam on that occasion. But the reason there is usually nothing wrong is the conscientious assumption of responsibility by a Superintendent who gets up in the middle of a rainy night because his phone is not working.

Sam Ellis has been that kind of person at the WID Compound for more than a decade. He began with a great curiosity as to how things work and he has now accumulated a host of skills to assure that the dam, the harvester, the vehicles, the boats, the motors and the tools work properly. He has brought the aeration system into being and learned diving techniques needed to maintain it. He urged the acquisition of a powered platform so that the WID could perform its own maintenance of the downstream (dry) side of the dam gate. This he quickly learned to mount and operate. He designed the work spaces of the new compound building . . . where, everyday, he fixes something again for the first time.

While the WID has long been grateful to Sam for his willingness to work hard on a wide range of tasks, he goes about his work so quietly and undemandingly that we are late in reminding our neighbors of this long and outstanding service. You may see him and his staff removing debris from the lake after a storm. Remember that Sam is also the person who carefully checks and records, every day, the 15 measures of the technical operation of a million-dollar dam.

We have long saluted Sam Ellis. Now we invite the Community to salute him as well.

Lake Barcroft Watershed Improvement District
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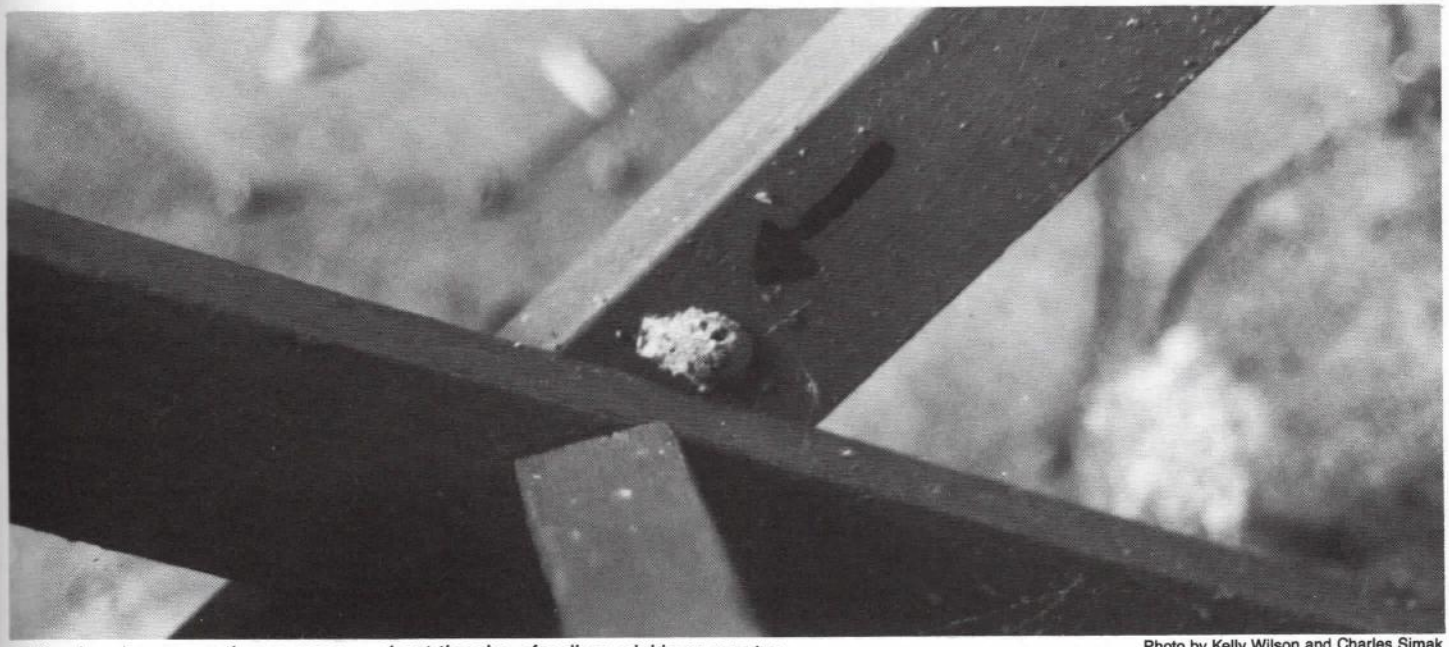
A WID Bulletin

August 1989

What YOU Can Do About the Gypsy Moth



Buff colored gypsy moth egg mass. . .about the size of a dime, nickle or quarter.

Photo by Kelly Wilson and Charles Simak

The gypsy moth death squad consists of the County, the WID and *you*. Each plays an important role. the County program sprays intense gypsy moth infestations. The WID also sprays Lake Barcroft. This year, WID sprayed Bt, which is specific to the gypsy moth caterpillar, throughout all of the Barcroft community. But *your* role is also vitally important.

Here is what the individual resident can do:

Fall: Search for gypsy moth egg masses. Each one will contain 500 to 1000 eggs. Search and remove as described below.

Spring: Put burlap on your trees and pick off the caterpillars periodically. While this is not a total control method, it helps. Another WID Bulletin during the winter will explain WID's new emphasis on hand picking.

Now. . .the important thing is searching and removing egg masses on your property. The above picture depicts an egg mass. Look everywhere. . .on your trees and in hiding places such as under a utility box or in cracks in your porch. They may be in your log pile, on a fence or under an outdoor bench.

Scrape them into a jar containing a solution of water and detergent. Don't let parts of an egg mass fall to the ground since the eggs will hatch there.

Keep a record of how many egg masses you have removed using the coupon below. This is important information to WID in its gypsy moth control program and will be passed on to the County for its consideration.

The Barcroft gypsy moth control program is keeping this pest under control. No tree defoliation has been detected in the community. However, the WID's monitoring program has counted a considerably larger population than last year, possibly because of the unusual weather this spring.

25,000 *Glyptapanteles flavicoxis* parasites have been released in addition to the 25,000 contracted for earlier. WID consultant Dr. Mark Ticehurst has confirmed overwintering of *Cotesia melanoscela* in Barcroft from releases in 1987 and 1988 and thus we hope to be building up a resident predator to control gypsy moth caterpillars.

I have removed and destroyed _____ gypsy moth egg masses from my property. In addition, I have seen _____ more egg masses which I was unable to remove.

Name _____ Date _____

Address _____

Please send to WID, 3650 Boat Dock Drive, Falls Church, VA 22041. If you find more later, please send us another note.

A WID Bulletin

July 1989

Tomorrow's WID

Barcroft residents have made suggestions and performed functions which have created our unique WID lake management system. Now we need an active and working inventory of background, skills and interests of current residents who may become tomorrow's WID leaders.

Please mail this questionnaire to Dave Alne, WID Chairman, 6234 Lakeview Drive, Falls Church, VA 22041.

Name _____

Address _____

Phone _____

Present Job _____

_____

Specialized training or interests _____

_____

Suggestions for the WID to consider _____

_____

_____

_____ (attach additional material if you wish)

☐ Please check if you would like to be sent a packet of information about the WID including the most recent WID Biennial Report summarizing 15 years of operation.

Lake Barcroft Watershed Improvement District
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The ABC's of the WID

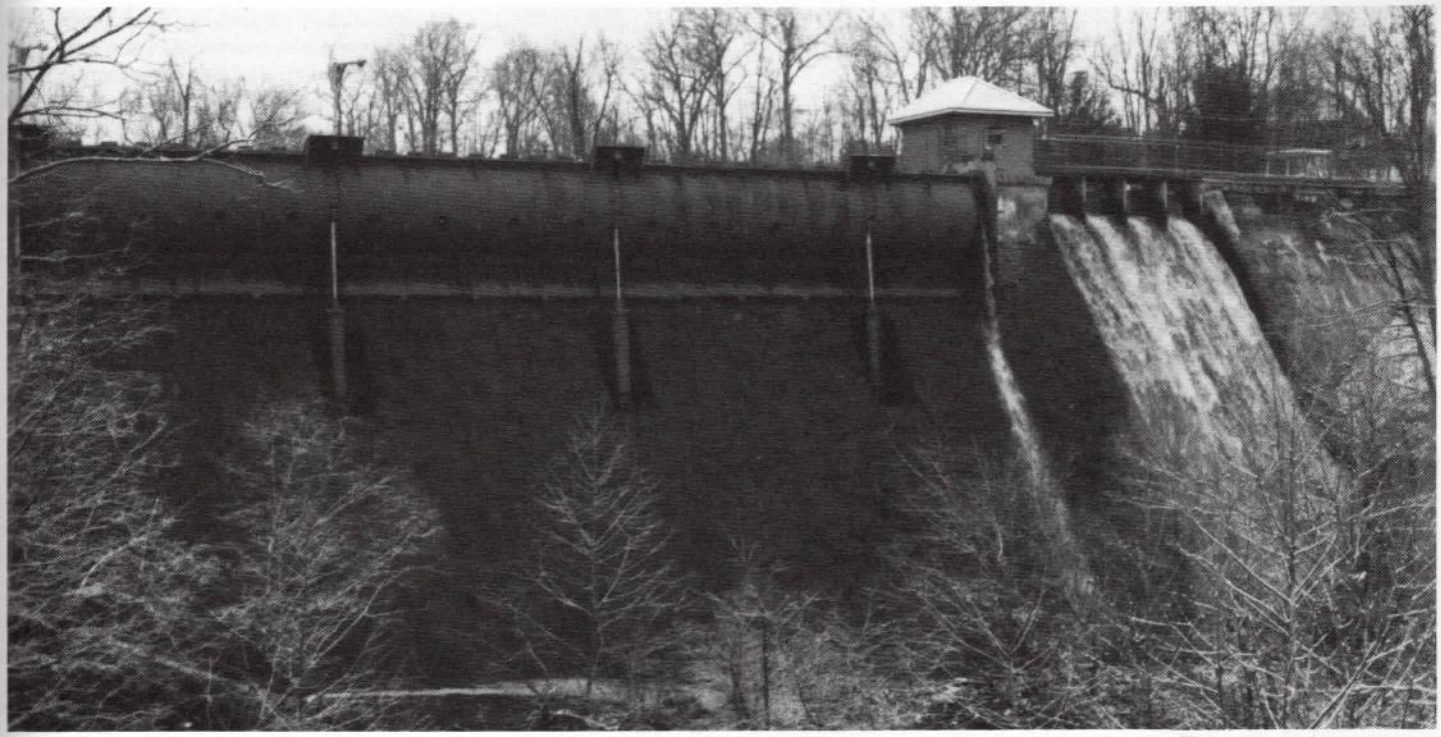


Photo by Kelly Wilson

A eration—a bubbler system the WID uses to purify the lake
B onds—low interest municipal funds borrowed to restore Barcroft
C ompound—an enclave by the dam containing WID's new building
D am—an ancient fortress (1913) which contains the lake
E rosion—to be controlled else the lake fills with silt
F ish—large mouth bass/walleye and other sporting goodies
G ypsy—a fecund leaf-eating moth which WID fights like the plague
H istory—15 years of which since "Agnes" WID now recalls
I ncome—half a million in taxes each year needed to run WID
J apanese—a leaf-eating beetle WID exterminates to save roses
K ey—keys, locks, codes to frustrate vandals and intruders
L imnology—what makes our lake interesting but imponderable
M edians—bifurcated grassy road areas which WID mows regularly
N VS&WCB—WID's 5 person governing Board which meets monthly
O perations—everyday activities dedicated to good conservation
P ublic—a kind of WID meeting each Spring to discuss budget
Q uality—lake water characteristic safe to swim in and live near
R ecreation—BARLAMA's fun-filled domain based on swimmable beaches
S ediment—inflowing silt particles very expensive to dredge out
T rustees—3 volunteers who determine WID policy and programs
U pstream—watershed area where water (and pollution) originate
V egetation—the submerged type of which can be a nuisance
W ildlife—crawling, floating, flying beasties beautifying Barcroft
X pander—this small floating backhoe may be used to control debris
Y ou—cooperators who help the WID with its conservation programs
Z ooplankton—microorganisms whose presence indicates a healthy lake

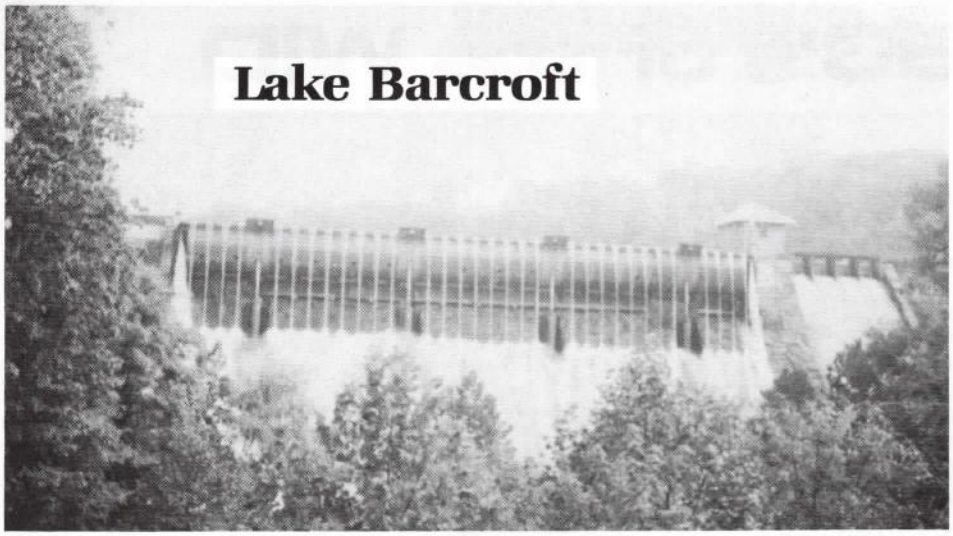
New families can learn more than WID's A-B-C's by calling or phoning for a copy of the 15th anniversary edition of the **WID Biennial Report**. Phone 820-1300 or write WID, 3650 Boat Dock Drive, Falls Church, Virginia 22041.

If you have questions or needs, contact the WID in the above manner. Usually the staff is at work which leaves you talking to an answering machine. Feel free to leave your message along with your name, phone number and address, or request a callback for more personal contact.

Lake Barcroft Watershed
Improvement District
6234 Lakeview Drive
Falls Church, Virginia 22041

Phones: 820-1300 (Operations)
820-7700 (Director of Operations)
941-3918 (Chairman of Trustees)
256-6995 (Fish & Wildlife Committee)

Lake Barcroft

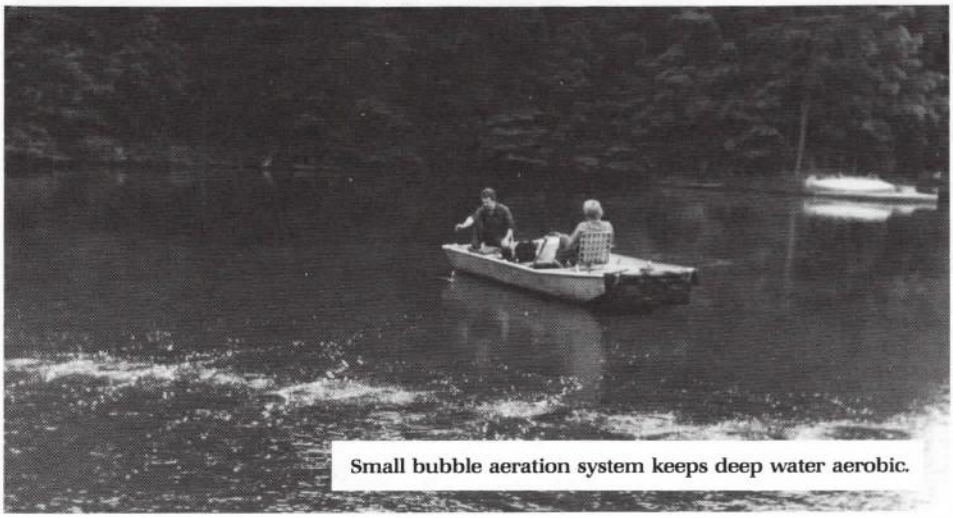


by Stuart Finley

Rumor has it that Col. Joseph V. Barger flew in to National Airport in Washington and saw a lovely lake sparkling in the sun. This probably apocryphal tale goes on to relate that Col. Barger hopped in a taxi and excitedly said "Take me to that lake out this way somewhere." Since Barger was a land developer from Boston with an interest in Washington's burgeoning growth, it is quite natural that he bought Lake Barcroft from the Alexandria Water Company which had no further use for it.

Actually, Lake Barcroft was named for a Dr. Barcroft who had a mill on Holmes Run just below the present lake. In 1913, when the Alexandria Water Company needed more water for its customers, it decided to build a cyclopean masonry structure upstream of the city to store water. During periods of drought, the damkeeper would open a valve and release water into Holmes Run which flowed down to Alexandria where it was retrieved, purified and sold.

When Joseph Barger and his partner Charles Dockser died within two days of each other in 1969, residents of the Lake Barcroft community took up a collection and raised $300,000 to buy the lake, the dam and the five swimming beaches. It was good they did because shortly thereafter Hurricane Agnes discourteously washed out an earthen section of the dam leaving one of America's biggest mud holes. This distressed the Barcroft residents to the extent that they formed a Watershed Improvement District, borrowed $2,000,000 in a municipal bond issue and repaired the dam.



Small bubble aeration system keeps deep water aerobic.

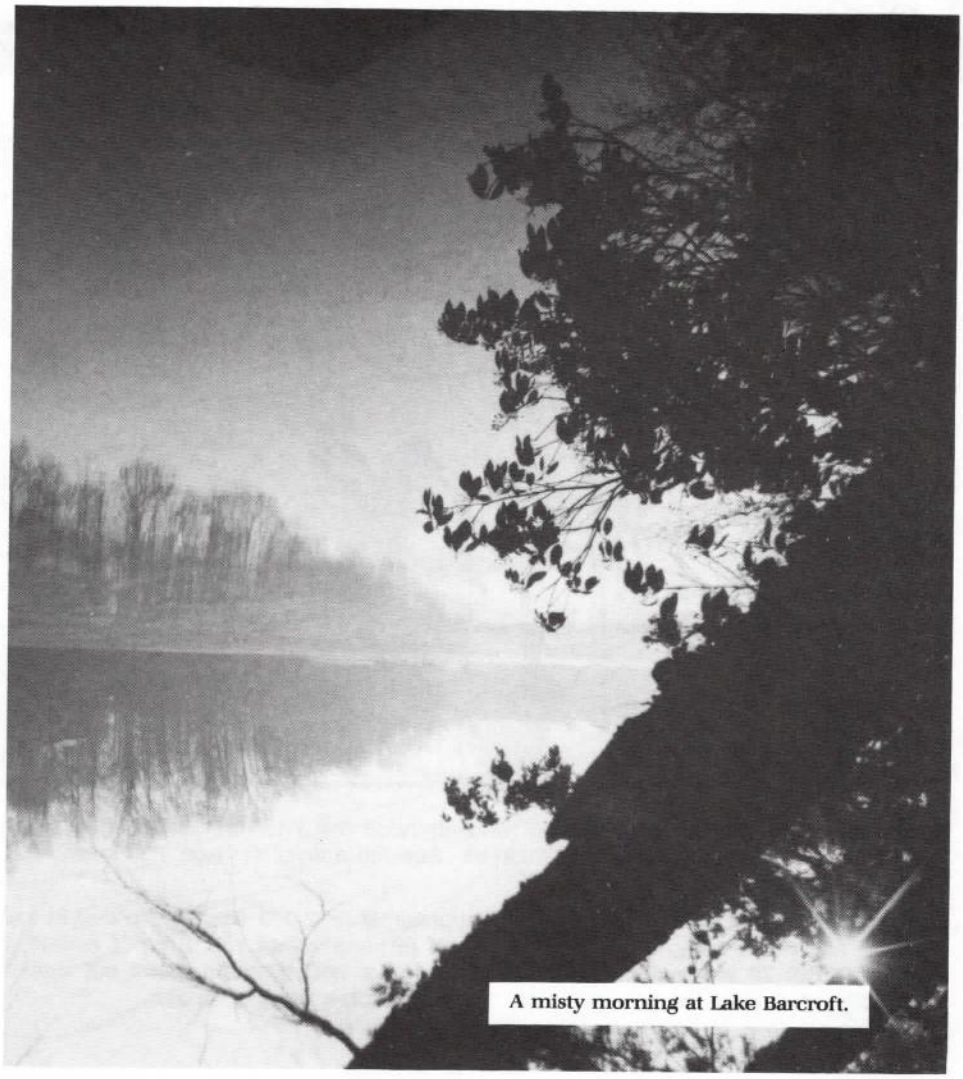
Extended reach backhoe puts silt in hopper barge.

In fact, the repairs made the dam better than ever. It had been somewhat run down. But the new program facilitated the installation of a huge bascule gate 150′ long and 12′ high which serves as a spillway. During storms, the gate opens automatically to pass the storm water and then closes up thereafter also automatically. This requires an electronic system to control a hydraulic system to hold the gate in just the right position at all times.

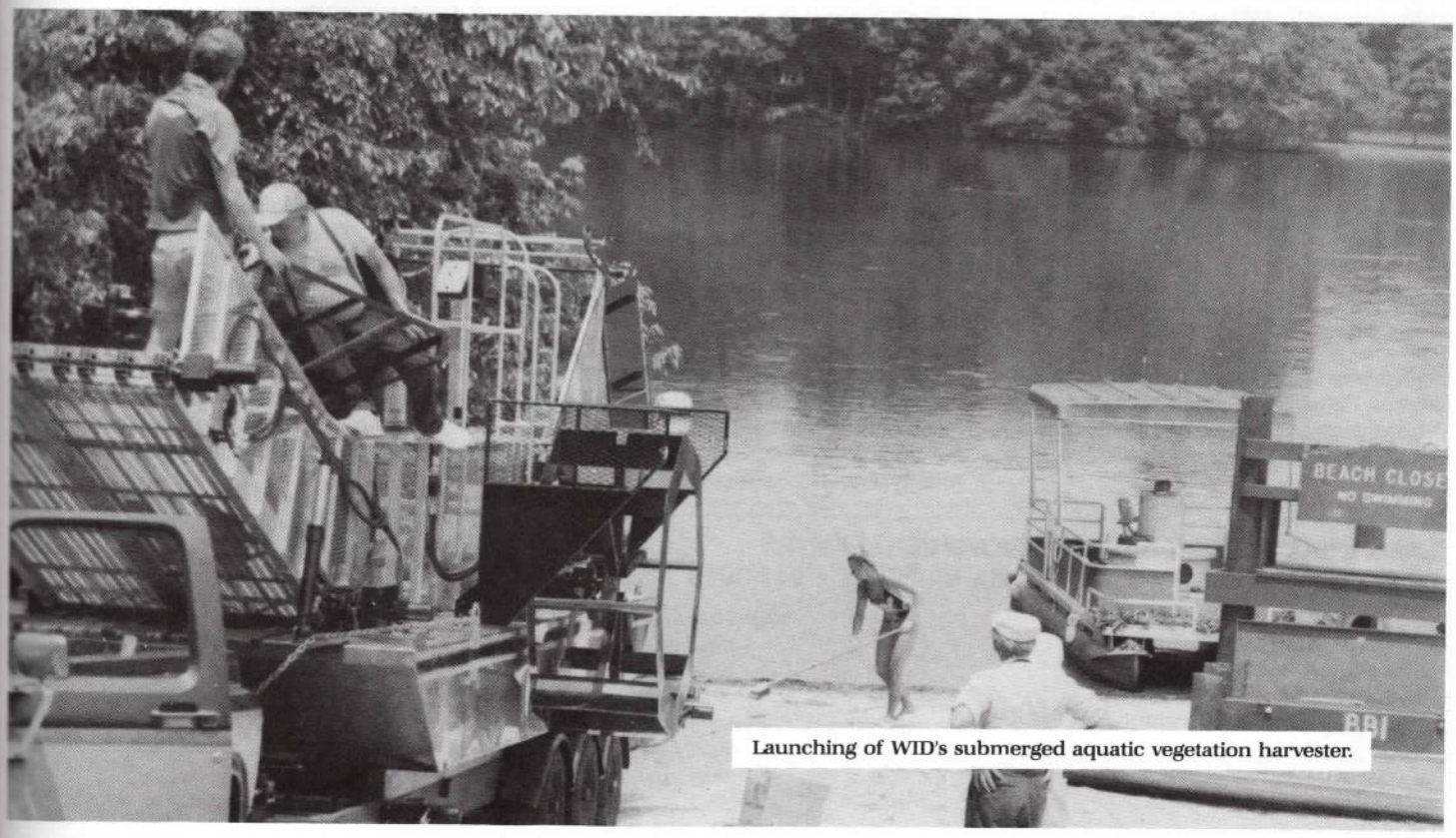
The economics of the Lake Barcroft community are unique. Because this lake is situated just 15 minutes from the White House (except during rush hour!) and because it is very rustic in appearance, property values have appreciated greatly in recent years. The assessed valuation of the community with its 1,000 homes is over $330,000,000. The Watershed Improvement District (WID) imposes a tax on its District residents and raises about $500,000 a year which is sufficient to maintain the dam, dredge silt, pick up floating debris, operate an aeration system and indulge in such goodies as an energetic gypsy moth control program.

WID has just completed a concrete rehabilitation program and has installed a new state-of-the-art electronic control system. Last year, the hydraulic system was modified to increase safety and facilitate maintenance. Through the years, Barcroft has dredged about 325,000 cubic yards of sediment at a cost of nearly $2,000,000. A pair of ospreys is trying us out for size and may settle here, we hope. WID is trying to promote a created wetland in the upstream watershed.

Lake aficionados, come up and see us sometime!



A misty morning at Lake Barcroft.



Launching of WID's submerged aquatic vegetation harvester.

A WID Bulletin

May 1989

WID Advisory Committee

In a sense, the 70 Barcroft residents who attended the WID Annual Meeting at Chi Chi's Restaurant on April 15th constituted an advisory committee to the WID Trustees. See the article on Page 1 to learn what happened, but read on to glean the benefit of such a meeting.

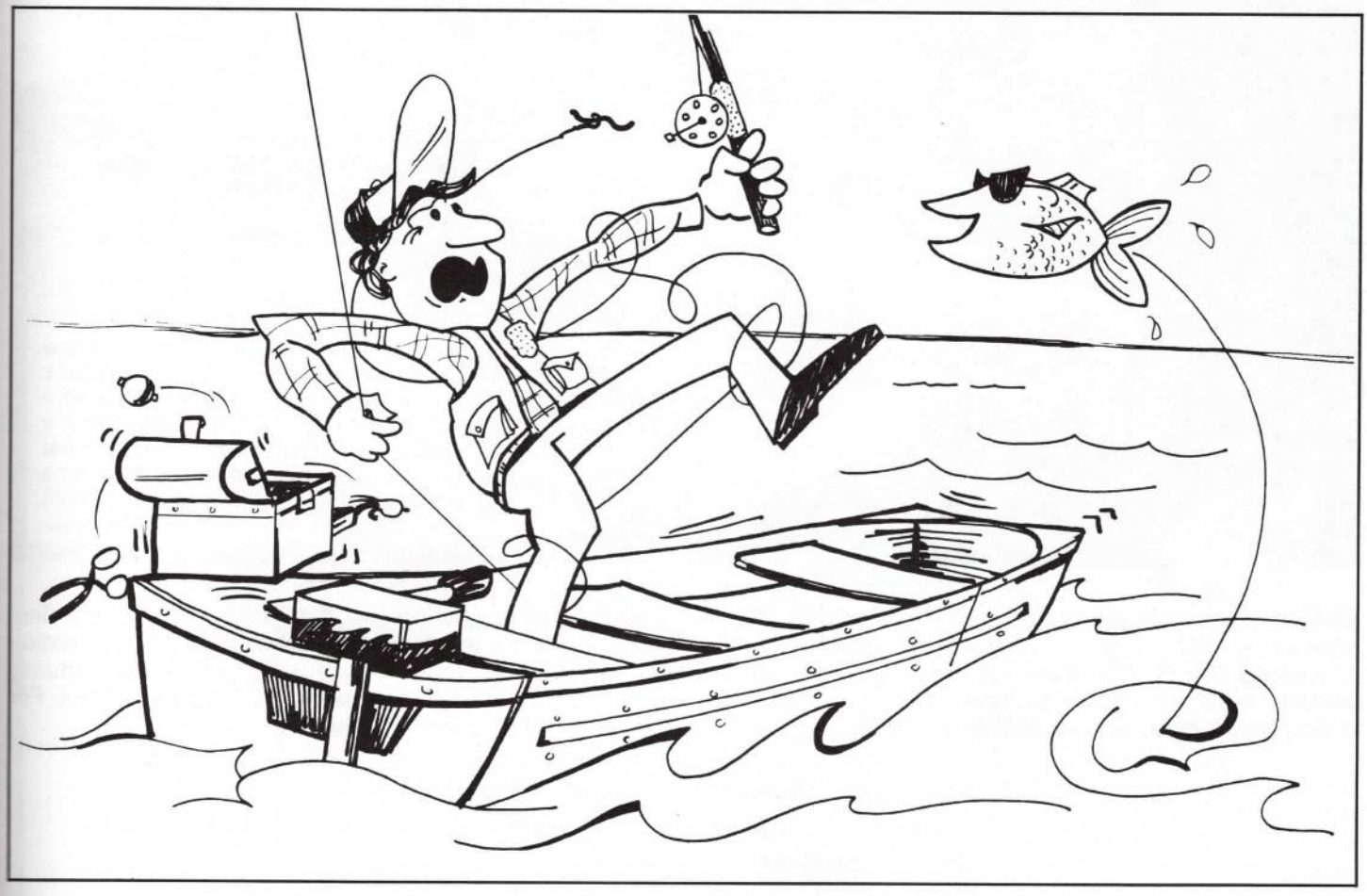
70 people is but a small fraction of the approximately 2,000 adults who live in Lake Barcroft. But all 2,000 would hardly fit in a small hall or be easy to handle in terms of eliciting viewpoints. And, of course, most people are preoccupied with other vital concerns. But 70 is a sufficient number to judge a WID program, point out weaknesses and make new suggestions. And that is exactly what they did on April 15th. Here are some sample ideas:

Question	Response
"Why doesn't WID publish a 'balance sheet' like other organizations?"	Indeed it does! It is in the annual Seidman & Seidman audit which is published in the WID Biennial Report. But the idea could be expanded. WID will develop a simple statement of the value of its capital assets next time around and distribute it with the proposed budget. While there are no income tax consequences to the WID which is a government agency, it is beneficial to understand what the value of the WID plant is insofar as possible.
"Is WID doing enough to control water weeds?"	True, WID could have purchased more grass carp and we'd have less SAV (submerged aquatic vegetation) in the lake. But it's a matter of balance since we don't want to scalp the lake of all vegetation which is a valuable fish habitat. Thus, during these initial years, we must depend on the weed harvester to mow any excess. But, the question alerts the Trustees and the Staff that weeds are a nuisance and nuisances must be managed carefully.
"Highway Department repaving builds up the height of streets so much that I have puddles in front of my house. What can you do about that?"	The Beachway West project is developing plans for underground drainage and grate-type storm drainage inlets which would be applicable anywhere in the community. VDOT and Fairfax County are expected to approve these model specifications. If so and if cooperative funding can be negotiated, gradually many storm drainage problems throughout the community can be corrected.

A WID Bulletin

April 1989

Fishermen of the Future



Barcroft youngsters are invited to a fishing seminar on Saturday, May 6th. It will be held on Beach #4 beginning at 9 a.m.

All ages are welcome. Parents may also attend. Indeed, many adults may benefit from the discussion and demonstration of how to fish Lake Barcroft. However, the seminar will be primarily for young people since many of them have never had an opportunity to receive such specialized instruction.

Here are some scheduled features:

- What fish are in the lake and where they are;
- Techniques of catching fish by resident experts;
- Ki Faulkner's explanation of deep lake fishing now possible because of Barcroft's aeration system which has extended fish habitat to greater depths. . . Ki will tell how to catch the newly stocked walleyes;
- How to use artificial night crawlers to lure large mouth bass;
- Lloyd Swift's discussion of how to catch carp and what to do with them when you've caught them. . . Lloyd will provide free samples of smoked carp for the uninitiated;
- Introduction of a Bluegill Contest including awards intended to stimulate everyone to catch and remove excess bluegills which are outnumbering and inhibiting the reproduction of large mouth bass;
- Vigorous discussion of where and how to fish primarily to satisfy those who enjoy the touch of controversy present in Barcroft meetings.

The Barcroft Fish and Wildlife Committee is working to improve the Barcroft habitat and WID is stocking fish. It is hoped that this seminar will be fun and perhaps form the foundation for future enjoyment by Barcroft's youth.

Don't bring your fishing gear! A later meeting may be scheduled to permit hands-on training.

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

Trustees
Dave Alne, *Chairman*
Fred Chanania, *Treasurer*
Freeman Williams, *Secretary*

Operations
Stuart Finley

WID Associates
Walter Cate
Ki Faulkner
Jack Keith
Waltraut Nelson
Ernie Rauth
Lloyd Swift
Richard Werling
Dorothy Werner

WID Fish & Wildlife Committee
Ki Falukner, *Chairman*
Walter Cate
Fred Chanania
Stuart Finley
Ernie Rauth
Frank Sanger
Lloyd Swift

A WID Bulletin

March 1989

Remember When?

Four workmen are trying to figure out how to repair the decrepit old dam gates back in the 1960's. These wooden gates were supposed to open automatically during a storm, but usually they stuck. In fact, most of them stayed closed during Hurricane Agnes causing the failure of the Barcroft dam and thus the creation of the WID.

Sixteen years after the fact, it's possible to view WID's origins with better perspective. If there hadn't been a dam washout in 1972, there would have been no possibility of sufficient unanimity to take such drastic action as the creation of a taxing district. What began as a massive restoration effort to rebuild the dam and reestablish the lake has gradually become a service agency performing such vital tasks as lake dredging, dam safety design and pollution control. For a discussion of objectives and procedures, you are invited to attend WID's Annual Meeting:

Place: Chi Chi's Restaurant at Bailey's Crossroads

Time: 9 a.m., Saturday, April 15, 1989

Complimentary coffee and doughnuts, or, if you prefer, complete breakfast at modest cost.

The primary purpose is to subject the WID program to scrutiny by its constituents. A specific objective is review of the proposed budget for FY-90. A copy is being sent to you by mail which lists all of the line items. But here is an overview of pertinent highlights:

- The amount designated for lake dredging in FY-90 is less than half of what we spent in FY-89 because of the thorough job which cleaned out the Holmes Run silt basin and the previously clogged channels below it. This project removed 15,000 cubic yards of silt instead of the originally projected 5,000. Contract dredging for FY-90 is budgeted at $70,000.
- A new item called "Beachway West" in the amount of $30,000 initiates a major drainage and road frontage improvement project which is the last element of earlier projects which installed curb-and-gutter, underground drainage and new paving in four areas. . . .Whispering Lane, Stoneybrae South, Stoneybrae North and Blair Road.
- Greater emphasis on personnel to perform maintenance.

Come one! Come all!

Lake Barcroft Watershed Improvement District
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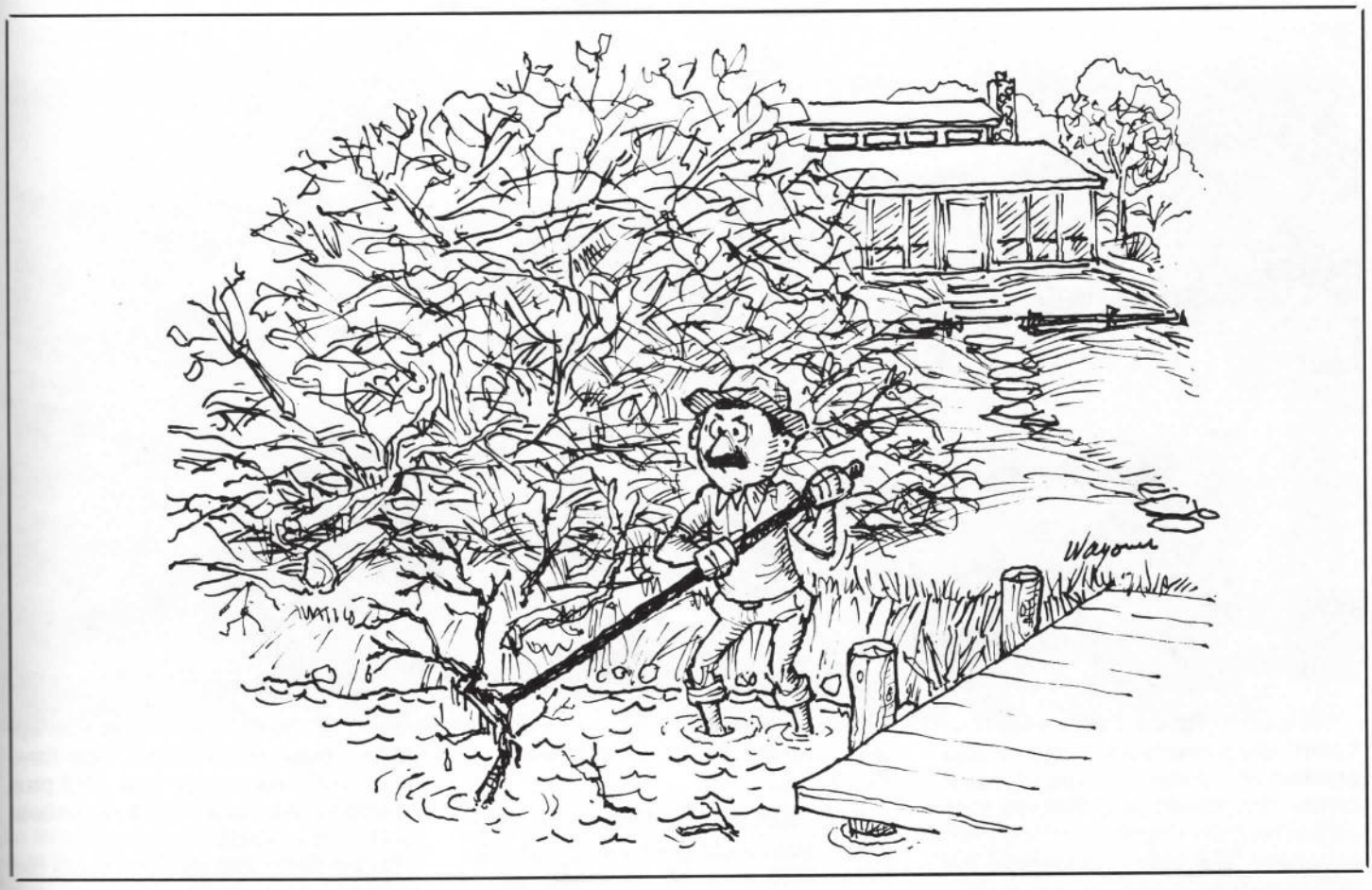
A WID Bulletin

February 1989

The Debris Stops Here



Anything that will float . . . sticks, leaves styrofoam cups . . . moves downstream out of Barcroft's 15 square mile watershed and stops here. Much of it is wind-driven into some of Barcroft's North-facing coves and shorelines.

WID is declaring war more fervently than ever before with the establishment of a new Debris Control Program. We're after the stuff that is floating on the surface . . . but also the material which has sunk and is suspended in the water along the shore.

While the WID has already authorized the program, has hired an additional staff person, is organizing the effort and will start full steam ahead in the spring, there is another useful participant . . . YOU!

Truthfully, the job of corralling all that floating debris on the surface and fishing up all of the submerged slurry of leaves, branches and miscellaneous junk is so huge that the WID staff can't handle it without your help.

So, if you live on the lakefront, try to fish material out of the lake and pile it at your waterfront. Call the WID at 820-1300 and leave a message for us to pick it up at your property which is best identified by your street address.

With an energetic WID program and your help, we should be able to remove most of this unwanted glop.

Lake Barcroft Watershed Improvement District
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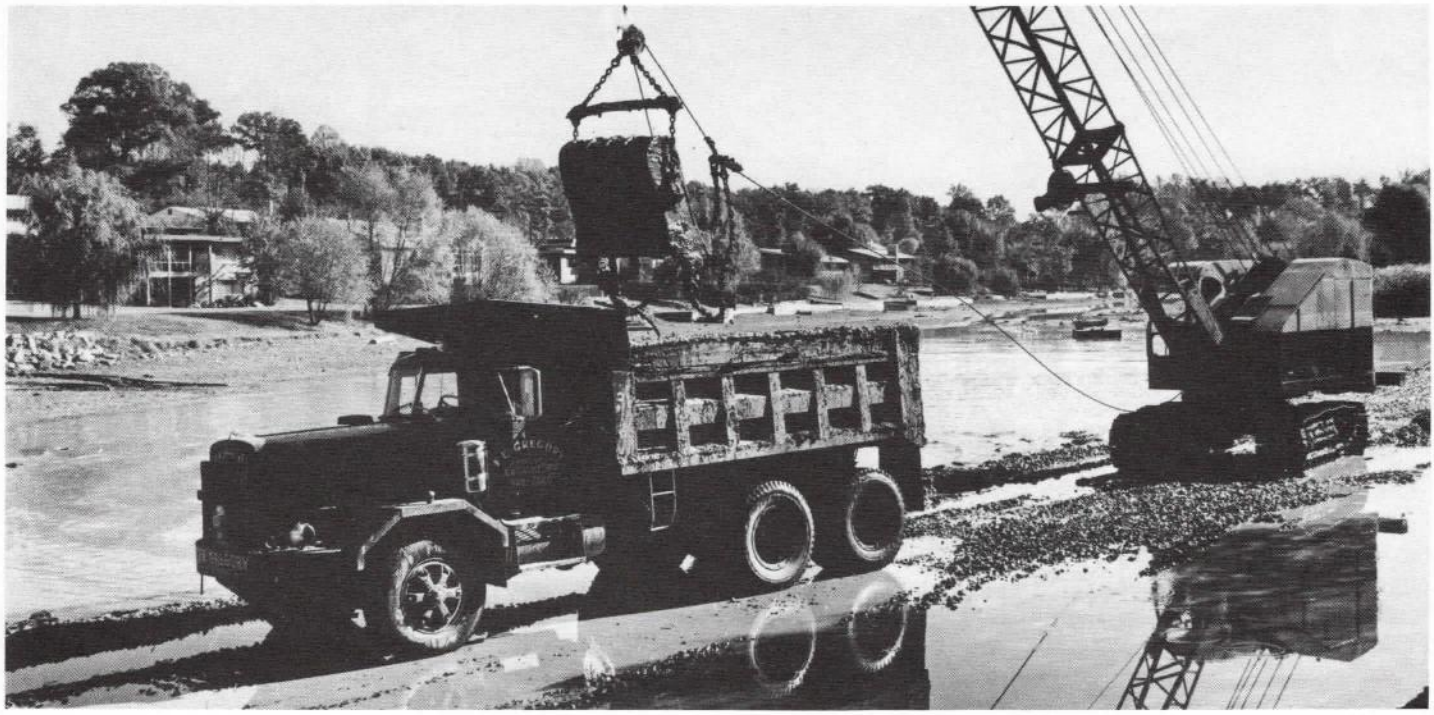
A WID Bulletin

January 1989

Quarter of a Century of Dredging



Silt dredging in the 1960's used high-boom draglines and dump trucks perched on "underwater roads" made of rock and gravel next to Barcroft's two silt basins at the Holmes and Tripps Run entrances. The lake was lowered five feet to expose these access roads.

Lakes are where running water slows or stops altogether. . . and where almost everything carried by the running water tends to drop to the bottom. This silt must be removed or the lake eutrophies into successive stages of swamp.

As deltas of sediment clogged the two upper arms of Lake Barcroft in 1960, the community's first dredging program was designed. Using a large Ellicott dredge with a cutter head, 116,000 cubic yards of silt were concentrated in new locations creating the Holmes Run Island and the Beach 5 and Beach 3 Peninsulas.

The mechanical technique pictured above was undertaken four times between 1963 and 1971 removing about 100,000 cubic yards of material. In 1973 when the lake was empty after Hurricane Agnes, a dry lake bed project removed 70,000 yards. Between 1974 and 1982, the community used a small hydraulic dredge called the Mud Cat to pump about 40,000 cubic yards primarily out of the two silt basins.

Finally the WID initiated its current large scale mechanical dredging technique using cranes or backhoes mounted on floating barges with the dredged material transported to an off-loading site by hopper barges. Five operations between 1982 and 1988 have dug 40,000 cubic yards. The 1988 project which just concluded removed about 15,000 cubic yards.

During 1960-1988, the community has invested about $1,700,000 to dredge about 325,000 cubic yards of sediment. But the cost of this maintenance is small compared to the community's current tax assessment valuation of $260,000,000.

Tain't cheap to run a lake! Over the 38 year life of the community, it has spent an average of $45,000 a year on silt removal. Currently, the WID is budgeting about $120,000 a year.

By the way, 325,000 cubic yards of sediment would fill the average Barcroft home 270 times. or, visualize a football field piled 300 feet deep with silt.

Lake Barcroft Watershed Improvement District
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A WID Bulletin

December 1988

The Smell That Was

Photo by Kelly Wilson

WID Superintendent Sam Ellis and Vannak Lim lift an aeration emitter from 40 foot deep water and drill new holes along its 200 foot length to rehabilitate its air injections into the lake.

Just a few years ago, drivers on Columbia Pike would notice a distinct rotten-egg smell as they drove by the Barcroft dam. Oddly, it was only noticeable occasionally. Residents used to explain the phenomenon by blaming it on the trunk sewer which runs down the Holmes Run valley. Some opined that perhaps the sewage became agitated as it dropped down the 70 foot fall in the sewer mains at Columbia Pike and the resultant fumes seeped out of manhole vents.

Not so! The hydrogen sulfide they smelled had been generated in the lake's hypolimnion. This is the deep water below the thermocline which separates the aerobic surface water and the anaerobic deeper water. Occasionally, cold inflow freshets would agitate the bottom layers and release hydrogen sulfide gas which bubbled to the surface and could be smelled.

WID's aeration system put an end to all of that by constantly mixing upper and lower water so there is no thermocline—no significant temperature differential between surface and bottom waters—no distinction between oxygen rich surface water and anoxic deep water. Today, it's all "one lake" and the chemical properties are relatively uniform throughout.

The aeration process mixes the water which adds oxygen to the bottom water and thus prevents the formation of hydrogen sulfide and ammonia. It also converts ferrous iron and manganese into insoluble inert bottom sediments. More importantly, the presence of oxygen prevents insoluble phosphorus from converting into a soluble form which would generate nuisance algal blooms. While aeration has little direct effect on submerged aquatic vegetation or algae, the circulation patterns are useful in eliminating algal blooms and causing a shift to more desirable algal species.

Today the chemical gunk is gone. This has slowed the eutrophication process and thus lengthened the life of the lake. WID will learn more about these complex ecological relationships soon when our consulting environmental engineer Dr. Ken Young of GKY and Associates, Inc. makes a more sophisticated study of the physical, chemical and biological properties of the water at Lake Barcroft.

UHREMAC at Work

Upper Holmes Run Environmental Monitoring Advisory Committee is a mouthful. So, its 15 members have developed the handy acronym—UHREMAC. This official advisory committee to the Fairfax County Board of Supervisors meets quarterly to develop and evaluate erosion and sedimentation data about the upper Holmes Run watershed above Lake Barcroft. The Committee is made up of technicians and lay people representing Fairfax County government, land developers and environmentally conscious citizens who live in the Holmes Run valley. The meetings tend to be substantive rather than provocative.

Questions asked are: "What are the rates of erosion?" "How can it be controlled more effectively?" "Whose responsibility is it?" Answers are often quite technical and are summarized in an annual report directed to the Board of Supervisors. The current 5th Annual Report is 44 pages long and describes new developments and trends in erosion and sediment transport.

Barcroft property owners who pay for dredging the Lake will be heartened to discover the effectiveness of the major flood control impoundment upstream and the other smaller detention ponds which catch silt before it starts down Holmes Run to Barcroft. Current sediment yield trends are encouraging. The rate of sediment production has already declined below the 1983 data base year. The most recent annual yield was 59 pounds per acre-foot of runoff compared to 92 pounds during 1983. Even more dramatic is the comparison with the high period in 1985 when the yield was 472.

Meantime, pragmatic WID is dredging again. Competitive bids have provided an opportunity to remove about 10,000 cubic yards of sediment which will be put into the Beach 3 and Beach 5 drying basins before being trucked away.

If you want a copy of the UHREMAC 5th Annual report send your request to WID, 3650 Boat Dock Drive, Falls Church, VA 22041. Stipulate whether you want the more readable abbreviated version or the whole thing.

Virginia Lakes Association

VLA Vice President Drew Collins, Thelma Crump Wilson and VLA President Col. J. Leo Bourassa at the VLA Symposium

Lake Barcroft's WID is an active member and enthusiastic supporter of the Virginia Lakes Association. Less than four years old, VLA has recently become the first state affiliate of the North American Lake Management Society (NALMS). VLA was cosponsor of a three-day symposium in Richmond April 20-22 featuring technical sessions and panel discussions about lake management. *VLA News* is a new quarterly newsletter which describes lake problems and solutions along with case histories. While there are certain common problems such as weed control, silt dredging, insurance, etc., there is a surprising diversity of lake oriented difficulties.

VLA President is Leo Bourassa who formerly was Chairman of the Virginia Water Control Board. At the Symposium, Leo introduced the concept of a Virginia Water Authority which would have the responsibility of solving water resources problems which are largely unattended by other state agencies. Other Symposium talks focused on familiar Barcroft topics such as the use of triploid grass carp to control aquatic weeds, fish management, dam safety, silt dredging and lake monitoring. Dr. Mahlon Kelly of the University of Virginia made a comprehensive presentation on lake and reservoir ecology. Three representatives of WID attended the Symposium.

Some Barcroft people might be interested in being added to the mailing list of *VLA News* to learn what other lakes are doing. There is no charge.

VLA NEWS
VIRGINIA LAKES ASSOCIATION

Please add my name to the mailing list of the *VLA News*.

(name) _____

(street) _____

(zip) _____

Send to WID, 3428 Mansfield Road, Falls Church, Virginia 22041.

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

Gypsy Moth Goof

From sad experience, we have learned that ivy growing on trees heightens the gypsy moth problem. Two years ago, a gypsy moth hot spot in the middle area was discovered in a yard filled with ivy-covered trees. Again this year, the most dense infestation in Barcroft was found in the north area in another lot with ivy-covered trees.

The explanation is simple. Gypsy moths hide in the ivy cover and lay egg masses which can't be seen and thus are not counted or removed. With a dense growth of ivy on a tree it is impossible for even an experienced person to find the egg masses.

The solution is equally simple. Remove ivy from trees! A year ago, we ran a WID Bulletin explaining this and requesting homeowners to remove ivy from trees. Very few people responded . . . most of the ivy is still in place.

Let's try another method. This time, WID will approach homeowners with ivy on their trees and request permission for WID to remove the ivy. Thus, this fall, you may be approached with such a request. Please say yes!

It isn't necessary to remove it all. Just clearing the trunk up 15 or 20 feet will do. What's left up above will decay and fall out sooner or later.

Incidentally, it's no loss. The Virginia Division of Forestry points out that allowing ivy to grow in trees weakens them and can contribute to premature tree mortality.

So, if you have ivy in your trees, please take it down. If you don't get around to it, please say yes when we ask permission to do it for you. Thank you.

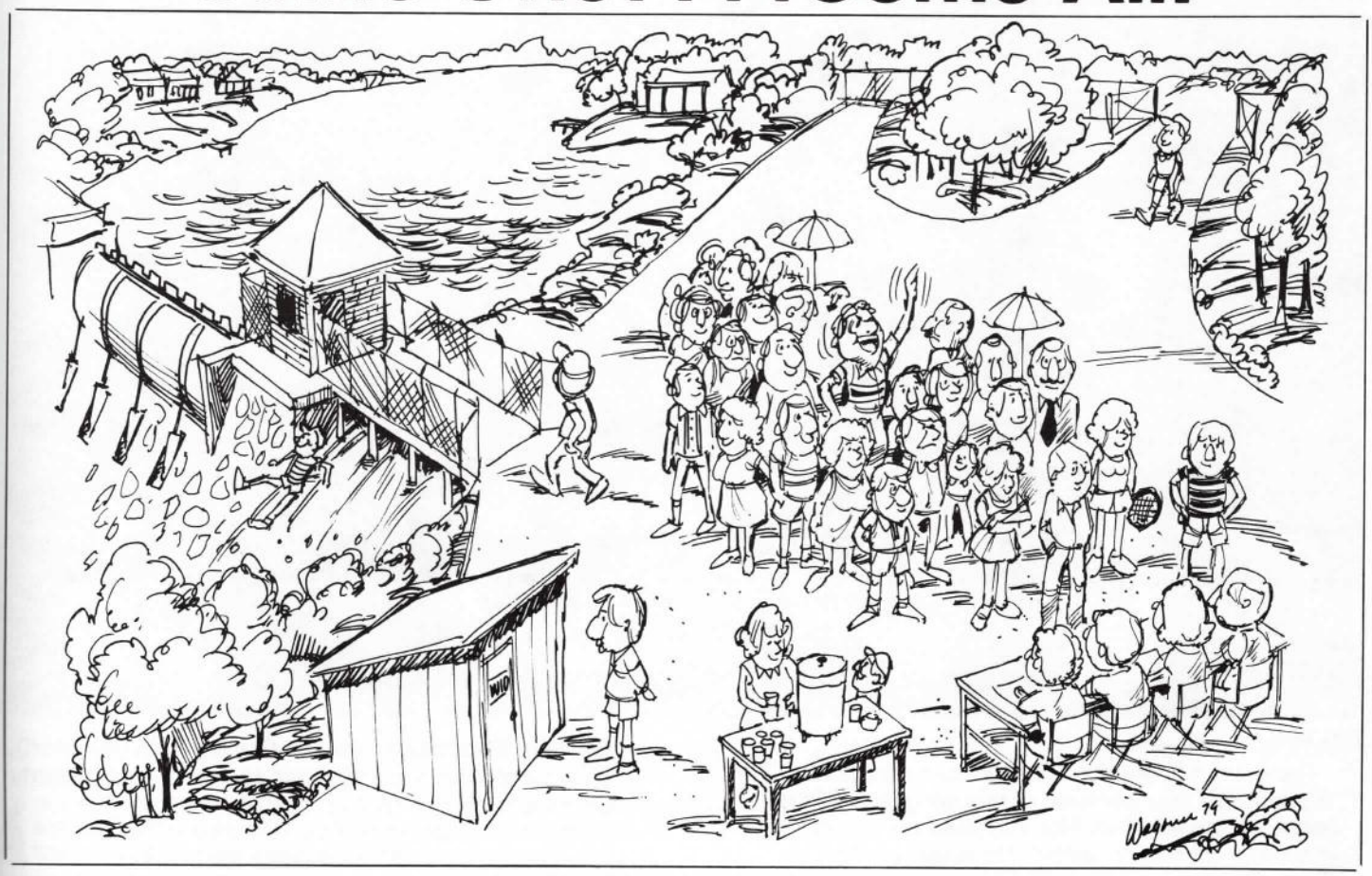
Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

A WID Bulletin

August 1988

WID Open House

Come One. . . .Come All!



WID Open House — 10 a.m.
Saturday, September 17
Dam Compound

Lots of things have happened during the past year at the dam. WID has built a new building, refurbished the old one, installed a water main, repaved the roadways and parking lot and improved the dam's hydraulic system. See the weed harvester. Inspect the dam's control system in the gate house. Visit the new building. Colonel Barger would be amazed!

Meet the WID Trustees and WID Associates. Special guest will be Dr. Mark Ticehurst, WID's gypsy moth consultant. He will describe the Barcroft gypsy control situation and explain how to conduct an egg mass search effectively.

To minimize the parking problem, park on Pinetree Terrace and walk in if you don't mind the hike. Feel free to bring the children. Consult the map in your Lake Barcroft Directory. The dam is located at the end of Boat Dock Drive at the south end of Pinetree Terrace.

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

A WID Bulletin

July 1988

Gypsy Moth Egg Mass Search

Gypsy Moth laying an egg mass and several other egg masses.

How is the Barcroft gypsy moth control program working? WID's gypsy moth consultant Dr. Mark Ticehurst puts it this way:

> "There are higher populations in some areas of Barcroft this year because of migrating larvae from adjacent communities. However, I do not expect any defoliation of trees or significant nuisance. The Barcroft program is based on keeping gypsy moth populations low to prevent defoliation, tree mortality and extreme nuisance. Our program is succeeding in doing this and will continue to do so. However, outside pressures will cause localized flareups in future years which will probably necessitate future spraying with Bt and continuation of the parasite release program to keep the pest under control."

Such a localized hot spot occurred in Section 4 of the Middle Area this year. WID sprayed 70 acres with Bt to solve this problem. Section 3 of the South Area was sprayed with Bt by the County-State program to solve a comparable outbreak. WID is releasing parasites again this year and there is substantial evidence that this is very effective.

Individual resident cooperation is essential. Here is what you should do:

- Between September 15th and October 15th (**no later!**), do a comprehensive egg mass search of your property. Count and remove all egg masses. Immerse them in a detergent solution to destroy them. Don't drop any remnants since they would hatch next spring.
- Call or write WID by October 15 regarding how many egg masses you found. **This is vital** as this data is used to qualify Barcroft for County and State funds for next year's spraying effort. Phone Ms. Kelly Wilson at 820-1300 and, if the answering machine responds, leave your name, street address and the number of egg masses found. Or, write: WID, 3650 Boat Dock Drive, Falls Church, VA 22041 with the same information.

In doing the search, look everywhere. . . in cracks and crevasses. . .on your house, under the eaves, around the mailbox and electric utility box, on stone walls, in wood piles. Everywhere! Enjoy this autumnal Easter Egg Hunt.

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

Weed Control

Photo by Kelly Wilson

As you read this, Lake Barcroft's underwater weeds are probably sprouting. Meanwhile our grass carp are eating more voraciously than last year when they were smaller. Any excess nuisance will have to be mowed by the WID's weed harvester.

WID's submerged aquatic vegetation control program will emphasize keeping the swimming beaches clear and cutting elsewhere to facilitate swimming and boating. Harvesting will be done on an alternate basis with a comprehensive mowing schedule making the circuit of the lake to be followed by selective cutting in response to individual requests. Swimming beaches have highest priority.

Here's how you fit in:

- If you need harvesting near your property, call Kelly Wilson at 820-1300 and ask to be placed on the mowing list.
- Alternatively, cut or pull up the weeds yourself and pile them at the water's edge. Call to have them picked up.
- WID Superintendent Sam Ellis reminds us that the weed harvester cannot cut very close to banks or seawalls and is not very effective in removing slight infestations. But for dense growths, the harvester is the most efficient method of removal.

The Fish and Wildlife Committee recognizes the value of aquatic vegetation as fish habitat and has established a no-mow policy in certain locations where swimming and boating are unlikely to be impacted and during the month of May when fish nests could be disturbed by the machine.

Fish Stories

5,000 walleye fingerlings were introduced to Lake Barcroft last year, an additional 5,000 will be released this year and 5,000 more in 1989. The community's Fish and Wildlife Committee recommended the introduction of this predator species of fish to help reduce the excessive population of bluegills. It is not certain whether the walleye, an excellent sporting and tasty fish, will successfully reproduce in the lake.

4,000 largemouth bass have also been stocked to augment the existing crop of Barcroft's most prized species. And a limited number of triploid grass carp have been released to consume submerged aquatic vegetation which has recently proved to be a nuisance to swimmers and boaters.

Fish and Wildlife Committee Chairman Ki Faulkner, now retired from the U.S. Fish and Wildlife Service, points out that one's catch can be improved by modifying fishing techniques to recognize that fish now populate deeper waters of the lake thanks to WID's aeration system.

Ki's varied program includes:

- The now completed Christmas tree placement program to enhance fish habitat;
- Installation of artificial redds (fish nesting devices) in shallow waters at appropriate locations;
- Introduction of promising new fish species;
- Springtime seining to obtain data on reproduction of the various fish species;
- A balanced weed control program to eliminate nuisance but maintain the habitat benefits of aquatic vegetation in appropriate locations;
- Periodic bird counts, waterfowl inventories and nesting surveys;
- Humane beaver control.

Lake Barcroft Watershed Improvement District
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A WID Bulletin
April 1988

Hydraulic Modification

Photo by Kelly Wilson

Ever wonder what holds the dam gate up? Several hundred pounds of hydraulic pressure!

For fifteen years, the 150 foot long Bascule Gate has lowered to pass storms and raised back in place again without a damkeeper at the controls. Prompted by an electronic sensing system, an electric motor has pumped hydraulic fluid into the four supporting cylinders to hold the gate at just the right position.

Now the hydraulic system is being improved. A duplicate motor, pump and piping are now in place to provide redundant protection. And a new network of stainless steel hydraulic piping is feeding each cylinder individually to permit safer operation and maintenance flexibility. The engineering study took several years and the construction is being performed by a contractor which specializes in stainless steel welding. A second contractor has performed the cryogenic freezing which was necessary to immobilize the hydraulic oil temporarily during the pipe connections.

The Lake Barcroft Dam . . . an old dam with a new look!

January 1988

Japanese Beetle Myths

Searching for beetle grubs in a Barcroft lawn.

When you dig under the turf looking for Japanese Beetle grubs, either you find them or you don't. WID's experience reveals some interesting and useful facts:

- Generally speaking, there are relatively few grubs in an average Lake Barcroft lawn. This confirms the opinion of entomologists that Milky Spore Disease does not die out in about twenty years as is rumored.
- One exception is when a Japanese Beetle trap is located on your property. It attracts beetles from as far away as two miles. Most of them end up in the trap but many lay eggs first which hatch to give you future problems.
- Another exception is when a homeowner has "chemicalized" his lawn intensively with pesticides. This kills all life and the bacteria has nothing to host upon and thus dies out.

We have this on the authority of the Extension Service, our consultant entomologist Mark Ticehurst and the Ohio Research and Development Center at Ohio State University. In fact, ORDC comments that Japanese beetle traps are commonly used to *establish* beetle populations for research purposes.

The moral of this story is:

- **Don't** buy Japanese Beetle Traps.
- **Don't** buy a Japanese Beetle "package."
- **Don't** spray pesticides on your lawn.
- **Do** write a note to the WID which will reapply Milky Spore Disease bacteria to your lawn if it has been disrupted chemically or physically. There is no charge.

PS: All of this has nothing to do with moles which are another problem. The best way to get rid of moles is to buy a harpoon type trap. Write WID for a copy of instructions on controlling mole damage.

A WID Bulletin

December 1987

Wild Flowers

Natural areas have special significance to Lake Barcroft WID Trustee Fred Chanania. As part of WID's broad role to manage the Lake as a natural resource, he seeks to emphasize the wide diversity of plant and animal life that Lake Barcroft harbors for community residents. "WID should do everything possible to preserve and enhance the natural areas still left around our Lake," he maintains.

The wildflower meadow project alongside Holmes Run fits this WID role. Planted last year, the meadow is to be a natural wildflower area that flourishes year after year with minimal care. Introduced wildflowers like cornflower, poppies and gaillardia are mixed with established Barcroft flora such as calico, aster, yellow bush clover and ox-eye daisy. Upcoming plans include fencing to protect the meadow and placement of interpretive signs to aid in flower identification.

Several small aquatic gardens will be established around the Lake next spring in an effort to enhance the lakeshore itself. Fred urges everyone to watch the Newsletter for nature walks (usually spring and fall) and welcomes questions and information on sighting of "all things natural."

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

A WID Bulletin

November 1987

WID's New Building

Trustees Dave Alne and Freeman Williams watch the pouring and finishing of the concrete slab for the WID's new building.

The pouring of the footings of the new building at the dam compound promises a new home for the WID before winter. During it's fifteen years, the WID has operated out of "the shack"...so named because it is a relic out of Barcroft's past. First located at Columbia Pike and Aqua Terrace, it served as developer Col. Joseph Barger's on-site sales office. Later it was moved to Blair Road in the North Area and finally was transported to the dam compound. The shack lacked adequate space, plumbing and class.

The WID's new building will at least provide space and plumbing. It is a 20′ × 60′ pre-engineered steel building with a single slope roof situated on a concrete slab foundation. It wil have a 20′ × 35′ drive-in work area, two small offices, two small record storage rooms and bath and vestibule. It is located in a wooded area and will be invisible from the Lake.

For the first time, WID will have the opportunity to have separate space for a Superintendent's office and a Manager's office. WID and BBI will share the work facilities. The new staffing arrangement of WID consists of cooperative education students from the Northern Virginia Community College under WID Superintendent Sam Ellis.

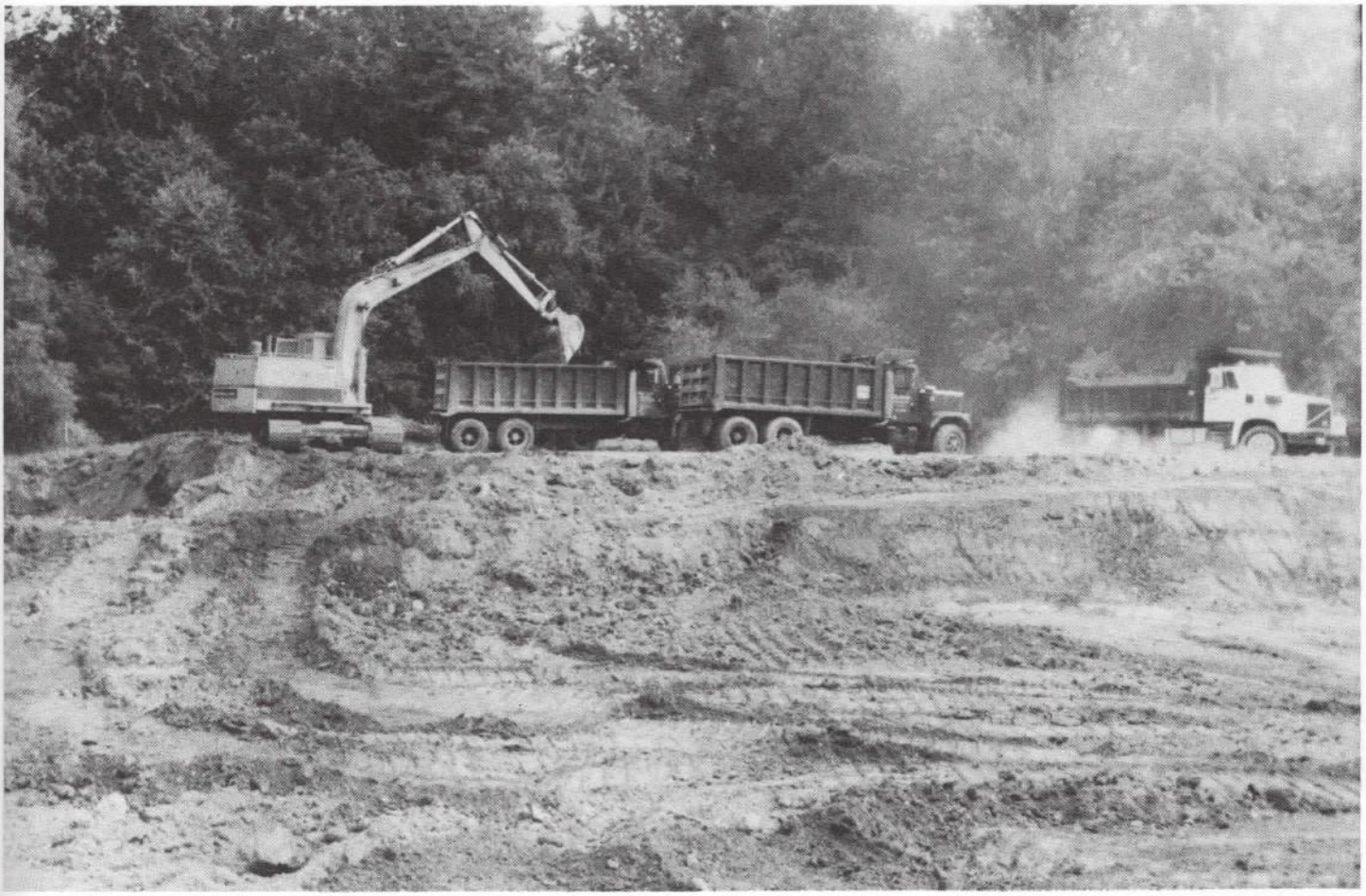
A new capability will be a professionally staffed Operations Office with Kelly Wilson serving as assistant to the WID's volunteer Operations Director. Her responsibilities vary from office management to liaison to actual field work such as gypsy moth monitoring. Barcroft residents are encouraged to call Kelly at the dam number of 820-1300 to make contact with the WID.

PS: After the new building is completed, the shack will be rehabilitated to perform another 27 years of duty.

A WID Bulletin

September 1987

Sediment



Sediment accumulation in lakes is natural, but unfortunate. It's removal is expensive but the alternative is worse . . .a swamp instead of a lake. Here several thousand cubic yards of sediment are being removed from the Beach 3 decanting basin. Earlier, about six thousand cubic yards were taken out of the Beach 5 temporary storage area.

Lake Barcroft's first de-silting took place in 1960 and 1961 when a hydraulic dredge bit into the swamps at the upper ends of the lake at Holmes and Tripps Run. The material was relocated instead of being hauled away, creating the Holmes Run island, the Beach 3 peninsula and the Beach 5 peninsula. Later efforts through the years have carted the sediment away to various disposal areas.

In September, the WID plans to dredge again. This time, the operation will be a "medium scale" dredging using smaller crews and less equipment. The target is about 5,000 cubic yards at a cost of somewhat less than $100,000. It will be dug primarily from the Tripps Run Silt Basin and other areas nearby plus several coves which have silted up since the last dredging in the fall of 1985.

The new dredging contract is expected to remove silt at about the same cost as the earlier operation which was more than twice as large. However, it is expected to be less disruptive to the community in terms of exposure to heavy equipment, dusty roads and noise. Further, the downside economic risk from downtime, clogged disposal areas, weather interruption, etc., is diminished. The dredging is expected to last from September to December and engineering estimates indicate a yield of an average of 120 cubic yards a day despite the use of a three man crew instead of one over twice that large in the past.

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • 941-3918

July 1987

Weed Harvester

WID's new submerged aquatic vegetation harvester is being launched at Beach #1 with Sam Ellis at the controls and Mike Arnold of Friends of the Waterfront, Inc. instructing. The machine was manufactured by D&D Products, Inc. of North Prairie, Wisconsin.

During its first week of use, it harvested weeds in several locations and removed floating debris in several others. The submersible front end of the machine has reciprocating blades at the bottom and sides and a conveyor belt to carry material onto the barge. This conveyor belt dumps in front of the operator where it lands on another conveyor belt which can move it toward the back of the barge. A third conveyor belt can be elevated to off-load the material. The machine has paddle wheels to avoid entanglement with weeds and debris. A single diesel engine powers the paddle wheels, elevates and lowers the cutting head and discharge chute and the three conveyor belts. While audible, it is not inordinately noisy.

First week results were sensational. Weed cutting performed exactly as intended. The more conjectural proposition of picking up floating debris worked exceptionally well. In one cove which had a mass of flotsam, the machine dug in and quickly loaded itself repeatedly. Only large logs had to be manhandled. The most efficient mode is to load the machine and then proceed to the dam compound to unload rather than using an intermediate barge which would need to be unloaded manually. The function is quick. It is very labor saving.

Residents are encouraged to send a note to the WID Operations Director, 3428 Mansfield Road, Falls Church, VA 22041 to request harvester service to solve weed or floating debris problems. We have recorded past requests and already have a list of 35 locations known to need attention.

A WID Bulletin

June 1987

Grass Carp

Triploid grass carp (sterile) have been introduced to Lake Barcroft. The grass carp is a native of the Far East found in China, Russia and Japan. It can grow quite large and can live to be over 15 years old. It is a member of the carp family, however, the similarity ends there as it does not act, resemble or taste like the common carp. The grass carp is edible and occasionally is taken by hook and line. The grass carp was first introduced by the U.S. Fish and Wildlife Service when it was stocked in a lake ne Stuttgart, Arkansas. Today, triploid grass carp can be found in most states between the Appalachians and the Rocky Mountains and are being introduced in many Virginia lakes, subject to state permit, as a form of submerged aquatic vegetation (weed) control.

Grass carp are able to eat vegetation because of a modification of the back portion of the gill which has taken the form of a tooth-like structure. These pharyngeal teeth are used to grind and chew the vegetation so that it can be swallowed and digested. Grass carp grow rapidly and prefer rooted vegetation. After five years of age, their growth rate and effectiveness at controlling aquatic plants slows considerably. A triploid grass carp is one that has been genetically altered to the extent that it is incapable of successful reproduction.

WID's Fish and Wildlife Committee chose to purchase only 2 grass carp per acre, a total of 280 for Lake Barcroft, to avoid what has been called a bare-bottom lake. Too many carp would completely strip the lake of vegetation. In fact, this has happened in one Virginia lake which applied the carp at recommended rates of 10 to 12 per acre. In contrast, Barcroft and at least one other Virginia lake have introduced the carp in more conservative numbers to retain some submerged aquatic vegetation which is valuable as fish habitat.

Next time. . . the story of the other major phase of SAV control—WID's new SAV harvesting machine.

A WID Bulletin

May 1987

Mole Control

The most effective and selective method of controlling moles is by trapping. However, the secret of success for trapping moles is to locate the main or frequently used runways. To determine which runways are active, stamp down a short section of each runway. Observe daily for several days and re-stamp any raised section. If a runway is raised daily, it is an active runway and a trap should be set at that location.

The harpoon type trap is the easiest to use. After finding the active runway, stamp down the ridge at the trap site. Set the trap with the pointed supports astride the runway and insert the trap into the soil to the point where the prongs are one inch above the stamped down ridge. Push and raise the prongs several times to ensure they will penetrate the soil easily. Set the trap pan flush with the stamped down ridge and pull up the prongs to the set position. Always reset after a rain. Move any trap that fails to catch a mole within one or two days.

If moles are deprived of their food supply, they are forced to move to other areas. The use of insecticides will reduce insects and worms to a point where the soil will no longer provide adequate food to fulfill the requirements of moles. WID does *not* recommend this method since it does not reduce the total mole population and because of the destruction of beneficial creatures which serve to increase the friability of our already marginal soil in this area. If you wish to use insecticides, call the Extension Service for advice.

Other methods such as the use of partially-chewed chewing gum and the use of gas or repellents such as mothballs are ineffective.

Grazing Geese

The resident Canada Geese are now frequenting the lake. Some will take up nesting and raise a gaggle of young while others are paddling around taking full advantage of the lake environment. However, geese are grazers and problems will begin as they start feeding on some of the shore front lawns.

The U.S. Fish and Wildlife Service can provide assistance in the form of advice and demonstration to reduce the grazing problems. The Service will not provide assistance to remove the problem geese until the lake residents have attempted to solve the problem.

Two steps can be taken by residents to reduce the grazing problem. The first step is to stop all feeding of geese. The second step is to erect a low fence along the shoreline. The fence will stop the geese from walking from the water's edge onto the lawn to graze.

A simple fence consists of black plastic poultry netting. The netting is available in 3-foot widths and 100-foot lengths and only weighs seven pounds. The width can be cut lengthwise making an 18-inch high fence. The fence can be held erect with wooden stakes. The geese will seek other feeding sites once they have been denied the habit of feeding at their chosen site. Thus after several days the fence can be removed and stored.

The plastic netting is light, economical, durable and inexpensive. It can be obtained by mail order or telephone call to: Internet Incorporated, Plastic Netting Fabrication and Sales, 2730 Nevada Avenue, North, Minneapolis, Minnesota 55297, telephone 1-800-328-8456. Please ask for Type M Cintoflex Poultry Netting, 36″ wide and 100 feet long, ¾″ by 1¼″. The cost is $45.17.

1992 note—now available at cost from WID.

Watch Out for Thin Ice

It's fun to skate on Barcroft's winter ice. But have respect for ice safety practices. Discuss them with your children and their friends. When you see skaters flirting with danger, warn them and ask them to cooperate by skating only in safe areas. There is no public agency which has the responsibility and the authority to patrol and enforce ice safety practices at Lake Barcroft. Everyone is on his own!

Thin ice is the greatest hazard. The lake does not freeze uniformly and thus one part may have solid ice while another may be only a fraction of an inch thick. Thawing ice sometimes appears solid but is actually very unsafe. Snow can hide weak spots in the ice. Three inches of ice is generally considered the minimum thickness for safe skating. Don't skate at night. Don't skate alone. Don't allow children to skate without a responsible adult present.

Lakefront property owners should make available planks, ladders, ropes, life rings, etc. at the waterfront ready for quick use.

Your Awareness Can Save Lives

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • Phone 941-3918

working in association with

Barcroft Lake Management Association, Inc.
For information call:
Dr. Jerry Meyer, President
Mary Kathryn Kubat, Office Manager
Office Phone: 941-1927

WID Bulletin

October 1986

Why a WID?

The Lake Barcroft Watershed Improvement District provides special services which benefit the Barcroft community.

Most of these services involve the lake which is the focal point of the community. WID operates, maintains and improves the dam. It dredges sediment from the lake and removes floating debris. It is responsible for fish and wildlife management and the control of excessive aquatic vegetation. Through programs, such as WID's aeration system, high water quality is maintained.

But many WID services involve appropriate conservation activities in the watershed. WID works to prevent soil erosion and lake sedimentation through the Upper Holmes Run Environmental Monitoring Committee and other functions. Within the community, it manages a gypsy moth control program and is organizing a Japanese Beetle control program. Other conservation programs include mowing and erosion control on roadway medians and miscellaneous storm drainage improvements.

At the Causeway, shown above, a few simple actions such as erecting a parking control post-and-cable fence and a "no fishing–private lake" sign have reduced hazard and nuisance significantly.

The WID is like a town in the sense that it can provide services which are tuned to local needs and desires. The WID is an additional political unit which provides services tailored to our special situation and not available from any other political unit.

Lake Barcroft Watershed Improvement District
6234 Lakeview Drive • Falls Church, VA 22041 • Phone: 941-3918

A WID Bulletin

August 1986

Barcroft's Seawall Program

With the lake gone after Hurricane Agnes, the WID became interested in seawalls thanks to WID Engineerng Consultant Flop Morris. Captain Morris, who always spoke of them as quai walls because of his Navy experience, thought that when the lake was down was a perfect time for residents to repair or rebuild seawalls. He conducted a detailed study of seawall conditions and WID publicized the opportunity concept. During this period, many seawalls were reconstructed.

Captain Morris prepared construction drawing specifications which illustrated how to build a vertical-member timber seawall and WID gave copies to anyone who showed interest. WID Trustees established a policy of maintaining constant lake level which eliminated periodic drawdown periods which had caused difficulty in the past and this essentially terminated the construction of the old horizontal timber "railroad tie" walls and established the need for vertical-member walls.

Meantime, the revitalized BARLAMA Architectural Review Committee developed a set of seawall specifications. ARC requires that that anyone building a seawall must apply for permission and provide information regarding location and design.

In 1985, WID arranged with a marine construction company to give a substantial discount for seawall construction following lake dredging in the fall-winter of 1985. Subsequently, WID negotiated a coordinated system of obtaining building permits with the County Department of Environmental Management in which the contractor undertook this responsibility and the County accepted WID's seawall specifications, permitted a minimum fee for the permit and agreed to a simplified and economical inspection system to ensure construction quality. In the course of these negotiations, a second contractor has been validated for this coordinated approval system and additional ones may be approved in the future. This assures competition which should reduce seawall construction costs in the future.

Sturdy seawalls benefit everyone in Lake Barcroft. The lakefront property owner has a neater and more useful waterfront and the lake looks more attractive with solid seawalls than tumbledown ones.

If you are planning major seawall repairs or reconstruction, contact BARLAMA's Architectural Review Committee for its approval and information on contractors who are familiar with the coordinated County approval system.

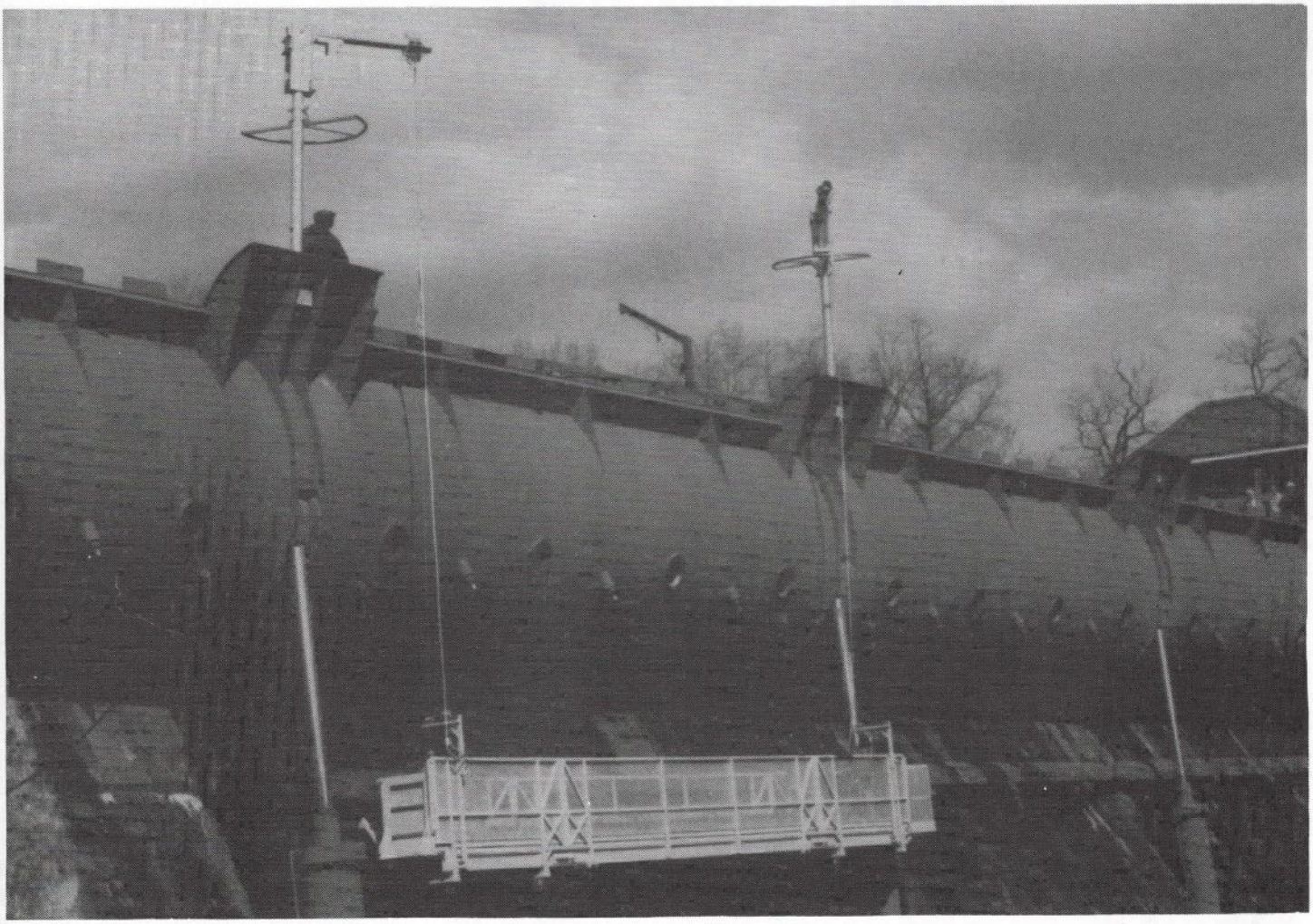
BARLAMA
Office: 941-1927

ARC Chairman Pat Devito
379-4110

A WID Bulletin

June 1986

WID's Powered Platform



Just like high rise office buildings which must wash their windows, the WID's dam needs access for maintenance. After discarding such ideas as putting up scaffolding or building a permanent catwalk, WID contracted with Powered Platforms Manufacturing of Livonia, Michigan to design and construct a powered platform for access to the face of the dam. Because of the small distance involved, it is hand powered instead of machine operated. However, the design required all of the sophistication of comparable units on large buildings.

Six tilting sockets have been installed along the dam gate and on the concrete endwalls. Davit masts can be inserted into any two adjacent sockets and then raised to vertical. The platform is attached and maneuvered over the edge and finally lowered to the necessary level using two traction winches. It can be pulled under the lip of the dam gate by several wire rope tie in lanyards.

For 13 years, the outer face of the dam has been available only by using a risky and insufficient boatswain's chair slung over the gate. If major maintenance had been required, it could have been very costly and taken months. The new powered platform is now instantly available for any purpose. Initial use will include repair of chrome corrosion on the gate pistons, the installation of a new extensive redundant hydraulic system, complete painting of all metal parts including the entire gate itself, dam face rock pointing up and more comprehensive periodic inspection.

The Barcroft Dam. . . .an old dam just filled with new ideas!

This information brought to you by

Lake Barcroft Watershed Improvement District
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A WID Bulletin

May 1986

"Somebody's Throwing Trees Into the Lake"

Volunteers Jack Fasteau, Ernie Rauth and Ki Faulkner wrestle with 300 Christmas Trees

The lady who called was understandably puzzled. Three grown men were standing on a barge, tying weights onto bundles of evergreen trees and throwing them in the lake.

Ki Faulkner, Chairman of WID's Fish and Wildlife Committee, explains that bluegills are omniverous and thus eat animal and vegetable food. These little fish are also opportunists and during June they wait until the eggs hatch in a largemouth bass nest and then they gobble up the newly hatched fish fry. While the bass can keep the bluegills from devouring the eggs in her nest, she can't protect the newly hatched baby fish which swim everywhere. The solution is to provide a safe habitat for the fish fry until they are large enough to protect themselves. Such a shelter can be the closely intertwined branches of an evergreen tree sunk in the water.

Ki's method at Barcroft was to collect all of the community's discarded Christmas trees and save them until the end of March when they could be sunk strategically in the lake to provide the necessary protection. Committee members and WID staff tied the trees together into bundles, attached a concrete weight and then dropped them into the lake at about the 20 foot contour. . .deep enough so boats or trolling fishermen won't snag them.

After hatching, the baby bass will swim in this protected area and will feed on the zooplankton which will accumulate on the Christmas trees. After they are about a month old and perhaps two inches long they can venture out safely.

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April 1986

Reservoir 2A: A New Lake

Reservoir 2A's gravity concrete dam nearing completion with the now-being-excavated lake in the background.

A new lake is being constructed in the Holmes Run watershed above Lake Barcroft. It has the unromatic name of Reservoir 2A. Located in the Northeast quadrant of the Chiles Tract which is being developed by Cadillac Fairview Urban Development, Inc., it will be the centerpiece of Fairview Park which will provide 4 million square feet of office, hotel and retail space with an ultimate investment of about $650 million dollars.

When the Chiles Tract came up for rezoning several years ago, the WID took a non-obstructionist position but pointed out that such an intense land development scheme would intensify storm runoff and generate sediment both during construction and thereafter. Recognizing that the development of this valuable tract of land was inevitable, WID negotiated a cooperative arrangement with the developer which has been mutually beneficial.

Cadillac Fairview has already spent $450,000 on erosion control measures just on the Loop Road, the Spine Road and the Route 50 Interchange which has substantially diminished the quantity of sediment generated during the critical construction phase. Fairfax County through both its Public Works Department and Department of Environmental Management has exerted control over contractors and has monitored silt transport through a new technical evaluation process overseen by the Upper Holmes Run Environmental Monitoring Committee. Three Barcroft residents are members of the committee.

To Lake Barcroft residents who pay the bill for dredging sediment out of Lake Barcroft, the payoff is just around the corner. The new flood contorl and sediment containment Reservoir 2A segregates 18% of the Barcroft watershed from direct intense contact with Lake Barcroft. The approximately 80% to 85% trap efficiency of Reservoir 2A will catch and retain as much as 2,500 to 3,000 cubic yards of sediment a year which will have to be dredged out of Reservoir 2A by Cadillac Fairview and Chiles Tract homeowners instead of out of Barcroft by the WID. At last year's dredging rate of $16.50 per cubic yard, this will save WID taxpayers a theoretical $40,000 to $50,000 a year. Actually, the figure will be less than this because of other factors. . . . but the saving will be substantial.

In addition, the flood control function will diminish storm outflow from this 2.6 square mile section of the watershed by 60% to 70% in the storms of 2 to 100 year frequency and greater retention of smaller storms. This will diminish stream bank and stream bottom erosion between Fairview Park and Barcroft. Also, 9 smaller retention ponds are being constructed.

As Supervisor Tom Davis has put it, "quality development sets a precedent that makes developers pay their own way." WID appreciates the cooperation which has been provided by Fairfax County which built the Reservoir 2A dam and Cadillac Fairview which donated the land and will maintain the new lake. Perhaps it should be named Lake Fairview.

1992 note—now named Providence Lake.

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Environment/Engineering

The Two Faces of the WID

The Lake Barcroft Watershed Improvement District strives to identify and balance competing interests. Environmental matters and engineering activities are quite different and yet interrelate. Home owner priorities vary from family to family. WID Trustees and WID Associates are diverse individuals who bring varied expertise and points of view on all issues being studied. For example:

Environment

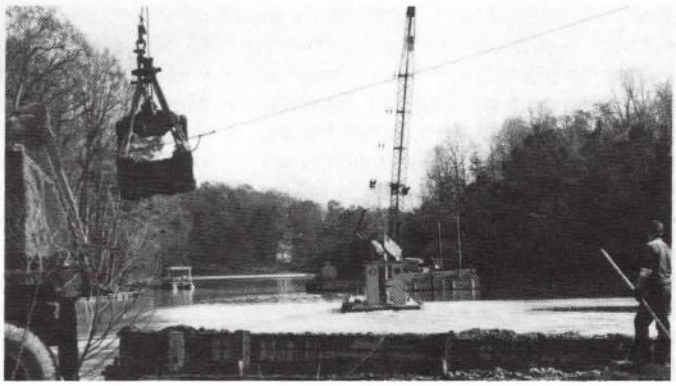
The WID has just launched a study program with consulting environmental engineers to determine how our aeration system has affected key lake characteristics such as temperature stratification, dissolved oxygen, pH, and nutrients. The findings could guide the WID in its effort to improve water quality and eliminate nuisances such as accumulations of algae and excessive growths of submerged aquatic vegetation. They might even result in economy if it proves that alternative methods are better and cheaper or if the time of operation of the aeration system could be diminished without reducing its beneficial effects.

The WID's newly acquired Fish and Wildlife Committee monitors fish and wildlife populations and investigates the lake's biological communities. The objectives range from humanely trapping and removing beavers which are considered a pest in urban lakes. . .to encouraging moderate populations of ducks and geese. . .to the possibility of introducing a new species of game fish. The WID is also sponsoring a wildflower meadow project to be sited near the Woman's Club bridge and has an ongoing gypsy moth community control program.

by WID Associate Fred Chanania

Engineering

WID engineering activities have progressed from rehabilitating the dam after Hurricane Agnes and removal of 90,000 cubic yards of sediment when the lake was down to a combined program of engineering improvements and innovations which can improve lake management. Completed major projects are the installation of the bascule gate to control flood flows, the development of a superior electronic control system for the dam, grouting the masonry dam structure and installing a cathodic protection system to prevent rusting of the steel dam gate. Through the years, the WID has improved its silt removal program and methods of collecting floating debris.



The fall-1985 dredging schedule is being undertaken at the Holmes Run end of the lake to complement the Tripps Run cleanup two years ago. It is expected that 10,000 cubic yards of sediment will be removed using a floating crane, hopper barges, an unloading crane and trucks. New ideas include the installation of a powered platform to provide access to the outer face of the dam, a new redundant hydraulic control system for the bascule gate and an Emergency Action Plan in coordination with the Virginia Dam Safety Program.

by WID Associate Walter Cate

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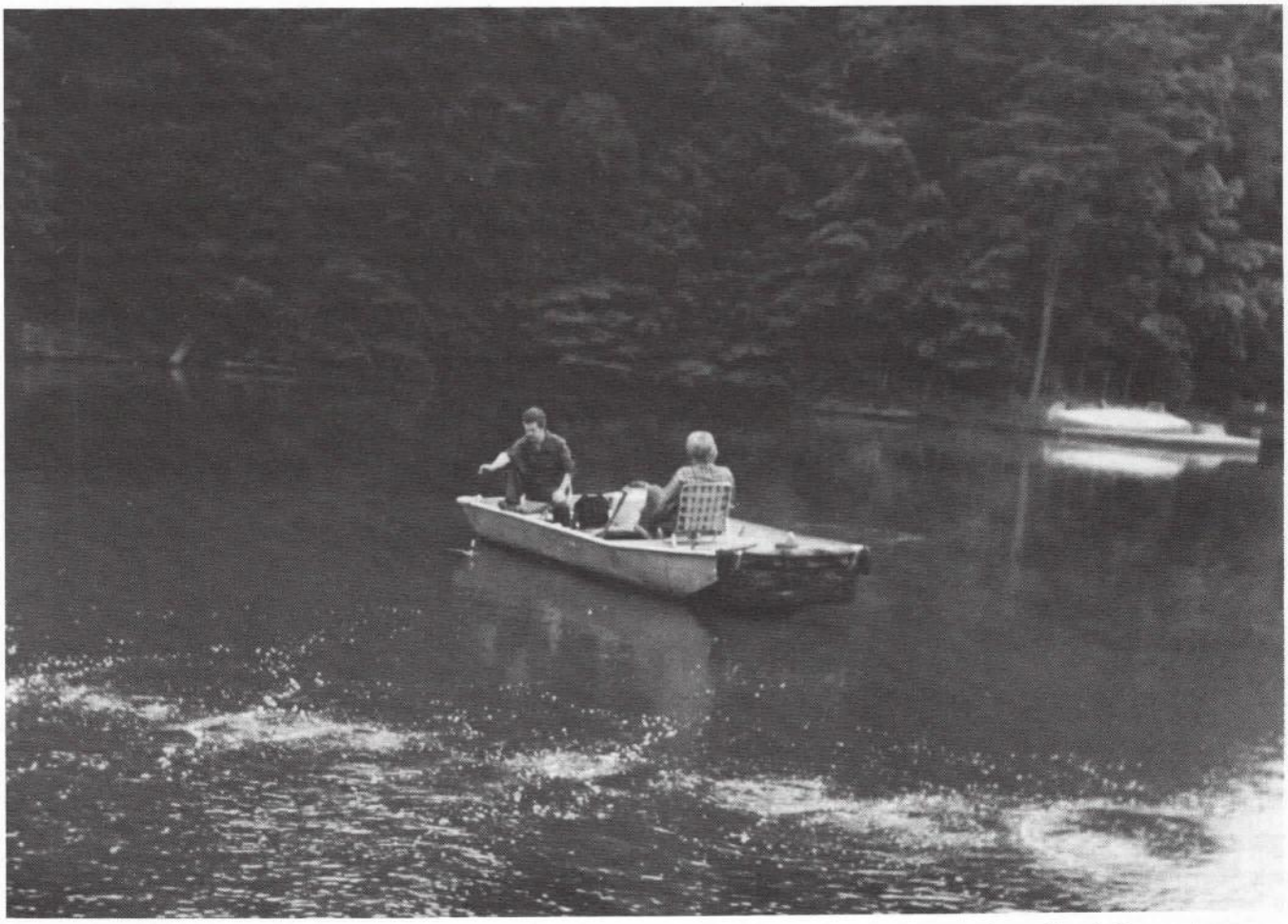
A WID Bulletin

September 1985

Encouraging Mother Nature to Work for You



We could have been wrong! And if we had been, we would have wasted about $30,000 and a lot of effort. But, it turned out that we were right . . . small bubble aeration can correct a serious algae problem in a lake like Barcroft.

When those slimy green scums began to appear more persistently about four years ago, the WID Trustees considered whether or not an aeration system would correct the lake's ecological errant reaction. We asked our consulting engineers and they said maybe, but the literature doesn't guarantee it. Taking the gamble, the WID designed and built a small bubble aeration system with four emitters in various locations deep in the lake.

The streak of bubbles in this picture goes on day and night from March through November. In the boat, WID staff are taking temperature and dissolved oxygen readings to determine the efficacy of the system. It does what it is supposed to do. It has eliminated the thermocline between the upper waters (epilimnion) and the bottom waters (hypolimnion) such that the difference in temperature from top to bottom is 2 degrees Centigrade or less. More important, oxygen is injected into the bottom waters converting them into an environment where fish can live and sludge digesting bacteria can flourish.

Regarding the algae nuisance, the aeration process has converted the predominant species of algae in the lake from blue-green to green. It's not a matter of color but of character. Blue-green algae are the pollution algae which form scums and smell bad. Green algae are a normal part of the aquatic food chain and they do not "bloom."

So, while other lakes are struggling with their algae problems by adding chemicals to the water or attempting complicated and expensive mechanical processes, the WID is letting Mother Nature operate our own Barcroft treatment plant using bubbles, sun and waves for the purification process. All it costs is some electricity to run the compressor.

PS: Please don't anchor your boats in the main part of the lake where the aeration lines are.

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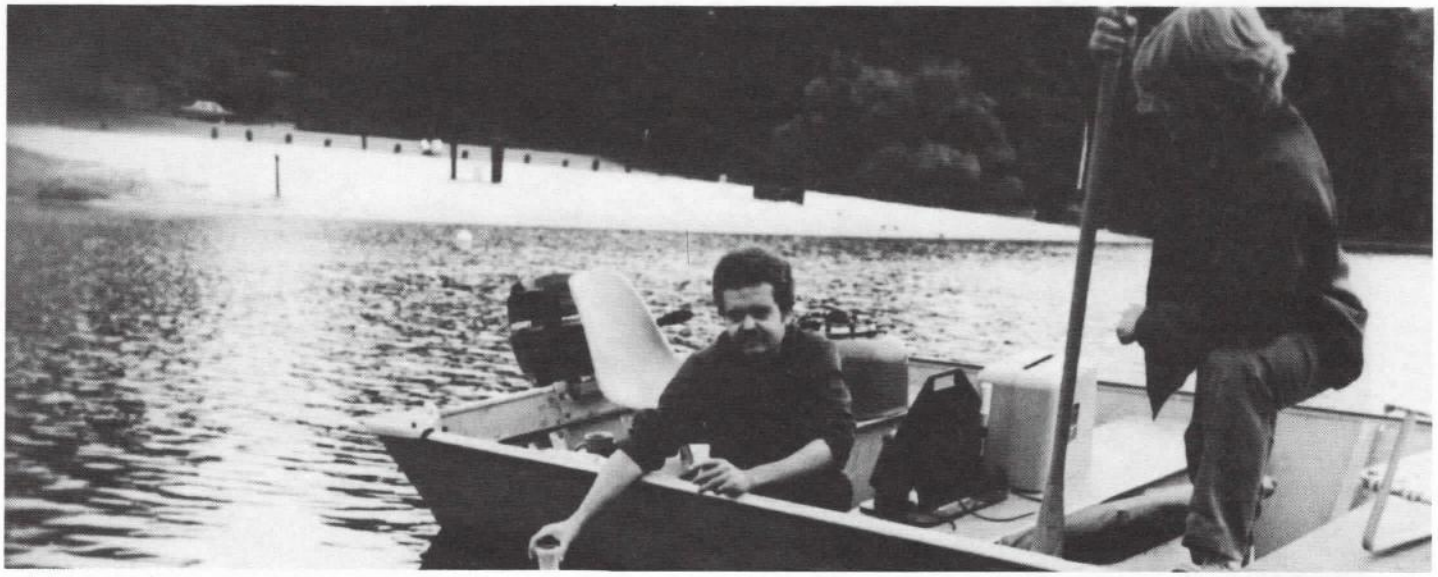
What The Barcroft Water Testing Program Is—And What It Is Not



There is a popular misunderstanding about the Lake Barcroft Watershed Improvement District testing program. Many people think that it is . . . or should be . . .a system for determining whether the lake is swimmable. Not so! It is intended to determine whether there are upstream sewer leaks which could contaminate the lake.

Human health problems could result from the presence of pathogenic organisms from the human intestinal tract such as salmonella, shigella and enteric viruses. But, in this 15 square mile watershed in an urban area, all homes are connected to sanitary sewers and human waste is piped to sewage treatment plants. There are no sewage treatment plants in this watershed and thus there is no sewage effluent discharge in this watershed. Accordingly, the only way such pathogens could reach Lake Barcroft would be from sewer leaks or sewer overflows.

The ideal method of testing water for microbiologic safety would be to search for pathogens transmitted by water. Unfortunately, this is impractical at present. The most common method of testing is to search for coliform bacteria which are the most widely accepted indicators of pollution, particularly in the United States. However, the feces of all warm blooded mammals contain coliform bacteria. Thus, a coliform bacteria count which we might obtain in a Lake Barcroft test is most likely to indicate bird or animal feces. But, indeed, it does indicate pollution.

These coliform counts vary from time to time and tend to peak late in the day and at certain seasons. Also, a large storm scours the watershed and creates a peak reading immediately thereafter. But the point of our testing is to determine whether or not there are sewer leaks or overflows. Remember the coliform are not harmful. They simply indicate that the harmful pathogens might be present.

Accordingly, we interpret the monthly test reports for an excessively high coliform reading which might indicate a broken sewer line. If we get one, we quickly (without waiting for the next month's tests) run a new set of tests and specifically locate them with respect to the suspected location. For example, if we obtained an exceptionally high reading at the Holmes Run inlet to the lake, we would locate new sampling points at the inlet and at several locations upstream. If there is a sewer break, several such subsequent tests can pinpoint the approximate location and the County's Line Maintenance Division can then find the exact location of the sewer leak and fix it.

All of this doesn't help the BARLAMA Water Safety Supervisor or the resident who wants to know whether or not it is safe to swim at a particular instant very much. The Water Safety Supervisor knows by the experience of his predecessors and those with general knowledge of the field of environmental health that it is safer to swim at any time other than after a big storm. Thus, he tends to recommend cancelling swimming for two or three days following a very large storm or during periods when the lake seems very muddy.

Everyone is advised to use personal good judgement. Have confidence that we are continually watching for sewer leaks. But beyond this be cautious to the extent of not swimming after big storms. Also, since organisms are more likely to be present in bottom muds, don't swim in mucky places and don't stir up bottom muds unnecessarily.

So, have faith . . .but be normally cautious.

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July 1985

A Middle of the Road Solution

CONSERVATION COOPERATION = IMPROVEMENT.

Right plunk in the middle of sections of Lakeview Drive and Waterway Drive lies a median strip which separates the two halves of these bifurcated road sections. Since these roads are perched on the side of a hill, these median strips are steep. Grass grows on them, but it is hard to cut. For the last three decades, they have looked untidy simply because there was no organized maintenance system.

But them days is gone forever. The LABARCA Improvements Program focused on mowing the medians as one of its priority objectives. It asked the Lake Barcroft Watershed Improvement District to try to mow them. Using the WID's new Kubota tractors which has a six foot mower arm, it is possible to cut six feet up the banks. Using other equipment specially selected for this purpose, the rest of the bank can be cut. Hand trimming around the posts of the steel guardrail can be minimized or eliminated by herbiciding and mulching around these posts.

Now that the personnel and equipment are being supplied by the WID, the program is being transferred entirely to it for management and execution. The WID's mandate, which is stipulated in the Code of Virginia states that a Watershed Improvement District shall conform to policy which has been developed by the Legislature. ". . .the lands of the State of Virginia are among the basic assets of the State, and the preservation of these lands is necessary to protect and promote the health, safety and general welfare of its people. . . ." The Code further specifies that appropriate corrective methods include seeding and planting of sloping lands with water-conserving and erosion-preventing plants, trees and grasses.

Barcroft residents along these medians have contributed generously toward the Median Fund and each of these dollars is being matched with a community-wide dollar. The WID is now managing the finances of this median operation. Its policy is to make it as effective and efficient as possible.

Meantime, *you* have an important role. If you live along a median, keep your part of it clean. Don't dump leaves there. Pick up trash that others drop. Occasionally rake your median frontage and put the clippings or refuse in the trash. If you have suggestions on how they could be recontoured or otherwise improved, call the WID. And talk it up with your neighbors so they get the idea too.

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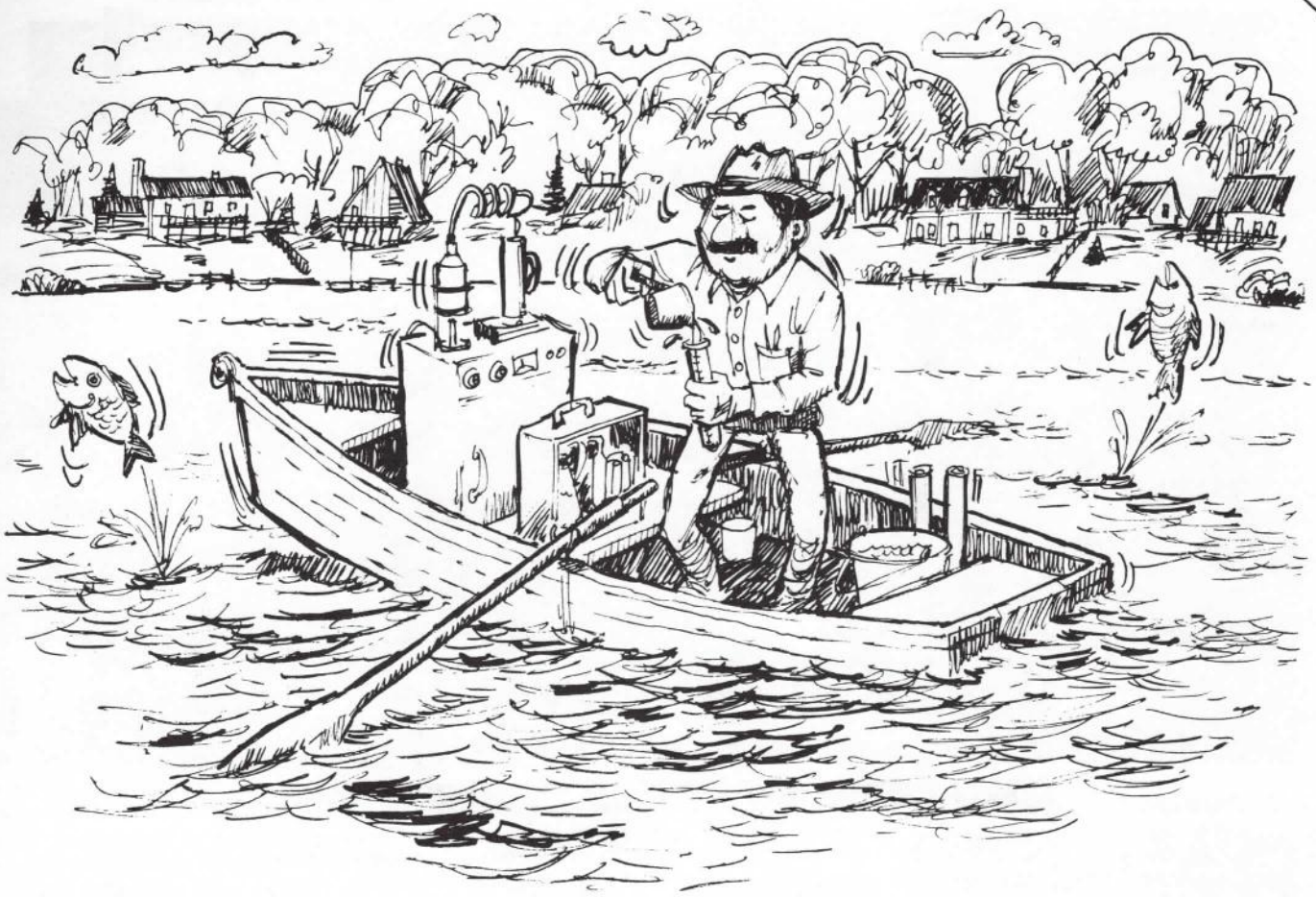

Be A Water Watcher

Lake Barcroft is full of "water watchers"...and that's good. People take pride in their Lake and when obvious pollution shows up they expect correction. The Lake Barcroft Watershed Improvement District runs periodic tests of water quality. If the fecal coliform count gets too high, a specific effort is made to find the source and eliminate it. The criterion is that the Lake's water should be kept within EPA's standards of swimmability or the beaches should be closed.

On the other hand, Barcrofters should not be concerned about manifestations of natural processes and confuse them with pollution. For example, Lake Barcroft must be expected to have a reasonable crop of algae in the warm summer months. The Lake's deep waters must be acidic and devoid of oxygen since this is natural in this climate. Floating debris is not a health hazard, although the WID assumes the responsibility for cleaning it up as quickly as possible. And turbidity from incoming sediment is natural and, at worst, indicates temporary pollution after a storm.

If you detect leaks, spills, or other evidences of pollution, call the WID. In the meantime, enjoy Lake Barcroft with confidence that it is a "living lake."

Watch, but Don't Panic!

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working in association with

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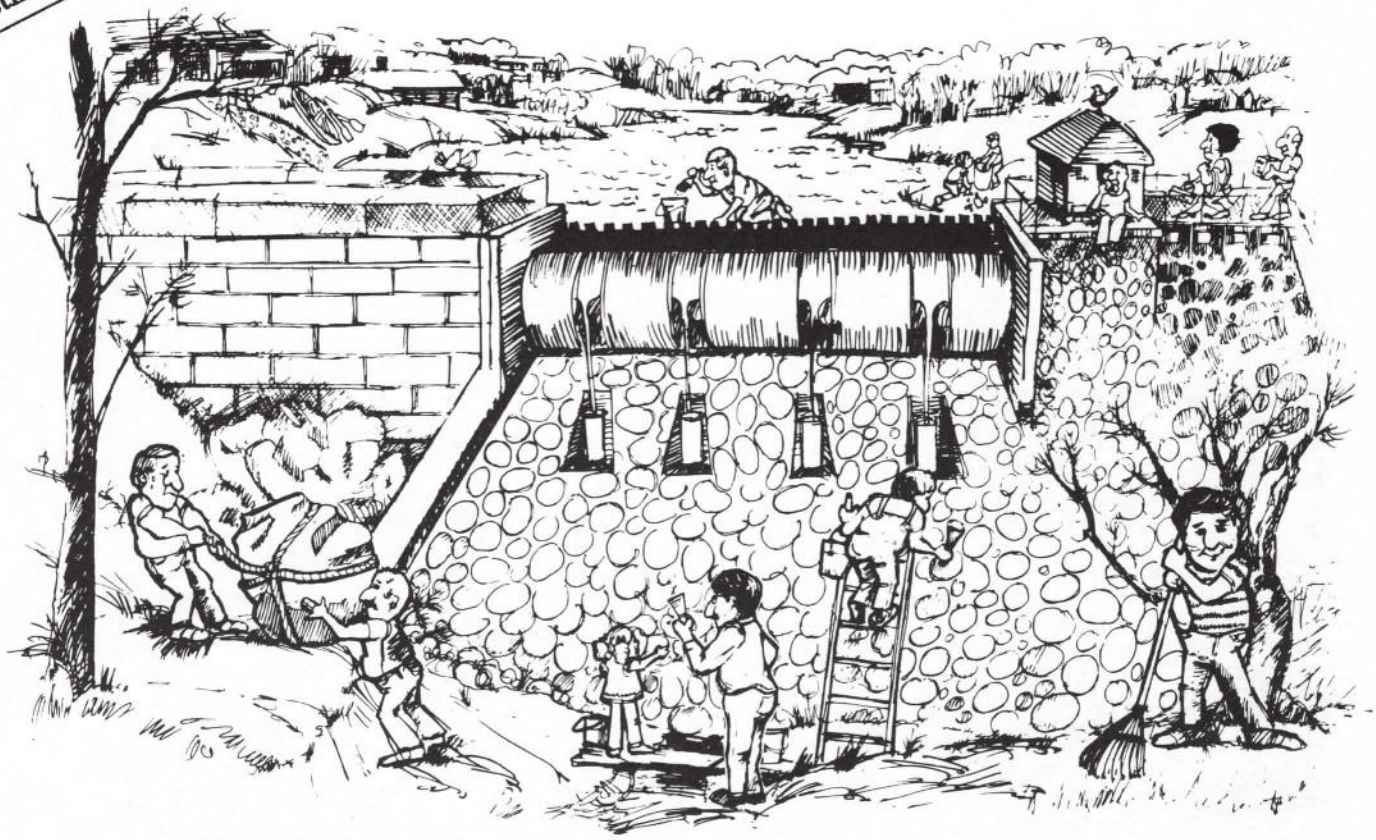
For information call:
Frank Sanger, President
Mary Kathryn Kubat, Office Manager
Office phone: 941-1927



Your .1% of a Dam

As one of a thousand Lake Barcroft property owners, you are the proprietor of one tenth of one percent of the Barcroft dam. The responsibility to maintain and operate the dam safely and cost-effectively is undertaken by the Lake Barcroft Watershed Improvement District.

Your WID reports that since reconstruction the dam has been further improved. Its rock face has been grouted. Its downstream slope has been further stabilized with rock. The electronic control system has been replaced with a more sophisticated one which provides greater safety through the use of redundant back-up systems.

In the future, more improvements will be needed. A cathodic protection system will be installed to reduce corrosion. The downstream dam face needs further repairs. It is time to paint the metal surface of the gate.

It is the continuing responsibility of the WID Trustees to make delicate judgements as to the urgency of capital improvements on the one hand and the scheduling of tax receipts from the Community on the other. The Trustees can err in this regard in either of two directions:

- If capital improvements are deferred too long, in the interest of keeping the tax rate and tax receipts low, there is a danger that safety standards are violated or later capital costs are higher than necessary.
- If capital improvement urgencies are exaggerated, there is a danger that a higher tax burden falls on current taxpayers instead of equitably on all who benefit from the improvements.

Financial and operational details will be sent to you soon in the WID's Annual Report.

Know Your WID

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Be a Good Leaf Manager

Leaves are nice on trees or in a compost heap, but they are lousy in a lake. They sink, decompose, and absorb all the dissolved oxygen in the water on which the fish depend. Thus, the WID hopes you will keep your leaves out of the lake.

One way is to pile them properly for collection. If you put them in the ditch or the gutter in front of your house, they'll first wash into the nearest storm drain and then into the lake. It's better to pile them back far enough so that they won't wash away. Incidentally, the recently issued "Refuse Collection Rules and Regulations" don't mention the County's vacuum leaf collection, but a special flyer is usually sent out each fall. It states that there will be several *fall* leaf-pile collections and that *spring* leaf pickup must be packaged in plastic bags (or otherwise) on regular collection days.

Anyone who rakes his leaves in the lake is a no-goodnick!

Brush collection is provided by the County. The easiest way is to cut shrub and brush trimmings into 4-foot lengths, tie them securely, and put them out for your regular trash collection. If you have a large quantity, you can put them out loose and they will be picked up by a mounted crane. To arrange for this, call 631-1484 between 8 am and 4:30 pm weekdays. Brush collection is made on your regular pickup day. Call at least a day in advance.

Patronize the Landfill . . . not the Lake.

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Vertical is Better

Once upon a time, all seawalls at Lake Barcroft were made by piling railroad ties on top of each other and spiking them together. The only trouble was that every year or so the level of the lake had to be lowered for several months to accomodate this work and then let the lake fill up again. This was unsightly, demoralized recreation, subjected the exposed walls to extraordinary pressures, and also exposed them to air which made them rot faster.

Today's new method of installing vertical timbers eliminates the necessity of lake lowering. To install, substantial timbers of treated wood are driven to refusal and the ends cut off even at the proper level. A power jack hammer is the easiest method of driving them. The upper ends are built against a horizontal 4 x 4 and another is placed on the outside to provide stability and strength for the tie-backs which can be made of steel cable or rods attached to a substantial deadman of some sort.

Any contractor can do it and some do-it-yourselfers are up to it. The whole process uses less wood bulk than railroad ties and is less disruptive. With properly treated timber, the wall should last as long or longer than a railroad tie wall. When replacement time comes, removal is much simpler than hauling tons of ties out of the lake. The WID has sample construction drawings which you can show to a contractor. They are available at no charge.

These new walls look neater than the old fashioned tie walls. If you don't believe it, get out your canoe and see for yourself.

Your waterfront is part of everybody's lake!

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THE BARCROFT STORY

BARCROFT COMMUNITY was named in memory of a doctor who built his home here and also operated a mill. The man was Dr. John W. Barcroft, originally from New Jersey.

In 1849 Dr. Barcroft came to our area and built both a home and a mill on Columbia Pike at Holmes Run near the present dam. He practiced medicine throughout the surrounding community and ran his mill up to the time of the Civil War.

During its retreat from the Battle of Bull Run, the Union Army overran Dr. Barcroft's home. His property was so damaged that he went back North until the end of the war. He then returned to Fairfax County and built a new home on what became known as Barcroft Hill.

Before the time of Dr. Barcroft, our neighborhood was not without some notable history. The original residents were the Doe and Necostin Indians of the Algonquin tribes. (Anacostia derives its name from the Necostins.) Artifacts of these early natives are still occasionally found. Howard Uphoff has uncovered arrowheads on his land at 6308 Lakeview Drive.

Munson Hill Farm was a large tract between what is now Bailey's Crossroads and Seven Corners. It was settled and developed during the early 1700's. Timothy Munson brought the land in 1851 and gave his name to the farm. In the time to come his name was also applied to a community and a street just north of our lake area.

Columbia Pike was constructed as a toll road in 1808, and was then called the Washington Gravelled Road.

During the Civil War both Munson Hill Farm and Bailey's Crossroads were scenes of action. At the beginning of the war Bailey's Crossroads was a Union Army camp. At the same time the Confederate Army occupied locations at Annandale and Fairfax. Later, Federal troops built Fort Buffalo at the present site of Seven Corners, and it became one of the ring of forts protecting the District of Columbia late in 1861. At about that time Bailey's Crossroads was the site of the largest military review ever held anywhere. General McClellan reviewed 75,000 troops, and President Lincoln was among the additional 75,000 spectators who came to watch the Army of the Potomac's vast parade.

It was during this grand review that Julia Ward Howe was inspired to write new words for the music of a song called John Brown's Body. The new song became one of the most stirring anthems of all time, the Battle Hymn of the Republic.

Bailey's Crossroads is named for the Baileys, a circus owning family whose menagerie and shows were merged with those of P. T. Barnum about 1870. The Barnum and Bailey Circus was then billed as, "The Greatest Show on Earth." For many years Bailey's Crossroads was its winter quarters.

Lake Barcroft came into being in 1915. An increasing need for water by the City of Alexandria led the Alexandria Water Company to build the dam and establish a reservoir to store the waters from the branches of Holmes Run. The North Branch of Holmes Run is now called Tripps Run.

Dam construction was begun in 1913 under contract with the Piedmont Construction Company. Specifications for the Barcroft Dam were severe and the construction was massive. The Structure is of Cyclopean masonry and concrete. The foundation is laid upon bed rock. A railway was built to transport the masonry stones to the dam site. The contractor went broke completing the job.

The result was a dam 400 feet wide with the spillway at the top 205 feet above mean sea level and 63 feet above the stream bed. Behind this dam there formed a lake of 115 acres and over five miles of shoreline. When full it held nearly 620,000,000 gallons and had an average daily run-off of about 10,000,000 gallons.

In 1942 gates were installed at the top of the dam to raise the spillway level five feet. This increased the size of the reservoir to 135 acres and the capacity to about 800,000,000 gallons.

In the late 1940's the reservoir became too small to serve Alexandria and other water sources replaced its use. In 1950 the reservoir and its surrounding land were put up for sale by the Water Company. There was a movement to turn it into a Fairfax County park, but the Board of Supervisors considered the economics and decided in favor of private development.

A partnership of developers from Boston bought the lake and 680 acres of land in the spring of 1950 for about one million dollars. The principals in this venture were Joseph V. Barger and Charles E. Dockser whose association had resulted in several preceding real estate developments. Homesite sales began in the summer of 1950, and by early fall the bulldozers moved in to begin the community construction. Early in 1951 a 60 acre Malbrook tract was added to the Lake Barcroft area. In the time that followed the 750 acres were divided into 1,020 lots on which now stand 1,000 homes.

The honor of being first residents at Lake Barcroft is shared by the families of Dana Messer, at 3703 Tollgate Terrace, and Robert Oshins, at 3620 Stanford Circle. They built at the same time and it seems that the Messers moved in, in a tent, while their house was being completed, the Oshins being the first to occupy their permanent structure. Thus the title of "first resident" depends on definition, but both share the claim to being Barcroft's pioneers.

The relationship between the Lake Barcroft property owners and the lake as a community recreational facility was provided by the Barger-Dockser owned management corporation, Barcroft Beach, Inc., which retained title to the lake, the dam and the beaches. In return for an annual fee paid to this corporation, as a condition specified in his deed, each property owner was granted permission to use the lake and the beaches. Although the community members had exclusive use of the lake, through payment of their fees, they did not own it. Joseph Barger was the original and only Managing Director of Barcroft Beach, Inc. to the time of his death, and the residents used the lake under his terms and rules. From time-to-time incompleted proposals occurred for the Lake Barcroft residents to buy the lake for themselves, an idea that had persistent presence since the first moments of the community.

In November 1969 Joseph Barger and Charles Dockser died within two days of each other. The heirs to their estates immediately announced intent to sell Barcroft Beach, Inc., and with it, of course, the lake, dam and beaches.

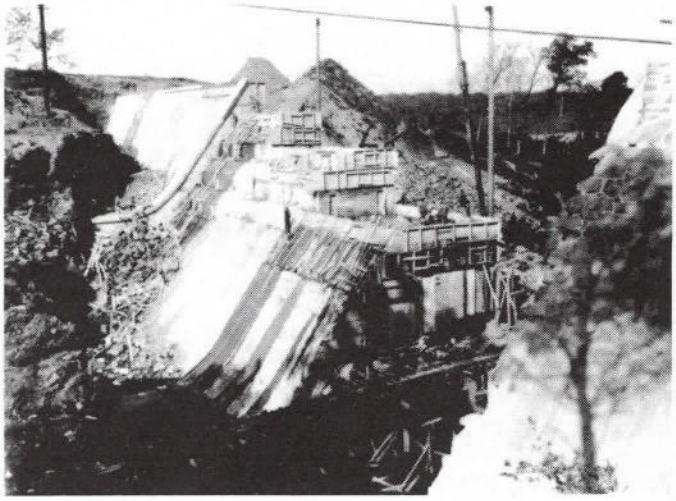
To prevent possible outside acquisition and commercial use of the lake, the community joined in the creation of the Barcroft Lake Management Association, a non-stock, non-profit organization which acquired Barcroft Beach, Inc., and thus control of the lake. Initially, 725 members joined at $300 per membership. Since that time, the membership figure has slowly risen as non-member households have joined.

The Management Association, under the acronym "BARLAMA," undertook revitalization of the management, maintenance, and operation of the lake and was well into its second season when, on June 21, 1972, a low-grade tropical storm heavy with rain, dubbed "Agnes" by the Weather Bureau, dumped the heaviest rainstorm of the century – a 125-year downpour – on the mid-Atlantic seaboard and washed out the earth at the west side of the dam, nearly emptying the lake in a matter of hours.

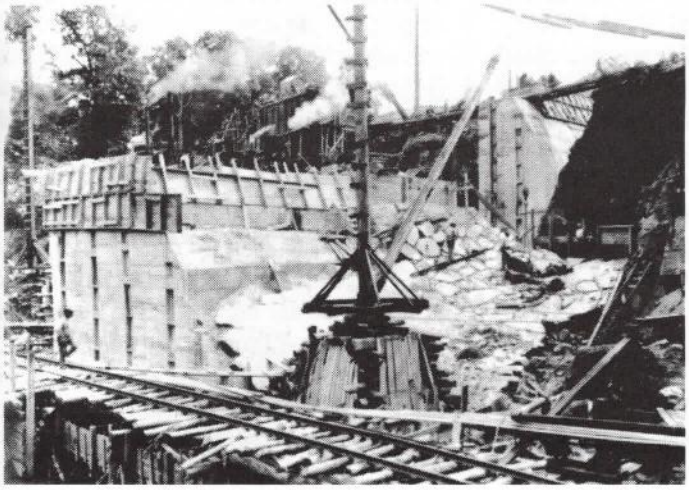
The threat of permanent loss of the lake inspired immediate coalescence of community leadership, joining in the task of solving the problem of restoration and with unprecedented community support. The success of this enterprise and the creation of the Watershed Improvement District – the "WID" – appears elsewhere in this Directory.

Adapted from *Lake Barcroft Origins* by Will Fazar, Lake Barcroft Directory 1967, and *Some Virginia History* by Rex Lauck, Lake Barcroft Directory 1970. Revised, 1974 and 1979, by Myron Birnbaum.

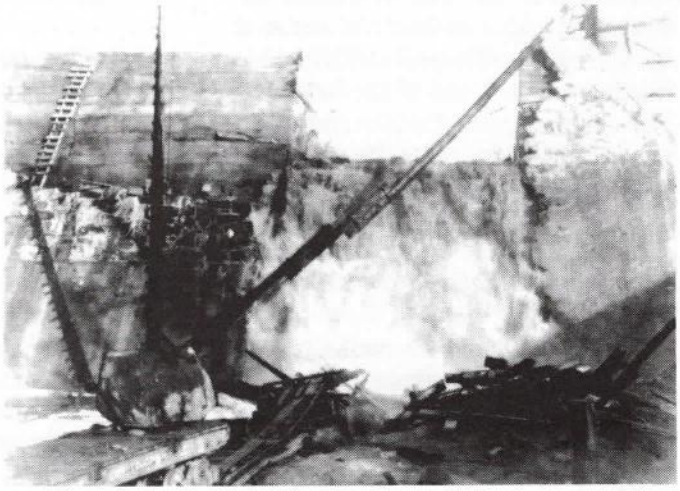
In 1913, the Piedmont Construction Company began building the Barcroft Dam by laying railroad tracks in the Holmes Run valley to transport rock for the dam and building a makeshift coffer dam to control stream flow. (September 13, 1913)



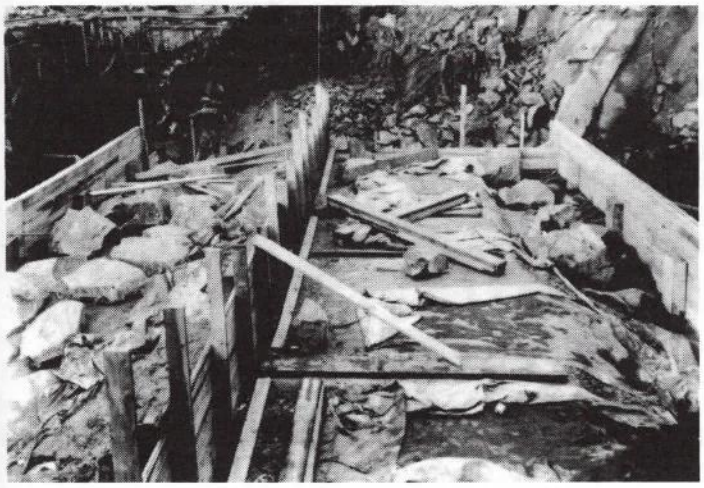
Lift by lift, the dam began to rise. With a gaping hole in the middle to accommodate the railroad tracks and to pass storm water, the two ends were constructed . . . slim at the far end, but fat in the middle to ensure stability. (November 2, 1914)



A rickety looking construction boom located by the railroad tracks unloaded large rocks to face the dam and partially fill its interior. The old quarry is now underwater off 3428 Mansfield Road in the North Area. (July 2, 1914)



Before completion, Piedmont Construction Company went broke. This freshet pouring through the incompleted dam illustrates its problems. Somehow, we know not how, the Alexandria Water Company managed to finish construction. (About 1915)



Engineers have quibbled whether the Barcroft Dam is a true Cyclopean Masonry structure. These rocks laid on top of concrete waiting for the next pour verify that it indeed does have a Cyclopean mix of rock and concrete. (November 30, 1913)

Completed, the Barcroft Dam supplied water to the City of Alexandria. Water company employees released water through underflow pipes. It flowed downstream and was recaptured at Duke Street in Alexandria and stored in a reservoir. (1929)

WID: A New Kind of Conservation Organization

The Lake Barcroft Watershed Improvement District was founded on January 31, 1973. Since that time many residents' memories have become hazy about the WID's origin and new residents who have moved in since that date are even more vague. Thus we have asked our attorney who has served us through these years to write an article about the WID describing it both historically and as a present-day operating entity.

By Randolph W. Church Jr.

On June 21-22, 1972, Hurricane Agnes roared out of the Gulf of Mexico and dumped massive amounts of water in the Holmes Run-Tripps Run Watersheds, washing out one end of the Lake Barcroft Dam, emptying the lake and spawning several lawsuits. In its wake was born a new governmental entity, the first of its kind in Virginia, known as the Lake Barcroft Watershed Improvement District or, more popularly, "the WID."

The Lake Barcroft community was, and in many ways continues to be, unique in Northern Virginia. The lake itself, at the confluence of Holmes Run and Tripps Run, was created by the erection of a dam on the north side of Columbia Pike by the Alexandria Water Company in 1914 to impound a water supply. The original dam was a masonry structure ("fixed weir" in dam parlance) and was built to accommodate gates at the top to raise the water level. On either end of the structure were earthen sections which had the capability of giving way during extraordinary flows and preventing the dam from collapsing.

Beginning in 1950, Lake Barcroft Estates, Incorporated and its sister corporations, which had acquired the land surrounding the lake, dedicated and subdivided the 11 sections of Lake Barcroft subdivision in a coordinated plan. The lake front lots ran (in the language of the legal documents) to the "shoreline of the lake as the same is defined by a weir surmounting a masonry dam; the elevation of the top of said weir being approximately 208 feet above sea level as the same was established by the U.S.C.&G.S." The value of all of the residential lots was enhanced by covenants in each of the original deeds which provided for access to the lake by residents and imposed a $60.00 annual charge per lot for maintenance and management of the lake.

The lake and the dam, as well as five beaches, were eventually conveyed to Barcroft Beach, Incorporated (BBI). All of the stock of BBI is now owned by Lake Barcroft Management Association, Incorporated (BARLAMA). [The other principal Lake Barcroft organization is the Lake Barcroft Community Association, Inc. (LABARCA) which had originally stimulated the creation of BARLAMA and retains an interest in Lake Barcroft affairs.]

Lake Barcroft lies downstream of an area in Fairfax County which has been under intensive development for many decades, and the lake has long served as the largest silt trap in Fairfax County. The lake will fill up with silt and become a marsh, and then a meadow within a relatively short period of time if left to its own devices.

Hurrican Agnes washed out the earthen section at the western end of the dam and emptied the lake, leaving a giant, unsightly and unsanitary mud flat. Every resident recognized instantly that many amenities had been drastically reduced overnight and that property values might drop precipitously.

Obviously, the existing organizations in Lake Barcroft were unable equitably to raise the large sums of money needed to rebuild the dam to modern specifications and remove the 90,000 cubic feet of silt which lay exposed on the lake floor. And it was clear that the citizenry of Fairfax County, generally, would not support special assistance to rebuild a dam which, although it served public conservation measures, also created a recreational lake for a private community.

Residents of the Lake Barcroft community feared, with some justification, that acceptance of public funds generated from beyond the lake community might give rise to claims that the lake should be open to the general public. At the same time they desired to find a way to avail themselves of the low interest rates which a tax-exempt public financing would command.

Virginia's Watershed Improvement District Act ("the Act"), enacted in 1955, had never been used. The Act allows an area within a soil and water conservation district to create a special governmental unit overlying the county government, similar to a school district in some other states or a sanitary district in Virginia, to perform certain public and governmental functions and, after having obtained voter approval, to levy a tax and borrow money.

On November 2, 1972, a petition signed by about 250 Lake Barcroft residents requesting formation of a Watershed Im-

Mr. Church has been counsel to the Lake Barcroft Watershed Improvement District since its creation. He is managing partner of the Fairfax, Virginia office of Hunton & Williams.

→

provement District was presented to the Northern Virginia Soil and Water Conservation District. On November 15, the district held a public hearing and directed that an advisory referendum be held on the question of creating a WID. Following the overwhelming passage of the referendum, the Soil and Water Conservation District created the WID on January 31, 1973, consisting of the 11 sections of Lake Barcroft and appointed the first set of trustees as provided for by the Act.

On March 15, 1973, the Soil and Water Conservation District filed a petition with the Circuit Court of Fairfax County asking that a poll be taken further ratifying the creation of the WID, authorizing the WID to levy taxes for its purposes and authorizing the WID to incur $2 million in debt and issue bonds

> "for the purpose of repairing, restoring and improving the Lake Barcroft Dam and removing silt from the bed of Lake Barcroft all for the purposes of checking erosion and stabilizing runoff of surface water in said District."

The referendum was held on April 24, 1973, and the eligible voters ratified creation of the WID by a vote of 1619 to 10. Taxing power was conferred upon the WID by a vote of 1608 to 18, and the $2 million bond issue was approved 1611 to 15.

On May 18, 1973, the Circuit Court of Fairfax County, Virginia entered a comprehensive eight-page order finding that the Watershed Improvement District Law was constitutional, that the WID was validly formed, that the WID could levy taxes for its purposes, and validating and approving the borrowing of $2 million by the issuance of WID bonds.

What the WID Is

The Watershed Improvement District is a "governmental subdivision of this State, and a public body corporate and politic exercising public powers." The directors of the Northern Virginia Soil and Water Conservation District sit in dual capacities as the governing body of both NVS&WCD and the WID. Pursuant to the WID statute, they have appointed trustees, who have been given wide discretion in day-to-day management, following the familiar pattern of relationships between governing boards and administrators both in government and business.

The trustees must be landowners within the WID. They secure approval from the governing body for major policy decisions, including approving the annual budget and on such questions as exercising the power of eminent domain.

The WID receives further oversight on these issues from the Commonwealth of Virginia through the Virginia Soil and Water Conservation Board of the Department of Conservation and Historic Resources, which must also approve the WID's annual budget.

State law provides that the real estate within the boundaries of WID is appraised for WID taxes by Fairfax County making the value of each lot for WID tax purposes identical to its value for Fairfax County real estate taxes. A budget is recommended by the trustees and approved by the governing body and the Virginia Soil and Water Conservation Board and taxes are collected by Fairfax County and remitted to the WID. The law requires that the tax rate be set at least at a level which will pay the annual indebtedness on the tax exempt bonds which were issued in 1973.

In the process of selling bonds in 1973, bond counsel required that the WID stake out and maintain a clear separation between its public functions and those performed by private community organizations in order that the tax-exempt feature of the bonds could not be challenged. This echoed the repeated recommendation of WID counsel that separation be maintained to preserve the public character of the WID and protect the private character of the community organizations.

At the suggestion of both counsel, BBI and the WID entered into a contract on July 16, 1973. In consideration of the WID's activities in reconstructing the dam, BBI gave the WID sufficient easements and rights in the lake and in the dam to enable the WID to perform its public soil and water conservation functions, as authorized by the Court order and the Act, including the operation of the dam and the right to remove silt from time to time from the bed of the lake.

The WID proceeded to rebuild the dam, adding a bascule gate to the original structure and regenerating the lake, promptly, efficiently and within budget in a model public works program. Accumulated silt was removed from the bed of the lake and an ongoing silt removal program was established.

Under State law the powers of the WID are not confined to operating the dam, removing silt and other conservation activities associated with the lake. Watershed improvement districts "have all of the powers of the soil and water conservation district" in which they are located. This permits the WID to undertake a useful range of associated conservation activities within the Lake Barcroft community, such as the present program to fight the threatened infestation of gypsy moths.

BBI retained all rights not inconsistent with those granted to the WID, specifically retaining the right to use the lake and the beaches adjacent thereto for private recreational purposes. The WID however has

> "*the sole right to make all determinations relative to the operation, maintenance, repair, inspection, and testing of the dam, where such determinations are reasonably related, in the sole determination of the WID, to its soil and water conservation functions and duties under the WID Act.*".

Thus, the WID and the community organizations are conveniently married. The WID, a public organization whose "public" consists of the residents of the Lake Barcroft Community, and BBI, a private organization with the same constituency, serve different, but complementary, functions and provide for a continuity of management for all aspects of Lake Barcroft.

Please
DON'T FEED OUR STREAMS

How to Feed Your Lawn WITHOUT Overloading the Bay

The Nutrient Dilemma

We are faced with a perplexing situation:

- *With too few nutrients*, a lake, a stream or even an estuary can be sterile and lifeless.
- *With too many nutrients*, biological activity is excessive resulting in extreme conditions such as algae blooms, excessive weed growth and fish kills.

The ideal is an ecological balance with a diversified food chain ranging from tiny algae to fish. Thus we should try to encourage aquatic communities that favor desirable species in limited numbers and to alleviate symptoms of overabundance.

The Problem

Nutrients can enrich an aquatic community to death! A body of water too rich in nutrients generates excessive quantities of algae and submerged aquatic vegetation. The vegetation uses oxygen in the water. When dissolved oxygen diminishes, fish and other aquatic creatures are endangered. Ugly algal scums form on the surface. Nutrients such as nitrogen and phosphorus make your lawn grow green and strong. . . but do the same for algae and other aquatic plants.

The desire for a quick, green lawn can tempt homeowners or lawn care companies to over- or misapply fertilizer. Rain easily and quickly washes some fertilizers from the lawn surface, leaches soluble nutrients from the soil and delivers a hearty meal. . . often garnished with pesticides (weed killers, insecticides, etc.) to waterways via storm drains and streams. Also, improper use of fertilizers and pesticides will weaken the lawn. Homeowners are often unaware of their role in this destructive process, which manifests itself as noxious green scums and submerged aquatic jungles. These plant masses are offensive to recreationists by making swimming unpleasant and the water unattractive. Ultimately, they decay and rob fish and other organisms of vital oxygen.

There are no ordinances to govern this form of chemical pollution. It is up to the homeowners within a watershed to practice environmental courtesy and good sense in caring for their lawns. Fortunately, the problem can be solved simply by

- using less fertilizer,
- using the right formula,
- applying in fall. . . not spring.

"Check this for toxicity will you, Ed?"

The Solution

An ecologically sound and environmentally sensitive lawn and garden program for homeowners can help control excessive nutrient enrichment of our streams, lakes and the Bay.

The following practices will minimize this unwanted pollution:

- Use less fertilizer.
- Avoid the common practice of applying a single, heavy dose of fertilizer in the spring.
- Fertilizer should be water-insoluble and slow-release.
- Fertilizers should have no phosphorus content or very little.
- Applications should be scheduled according to the type of grass being grown.
- If you have a lawn problem, try to live with it. If you can't, select a cure using the most ecologically sound solution.
- *Avoid blanket use of chemicals to control pests and weeds.*
- When you use a lawn service, select one that maintains turf in an environmentally sound manner.

A soil test will provide the information you will need to implement these practices. The soil test analysis may tell you that you do not need to add phosphorus. Also, less nitrogen may be needed. This will save you money.

Caution!

- ***How much fertilizer?*** Nutrients are recycled naturally. You need much less than you think. A good rule of thumb is to use half of what you think you need or half of the manufacturer's recommended application rate. Don't exceed one pound of nitrogen per 1,000 square feet in a single application. After all, you can always fertilize again later if necessary.
- ***Pesticides*** can kill soil microorganisms and disturb the relationship of living things to their environment. Always follow label directions to prevent this problem.
- ***Words such as "natural" or "organic"*** are misleading. Many organic fertilizers, such a Milorganite and Compro, contain too much phosphorus for water conservation purposes. Natural manure fertilizers can have high nutrient release rates, which may stimulate explosive aquatic plant growth. To prevent pollution, remember these fundamentals:
  - □ Use less fertilizer,
  - □ Use little or no phosphorus,
  - □ Use slow-release fertilizer,
  - □ Apply in fall. . . not spring,
  - □ Spot treat for weeds or insects and *only if necessary.*
  - □ Have your soil tested.

What Is Phosphorus?

Phosphorus is an element. It is a nutrient which is necessary for plant growth and development. Phosphorus can be used up but is replenished from supplies of inactive phosphorus in the soil. Usually an established lawn does not need applications of phosphorus. In this region, phosphorus is a problem and should be controlled to minimize water pollution.

Professional Lawn Care

Lawn Care Service Companies

Fertilization service and landscape service companies can provide the kind of treatment *you* request. If you indicate you want a green lawn quickly, they might fertilize excessively, use water-soluble fertilizers, do it at the wrong time of year, and include unnecessary broad-spectrum insecticides. But if you request environmentally sound lawn and garden care, you are more likely to get a sensitive and intelligent management program which does not create an imbalance in the ecosystem of your yard or downstream waters. The only price you pay is that the greening of your lawn may be gradual instead of immediate. However, it may be more permanent than a quick fix.

To obtain a copy of a list of lawn care companies which have agreed to conform to "Watershed Nutrient Control Standards," please phone:

- ***(703) 591-6660*—Northern Virginia Soil and Water Conservation District,**
- ***(703) 642-0700*—Northern Virginia Planning District Commission, or**
- ***(703) 820-1300*—Lake Barcroft Watershed Improvement District.**

Provide your name and address and ask for the "Nutrient Control Lawn Care List."

"Watershed Nutrient Control Standards"

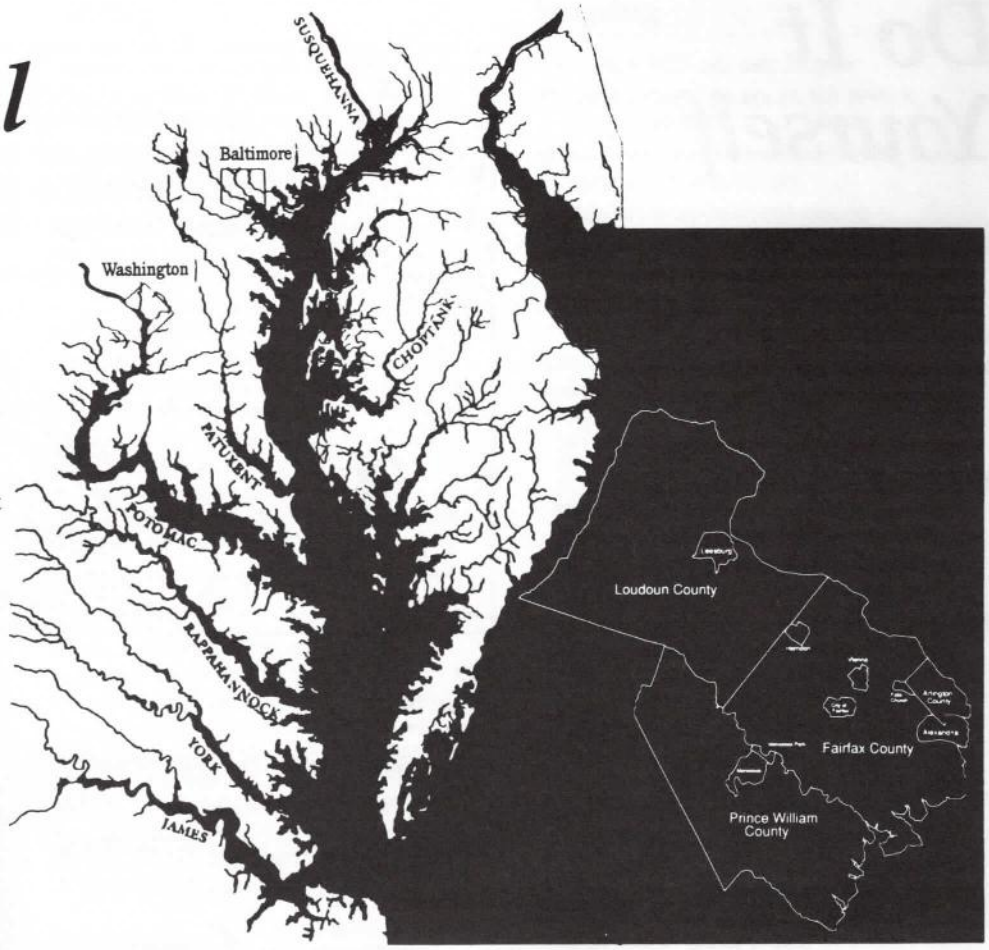
Lawn care and related companies are invited to enter into an agreement which promises that they will conform to certain minimum standards to prevent nutrient pollution. These cooperating contractors have agreed to:

- Use less fertilizer,
- Use slow-release fertilizer
- Use no phosphorus or very little,
- Determine existing conditions with available soil test data,
- Apply fertilizer periodically rather than all at once,
- "Spot-control" for broad-leaf weeds instead of blanket applications,
- Avoid using broad-spectrum insecticides,
- Mow lawns at the recommended height,
- Leave lawn clippings when possible,
- Leave the customer information on what has been done, what materials were used and how much was applied.

Upon agreement to the above, companies will be listed on a recommended "Nutrient Control Lawn Care List."

Conscientious professional lawn service companies take a soil sample and then develop a specific program which suits your actual lawn and yard conditions.

In negotiating with a lawn care firm, *emphasize that* **YOU** *want minimum fertilization* and, in particular, *request that no phosphorus should be applied.* Also, never permit blanket application of pesticides but rather encourage spot treatment to control weeds or insects if necessary.



The water resources of Northern Virginia include the Potomac River, Lake Occoquan, many streams, wetlands and public and private lakes. Each of these bodies of water, whether still or flowing, will suffer from excessive enrichment if citizens fertilize needlessly. Every stream in Northern Virginia drains into the Chesapeake Bay.

Cost?

Lawn care cost depends on how much service you want, what company you select, and how efficient it is. However, adopting these nutrient control principles should not add extra cost. You may use less fertilizer, and the recommended fertilizers cost about the same as other fertilizers. If a lawn care company suggests charging you more for environmentally sound lawn care, check with companies on the Nutrient Control Lawn Care List.

If you don't have time to read all this, here is

The Bottom Line

Send a check of $35.00 made out to "NVSWCD Fertilizer" to NVSWCD-WID, 3650 Boat Dock Drive, Falls Church, VA 22041. A 50-pound bag of No-Phosphorus fertilizer (enough for a 12,000 sq. ft. lawn) will be sent to you by United Parcel Service. Use it on your lawn instead of other fertilizers. Do it once a year in the fall. Use nothing else.

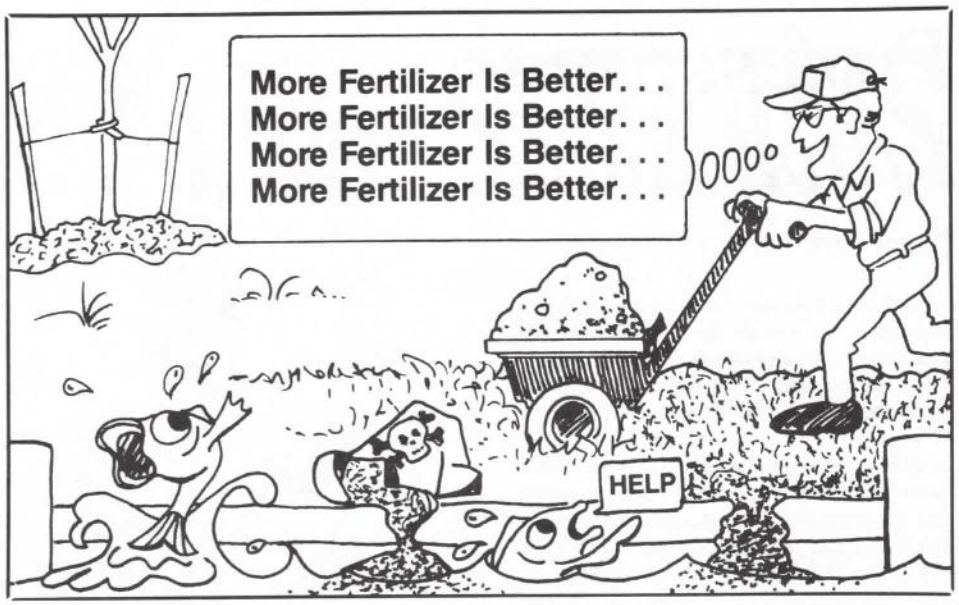
Professional Purchase Sources

Lawn care companies, landscapers and other professional firms may purchase the fertilizer products described on the next page at wholesale rates by writing to:

NVSWCD-WID, 3650 Boat Dock Drive, Falls Church, VA 22041.

For information, call (703) 820-7700 or (703) 591-6660.

Do It Yourself



What To Ask For

When using fertilizer here are the important characteristics you should seek:

- **A no-phosphorus fertilizer formula.** Typical Northern Virginia soils have enough phosphorus to provide a healthy lawn.
- **A low phosphorus-to-nitrogen ratio.** If you feel you must apply phosphorus, use a low phosphorus formula. (Note: a 12-4-8 formula indicates 12% nitrogen, 4% phosphorus and 8% potash by weight.)
- **A high percentage of the nitrogen should be Water Insoluble Nitrogen.** This is often abbreviated "WIN" and means that the fertilizer continues to release slowly despite the presence of water. "IBDU" and methylene urea are forms of WIN. Slow-release fertilizers benefit both your lawn and downstream bodies of water. Even if they wash into the receiving waters, they do not become immediately available to plant life. Timely applications of slow-release fertilizers provide your lawn with a steady rather than a "feast-famine" diet.

Recommended Fertilizers

Excessive phosphorus is damaging to lakes, rivers and the Bay. Since the soils in this region are generally sufficient in natural phosphorus, the recommended fertilizer formula contains no phosphorus but does contain nitrogen, potassium, sulphur and certain important micronutrients. It is virtually impossible to find no-phosphorus fertilizers in stores today. However, a special formulation has been created for environmentally conscious homeowners.

- ***"No-Phos Watershed Protection Formula"* is a 14-0-5 mix produced by the Jonathan Green Company made of 100% slow-release ingredients, the most important of which is leather scrapings. A 50-pound bag has a recommended coverage of 12,000 square feet of lawn.**
- ***"No Phosphorus Lawn Restore®* is an existing 100% natural product produced by the Ringer Company, Product #9327. It has a 9-0-4 formula. A 25-pound bag has a recommended coverage of 2,500 square feet of lawn.**

How to Purchase

- ***"No-Phos Watershed Protection Formula"***
  50 pound bag $35

  Send a check made out to **"NVSWCD Fertilizer"** to:
  NVSWCD-WID
  3650 Boat Dock Drive
  Falls Church, Virginia 22041

  Bags of fertilizer will be delivered by United Parcel Service at no extra charge to any home in *Virginia, District of Columbia, Maryland, Delaware, eastern Pennsylvania* and *southern New Jersey*. Elsewhere there will be an additional UPS delivery charge. If you have questions call NVSWCD at **(703) 591-6660** or **(703) 820-7700**.
- ***"No Phosphorus Lawn Restore®***
  (Product #9327)
  Call Ringer Company—1-800-654-1047

Self Discipline

The Do-It-Yourself practitioner must be his or her own technician. It is important to realize that overfertilization is harmful to your own property. Overfertilization encourages weed growth and disease damage and diminishes drought resistance. A conservative policy of using the right fertilizer at the right time will result in far better turf with fewer complications.

Your cooperation contributes significantly to the public interest through enhanced appearance, improved ecology and economy.

Cost?

The price of no-phosphorus fertilizer can be comparable to that of less environmentally sensitive fertilizers. **It may cost less!** Using these recommended lawn care practices may actually save you money by reducing the amount of material you apply.

Downstream

Your lawn and yard are your ecosystem. But other valuable resources lie downstream . . . stream valleys, lakes, the Potomac River estuary and the Chesapeake Bay. Each of these suffers ecological damage when nutrients and other pollutants are dumped into them. All of the following are intensely involved in improving water quality:

Alliance for the Chesapeake Bay
Audubon Naturalist Society
Chesapeake Bay Foundation
Chesapeake Bay Local Assistance Board
Interstate Commission on the Potomac River
Izaak Walton League of America
Lake Barcroft Watershed Improvement District
Loudoun Soil and Water Conservation District
National Association of Conservation Districts
National Wildlife Federation
Northern Virginia counties, cities and towns
Northern Virginia park authorities
Northern Virginia S&W Conservation District
Northern Virginia water supply agencies
Northern Virginia Planning District Commission
Prince William S&W Conservation District
Sierra Club
Trout Unlimited
Va. Cooperative Extension Service
Va. Council on the Environment
Va. Department of Conservation and Recreation
Va. Department of Game and Inland Fisheries
Va. Institute of Marine Sciences
Va. Lakes Association
Va. Soil and Water Conservation Board
Va. Water Control Board
Va. Water Resources Research Center
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service
U.S. Oceanographic & Atmospheric Admin.
U.S. Soil Conservation Service

Helpful Hints

See Bibliography for more details.

Timing

The Virginia Cooperative Extension Service recommends fertilizing bluegrass and fescues *in the fall*. Fertilizer applications in the spring favor the growth of emerging crabgrass plants and other summer annual weeds, stimulate excessive top growth depleting food reserves and stopping root growth, and make the lawn more susceptible to drought injury, diseases and insect infestations during summer.

Soil Testing

Call your Extension Service to obtain a soil test kit (in Fairfax County at Public Libraries). Take the soil sample according to the instructions and mail it along with your check for $6.00 to the Virginia Tech Soil Testing Laboratory. You will be sent a report which will provide you with instructions on improving your lawn and, in particular, will indicate whether you already have sufficient phosphorus present in your soil to permit use of a no-phosphorus fertilizer. Allow 2 to 4 weeks for the test to be analyzed and returned to you. Check with your lawn care company to see if they will take the soil sample and send it to the Laboratory for you. (See Bibliography for "Soil Test Notes".)

Liming

The acidity or alkalinity of a soil, expressed as pH, affects a plant's ability to absorb fertilizers and other nutrients present. Lawn grasses grow well when soil pH is slightly acid, about 6.5. A pH of 7.0 is neutral... neither acid nor alkaline. The amount of lime required on your lawn should be based on the results of a soil test.

Aeration

Powered aerators or coring machines remove cores of soil and leave small holes in the lawn. This loosens compacted soil, increasing the availability of water and nutrients to the roots, enhancing oxygen levels in the soil and improving favorable conditions for earthworm survival. *Aeration should be done in the fall in accordance with your fall fertilization schedule.* Lawn service companies provide this service or you can rent an aerator.

Mowing

Proper mowing techniques can decrease the need for applying fertilizers, pesticides and water. Mowing at the proper height for the type of grass being grown discourages weed growth and increases drought tolerance. Tall fescue lawns should be mowed at 2 to 3 inches, while Kentucky bluegrass and ryegrass lawns should be cut between 1½ and 2½ inches. Lawns should be mowed frequently enough so that no more than one-third of the grass blade is removed in any mowing. Cutting the grass too short discourages root growth and increases the need for watering. Also, short grass clippings should be left on the lawn to reduce the need for adding fertilizer and to reduce yard wastes. Mower blades should kept sharp to cut cleanly. Raggedly cut grass is more susceptible to disease and insects.

Thatch

Thatch is an interwoven mat of living and dead grass stems and roots lying between the soil surface and the grass leaves. A thatch layer of half an inch is beneficial to your lawn because it cushions the lawn from wear and tear and insulates the grass plants from wide changes in temperature. However, a thicker layer of thatch can harbor insects and fungus and reduce its resistance to drought. (See "Thatch" in bibliography.)

Establishing a Lawn

When starting a lawn from scratch, make a soil test to determine whether fertilizer is needed, what formula to use, how much to apply and whether the soil needs lime. It is best to seed in the fall. The newly planted lawn should be mulched to prevent erosion and washing of seed and nutrients. Mist-water frequently to ensure germination. Use a sprinkler instead of a hand-held garden hose.

Herbicides

A properly mowed, limed and fertilized lawn should eliminate most weeds. Instead of undertaking a complicated and expensive chemical treatment program, try using recommended lawn care practices for a year or two to increase the quality of your turf naturally. When using herbicides, adhere to the instructions on the label for use and disposal.

Insecticides

Blanket application of some insecticides may kill beneficial organisms which prey on harmful insects. In particular, *insecticides will kill parasites which have been purchased to control gypsy moths.* Frequent insecticide applications may predispose your lawn to attacks by other pests. Avoid dousing everything with chemicals. Follow instructions on the insecticide label for use and disposal. Buy no more than you really need. For pest identification and control recommendations, call the Agriculture Information Center.

Recycling

Here's how YOU can help recycle:

- Leave grass clippings on the lawn to recycle nutrients.
- A compost heap makes yard waste useful again as soil conditioner.
- Take oil to oil-collection centers
- Follow local instructions for hazardous waste materials disposal.
- Mulch with free composted leaves and wood mulch.

Here are some local recycling information hotlines:

358-6579	Arlington County
246-5052	Fairfax County
771-5318	Loudoun County
335-6819	Prince William County
751-5872	Alexandria
385-7810	Fairfax City
241-5160	Falls Church
435-6856	Herndon
777-1262	Leesburg
257-8259	Manassas
335-8840	Manassas Park
255-6341	Vienna

Bibliography

Title	Publication Number
Best Management Practices for the Urban Dweller	4WCB2
Choosing a Lawn Service Company	—
Fertilizing Landscape Trees and Shrubs	430-018
Landscape Tips to Improve Water Quality	—
Lawn Care Calendar	—
Lawn Fertilization in Virginia	430-011
Soil Test Notes	452-238
Thatch Development and Control in Home Lawns	—
Nutrient Management for Lawn Service Companies	ETT #3
It's Your Bay—Protect It	ETT Pub

These may be obtained free from:

Department of Extension and Continuing Education
Agriculture and Natural Resource Section
Agriculture Information Center
12011 Government Center Parkway
Fairfax, Virginia 22033
Phone: (703) 222-9760

Please Don't Feed Our Streams researched and written by:
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Lake Barcroft Watershed Improvement District (WID)
Northern Virginia Planning District Commission (NVPDC)
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Your comments and suggestions are welcome.

Memories of the 1973 Referendum

by Stuart Finley

"No Vote Is a NO Vote" was the screaming headline in the Lake Barcroft Newsletter of April, 1973. This was the rallying cry urging participation in the referenda which took place at Belvedere Elementary School on Tuesday, April 24, 1973. The Virginia General Assembly was very stern when it wrote the section of the Virginia Code authorizing the creation of Watershed Improvement Districts. To obtain approval, it was necessary to obtain a two-thirds favorable vote of those eligible to vote. . . not of those voting. This meant that if the voters didn't get to the polls, the creation of the WID would not be approved and, indeed, the restoration of the Lake Barcroft dam could not proceed.

Vote recruitment was ambitious and energetic. The late **Myron Birnbaum** filled his Newsletter with stories and, indeed, published a series of interim Mini-Newsletters between the regular monthly issues. The late **John Haughey** was President of BARLAMA and he and other volunteers had meetings, made speeches, put up signs and organized a telephone reminder call network. LABARCA's contribution was organized by President **George Overby**, Vice Presidents **Ron Vander Schuur, John Keeler** and **John White** and Chairman **Marshall Crossman**. They headed up a battalion of workers, organized by section and block. Woman's Club outgoing and incoming Presidents **Peggy Johnson** and the late **Helen Richmond** along with **Jo Cox** were first on the 6 a.m. shift acting as poll watchers, phone callers, drivers, baby sitters and general factotums.

Volunteers stood by on Referendum Day to drive the incapacitated or car-less to the polls. One lady arrived on her way to the hospital and was carried into Belvedere School so she could vote. The cafeteria and halls of Belvedere School sported a carnival atmosphere tinged with apprehension. . . the fear that not enough votes would turn out. Newspaper reporters dropped in from time to time.

One weird media manifestation was the obsession by a reported from the *Washington Star* named Love (I forget his first name) who persisted in trying to determine how many had voted for the establishment of a WID and concurrently voted against the proposed WID tax. There were three questions in the referenda: "do you favor creating a WID?". . ."do you favor a WID tax?. . .and "do you favor authorizing $2,000,000 worth of bonded indebtedness?" Love was convinced that most people would say *yes* to the first and *no* to the second. I personally disputed this theory about five times and, finally, at the end of the day, he slunk off disappointed that only a few voters had done so.

The law was complex and not everyone understood it. There were actually three separate referenda. One tallied the opinion of the "landowners" and two thirds of their number had to approve. Another measured the opinion of the "landowners" in a different aspect and required that two thirds of the landowner acreage must be favorable for approval. And the third polled registered voters and required a majority approval. Each of the three referenda had to pass or the project failed. But the big problem was that many landowners were overseas in the military or diplomatic service and no one really knew how many negative votes this would cause. The effort to obtain absentee ballot responses was somewhat ineffective.

How did the referenda come out? The most accurate answer to that is to reproduce Myron Birnbaum's article in the May, 1973 newsletter.

WE MADE IT!!

By the time you read this, everyone will surely know of the resounding success which marked the 2d Referendum. But a wrap-up of the vote and the incidental bits and pieces that attended it.

To start with what must be the most interesting item, we go to the tail end, to report the figures. Out of some 1900 property owners eligible to vote, 1639 ballots were cast; of 2100 registered voters, 1493. Bearing in mind that some ballots were spoiled and some omitted some of the questions, following was the tally. The landowner vote appears first in each case; the registered voter figure next:

QUESTION	FOR	AGAINST
1. Ratify WID	1619	10
	1480	11
2. Authorize taxes	1608	18
	1408	22
3. Issue bonds	1611	15
	1474	17

Without splitting hairs, it may be seen that the figures represent a favorable vote ranging from 98.4% to 99.4%. Since the critical requirement was for a favorable vote of landowners representing two-thirds of the acreage in the District, we note that the total area was 26,021,967.0 square feet. As we pointed out before, we anticipated a substantial amount of acreage not voting because of the impossibility to arrange absentee balloting. Despite this, the favorable vote amounted to 22,881,390.7 square feet or a percentage of 87.9. So, as we say above, WE MADE IT! With a tidy cushion.

The events of the 24th turned out satisfactorily in all ways. The weather was good, and bright and early at 6:05 there were already a full crew staffing the polls, a shift of Woman's Club poll watchers, and thirty or so voters. That was probably the biggest waiting group of the day—remarkably the folks fed in at such a steady rate all through the day that there were seldom more than four or six waiting at a time. And no line at the end, something unheard of in local elections.

Within minutes after 7 pm, Mel Rappelyea and his hard working bunch of Barcroft ladies, serving as election judges, were hard at work sorting, checking, and beginning the tedious job of counting the ballots. Meanwhile, some fifty or so of those who had been deepest in the referendum campaign had foregathered at Il Castello, for refreshments and dinner while sweating out the results.

Early in the evening there was a feeling of success, based on the reported turnout and the cheerful attitude of those voting, but final figures weren't on hand until close to midnight, when a determined core of stayers up got the final if unofficial word at Ed Deagle's. Meanwhile, newspapers, radio and TV stations, and the wire services were haunting all hands, seeking the outcome. So that by morning the word was out. We hope you got it in good time.

WID Data

Trustees

Dave Alne, *Chairman*	941-3918 or 354-4200	6234 Lakeview Drive, Falls Church, VA 22041
Fred Chanania, *Treasurer*	750-3925	
Freeman Williams, *Secretary*	256-4250	

Operations Director

Stuart Finley	820-7700	3428 Mansfield Road, Falls Church, VA 22041

WID Associates

Walter Cate	642-0049
T.J. Glauthier	354-1588
Gary Jewell	941-5643
Jack Keith	820-8609
Ernie Rauth	256-0646
Shirley Smith	256-5649
Lloyd Swift	820-1033
Dick Werling	820-4034

Staff

Ken Kopka, *Staff Director*	820-1300	3650 Boat Dock Drive, Falls Church, VA 22041
Sam Ellis, *Superintendent*	820-1300	
Kelly Wilson, *Operations Assistant*	820-1300	
Paul Gordon, *Technician*	820-1300	

Northern Virginia Soil and Water Conservation District

Norman Jeffries, *Executive Director*	324-1429	12055 Government Center Parkway, Suite 905 Fairfax, Virginia 22035

A. Dewey Bond, *Chairman*
Jean Packard, *Vice Chairman*
Robert Doyle, *Secretary*
David Ray, *Treasurer*
Gloria Fisher, *Member*

Lake Barcroft—1954

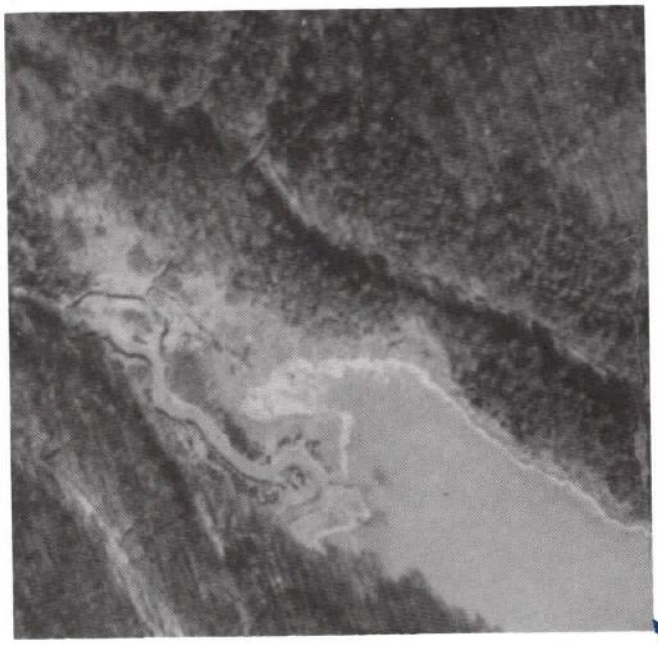
It all happened when Tom Rowan sold his house recently. In cleaning out the attic, Tom discovered that there was a rolled up photograph tucked away in a corner. It was a big picture. . .three feet by three feet. This aerial photo showed Lake Barcroft Estates with only a few houses peeking through a forest of trees.

There was no date on the picture. . .but Ernie Rauth, who was the community architectural representative then, believes it was probably shot about 1954. Col. Barger had cut many of the roads through the trees. There were only about 35 houses in the South Area which was developed first. . .about 15 in the Middle Area. . .and none in the North Area. Beachway Drive apparently was just being bulldozed through the woods. Only beaches #1 and #2 had been built. Baileys School is there but JEB Stuart isn't. Belvedere has been completed but Parklawn and Malbrook are missing.

Rowan was astonished. He had bought the house in about 1969 from Dr. Anson Hyde. Anson had been the President of LABARCA in 1957 and 1958. He lived on Jay Miller Drive in 1957 and, about 1958, he built a house on Pinetree Terrace and evidently had stashed the aerial photo blowup in the attic.

Tom Rowan gave the picture to Sandy Augliere, his real estate agent. Sandy had it mounted and it now hangs in the Barcroft Properties conference room. Drop in to see it!

The Tripps Run end of the lake had a delta of silt with the stream meandering through it. The Beach 5 peninsula hadn't been created yet. There was no Potterton Drive and no Causeway. Originally, Middle Area folks had to leave the community by way of Sleepy Hollow Road. Ravenwood Park hadn't been built yet and thus Patrick Henry Drive is nowhere in sight.



The Holmes Run end of the lake was already a delta of silt. The stream flowed through sediment which had accumulated since the dam level was raised in the 1940's. Later, the silt accumulated deeper and deeper until the 1961-1962 initial dredging which created the Holmes Run Island and the silt basin and the channels around the island.