

From: [kerry burke](#)
To: [Woods, Laura](#)
Subject: Berlin Pond Public Access
Date: Saturday, April 26, 2014 8:44:51 PM

Ms. Woods,
For the record: Keep Berlin Pond open to the public.
Thank You,
Kerry Burke
Georgia, Vt.

From: [Devon Craig BR14](#)
To: [Woods, Laura](#)
Subject: FW: berlin pond
Date: Monday, April 28, 2014 9:52:57 AM

Hi Laura,

As Berlin Pond has been confirmed by the State of Vermont as a public body of water, it should have access so that all people can use it as designated. It is not just for an elite group of property owners surrounding the pond ! And as far as the water quality issue goes, recreational use will not be a factor. There are already 5 to 6 roads (contiguous to the pond) from which runoff pours into the pond.

Devon Craig
Plainfield, Vt.
454-8596

From: [Martha Clelia](#)
To: [Woods, Laura](#); [Welts, Leslie](#); [Warren, Susan](#)
Subject: Re: Public Notice of Petition and Public Meeting for Berlin Pond
Date: Friday, April 25, 2014 1:02:50 PM

Dear Laura,

Thank you very much for reviewing this petition.

This is not just another pond. This is the drinking water supply for Montpelier, its residents, its restaurants, its schools, and Central Vermont Medical Center. It is critical that this body of water be protected from human access and the risks that it imposes.

There are 34 lakes and ponds within a 20 mile radius of Berlin Pond that offer recreation opportunities. We do not NEED to be on or in Berlin Pond. There is absolutely no reason to put our drinking water supply at risk. To do so would be grossly irresponsible.

Please do the right thing, the responsible thing, and protect the ONLY drinking water supply for the City of Montpelier and Central Vermont Medical Center. We can recreate anywhere. We only have ONE drinking water source.

Those in favor of opening Berlin Pond to recreation have absolutely no regard, or respect, for the drinking water of Montpelier and the hospital. They have demonstrated this time and time again.

Other drinking water sources have opened to recreation in the past, with diastorous results. Irreversible results. Don't let this happen to Berlin Pond. We are not willing to accept the unnecessary risk to our drinking water. It's just not worth it.

Thank you very much,
Martha Clelia
CVMC patient

On Fri, Apr 25, 2014 at 10:45 AM, Woods, Laura <Laura.Woods@state.vt.us> wrote:

Hello-

Please see the attached notice of petition and public meeting for Berlin Pond received from **Citizens to Protect Berlin Pond** to amend the **Vermont Use of Public Waters Rules'** Use of Public Lake-Specific Rules pertaining to **Berlin Pond**, in the Town of Berlin, to prohibit recreational use of the surface waters of Berlin Pond. Please submit any comments regarding this petition by **June 3, 2014**.

Sincerely,

Laura Woods



Laura Woods, Environmental Technician

1 National Life Drive, Main 2

Montpelier, VT 05620-3522

P: [802-490-6100](tel:8024906100) | Laura.Woods@state.vt.us

www.watershedmanagement.vt.gov

Written communication to and from state officials is considered public record and is subject to public review.

From: [Finnie, Patrick](#)
To: [Woods, Laura](#)
Subject: Berlin Pond
Date: Monday, May 05, 2014 4:20:10 PM

Ms. Woods,

I sent the following into the Times Argus about two years ago, but really don't think I can express my opinion on the topic of Berlin Pond any more clearly, so please consider this when you hold your hearings on this subject.

Thanks, Pat Finnie

I just thought I'd throw in my two cents on the subject of Berlin Pond. Being born and raised in Central Vt. (Barre) I've always been around, and interested in Berlin Pond. I have hunted on Paine Mountain, and have practiced my photography around the pond. I've always wondered how it was that the City of Montpelier was allowed to enforce it's will on a resource that unquestionably belongs to the people of the State of Vermont? First, I would like to thank the Vermont State Supreme Court for their ruling on this matter. Secondly, I know that the City of Montpelier thinks that "It's not over til I say it's over". I fully expect that the City of Montpelier in all of their lofty piety will not let this matter drop. My suggestion to them would of course be, DROP IT!!!!!!!!!! This resource belongs to the people of the State of Vermont. To the Department of Fish and Wildlife, I know you are fully supportive of the resource remaining in the "Public Domain" as it was intended. Please don't be absent anytime the issue comes up! We need your support to be at the forefront and in their face! To the Town of Berlin, I don't envy your position, but it seems to me you have the best hand in this game. My best case scenario would be if you would sell your 85 feet of frontage to the Fish and Wildlife Department to use as an access for non-motorized use. Next best would be for the Town of Berlin to realize the potential of this piece of land as a money maker for the Town. The State of Vermont already manages a few lakes itself for the purpose of non-motorized recreational use. The State rents boats for an hourly fee I believe. (it's been a long time since I've been to Seyon Ranch!) There is money to be made there, a part time job or two generated, as well as controlling the number of people allowed at any given time. All the arguments that have been made against the use of this resource are a LAME bunch of hooey! I can't believe that even the people making these claims don't realize it. Get over it Montpelier!!!!!!!!!!!!!!

Sincerely, Patrick D. Finnie

From: [Welts, Leslie](#)
To: [Woods, Laura](#)
Cc: [Warren, Susan](#); [LaFlamme, Pete](#)
Subject: FW: Protect Montpelier/Berlin drinking water source
Date: Wednesday, May 07, 2014 6:34:40 AM

Hi Laura,
Would you please save this comment with the other Berlin Pond comments? Also, would you please reply to Ms. Rapée-Adams to let her we received it?
Thanks!
Leslie

From: Mears, David
Sent: Tuesday, May 06, 2014 10:03 PM
To: Welts, Leslie
Cc: LaFlamme, Pete
Subject: Fwd: Protect Montpelier/Berlin drinking water source

Sent from my iPhone

Begin forwarded message:

From: Sheryl Rapée-Adams at Massage Vermont
<sheryl@massagevermont.com>
Date: May 6, 2014 at 5:09:00 PM EDT
To: <david.mears@state.vt.us>
Subject: Protect Montpelier/Berlin drinking water source

Dear Commissioner Mears,

My husband Chris Adams and I are kayakers. When we moved from Rutland to Montpelier last October and heard that Berlin Pond had been opened for recreational access, we were excited. What harm could our plastic kayaks do?

Then we learned that Berlin Pond was the only water source for all of Montpelier and parts of Berlin, including the Central Vermont Medical Center. We learned it was a shallow, silty pond whose turbidity was easily increased. We learned that even plastic kayaks can transport invasives, which are then difficult or impossible to eradicate.

We knew at that point we'd never paddle Berlin Pond. There are dozens of nearby water bodies we can paddle without floating around in people's drinking water. It's a no-brainer to decide that it's not worth the risk to a vulnerable water source.

Now we live in Montpelier and we fear for the quality of our water. From swimmers and others shedding coliform fecal bacteria, urinating and even

defecating in the water to ice fishing augers emitting petroleum, it makes no sense at all to put recreation ahead of public health and safety.

We've heard that despite scientific demonstration that ending human activity on Berlin Pond is the only way to protect our drinking water source, Fish & Wildlife has made it a priority to build a boat access on Berlin Pond. If this is true, please, Commissioner Mears, I need to read/hear in your own words that you believe clean, safe drinking water is less important than recreation. If this is true, please confirm that you regard public health and safety as worth throwing under the bus as long as people can play in our drinking water.

If you don't believe this, as I hope you don't, then I urge you to immediately return Berlin Pond to full protection by passing the CTPBP petition.

Sincerely,

Sheryl

Sheryl Rapée-Adams
485 Elm Street, Montpelier, VT 05602
(802) 353-7286 - cell
(802) 229-5400 - office

From: [Mary Messier](#)
To: [Woods, Laura](#)
Subject: Berlin pond
Date: Friday, May 09, 2014 6:04:52 PM

I am against "recreational " use ON the pond. Do not let it be spoiled. I am a lifelong Vt. Resident/native, And Previous berlin pond area resident. Keep this area "natural". We have enough places for people to "utilize" for, "ON water recreation."

Thank you for considering my viewpoint
M. E. Messier

Sent from my iPad

MARGE GARFIELD
771 Bayne Road
East Calais, VT 05650

May 10, 2014

Ms. Laura Woods
Dept of Environmental Conservation
1 National Life Drive, Main 2
Montpelier, VT 05602

FAX - ONE PAGE

RE: BERLIN POND Reservoir

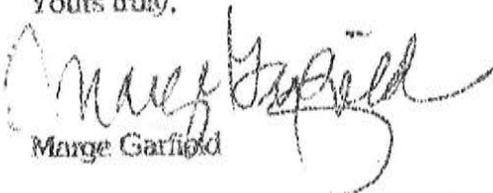
Dear Ms. Woods:

THERE IS ONLY ONE BERLIN POND!!!! Why ruin this one pond, this irreplaceable source of pure drinking water, for the sake of recreation? Boating, fishing, and other water sports can easily be done on the countless bodies of water within a short distance of Montpelier. But there are no other pristine, untouched ponds in the area, and there is no reason to contaminate Berlin Pond with the by-products of human use.

Do any other states allow recreation in their reservoirs? I know New York State does not, even though their reservoirs are much larger than Berlin Pond. That state protects their reservoirs very strictly, giving its residents confidence that their water supply will not be compromised in any way. I think this is a good standard.

It defies common sense to sacrifice Berlin Pond, this beautiful, untouched natural resource, for the sake of recreation and amusement that can easily be done elsewhere. Water quality is serious; recreation is not. Must we pollute everything just because it's there?

Yours truly,


Marge Garfield

From: [LaFlamme, Pete](#)
To: [Warren, Susan](#); [Welts, Leslie](#)
Cc: [Woods, Laura](#)
Subject: FW: Citizens To Protect Berlin Pond
Date: Monday, May 12, 2014 11:10:34 AM

Could you please respond to this email and also add this person to our distribution list. Thanks.



Pete LaFlamme, Director
1 National Life Drive, Main 2
Montpelier, VT 05620-3522
802-490-6190 / Pete.LaFlamme@state.vt.us
www.watershedmanagement.vt.gov

From: Markowitz, Deb
Sent: Sunday, May 11, 2014 8:40 PM
To: LaFlamme, Pete
Subject: FW: Citizens To Protect Berlin Pond

For you

Deb Markowitz
Secretary
Vermont Agency of Natural Resources
1 National Life Building, David 2
Montpelier, Vermont 05602

802-828-2194
www.anr.state.vt.us

RESPECT -- PROTECT -- ENJOY

From: Irene Nightingale [bekkay1@yahoo.com]
Sent: Tuesday, April 22, 2014 9:57 AM
To: Markowitz, Deb
Cc: jhollar@montpelier-vt.org; wfraser@montpelier-vt.org
Subject: Citizens To Protect Berlin Pond

Since recreational access to Berlin Pond is now allowed I feel strongly that Montpelier's drinking water is in jeopardy. I urge the ANR to pass the petition submitted from the Citizens to Protect Berlin Pond. Thank you.

Sincerely,

Irene Nightingale Nettler

From: [Mac Lore](#)
To: [Woods, Laura](#)
Subject: Berlin Pond
Date: Tuesday, May 13, 2014 10:40:31 AM

Hello Laura - Please protect Berlin Pond, Montpelier's source of drinking water, from "recreational" uses . Sincerely, Roger Lore

From: davidabbott11@comcast.net
To: [Woods, Laura](#)
Subject: Berlin pond
Date: Tuesday, May 13, 2014 12:42:37 PM

I am concerned about the future of Berlin Pond as a source of my drinking but equally troubled by the mindset that every body of water in Central Vermont must accomodate active recreation.- fishing, ice fishing, power boating, canoeing, kyacking, swimming. Surely, there is room here for at least one pond to approach and retain a natural state, offering passive recreational benefits. These benefits are different but no less valuable to the human spirit than the active recreational pursuits. They feed the soul as a small element of aquatic "wilderness" in our midst.

David Abbott
11 Towne Street
Montpelier, VT 05602

From: [Lew Friedland](#)
To: [Woods, Laura](#)
Subject: Berlin Pond
Date: Thursday, May 15, 2014 10:30:06 AM

Dear Laura Woods,

I'm writing in support of the CTPBP petition to restrict access to Berlin Pond for recreational purposes as is currently permitted, and to restore the protected status it had previously. It doesn't require a great deal of expertise to understand the importance of preserving the environment and ecology of the pond as well as the purity of the pond as a water source. The mentality of destroying nature for so-called recreation is a driving force behind the destruction of the planet. We need to at least halt it locally. Thank you.

Yours truly,
Dr. Lew Friedland
24 St. Paul Street
Montpelier, Vt

**Michael Sherman
20 College Street
Montpelier, Vermont 05602**

May 15, 2015

Deb Markowitz, Secretary
Agency of Natural Resources
1 National Life Drive, Davis 2
Montpelier, Vermont 05620-3901

Dear Secretary Markowitz,

I am writing to support a petition submitted to your agency by the Citizens to Protect Berlin Pond to restrict access and recreational use of Berlin Pond.

For over a century, Berlin Pond has served as the source for safe drinking water for Montpelier and for some large institutions, most notably Central Vermont Hospital. The City of Montpelier has invested heavily in upgrading its water filtration plant to serve this essential need. In addition, the Berlin Pond is an unspoiled wildlife refuge that attracts a wide variety of forest birds and waterfowl for migration, breeding, and nesting. It has been designated an Important Bird Area by the Audubon Society—one of only seventeen such areas in Vermont.

It is important to preserve both the integrity of the water supply and the habitat that fosters the rich biodiversity associated with Berlin Pond. Opening the pond to human recreation, hunting, fishing, and boating will undoubtedly have an adverse affect on the pond's water quality and its suitability, not to mention safety, for wildlife.

I recently received a notice that the Vermont Dept. of Environmental Conservation is recruiting Boat Access Greeters to help stop the spread of aquatic invasive species. The notice reported that "During inspections performed in 2013, a total of 315 boats were intercepted with aquatic plant material or animals. Of those intercepts, Eurasian watermilfoil was removed from 253 boats. This highly invasive species is a threat to the ecological, recreational, and economic health of our lakes and ponds." This notice points to one of the major threats to Berlin Pond. And although the Watershed Management Division website reports that Zebra Mussels, first reported in Lake Champlain in 1988, and found in Lake Bomoseen in 1998, have not been found in any other Vermont lake or pond, I note that the website was last updated in June 2004. This potential threat to Berlin Pond and to Montpelier's water filtration system is another reason to restrict access to the pond.

Finally, but in some ways equally important, Berlin Pond is a quiet place, a place apart from the rush and noise of even our relatively calm environment in Central Vermont. Walkers, runners, and bicycle riders go there from surrounding communities to exercise their bodies and find renewal in the calm enjoyment of nature. We need to preserve that, too.

I hope your agency will act to preserve these special and important qualities of Berlin Pond by restricting access to the waters of Berlin Pond, at the very least by prohibiting motorized craft and making the pond a "quiet lake", but preferably, by honoring the more than a century-old practice of prohibiting all human access to and recreational use of the waters of the pond.

Yours truly,

Michael Sherman

From: [Kathleen Herrington](#)
To: [Woods, Laura](#)
Subject: Please Protect Montpelier's Water Supply
Date: Thursday, May 15, 2014 1:03:28 PM

Dear Agency of Natural Resources,

Much of the natural world's resources and wildlife species have been lost or are seriously endangered. While we can't often take a viable stand to prevent those situations, we can make a very real difference in the case of our water supply.

Please. Don't let this be a political game. If you live in Montpelier, as I do, and if you and your children and grandchildren drink and bathe in water from Berlin Pond, let your common sense rule the day.

The purity of our drinking water is not something we can take for granted. *We must* take a stand. Vermont has an abundance of recreational-use bodies of water; let us not be short-sighted by taking unnecessary risks with our only drinking water resource. We can do something positive here – we can do our best to prevent its pollution.

I ask you to return Berlin Pond to full protection. Please pass the petition submitted by *Citizens to Protect Berlin Pond*.

Sincerely,

Kathleen Herrington
44 Clarendon Ave.
Montpelier, VT 05602

From: [Allison](#)
To: [Woods, Laura](#)
Subject: CTPBP
Date: Thursday, May 15, 2014 9:05:36 PM

To whom it may concern,

I've lived in Montpelier for 17 years and have 2 young children. I have followed the story of how Berlin Pond went from being untouched for over 100 years to its current open use to the public and frankly I'm stunned and disturbed by the whole thing. It defies logic why we would knowingly invite toxicity to a public water source that serves so many, for the leisure/ pleasure of an unknown few. If it is true that the current treatment plant cannot filter or detect petroleum, why is gasoline permitted anywhere near the pond? This is our drinking water! Please, PLEASE pass the full petition submitted by *Citizens To Protect Berlin Pond*.

Thank you,
Allison Parrish
Montpelier

From: [Susan Sanderson](#)
To: [Woods, Laura](#)
Subject: BERLIN POND
Date: Friday, May 16, 2014 10:24:14 AM

Good Morning,

I am writing to you in regards to the ongoing issue of Berlin Pond. I am hoping that you will support the efforts of the Citizens to Protect Berlin Pond. Our water supply is at peril from recreational use. Berlin Pond is a small, very shallow body of water with deep sediment that if disturbed, will create unwanted turbidity and added difficulties in the drinking water processes.

With so many other ponds and lakes in Vermont that support recreational uses, Berlin Pond has the distinction of having been undisturbed for over 100 years up until three years ago. While I support sportsmen and their activities, I feel that in this particular case, we need to draw the line. As a longtime birdwatcher at the pond for over 25 years, I have seen a vibrant, teeming bird population diminished quite visibly over the last two years. I am certain this is in direct response to human intrusion.

On a less emotional level, I also believe that protecting this important water supply from human activity is paramount. With global warming already raising water temperatures, increasing evaporation and water surface area declining due to shoreline buildup of sediment and vegetation, we need to begin extreme conservation to ensure our water supply remains safe.

Berlin Pond deserves to return to its original pristine state. It would be such a wonderful legacy to have this protection restored for future generations. Our water is at risk, as is our wildlife due to habitat loss. I hope that you will help the folks who are fighting for those who have no voice: the animals and birds and fish of Berlin Pond.

Thank you so much,

Sincerely,

Susan Sanderson

149 Berlin Street

Montpelier, VT 05602

802-225-6597

From: [Diane Sophrin](#)
To: [Woods, Laura](#)
Subject: Berlin Pond petition
Date: Friday, May 16, 2014 12:51:26 PM

To Whom it May Concern,

I would like to add my voice to the large number of Montpelier residents opposed to the expansion of recreational use of the Berlin Pond.

As a long-time resident of Montpelier, I see no reason why the purity of our drinking water should be compromised or threatened so that a few can play in our water. There are many other places available for water sport and recreation. Our drinking supply should not be used for those purposes. To allow this is a bad idea and a step backwards.

I urge that the full petition submitted by "*Citizens To Protect Berlin Pond*" be passed.

Yours truly,
Diane Sophrin
24 Saint Paul Street
Montpelier, VT 05602

From: [Cynthia Meigs](#)
To: [Woods, Laura](#)
Subject: Berlin pond
Date: Friday, May 16, 2014 1:40:16 PM

I fully support the efforts to protect Montpelier's water supply in Berlin Pond. It is critical that our water supply is protected.

Cynthia Meigs
48 Coolidge Street
Montpelier, VT 05602

From: [Margaret Blanchard](#)
To: [Woods, Laura](#)
Subject: Berlin Pond Protection
Date: Friday, May 16, 2014 1:56:46 PM

To the Agency of Natural Resources:

Nine months ago I moved into Montpelier from where I was living in rural Vermont. Since then I have experienced health problems which are possibly caused by impure water. Coming from using our own tested well water, I was shocked to discover that the source for Montpelier's water supply, Berlin Pond, is not fully protected from recreational use and potential pollution from petroleum, while the city's filtration plant cannot filter out, or even detect, such sources of pollution. And I was distressed to find out that political control of the pond is by Berlin politicians whose own water comes from another, cleaner source. For so many reasons, as you must know, water is essential for life. Our health as well as the health of our natural environment, and the birds and animals who share it with us, depends on clean water for drinking and bathing.

I wonder if you have considered what might happen when people start getting sick from a polluted municipal water source. What will happen to Vermont's limited financial resources when people start suing the state for health problems resulting from contaminated water? What will happen to tourism when word gets out about water quality in the state? What will happen to the state's capital when its residents come down with mysterious illnesses? Can you really afford to take these risks just for the sake of accommodating people with motor boats and other noisy and dirty vehicles, not to mention fishermen who like to piss off the sides of their boats? Vermont is rich with other recreational water places which are not sources for the drinking and bathing needs of thousands of its citizens. There's no need for a few folks, for the sake of fun, to ruin the lives of many of their fellow Vermonters.

Please return Berlin Pond to the full protection it used to have.
Please for our sake and for the sake of our state.

Thank you.
Margaret M. Blanchard

20 College Street
Montpelier VT 05602
May 16, 2014

Laura Woods, Environmental Tech
ANR Watershed Division
1 National Life Drive, Main 2
Montpelier VT 05602

Dear Laura Woods,

I am writing in support of the petition submitted by the Citizens to Protect Berlin Pond, encouraging you and the Agency of Natural Resources to restrict access and recreational use of Berlin Pond.

We should restrict, not increase, use of the pond because water is a valuable and limited resource that is essential to our survival. Berlin Pond is one of our region's most nearly perfect sources of water. We should recognize its value and not subject it to new and greater risks. If you open Berlin Pond to recreational use, we are increasing the probability of contamination and other unanticipated consequences.

The assumption seems to be that any new contaminants introduced with recreational use of the pond can be eliminated or at least controlled by increased chemical treatment and filtration. This is not a confidence inspiring approach, and it subjects the pond and individuals who depend on it to unknown risks and unnecessary costs with serious long term impacts. In addition, there are aggressive invasives, milfoil and zebra mussels for example, that are growing out of control in other ponds and lakes. Are there reliable procedures to assure that pollutants and invasive organisms will not get into Berlin Pond with recreational users?

Why take unnecessary risks with an invaluable source of drinking water? Why rely on more chemical processing and filtration to remove impurities and pollutants when the protected status of the pond has successfully addressed these problems for over 100 years? Opening Berlin Pond to recreational use cannot be effectively rescinded if there are significant changes. This decision has long term and wide spread impacts on residents of Montpelier and the surrounding communities and businesses.

Central Vermont needs a reliable source of potable water, as provided by Berlin Pond and the Montpelier Water Filtration Plant. Let's use Berlin Pond for drinking and consumable water and go to other ponds, lakes, and rivers for fishing, boating, and recreation.

Sincerely,

Nancy Sherman

From: [Brian Aust](#)
To: [Woods, Laura](#)
Subject: please pass the full petition submitted by Citizens To Protect Berlin Pond.
Date: Friday, May 16, 2014 6:00:40 PM

Dear Laura,

I wish to be added to the petition posted at this website -

http://www.watershedmanagement.vt.gov/rulemaking/docs/petitions/pet_bp02062014_petition.pdf

Aside from the many valid reasons given, I would also add that it is extremely likely and probably inevitable that if full recreational uses were permitted on Berlin Pond, subsequent infestations of invasive aquatic species like *Hydrilla*, Water chestnut, brittle naiad and others will ensue. Protecting Berlin Pond may be the only way to prevent infestations of invasive aquatics that once introduced are virtually impossible to eradicate.

Respectfully yours,
-Brian Aust

From: [nancyhammond](#)
To: [Woods, Laura](#)
Subject: berlin pond
Date: Monday, May 19, 2014 7:18:10 AM

Please keep Berlin Pond clean. Clean water is more valuable for this great community than recreation. We all need good clean water.

thank you,
nancy hammond

Sent from my iPhone

From: [Mia Moore](#)
To: [Woods, Laura](#)
Subject: Protect Berlin Pond
Date: Saturday, May 17, 2014 2:14:05 PM

Hello Ms. Woods,
I'm writing in support of the petition submitted by the Committee to Protect Berlin Pond. In its protected state, the pond is a huge resource for the city of Montpelier. And I worry that increased recreation means more pollution, and pollution we can't remove before it's in our drinking water.

I used to work with an organization called Toxics Action Center, and witnessed dozens of communities and neighborhoods all over New England fighting for access to safe, cleaning drinking water. We already have that in Montpelier, and we should do everything we can to protect it.

Thank you for your consideration of the petition, and my thoughts.

-Mia Moore
5 Peck Pl
Montpelier

May 14, 2014

Ms. Laura Woods
DEC
One National Life Dr., Main 2
Montpelier, VT 05620-3522



Dear Ms. Woods,

Please find enclosed comments by the Berlin Conservation Commission for the May 27 DEC Public Hearing regarding the Citizens to Protect Berlin Pond petition for rule change.

Also enclosed are copies of the "Citizens' Vision for Berlin" and Berlin Pond Watershed Conservation Plan" which are referred to in the text of the comments.

Sincerely,

Andrea Chandler

Andrea Chandler
Berlin Conservation Commission member



Town of Berlin
108 Shed Road, Berlin VT 05602

Conservation Commission

Andrea Chandler
Beth Daut
Ellen Drysdale
Phil Gentile
Jenn Ingersoll
Ellen Sulek
Tom Willard

May 12, 2014

Ms. Melissa Perley
Citizens to Protect Berlin Pond
452 Brookfield Road
Berlin, Vermont 05602

Dear Ms. Perley,

The Berlin Conservation Commission (BCC) was created by the Town of Berlin under the authority of 24 V.S.A. Chapter 118 to assist, advise, and cooperate with Town bodies, State commissions, and other private organizations on matters affecting the local natural resources and conservation needs consistent with the purposes of this Chapter.

For this reason we are happy to make the following comments and evaluation concerning your recent petition to restore Berlin Pond's former restricted access prior to the 2012 Vermont Supreme Court decision. This Court's decision did not conclude that the historic access policy did not have merit or did not make sense, but rather ruled that State processes rather than the municipality of Montpelier, should evaluate that access policy. We believe your petition is exactly the process that the court expected to resolve the Pond access issues.

The Berlin Conservation Commission has studied and inventoried the natural resources of Berlin Pond for decades. Many of these resources have been protected as a corollary of the City of Montpelier's efforts to protect its drinking water supply, an ongoing concern addressed by your Citizen's Group petition. Additionally, we have found that Berlin Pond has functioned as a vital refuge for birds and waterfowl for about one hundred years, similar to the function of refuges like the Mississquoi Wildlife Refuge in Northwestern Vermont. A literature review (Korschgen and Dahlgren, USFWS), has shown that human disturbances can occur during all critical parts of the annual cycle of birds and waterfowl, including nesting, brood rearing, and migration, creating problems not obvious to casual observers. Disturbances during critical times of the nesting cycle can cause desertion or abandonment of nests and can cause birds to nest elsewhere or not at all. Human disturbance during

migration periods result in increased energy expenditure and depleted fat reserves and may cause large numbers of waterfowl to leave and migrate elsewhere.

Many research articles confirm that human disturbances can have a detrimental effect on birds including waterfowl. One literature review (Borgman) of the effects of human disturbance on waterbirds concluded that 86% of these studies reported that human disturbances impacted the study species. Mallards that were experimentally disturbed lost a significant amount of body mass compared to the undisturbed group due to increased flights in response to disturbance. Another study found frequent visits to goose nests by biologists caused nest desertion rates as high as 40%. The literature contains many studies that conclude the need for sanctuary units has been abundantly demonstrated in this time of increased recreational activity.

Berlin Pond has been designated as an Important Bird Area (IBA) by the Audubon Society and was one of four original areas chosen in the State. There are presently only 17 such areas designated in Vermont today. Many hundreds of migrating waterfowl can be found on the pond in the fall and spring, and during the nesting season. We believe Berlin Pond supports more migrating and nesting waterfowl than any wetland or body of water in the Central Vermont area and the expansive wetland at both the north and south ends of Berlin Pond deserve a designation as a Class 1 wetland.

This important wildlife resource is a direct result of the lack of human disturbance for the last one hundred years and would be negatively impacted by the development of access areas and frequent recreational use by hunters, fisherpeople, boaters and other users. On the other hand, use by walkers, birders, and passive recreational activities on a "quiet lake" would have little or no impact on the historic wildlife use of the area.

A majority of voting Berlin residents voted in a *nonbinding referendum* in 2012 that access should be provided to Berlin residents. But in 1999, following a series of 7 well-attended informational community meetings, an even larger majority (76%) in the "Citizens' Vision for Berlin" indicated that "The Berlin Pond Area should be maintained in its existing condition". The *Berlin Pond Watershed Conservation Plan* published by the Berlin and Montpelier Conservation Commissions and guided by respected scientists, state biologists, and Central Vermont residents similarly concluded that the historic natural resource values should be protected. Copies of Citizens' Vision and Conservation Plan are enclosed.

In an age of fossil fuel, chemical use, increased recreational demands, and invasive species, it is becoming increasingly difficult to protect drinking water and preserve natural resources and wildlife habitat. The Berlin Pond Watershed Conservation Plan concluded that "Berlin Pond is more than just a water supply for the City of Montpelier. The area and its environs are a valuable habitat area, as well as one that provides important scenic values, and a quiet, undisturbed place in which to enjoy nature".

The Berlin Conservation Commission hereby lends its strong support to the petition proposed by the group "Citizens to Protect Berlin Pond" as we feel that the proposed conditions are consistent with the the Commission's natural resource protection goals. We

hope the Vermont Department of Environmental Conservation will seriously consider our position as well as our enclosed document "Berlin Pond Watershed Conservation Plan" and will act to preserve this irreplaceable resource.

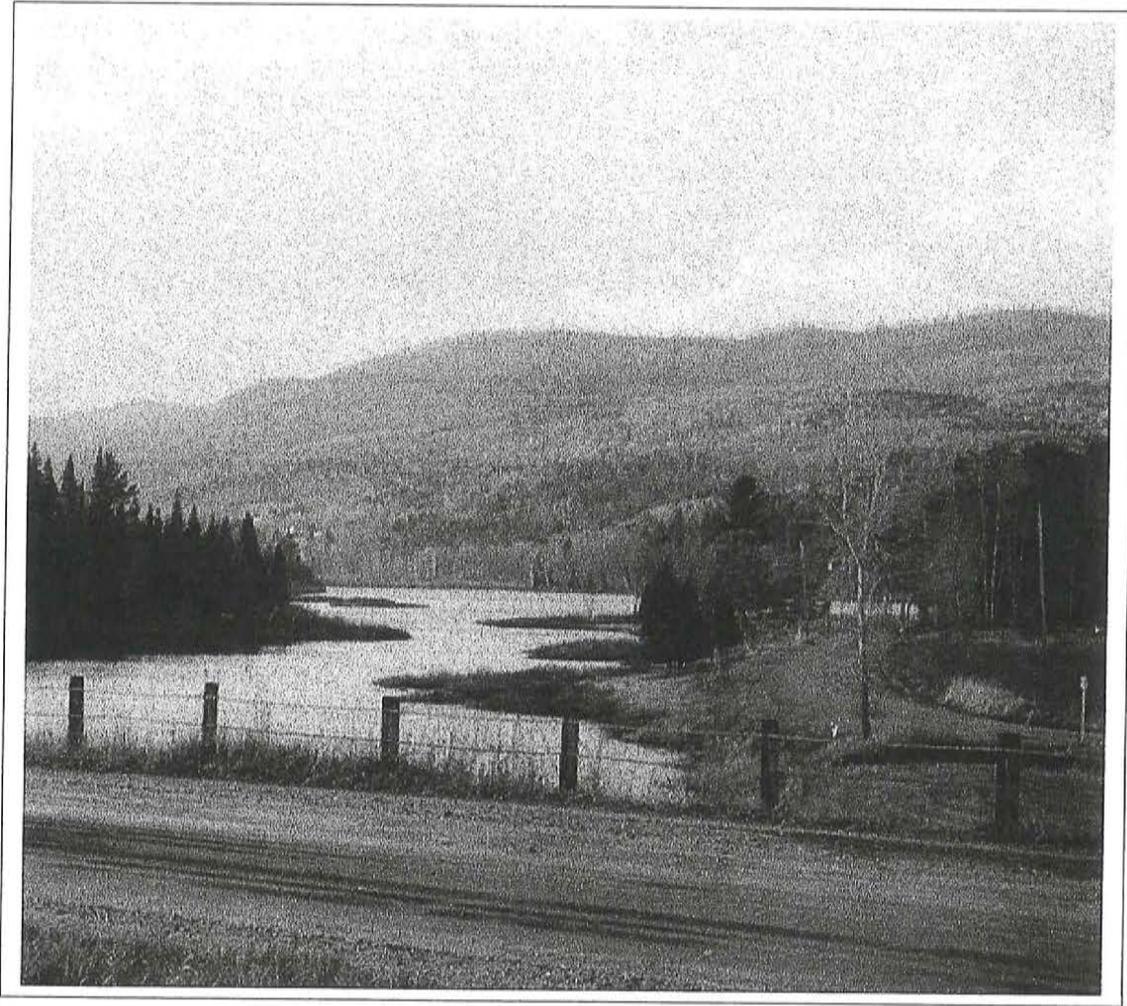
Enjoyment of "quiet lakes" and wetlands is a public use, just as important as hunting, fishing or boating. The "quiet use" of Berlin Pond has been an important part of our Town for almost 100 years and we hope the Agency of Natural Resources will evaluate your petition seriously and consider the merits of maintaining the historic Pond condition.

Sincerely,

Berlin Conservation Commission
contact: Andrea Chandler, andreachandler@ymail.com

cc: Laura Woods, DEC

Berlin Pond Watershed Conservation Plan



Commissioned by the Montpelier and Berlin Conservation Commissions
Prepared by the Vermont River Conservancy
February 2002

Berlin Pond Watershed Conservation Plan
February, 2001

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Montpelier Conservation Commission, Paul Markowitz, Chair

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City of Montpelier

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The Wharton Foundation

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EXECUTIVE SUMMARY

To protect the City of Montpelier's water supply, over a century of restrictions on development, access, and recreational activity have allowed Berlin Pond and its surrounding wetlands and forestlands to evolve into a unique natural area, one unparalleled in central Vermont. Berlin Pond, however, is more than just the water supply for the City of Montpelier. The area is a valuable habitat area, one that provides important scenic values, and a quiet, undisturbed place in which to enjoy nature.

The quality of Berlin Pond drinking water supply and the ecological health of the Berlin Pond natural area are both affected by activities in the Berlin Pond watershed. The Berlin Pond watershed contains a diversity of habitats and human land uses. Over the long term, the many values and benefits to humans and wildlife provided by Berlin Pond and its watershed are highly susceptible to cumulative threats associated with development, such as loss of open space, habitat fragmentation, increased traffic, and stormwater pollution.

The purpose of the **Berlin Pond Watershed Conservation Plan** is to provide an integrated set of recommendations to governing bodies towards protection of the drinking water supply and the ecological values of Berlin Pond, its wetlands and watershed. The Montpelier and Berlin Conservation Commissions commissioned the study and organized a 12-member Advisory Committee to guide the writing of the plan.

In the plan, **Current Uses and Public Use Suggestions** (Section III.) are analyzed for their potential impact on seven **Conservation Goals** (Section II.) identified by the committee (see **Threats**, Section IV.) The **Recommendations** (Section V.) set forth in the plan address these threats.

The City of Montpelier, Town of Berlin, and non-governmental partners should strive to increase awareness of regulations protecting Berlin Pond. While acknowledging a limited public desire on the part of some to boat, fish, or swim in the waters of Berlin Pond, these uses and associated activities are generally inconsistent with the seven Conservation Goals defined in the plan. Wildlife observation, while it certainly has the potential to harm plants and animals in the watershed and at the pond, is generally consistent with the seven Conservation Goals, provided visitors are prevented from visiting fragile areas or nest sites. The City of Montpelier, Town of Berlin, and non-governmental partners should also foster greater awareness among visitors and residents of the unique and fragile community and ecological resources found at Berlin Pond and should encourage community stewardship of these resources. To this end, the City of Montpelier, Town of Berlin, and non-governmental partners should coordinate adequately funded efforts in the areas of Community Relations and Public Outreach, Land Protection, Research and Monitoring, and Recreation Management.

Summary of Recommendations

I. Community Relations and Outreach (see page 32)

1. Increase awareness of regulations protecting Berlin Pond.
2. Increase awareness of ecological importance of area.
3. Educate landowners and recreational visitors about implications of land use and activities.

II. Land Protection and Conservation (see page 33)

1. Work with willing sellers to acquire and/or conserve priority tracts. Priority tracts include properties at risk of current or future development that
 - protect and buffer tributaries,
 - protect scenic or recreational values, and
 - link habitats.
2. Work with the City of Montpelier to place permanent conservation restrictions on its shoreline and watershed properties.

III. Research and Monitoring (see page 34)

1. Monitor populations of uncommon species.
2. Continue species inventory work.
3. Monitor breeding populations

IV. Recreation Management (see page 35)

1. Manage wildlife observation and recreation activities on roads around the Pond.
2. Manage recreation activities in watershed uplands.

V. Implementation (see page 36)

1. Coordinate efforts.
2. Secure funding for implementation.

I. Background

Berlin Pond: a Special Place

In 1884, the City of Montpelier began using Berlin Pond as its public water supply. As fears grew that agricultural and recreational uses of surrounding lands were threatening the quality of this new drinking water source, both the State Board of Health and the City of Montpelier initiated measures to protect the water from activities that might pollute it.

The Board of Health imposed prohibitions on swimming and boating in the 250-acre pond and activities along its 13 tributaries. The City of Montpelier began to purchase the lands around the pond, and by 1925, owned most of the Berlin Pond shoreline. Several court cases upheld the prohibition of swimming, fishing, and boating in Pond waters.

Over a century of restrictions on access and recreational activity have allowed Berlin Pond and its surrounding wetlands and forestlands to evolve into a unique natural area, one unparalleled in central Vermont. Berlin Pond is more than just the water supply for the City of Montpelier. The area and its environs are a valuable habitat area, one that provides important scenic values, and a quiet, undisturbed place in which to enjoy nature.

Increasingly, throughout Vermont, development pressure threatens undeveloped lake shores. Only a very few large Central Vermont ponds have retained their undeveloped shorelines. There are no structures on the shoreline of Berlin Pond (with the exception of a small pump station), and roads come close to the Pond in only a few places. A 1992 study of lakes 20 acres in size or greater found that Berlin Pond was one of only a few large water bodies with a high percentage of undeveloped shoreline. Berlin Pond stands out as a pond of intact and healthy natural communities with an undeveloped shoreline.

Berlin Pond hosts a very diverse community of aquatic plants. Its open waters and high-quality wetlands attract migratory waterfowl and provide nesting habitat for many species of birds. The pond serves as breeding habitat for a number of sensitive species. In 1999, the National Audubon Society's Vermont State Office officially designated Berlin Pond as a Vermont Important Bird Area (IBA), one of only four areas chosen in the state at that time.

There are numerous ponds in the vicinity of Berlin Pond where recreational activities are allowed. Thirty-four lakes and ponds (ranging from 23 to 849 acres) found within a 20-mile radius of Berlin Pond allow fishing, swimming, or boating, or all three, and some allow camping (See appendix). Nearly 60% of these also allow internal combustion engines. Few, if any of these water bodies are as ecologically significant as Berlin Pond.

Activities in the Watershed affect Berlin Pond water quality and the ecological health of the Berlin Pond natural area.

Water enters Berlin Pond in three ways. It enters as precipitation, as subsurface flow (groundwater), and as water that flows over the land of the watershed.

A “watershed” is all the land where surface flow of water ends up in the same “receiving” water, in this case, Berlin Pond.

The quality of Berlin Pond drinking water supply and the ecological health of the Berlin Pond natural area are both affected by activities in watershed. The Berlin Pond watershed contains a diversity of habitats and human land uses. There are wetlands and forests and meadows; there are trails and roads; there are residential dwellings. Most of the watershed, however, is presently undeveloped and rural.

Recently, the City of Montpelier commissioned a Source Protection Plan (SPP) for the Berlin Pond (raw water supply for City of Montpelier). The SPP was prepared by Dufresne & Associates, PC for the City of Montpelier. The SPP was prepared as required under the Vermont Water Supply Rule—Chapter 21, subchapter 7—in order for the Montpelier Filtration Plant to receive its operating permit. As such, the SPP focuses on drinking water protection and does not consider the ecological value of Berlin Pond. The SPP also does not fully address the cumulative impacts of potential development within the watershed, nor does it address recreational use in the watershed.

Over the long term, the many values and benefits to humans and wildlife provided by Berlin Pond and its watershed are highly susceptible to the cumulative threats associated with development, such as loss of open space, habitat fragmentation, increased traffic, and stormwater pollution.

In recent years, studies have quantified the relationship between development and the health of water bodies in developing watersheds, indicating a decrease in water quality with increasing development of the watershed. In urban lakes and ponds, higher stormwater pollutant loads are the major cause of water quality impacts. The ability of municipalities to control common behaviors and practices in urbanizing areas are imperfect at best.

The construction and coming-on-line of the new water filtration plant does not obviate the need to protect the source of Berlin Pond waters. Furthermore, the presence of the plant does not protect the ecological value of the Pond waters, wetlands, and shoreline as important and recognized natural resources from threats such as increased development within the watershed.

The Purpose, Development and Use of the Berlin Pond Watershed Conservation Plan

The purpose of the Berlin Pond Watershed Conservation Plan is to provide an integrated set of recommendations to governing bodies towards protection of the drinking water supply and the ecological values of Berlin Pond, its wetlands and watershed. The Montpelier and Berlin Conservation Commissions commissioned the study and organized a 12-member Advisory Committee to work with the Vermont River Conservancy in the writing of the plan.

The Advisory Committee represents a diversity of interests and expertise in water quality, wildlife conservation, and recreation. The Committee includes representatives who reside in the watershed, serve on commissions in the City of Montpelier and the Town of Berlin, or otherwise are familiar with Berlin Pond, its history, functions, and values.

Through the Plan, the Advisory Committee hopes to accomplish the following vision:

To protect and maintain the complex association of open waters, wetlands, and upland communities of the Berlin Pond Watershed, over the long-term, as a place where human uses of the watershed sustain or enhance the biodiversity and undeveloped nature of the Pond and are consistent with the ecological health and the rural character of the watershed.

The Berlin Pond Watershed Conservation Plan is intended to supplement and complement the Source Protection Plan for Montpelier's Water Supply (SPP) and the Montpelier Water Conservation Plan.

The Plan should also be read in the context of statutes, decisions, and existing regulations regarding Berlin Pond and the Berlin Pond watershed.

The Vermont River Conservancy prepared the Berlin Pond Watershed Conservation Plan under the guidance of the 12-member Advisory Committee. The Plan begins with a **Background Section (Section I.)** followed by a set of **Conservation Goals (Section II.)** identified by the Advisory Committee. The Plan then reviews current uses and suggested uses (see **Current and Public Use Suggestions (Section III.)**), analyzing them for their potential threat to the conservation goals (see **Threats to Conservation Goals, Section IV.**). Lastly, the Plan recommends a set of strategies and actions that are intended to help achieve conservation goals (see **Recommended Strategies and Actions, Section V.**).

II. Conservation Goals

The Berlin Pond Watershed Conservation Plan is a planning document focused on conservation. This section of the plan lists and explains objectives for seven conservation goals as developed and refined by the Advisory Committee. Clearly outlined goals direct the planning effort to minimize threats to the pond and its watershed.



Conservation Goals:

1. Maintain and enhance the undisturbed nature of Berlin Pond waters, the undeveloped nature of the Berlin Pond shore lands, and the rural nature of the watershed.

Objectives

- Maintain the undisturbed nature of Berlin Pond waters with respect to human presence, sound, movement, stirring of bottom sediments, and presence of aquatic plants and wildlife.
- Maintain and/or increase vegetation along the Berlin Pond shoreline to achieve target of high-quality forest or wetland communities.
- Maintain an appropriate ratio of undeveloped to developed acreage in the watershed

2. Protect water quality in the Berlin Pond Watershed.

Objectives

- Maintain current nutrient levels or reduce nutrient loading in Pond waters
- Minimize sedimentation in Pond and tributaries
- Minimize and prevent introduction of pathogens, toxic chemicals and pesticides to Pond waters.

3. Maintain suitable habitat for rare and uncommon species, such as common loon (*Gavia immer*)

Objective

- Maintain suitable habitat for nesting loons to maintain or increase incidence of successful loon nesting on the Pond. Improve loon-nesting success over the long term.

pied-billed grebe (*Podilymbus podiceps*)

Objective

- Maintain suitable habitat for nesting pied-billed grebes to maintain or increase incidence of pied-billed grebe nesting success in Pond wetlands.

osprey (*Pandion haliaetus*)

Objective

- Maintain suitable habitat for nesting osprey to increase incidence of osprey nesting success.

sora (*Porzana carolina*)

Objective

- Maintain suitable habitat for nesting sora to maintain or increase incidence of sora nesting success in Pond wetlands.

4. Identify, maintain, and encourage natural communities in the Berlin Pond Watershed.

Objectives

- Maintain the current diversity of aquatic plant communities.
- Maintain a dynamic mosaic of wetland types (scrub-shrub wetlands, wet meadows, pond-side marshes, northern white cedar swamp) and forest community types and ages within the Berlin Pond watershed where natural processes and natural disturbance regimes can occur.
- Maintain or re-establish robust buffers and forested habitat around vernal pool communities.
- Allow reversion of plantations to native forest communities.

5. Protect general wildlife habitat in the Berlin Pond Watershed

Objectives

- Maintain sufficiently intact and connected natural communities.
- Minimize fragmentation of large forest plots within the watershed.
- Identify and protect important corridors between Pond waters, wetlands and forested uplands.
- Identify and protect vernal pool habitat and sufficient acreage of surrounding uplands for migratory amphibians that breed in vernal pools.

6. Protect scenic vistas and scenic qualities of the Berlin Pond Watershed

Objectives

- Maintain quality of scenic views of the Pond.
- Maintain and improve scenic views of the forested watershed and ridgeline.

7. Maintain areas in the vicinity of Berlin Pond and the Berlin Pond shore land and watershed for environmental education, ecological research, and low-impact recreation activities that are consistent with the above goals

Objectives

- Designate potential areas important to environmental education, ecological research, and low-impact recreation activities that are consistent with conservation goals.
- Protect and ensure the proper management of these areas.

III. Current Uses and Public Use Suggestions

This section is divided into

- A. *Summary of Citizen's Vision for Berlin,*
- B. *Public Comment: Berlin Pond Waters, Wetlands, and Public lands around the shoreline, and*
- C. *Public Comment: Berlin Pond watershed uplands"*

The section catalogs current human uses and reviews a variety of uses that have been suggested by the public for Berlin Pond waters, shoreline, and watershed. The evaluation of public opinion included consulting the "Citizen's Vision for Berlin," and solicitation of public opinion through written comment sheets and a public hearing.

The Citizen's Vision for Berlin was a planning effort by the Berlin Planning Commission to assess planning goals and develop a strategy for the future. Community meetings and a questionnaire gave Berlin residents an opportunity to voice opinions about the priorities for Berlin.

The Advisory Committee also solicited public comment through written forms and a public hearing. Participants were asked to comment about their interest in using Berlin Pond, the shoreline, and the watershed for various activities, including "no use."

In this section, “Berlin Pond waters, wetlands, and publicly-owned lands around the shoreline” refer to approximately 615 acres of land owned by the City of Montpelier, a small parcel owned by the Town of Berlin, and portions of the Brookfield and Mirror Lake Roads.

“Berlin Pond watershed uplands” refers to all other public and private lands within the watershed boundaries.

A. Citizens’ Vision for Berlin

The Berlin Planning Commission began a process in March of 1999 to reassess planning goals and develop a strategy for the future.

The effort was received enthusiastically with many residents participating. Residents discussed and debated the future of Berlin in a number of community meetings. In addition, 137 questionnaires were returned, often representing two or more Berlin residents.

The Berlin Citizen’s Vision, the result of these community meetings and questionnaires, found that Berlin residents felt very strongly about protecting natural resources. The report also emphasized restricting urban growth and sprawl and improving recreation opportunities for residents – the highest percentage thought bike and hiking trails were the most important recreational needs.

An issue that Berlin residents felt particularly strongly about was the need to protect Berlin Pond and the Irish Hill Ridgeline.

B. Current Uses and Public Use Suggestions for Berlin Pond waters, wetlands, and public lands around the shoreline

Participants at a public meeting and respondents to a questionnaire were asked to comment about their interest in using Berlin Pond, waters and public lands around the shoreline for various activities, including “no use.”

1. ***Drinking water.** The City of Montpelier uses Berlin Pond waters for raw drinking water. Berlin Pond stores in excess of 1.5 billion gallons of water and has an approximate surface area of 260 acres. The water receives treatment at a new facility that uses a package system of adsorber clarifiers and mixed media filters. Withdrawal is capped at 1.7 million gallons of water per day (MGD) at present.

2. **Recreation.** Current or suggested recreational uses include a broad range of activities.

a. *Fishing.* Fishing is prohibited at Berlin Pond. Five participants at the public meeting and twelve respondents to public comment sheets expressed an interest in fishing at Berlin Pond. Most participants and respondents, however, expressed the belief that fishing should not be allowed at Berlin Pond.

b. *Boating (hand launchable, non-motorized).* Boating of any type is prohibited at Berlin Pond. Four participants at the public meeting and thirteen respondents to public comment sheets expressed interest in boating (hand-launchables) at Berlin Pond. Most participants and respondents, however, expressed the belief that hand-launchables should not be allowed at Berlin Pond.

c. *Powerboat, electric motor.* Boating of any type is prohibited at Berlin Pond. Two participants at the public meeting and two respondents to public comment sheets expressed interest in boating using electric motor only at Berlin Pond. Most participants and respondents, however, expressed concerns about use of boats with electric motors at Berlin Pond.

d. *Powerboat, internal combustion.* Boating of any type is prohibited at Berlin Pond. Participants at the public meeting and respondents to public comment sheets did not express interest in boating with internal combustion engines at Berlin Pond. The great majority of meeting attendees and respondents expressed concerns with the concept of boats with internal combustion engines at Berlin Pond. Although there has been rumor of interest in powerboat use at Berlin Pond, public opinion seems to overwhelmingly oppose the idea.

e. *Personal Watercraft.* Personal watercraft use is prohibited at Berlin Pond. Participants at the public meeting and respondents to public comment sheets did not express interest in personal watercraft use at Berlin Pond. Although there has been rumor of interest in personal watercraft use at Berlin Pond, the participants and respondents overwhelmingly oppose such use.

f. *Swimming*. Swimming is prohibited at Berlin Pond. Three participants at the public meeting and four respondents to public comment sheets indicated an interest in swimming. Most participants and respondents expressed the belief that swimming should not be allowed at Berlin Pond.

g. *Osprey platform*. In the summer of 1999, the Department of Fish and Wildlife (VT DFW), Berlin Conservation Commission and Montpelier Conservation Commission obtained approval from the City of Montpelier to put up an osprey platform. The groups erected the platform on the pond in late October. The Berlin Development Review Board notified the groups in November 1999 that they had jurisdiction and that a permit was required. VT DFW applied for a permit and met with the Board in December 1999 and January 2000. The Board issued a permit in April that required moving the platform from the site opposite the pump house to a location at the south end of the pond. The Board further conditioned the permit requiring that the platform would need to be hidden from view as much as possible and that VT DFW would have to post roadside "no stopping, no parking" signs. The Department couldn't meet these conditions and dismantled the platform in April 2000 until a time when a better resolution might be reached. There is still interest by VT DFW and the two conservation commissions to erect an osprey platform somewhere on the pond.

h. **Wildlife observation*. Wildlife observation, birdwatching in particular, is already a very popular activity on the roads around Berlin Pond. Berlin Pond is a designated "Important Bird Area" (IBA) by the National Audubon Society because of the presence of unique habitats, species of concern, and the importance of the site for bird breeding and the congregation of migratory species. Numerous other local, regional, and statewide groups also recognize the site for its ecological significance. These include Central Vermont Audubon Society, Vermont Institute for Natural Science, and the Vermont Nongame and Natural Heritage Program, among others. The roads around Berlin Pond see frequent visitation by birding groups who come to watch breeding and migratory birds. Nearly all participants at the public meeting and respondents to the public comment sheet listed wildlife observation as an important desired use. There have been suggestions at various times that wildlife observation stations be established to channel recreational use around the pond.

i. **Hiking/walking/running—road*. Hiking, walking, and running on roads around Berlin Pond are all current uses.

j. *Hiking/walking/running—trail*. There have been suggestions at various times that a nature trail or educational trail be established to channel recreational use around the pond. Several participants and respondents, however, commented that they were not in favor of off-road walking, hiking, or running on public lands around the Berlin Pond shoreline.

k. **Biking—road*. Biking on roads around Berlin Pond is a current and relatively popular use.

l. *Biking—trail*. There was no strong indication from participants at the public meeting or respondents to public comment sheets that off road biking on public lands around the Berlin Pond shoreline was a desired use. Several participants and

respondents, however, did comment that they opposed off-road biking near the Berlin Pond shoreline.

n. Ice skating. Under “other uses” two respondents to the public comment sheets mentioned their interest in ice-skating on Berlin Pond ice in the winter.

o. “No recreational use of waters or shoreline”. Many participants at the public meeting expressed concern with any recreational use of pond waters or shoreline. Twenty-one respondents to the public comment sheets opposed any recreational use of Berlin Pond waters or shoreline except for passive enjoyment of scenic values, and/or observation from appropriate vantage points on the shoreline.

3. *Research and Education. There is interest by several groups to study the use of Berlin Pond waters, wetlands and public lands around the shoreline by rare and uncommon species. There is also interest by groups for educational study of natural resources of Berlin Pond, including natural communities and populations of plant and animal species that use the Pond.

4. Development

a. Residential or commercial. Although there was no suggestion that any group proposes residential or commercial development of the shoreline of Berlin Pond, shorelines in central Vermont are extremely popular places for development. Although public ownership that has protected the land around Berlin Pond up to now, how the land will be used in the future, or whether all the land will even remain under City ownership (and protection) are always up to the discretion of each Montpelier City Council and Mayor. The fate of the land cannot now be guaranteed, as future elected officials may not share a commitment to the perpetual protection of these lands for water quality, open space, and wildlife values. Unless formally protected by conservation restrictions, the Berlin Pond shoreline could easily become at risk of development in the future.

b. Boat access. Any proposed use of boats on Berlin Pond (see above) would require development of infrastructure for parking and for boat access.

c. Fishing access. Any proposed use of Berlin Pond for fishing (see above) could require development of infrastructure for parking or for, at a minimum, foot access to Berlin Pond waters at some points along the shoreline.

C. Current Use and Public Use Suggestions for the Upland Watershed of Berlin Pond

Participants were asked to comment about their interest in using the uplands of the Berlin Pond watershed for various activities, including “no use.” “Berlin Pond watershed uplands” includes all public and private lands within the watershed boundaries that are not Berlin Pond waters, wetlands, or public lands around the Berlin Pond shoreline.

1. **Residential areas.** According to the SPP, the Berlin Pond watershed includes 294 property parcels located either completely or partially within the watershed. There are currently 181 private residences in the watershed. Some of these residences have buried fuel storage tanks. Many have subsurface septic systems. The use of pesticides, herbicides, fertilizers, and hazardous materials (such as oil and gasoline or household solvents) that might find their way into groundwater or stormwater runoff is undetermined.

2. ***Residential or commercial development.** The Berlin Pond watershed is located near the much larger population and employment centers of Barre and Montpelier. The State of Vermont is the area's largest employer. The Town of Berlin is a stable residential community with good access to regional employment. The mountainous topography and predominance of large tracts of woodland make the town an attractive place to live.

The Berlin portion of the watershed is zoned either "Highland Conservation" or "Rural Residential". Collectively, these zones allow agricultural and forestry uses, one-family dwellings, public and private outdoor recreation, camps, wildlife refuge, accessory use, home occupation, and professional residence-offices and cemeteries. Collectively, with the granting of a conditional use permit by the Development Review Board, these zones might also allow business offices, planned residential developments, schools, religious institutions, state or municipal buildings or facilities, flea markets, private clubs, and licensed daycare homes for children.

The Northfield portion of the watershed is zoned "Conservation and Forestry," "Secondary Agricultural," or "Rural Residential." Collectively, these zones allow single family dwellings, accessory buildings, windmills for private use, forestry and agriculture, planned residential developments, public and private utilities, public outdoor recreation, sand and gravel pits, and cemeteries. Some of these would require a conditional use permit.

The rural nature of the watershed, proximity to employment centers, proximity to public wooded lands, proximity to Berlin Pond, and the existence of good to extraordinary views put 15-20% the watershed at high risk of residential development. Pressure for additional development of single-family homes in the watershed could increase in coming years.

3. **Agriculture.** Very little commercial farming still occurs in the watershed despite the presence of prime agricultural soils. According to the SPP there is one agricultural operation (livestock). Gardening at private residences is the primary agricultural use within the watershed. Increased development would likely increase the loss of woodland and the incidence of lawns and gardens.

4. ***Forestry.** From a recent scan of aerial photographs, it appears that about 85% or 4675 acres of the Berlin Pond watershed is forested. The western half of the watershed, including Irish Hill, is dominated by northern hardwoods with minor components of softwoods scattered throughout the lower elevations. The eastern half of the watershed appears more evenly balanced between hardwoods and softwoods. Approximately 30%

(1650 acres) of the watershed is in public ownership and another 10% is private land enrolled in Vermont's Current Use Appraisal Program.

All forest land in the watershed is natural second growth or plantation. Forestry activities in the watershed have been typical of almost any other in the central Vermont area. The typical timber sale might involve 25 to 50 acres and be cut on a selection basis. A 1 to 3 man crew would perform the cutting with a skidder or crawler tractor, and a forestry professional would have input on 30% - 40% of these operations.

Recently, however, there were several heavy cuts along the upper elevations of Irish Hill. Approximately 550 affected acres have recently been brought into public ownership and are now conserved lands that have or soon will have responsible forest management plans.

5. Recreation. Current or suggested recreational uses include a broad range of activities, each with varying degrees of impact depending on location, frequency, and intensity of the activity.

a. **Hiking/walking/running--road.* Hiking, walking, and running on roads in the upland watershed of Berlin Pond are all current uses.

b. **Hiking/walking/running--trail.* Hiking, walking, and running on roads in the upland watershed of Berlin Pond are all current uses. There is an extensive network of informal trails on both public and private lands in the watershed. Trails on Irish Hill/Paine Mountain are described in William E. Osgood's "Paine Mountain Guidebook". Darling Road is a class four trail, as designated by the Town of Berlin.

c. **Biking--roads.* Biking on roads around Berlin Pond is a current use.

d. **Biking--trails.* Biking on trails in the upland watershed of Berlin Pond is a current use. The Advisory Committee received communication from a mountain biking organization suggesting that there is considerable interest in mountain biking on present or future trails on Irish Hill.

e. **Wildlife observation.* Wildlife observation is a current use in the upland watershed of Berlin Pond. Excepting only a few, participants at the public meeting and respondents to the public comment sheet all listed wildlife observation in the upland watershed of Berlin Pond as a desired use.

f. **Hunting.* Hunting on Irish Hill is very popular current use.

g. **ATV and dirtbike.* ATV and dirtbike use is popular on Irish Hill among local residents and is done either by permission of landowners or is unauthorized.

i. **Snowmachine.* Snowmachine use is popular among local people on Irish Hill and is done either by permission or is unauthorized.

6. Roads and Motor Vehicles. Numerous roads exist in the watershed, from class 4 roads to Interstate 89, which bisects the watershed. As described extensively in the SPP, trucks carrying substantial amounts of hazardous materials travel I-89 daily. In addition, there are secondary roads, including several class 2 and 3 gravel roads within the watershed that service traffic, among other vehicles, from fuel delivery trucks.

Many public meeting and survey respondents mentioned a perceived increase

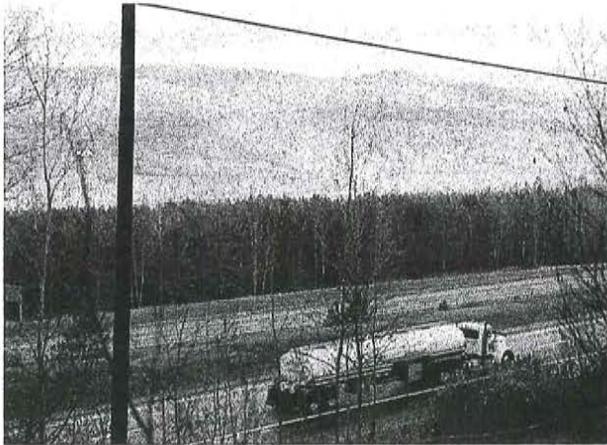
traffic on several of the roads surrounding Berlin Pond (along Brookfield Road, Paine Turnpike south, and Mirror Lake Road). Participants also cited parking problems at certain locations along these same roads as a problem, one that had the potential to worsen.

Some pond residents have expressed displeasure in particular about birdwatchers stopping, parking, and scoping within or too close to travel lanes in the roads.

7. Research and Education. Research at Berlin Pond has included water quality monitoring and ecological inventory work. Educational use has included a small number of educational programs about natural history and the annual Berlin Pond elementary school “Berlin Pond Walk”.

IV. Threats to Conservation Goals

This section of the Plan identifies and evaluates the degree to which current or suggested uses threaten or could potentially threaten the seven Conservation Goals described in Section II. Analysis of these potential threats, and their impact on the 7 Conservation Goals, led to the recommendations for conservation strategies and actions in the Section V.



A. Threats Posed by Potential Use of Berlin Pond waters, wetlands, and public lands around the shoreline

The following section discusses threats that potential uses might pose to Berlin Pond waters, wetlands, or publicly owned lands around the Berlin Pond shoreline. Many but not all of the listed potential uses are prohibited under existing regulations, so discussion of potential threats is hypothetical.

Pond or Shoreline Activity	Potential Threat To Conservation Goal If Implemented						
	b e d U n d e r s t r u c t u r e	q u a l i t y W a t e r	e s p e c i a l S e n s i t i v e	N a t u r a l c o m m u n i t y	W i l d l i f e	v i s t a s c e n i c	R e s e a r c h e d u c a t i o n
	1	2	3	4	5	6	7
* (denotes current use)							
*Drinking Water Use	Yes	No	Yes	Yes	No	No	No
Recreation							
Fishing	Yes	Yes	Yes	Yes	No	Yes	No
Boating (hand-launchable, non-motorized)	Yes	Yes	Yes	Yes	No	Yes	No
Powerboat, electric motor	Yes	Yes	Yes	Yes	No	Yes	No
Powerboat, internal combustion	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jetski	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Swimming	Yes	Yes	Yes	No	No	Yes	No
Osprey platform	Yes	No	No	No	No	Yes	No
*Wildlife observation	Yes	Yes	Yes	No	No	Yes	No
*Hiking, walking, running—existing roads	No	No	No	No	No	No	No
Hiking, walking, running—trail	Yes	Yes	Yes	No	No	No	No
*Biking—road	No	No	No	No	No	No	No
Biking—trail	Yes	Yes	Yes	Yes	Yes	Yes	Yes
*Research and Education	No	No	No	No	No	No	No
Development							
Residential or commercial	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Boat access	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fishing access	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Threats Posed by Potential Use of Berlin Pond waters, wetlands, and public lands around the shoreline

1. *Drinking water. Berlin Pond waters are currently used for drinking water, posing no threat to conservation goals. Increased withdrawal of water beyond certain limits, however, would pose a threat to the undisturbed nature of the Pond, sensitive species, natural communities, wildlife habitat, and scenic vistas. Drawdowns in excess of 1.68 mgd would have undesirable consequences to the natural condition of Berlin Pond. Water fluctuations would threaten waterfowl and wildlife food sources and habitat, wetland communities, and plant diversity. Approximately 30 acres of wetland along pond shoreline would experience the greatest impact from excessive water removal. Excessively low pond levels would reduce the open-water available to migrating waterfowl and remove nesting habitat. Fluctuations during late fall and early winter could decrease access to food supply and dwellings of beavers and muskrats. Increased drawdowns would also threaten the highly productive shallow water littoral areas, which in turn would negatively impact mussels and aquatic insects. Late fall drawdowns could allow frost to penetrate hibernating areas and reduce the survival of hibernating reptiles and amphibians as well as perennial emergent and aquatic plants that are not adapted to freezing (Berlin Zoning Board of Adjustment, 1996).

According to the Berlin Zoning Board of Adjustment report, “water withdrawals greater than 2.19 mg could make it extremely difficult for common loons to nest successfully on the pond. A water level drop of one foot or more during incubation could strand the loon nest, making it impossible for the adult loons to reach their eggs” (Berlin ZBA, 1996).

Drawdowns beyond acceptable levels that extend into winter are likely to have serious adverse impacts on deep marsh and aquatic vegetation communities.

2. Recreation. *It should be noted that there are numerous ponds in the vicinity of Berlin Pond where many of the various recreational activities suggested for Berlin Pond are allowed. Thirty-four lakes and ponds (ranging from 23 to 849 acres) found within a 20-mile radius of Berlin Pond allow either fishing, swimming, or boating, or all three, and some allow camping (See appendix). Nearly 60% of these also allow internal combustion engines. Few, if any are as ecologically significant as Berlin Pond. Many recreational uses suggested for Berlin Pond would pose a significant threat to one or more of the conservation goals identified in Section II.*

a. *Fishing.* Fishing, whether from the waters of Berlin Pond or the shoreline (if it were to become legal, would threaten the undisturbed nature of the pond and shoreline, water quality, and sensitive species. To a lesser extent, fishing might also threaten natural communities and scenic vistas. The greatest threat would occur if fishing were to be permitted from boats (see 2.b, c, and d below). Pond waters and shoreline have been undisturbed since the late 1800s, and to permit fishing, even from the shoreline, would alter this, threatening habitat of sensitive species. The common loon, listed as endangered in Vermont, visits Berlin Pond virtually every year. Loons have nested on

Berlin Pond, successfully fledging one chick twice, in 1990 and 1992. The common loon is highly sensitive to human disturbance and experiences nesting failure as a result of human activities (Ream, 1976, Heimberger et al., 1983, Titus and Van Druff, 1981). Research has shown that anglers fishing off shore can have essentially the same negative impact on wildfowl as boats in that they create an area where birds won't enter (Liddle and Scorgie, 1980).

There is the possibility that some anglers would mistreat the resource through unacceptable behaviors such as the use of lead sinkers or the depositing of shoreline litter that frequently accompanies fishing.

Lead sinkers pollute the water and if ingested by waterfowl can cause bird deaths (Finely and Dieter, 1978). Lead poisoning from ingestion of fishing sinkers has been identified as the cause of death for half of the dead loons necropsied in New England studies (Pokras, et al., 1992).

The allowance of fishing would also be very likely to increase use of surrounding roads, increasing traffic around the pond, disturbing local residents.

b. *Boating (hand launchable, non-motorized)*. The use of hand-launched boats, were their use to become legal at Berlin Pond, would threaten the undisturbed nature of pond and shoreline, sensitive species, and, to a lesser extent, natural communities and scenic vistas. Surprisingly, canoes, kayaks, and rowboats can potentially disurb wildlife as much as power boats, because they can reach secluded areas where waterfowl nest, surprising sensitive species (Parren, personal communication). The 1992 Breeding Status study of common loons in Vermont reported that canoeists on Green River Reservoir were coming too close to chicks on several occasions (Renfrew and Rimmer, 1992).

Although less so than motorized boats, hand-launched boats would also require infrastructure for launching, further threatening conservation goals.

c. *Powerboat, electric motor*. Powerboats with electric motors, if ever their use became legal at Berlin Pond, would threaten the undisturbed nature of pond and shoreline, sensitive species, and to a lesser extent, natural communities and scenic vistas. As with hand-launched boats, powerboats with electric motors might enable users to surprise sensitive species. Boats could introduce and increase the spread of aggressive invasive exotic species such as water chestnut, Eurasian water milfoil, and purple loosestrife, among others, from infested waters.

d. *Powerboat, internal combustion; Personal Watercraft*. Powerboats with internal combustion engines, if ever their use became legal at Berlin Pond, would threaten the undisturbed nature of pond and shoreline, water quality, sensitive species, natural communities, and scenic vistas. The most obvious impact of this use would be water, air, and noise pollution, negatively affecting humans and wildlife alike. Powerboats can cause shoreline erosion, eutrophication, and mechanical disturbance to aquatic vegetation and bottom sediments, disturbing fish and aquatic life, in addition to above surface species (Hammir and Cole, 1998). It is well documented that boat engines, particularly two-stroke engines, are a source of water pollution. Two-stroke engines can discharge between 20-40% of the fuel used directly into the water (Muratori, 1968). Two-stroke engines from motor boats can deposit contaminants that degrade ground and

surface waters, negatively impacting aquatic life (Ruzycki and Lutch, 1998). Boat engines discharge a variety of hydrocarbon compounds directly into the water. Research has shown that even small levels of hydrocarbon pollution can cause chromosomal damage, retard growth and development, disrupt normal biological functions, and kill fish (Ruzycki and Lutch, 1998). Other contaminants from motor vehicle exhaust include carbon monoxide, Methyl-tert-butyl ether (MTBE), nitrous oxides (NO_x) and particulate matter (White and Carrol, 1998). The effects of these vary, but have been known to cause a reduction of zooplankton populations, a decrease in fish growth rates, enzyme function, immune response, and reproductive impacts (Balk, et al., 1994). Also, the nitrogen found in nitrous oxides can be a limiting agent in aquatic systems and contribute to eutrophication. Noise pollution is another source of disturbance caused by powerboats.

e. *Swimming*. Swimming in Berlin Pond, if ever it became legal at Berlin Pond, would have the potential to threaten the undisturbed nature of pond and shoreline and sensitive species. Swimming would also increase traffic and parking problems and require resources to ensure safety and enforcement. Swimming, and a tendency to desire the removal of vegetation in swimming areas, would not be compatible with the high incidence and important diversity of aquatic plants in the pond.

f. *Osprey platform*. There has been some concern in Berlin that an osprey platform, if not appropriately located, would threaten the undisturbed nature of the pond and would increase traffic problems on surrounding roads.

g. **Wildlife observation*. Wildlife observation activities have the potential to create or exacerbate traffic and parking problems on surrounding roads. Wildlife observation activities, at certain levels of activity, and if occurring in certain areas, could threaten sensitive species.

h. **Hiking/walking/running—road*. Increased use of surrounding roads for walking and running, at certain levels of use, could threaten the undisturbed nature of the pond and create traffic and parking problems.

i. *Hiking/walking/running—trail*. Use of trails on public lands around the Berlin Pond shoreline could threaten the undisturbed nature of the pond and shoreline and sensitive species.

j. **Biking—road*. Increased use of surrounding roads for walking and running, at certain levels of use, could threaten the undisturbed nature of the pond and create or exacerbate traffic and parking problems.

k. *Biking—trail*. Use of trails on public lands around the Berlin Pond shoreline could threaten the undisturbed nature of the pond and shoreline and sensitive species.

3.*Research and Education. Research activities, if not appropriately undertaken and managed, could potentially threaten sensitive species. Educational activities, at certain use levels, could create or exacerbate traffic and parking problems.

4. Development

Any residential development of the public lands around the Berlin Pond

shoreline, if ever allowed, would negatively impact the seven conservation goals identified in Section II.

While development of an individual lot in the upland areas of the Berlin Pond watershed might seem insignificant, development of even a single lot along or near the Berlin Pond shoreline could have a disastrous effect upon sensitive species, natural communities, scenic vistas, water quality and the undisturbed nature of the pond waters and shoreline.

Sensitive species are attracted to Berlin Pond largely because of its size and undeveloped shoreline. Noise and activity associated with even small amounts of shoreline development could disturb sensitive species and result in rejection of Berlin Pond as breeding or migratory habitat.

Development of any type along the shoreline of Berlin Pond would alter its value as a popular scenic vista.

Development of any type along the shoreline of Berlin Pond would alter the undisturbed nature of pond waters and the shoreline. Berlin Pond has only one structure (the pumphouse) close to the shoreline. Only a handful of similar-sized ponds in the Winooski River Basin have as high a percent of undisturbed (by structures) shoreline as Berlin Pond. Peacham Pond, Curtis Pond, Forest Lake, Lake Greenwood, Sabin Pond, Valley Lake, and Wrightsville Reservoir all have a higher percentage of shoreline development than Berlin Pond. Only Gillette Pond and Shelburne Pond have less development than Berlin Pond and each is partially or wholly protected and in State (Gillette Pond) or non-profit (Shelburne Pond—The Nature Conservancy) ownership.

Development of any type along the shoreline of Berlin Pond would degrade water quality in a number of ways. The ability of a municipality to control common behaviors and practices at private residences (i.e. removal of vegetation, application of fertilizers and pesticides, dumping or spillage of vehicular fluids, improper disposal of household toxics, just to name a few) is limited at best. Because of this, it is always cheaper and more effective in the long run to avoid generating pollution than it is to clean it up later. Research on stormwater management for drinking water supplies has determined that the single most important tool in reducing the impacts of urban stormwater are the minimization of impervious surface areas and pollution prevention through source reduction and effective land use planning.

Residential development of a single site could easily open up the Pandora's Box of additional development. Everyone is familiar with a lakeshore that has been overbuilt. Along many Vermont lakeshores, the density of residential development is extreme. While it is public ownership that has protected the shoreline of Berlin Pond up to now, how the land will be used in the future, or whether all the land will even remain under City ownership (and protection) are always up to the discretion of each City Council and Mayor. Unless the Berlin Pond shoreline is protected through formal and perpetual legal measures, development of the shoreline will remain a lingering threat.

B. Threats Posed by Potential Use of Watershed Uplands

The following section discusses threats that potential uses of the watershed uplands might pose to conservation goals.

Upland Watershed Activity	Potential Threat to Conservation Goal of Implemented						
	Undisturbed nature of pond	Water quality	Sensitive species	Natural communities	Wildlife habitat	Scenic vistas	Impact of Research, education, low-
	1	2	3	4	5	6	7
Residential or Commercial Development	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agriculture	No	Yes	Yes	Yes	Yes	No	No
Forestry	No	Yes	Yes	Yes	Yes	Yes	Yes
Recreation							
Wildlife observation	No	No	No	No	No	No	No
Hiking, walking, running—existing roads	No	No	No	No	No	No	No
Hiking, walking, running—trail	No	No	No	No	No	No	No
Biking—existing roads	No	No	No	No	No	No	No
Biking—trail	Yes	Yes	Yes	Yes	Yes	No	No
Hunting	No	No	No	No	No	No	No
ATV	Yes	Yes	Yes	Yes	Yes	No	Yes
Dirtbike	Yes	Yes	Yes	Yes	Yes	No	Yes
Snowmachine	Yes	Yes	Yes	Yes	Yes	No	No
Research and Education	No	No	No	No	No	No	No
Roads/Motor Vehicles	Yes	Yes	Yes	Yes	Yes	Yes	No
Development							
Residential or commercial	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Threats Posed by Potential Use of Watershed Uplands

1.*Residential or commercial development. The Source Protection Plan addresses the threats current land uses pose to the water quality of Berlin Pond. The SPP, however, does not fully address the implications of increased development of the watershed.

Increased development in the Berlin Pond watershed would threaten water quality, the undisturbed nature of Berlin Pond, the rural feeling of the watershed, and scenic vistas. Over the past decade, numerous studies have linked increasing development with water quality degradation (Center for Watershed Protection, Article 25). The threat lies in the cumulative effect of altering a rural landscape, gradually, to an urban or suburban landscape and the accompanying increase in roads, traffic, and impervious surface areas.

It is well documented in the literature that development has a profound influence on water quality (Center for Watershed Protection, Article 63). While development of an individual lot might not seem significant, the long-term effect resulting from cumulative development should not be underestimated. Stormwater runoff from roads can seriously degrade water quality by increasing the concentrations in receiving waters of pathogens, nutrients, oxygen demanding materials, suspended solids, chlorides, metals (such as copper, lead, cadmium, chromium, zinc, and arsenic), synthetic organic compounds (such as pesticides and polycyclic aromatic hydrocarbons), petroleum hydrocarbons, and trash and debris. Many of these pollutants are derived from motor vehicles. Delivery of these pollutants from developed land to surface waters is very efficient because much of the opportunity for chemical or biological absorption or breakdown of pollutants in soil or vegetation has been lost.

In recent years, research has firmly established the relationship between development and the health of receiving waters that are used as drinking water supplies, indicating impairment of water quality with increasing development of the watershed. Although pathogens may be filtered out of drinking water supplies, filtration does not solve all water quality problems associated with development. Elevations in total phosphorus can lead to excessive algal blooms, causing taste and odor problems and formation of a cancer-causing agent THM (Tri-Halo-Methanes). Heavy metals that accumulate on paved surfaces are easily washed into stormwater and are of great concern because of their ability to contaminate drinking water supplies. Pesticides that find their way into water supplies, even in low concentrations, can pose severe health risk to humans.

The ability of a municipality to control common behaviors and practices in urbanizing areas (application of fertilizers and pesticides, dumping or spillage of vehicular fluids, improper disposal of household toxics to name a few) is imperfect at best. Because of this, it is always cheaper and more effective in the long run to avoid generating pollution than it is to clean it up later. Research on stormwater management for drinking water supplies has determined that the single most important tool in reducing the impacts of urban stormwater are the minimization of impervious surface areas and pollution prevention through source reduction and effective land use planning.

2.* Agriculture/Lawn/Garden. Agriculture is a permitted use in both the Rural Residential and Highland Conservation zones of the Berlin zoning ordinance. Although there is little commercial agriculture in the watershed at present, increased agricultural use could, potentially, threaten water quality.

Many landowners in the source protection area use fertilizers and or pesticides on lawns and gardens. These uses, and any increases in the current levels of use, pose a threat to water quality, sensitive species, and wildlife. Pesticide/herbicide/fungicide delivery to streams can occur through runoff, drift and deposition onto impervious surfaces, and through inappropriate disposal or sprayer cleaning. Even low concentrations can harm downstream aquatic plants. The greatest risk of toxicity lies with a relatively few insecticides such as diazinon and chlorpyrifos. The toxicity of diazinone, for example, to geese, songbirds, and amphibians is well documented. (Shueler, 1995; CWP Technical Note 57).

3.*Forestry. Certain forestry activities, if not properly managed, have the potential to threaten water quality, scenic vistas, and wildlife habitat. These include heavy cutting, cutting on steep slopes, cutting within riparian zones or vernal pool buffers, and excessive creation or poor design of skid trails, log landings, and truck roads.

a. *Heavy cutting.* Excessive cutting can cause excessive nutrient loss through leaching; increase the rate of snowmelt and storm runoff (increasing erosion); adversely affect the forest floor habitat affecting herbaceous plants, amphibians, insects, fungi, mosses, and soil microbes; reduce the amount of mature or late-successional habitat; create even-aged stands that do not retain diverse structural characteristics; and threaten scenic values.

b. *Timber harvest within riparian zones or vernal pool or other wetland buffers.* Forestry activities that can affect water quality include construction of roads, landings, and skid trails; stream and wetland crossings; handling of slash; removal of forest cover; spilling of petroleum products; and application of chemicals. The most important aspect of protecting water quality is maintaining the integrity of wetlands and riparian areas.

Timber harvest activities in the vicinity of riparian areas and wetlands can result in habitat alterations detrimental to wildlife species that depend on these wetlands. This is particularly true of vernal woodland pools. Vernal woodland pools are particularly at risk because they only contain water for a part of the year and may not be recognized as wetlands. Loss of shade around the pools and heavy equipment impacts to the pool areas and surrounding buffers, can be particularly harmful.

c. *Miscellaneous forest practices.* Excessive construction of skid landings and roads or poor design of skid landings and roads can threaten water quality. Timber harvest or road/skid landing construction on steep slopes can lead to excessive erosion and increased storm runoff. Other factors that potentially threaten conservation values are the size of forestry equipment and the time of year of harvest. Removal of deer wintering areas, mast trees, and cavity trees, dens, and snags can harm important food and habitat for many species of mammals and birds. Removal of dead and down woody material in various stages of decay can inhibit critical forest system functions.

4. Recreation

a. **Wildlife observation.* Increased use of uplands for wildlife observation is could exacerbate traffic and parking problems.

b. **Hiking/walking/running road/trail.* Increased use of surrounding roads and trails for hiking, walking, and running in watershed uplands, at certain levels of use, could exacerbate traffic and parking problems and increase erosion.

c. **Road biking/*mountain biking.* Increased use of surrounding roads and trails for biking in watershed uplands, at certain levels of use, could exacerbate traffic and parking problems and increase erosion.

d. **Hunting.* Increased use of surrounding road and trails were increased hunting to occur in watershed uplands, at certain levels of use, could exacerbate traffic and parking problems.

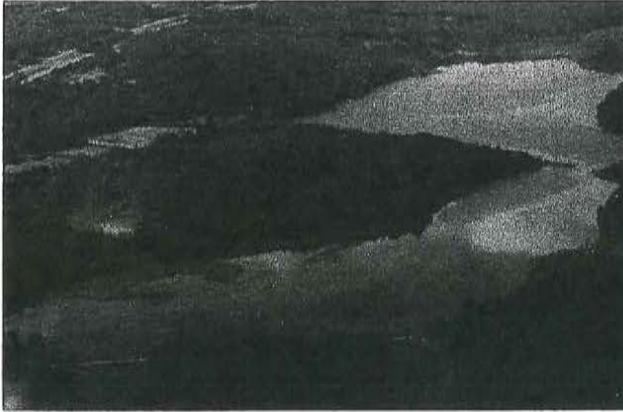
e. **ATV/dirtbike.* Off-road motor vehicle use in the watershed has the potential to harm plant and wildlife habitat, wetlands, and water quality through soil displacement and compaction, air and water pollution, noise pollution, and vegetation damage. If not properly managed, use of the watershed by ATVs, dirtbikes, and other off-road motor vehicles could lead to serious erosion problems, soil compaction problems, damage of small wetlands, destruction of vegetation, and disturbance of wildlife. Certain off road motor vehicles generate excessive noise and can disturb wildlife that depend on quiet. Off road motor vehicle use can also cause substantial damage to plants, particularly when the vehicles leave designated trails. Off-road motor vehicles may also leak fuel, oil, antifreeze, and other chemicals. Many are powered by highly inefficient two-stroke engines, so any fuel/oil combination not burned efficiently as the vehicle operates, including toxic fuel additives, is emitted directly onto the ground.

f. **Snowmachine.* When not properly managed, snowmachine use in the watershed has the potential to threaten wildlife and water quality. Two-stroke engines from snowmachines discharge up to one-third of their fuel unburned into the environment, threatening air and water quality. Certain levels of use of snowmachines in the watershed could introduce significant levels of toxic pollutants into the snowpack whose effect might be magnified in sudden release during snowmelt (Ingersoll, et al., 1997) (Shaver, et al., 1988). Snowmachines are also capable of operating at high speeds and can generate excessive noise.

5. Roads/Motor Vehicles. Roads and motor vehicles threaten the water quality at Berlin Pond, and secondarily threaten the undisturbed nature of the pond, sensitive species, natural communities, wildlife habitat, and scenic vistas. The threats come from the potential for spills or illegal disposal of toxic chemicals or fuel; the potential for prolonged and cumulative delivery of vehicular fluids through stormwater runoff; road maintenance activities or inactivities; and increases in noise, traffic, and parking pressure.

V. Recommendations

Conservation Strategies and Actions



Conservation Strategies and Actions

This section recommends broad actions to preclude or mitigate stresses which currently or potentially threaten conservation goals for Berlin Pond and the Berlin Pond Watershed.

I. Community Relations and Outreach (see page 32)

1. Increase awareness of regulations protecting Berlin Pond
2. Increase awareness of ecological importance of area.
3. Educate landowners/recreation users about implications of land use.

II. Land Protection and Conservation (see page 33)

1. Work with willing sellers to acquire and/or conserve priority tracts. Priority tracts include properties at risk of current or future development that
 - link habitats
 - protect and buffer tributaries
 - protect scenic or recreational values
2. Work with City of Montpelier to place permanent development restrictions on its shoreline and watershed properties. Work also with Berlin, Northfield, and Williamstown selectboards to institute additional measures to protect lands.

III. Research and Monitoring (see page 34)

1. Monitor populations of rare, threatened, or endangered species
2. Complete species and population inventories for noteworthy taxa
3. Monitor breeding populations

IV. Recreation Management (see page 35)

1. Manage wildlife observation and other recreation on roads around the Pond.
2. Manage recreation activities in upland.
3. Explore establishing designated wildlife observation areas.

V. Implementation (see page 36)

1. Coordinate efforts.
2. Secure funding for implementing actions.

I. Community Relations and Outreach

1. Increase awareness of regulations protecting Berlin Pond

Residents of local communities as well as visitors to the watershed should be fully aware of the regulations governing Berlin Pond. There is at present a lack of understanding of these regulations, their history and purpose, and of the various jurisdictions responsible for their monitoring and enforcement.

Recommended action: The City of Montpelier and Town of Berlin should develop and a summary or regulations, to distribute with educational materials about the Berlin Pond water supply and natural area/ecological values.

2. Increase awareness of the importance of the Berlin Pond Natural area, species, ecological systems, and public water supply.

Residents of local communities as well as visitors to the watershed should be fully aware of the ecological importance of the Berlin Pond Natural area and watershed.

Recommended actions: The City of Montpelier, Town of Berlin, and other partners should organize periodic public events about the pond and its significance. The City of Montpelier, Town of Berlin, and other partners should develop an educational pamphlet that explains the ecological importance of the Berlin Pond Natural Area and the need for drinking water supply source protection, perhaps in parallel with educational materials about regulations governing Berlin Pond. The City of Montpelier, Town of Berlin, and other partners should also investigate the possibility of establishing and maintaining a nature trail with wildlife observation posts at appropriate locations around the Pond.

3. Educate landowners and recreational visitors about land use and recreational activities that affect conservation goals.

Watershed landowners and those that visit the pond and watershed for recreation and wildlife observation need to be educated about the implications of their land use and recreational activities on the conservation goals identified in this report. As noted in the source protection plan, landowners need to understand the implications of underground storage tanks or activities such as fertilizer application or the use of pesticides. Those who use the watershed for recreation, whether it is bird watching from the Mirror Lake Road or mountain biking on Irish Hill should understand the implications of their activities on the watershed and on local residents.

Recommended action: the City of Montpelier and Town of Berlin should cooperate to develop educational programs that inform residents and recreational users about water supply source protection and protection of the Berlin Pond Natural Area.

II. Land Protection and Conservation

1. Work with willing sellers to acquire and/or conserve priority tracts.

Priority tracts include properties at risk of current or future development that

- link habitats**
- protect and buffer Berlin Pond tributaries**
- protect scenic or recreational values**

Conservation organizations, the Berlin and Montpelier Conservation Commissions and other partners should continue their work with willing landowners to permanently protect priority tracts through fee-simple purchase or the purchase of development rights. 550 acres have recently been conserved on Irish Hill, much of it within the watershed. Additional parcels that link habitats, protect pond tributaries, and protect scenic or recreational values should have highest priority for protection. Land protection and conservation partners should examine and prioritize parcels in the watershed for potential conservation, contact landowners, develop strategies for implementing conservation efforts, and set in motion the conservation of high priority parcels.

Recommended actions: The Vermont Land Trust, Berlin Conservation Commission, Montpelier Conservation Commission should continue ongoing conservation efforts.

2. Work with City of Montpelier to place permanent development restrictions on its shoreline and watershed properties.

In 1999, the Vermont Land Trust and Montpelier Conservation Commission met to discuss long-term protection of Montpelier's City lands around Berlin Pond. The two groups believe that City land around the pond is such a very high quality resource that it deserves protection beyond simple municipal ownership. While it is this public ownership that has protected the land up to now, how the land will be used in the future, or whether all the land will even remain under City ownership (and protection) are always up to the discretion of each City Council and Mayor. Because the special character of these lands is so widely recognized, they should be protected through a formal and perpetual commitment to their importance to water quality, open space, and wildlife values. A permanent conservation easement, donated to the Vermont Land Trust with its vast experience in this field would solidify the protection of these values forever.

Recommended action: The Vermont Land Trust and Montpelier Conservation Commission should work with the City of Montpelier to place permanent development restrictions on its shoreline and watershed properties.

III. Research and Monitoring

1. Monitor populations of rare and uncommon species.

The waters and wetlands of Berlin Pond provide important habitat for a number of rare and uncommon bird species, including common loon (state endangered), pied-billed grebe (special concern), and sora (special concern), among others. The Central Vermont Audubon Society and the Vermont Institute for Natural Sciences should take the lead in monitoring individuals and populations of noteworthy birds and other taxa. Other rare and uncommon species may be found in the watershed.

Recommended action: The Central Vermont Audubon Society and VINS should coordinate additional monitoring of rare and uncommon species and devise ways to inform land managers, planners, land conservation organizations, and those responsible for water supply decisions with good solid data on these species to promote sensible, land-use planning and fact-based habitat management.

2. Continue to update species inventory work

Although there have been very comprehensive efforts within certain taxa (birds, aquatic plants) species inventory work for the Berlin Pond waters, wetlands, and watershed is incomplete. It would be helpful to gather additional data with regards to mammals, amphibians and reptiles, fish (including non-game fish), invertebrates, and plants. There may be additional rare and uncommon native plants and animals in the watershed that have not yet been discovered.

Recommended action: Central Vermont Audubon and VINS should coordinate additional inventory work in the watershed.

3. Monitor breeding populations

The waters of Berlin Pond, its wetlands, and watershed provide important breeding habitat for birds and other taxa. It would be helpful to have data with regards to use of public lands in the watershed by breeding birds and amphibians.

Recommended action: Central Vermont Audubon and VINS should coordinate additional work to monitor and inventory breeding populations in the watershed.

IV. Recreation Management

1. Manage wildlife observation activities and other recreational activities on roads around the Pond.

Much of the public land around the Pond is off limits to recreation. Brookfield Road, Mirror Lake Road, see significant traffic related to recreation. This has created a need to give clear direction to those who come to Berlin Pond to observe wildlife, or otherwise use the roads around the pond (for running, hiking, dog-walking, etc.) with regard to parking and other activities.

While acknowledging a limited public desire on the part of some to boat, fish, or swim in the waters of Berlin Pond, these uses and associated activities are generally inconsistent with the seven Conservation Goals. Wildlife observation, while it certainly has the potential to harm plants and animals in the watershed and at the pond, is generally consistent with the seven Conservation Goals, provided visitors are prevented from visiting fragile areas or nest sites.

Recommended actions: Members of the Montpelier and Berlin Conservation Commissions, or their appointee, should periodically and regularly visit the pond to observe and talk with those using the area. A committee consisting of local residents, Conservation Commission members, wildlife observation enthusiasts, runners/walkers and representatives from other such groups should form to make recommendations to the Town of Berlin and City of Montpelier regarding parking areas and educational signage. The City of Montpelier, Town of Berlin, and other partners should also investigate the possibility of establishing and maintaining a nature trail with wildlife observation posts at appropriate locations around the Pond.

2. Manage recreational activities in upland.

The management of recreational activities in the upland watershed of Berlin Pond is under a number of jurisdictions, including the State of Vermont, Town of Berlin, and City of Montpelier, the Vermont Land Trust, and the Vermont Housing & Conservation Board. Land managers should develop thoughtful management plans for public properties and should communicate with one another with regards to management issues such as off road motor vehicles, mountain bikes, trails, and forest practices.

Recommended action: Berlin Conservation Commission and State of Vermont Department of Forests, Parks and Recreation, in consultation with the Vermont Housing & Conservation Board and the Vermont Land Trust, should develop or update management plans for public lands in the watershed.

V. Implementation

1. Coordinate and integrate SPP effort, water conservation effort, ecological protection efforts and land protection efforts.

There has been little coordination or communication between the several efforts and initiatives to protect and manage the resources of Berlin Pond and its watershed. It is important to avoid redundancy in efforts or confrontations the inevitably result when groups attempt to take action at cross-purposes. For instance, the SPP recommends that the City of Montpelier apply for a conditional use permit that allows for increased water withdrawals from Berlin Pond, a recommendation that could have serious negative implications for the Berlin Pond natural area. There are many opportunities for groups and individuals to work together and coordinate the multi-benefit protection of the watershed.

Recommended actions: The Berlin and Montpelier Conservation Commissions should take the lead in devising ways to increase coordination and communication between the Source Protection Plan, the Berlin Pond Watershed Conservation Plan, the Montpelier Water Conservation Plan, and the Important Bird Area (IBA) Program. This could take the form of a series of meetings or an afternoon forum or conference. There should be formal efforts undertaken to involve watershed residents, citizens, and recreational users in these forums or meetings.

2. Secure funding for implementing the above.

Implementation of many of the actions and recommendations in this Plan will require funding and dedication of human resources.

Recommended actions: The two municipalities and various conservation and recreation groups should meet to discuss ways to pool efforts and share information, resources, and access to funds.

VI. References

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March 2, 1999



To all Berlin Citizens:

I am delighted to present on behalf of the Berlin Planning Commission the report "Citizens Vision of Berlin".

The Planning Commission began a process in March of 1998 to reassess our planning goals and to develop a strategy for the future. We asked ourselves, how do Berlin residents envision their town in the future and how can we as a planning commission help meet those goals?

In our efforts to answer these questions we held a series of seven public meetings in the various neighborhoods of Berlin, often at the gracious invitation of Berlin residents. In addition we developed and mailed a questionnaire relating to a future vision of Berlin to every resident owning property in the town.

This effort was greeted enthusiastically by residents. More than one hundred residents shared their vision at the community meetings and over 150 questionnaires were returned, often representing two or more Berlin residents. We found that Berlin residents like their town very much and have very strong feelings where the town should be going as we enter the next century.

I am very proud of the work the Planning Commission has done and I am equally proud of the response to our efforts by Berlin residents. I hope you will read and reflect on the report and continue to assist us as we try to work on your priorities in the future.

Sincerely,

A handwritten signature in cursive script that reads "Thomas Willard".

Thomas Willard, Chair
Berlin Planning Commission

Members:

Enid Angstreich
Robert Beaudoin
Henry LaGue, Jr
Ronald Lyon
Frank Mier
Ruth Towne

Citizens' Vision for Berlin

The Planning Commission for the Town of Berlin began a process in March of this year to reassess our planning goals and develop a strategy for the future. To begin this reassessment we asked ourselves what is the most significant planning issue facing Berlin now? To answer this question we looked to the Town Plan for guidance.

The Town Plan should be a policy statement for guiding the future decisions of the Town. It is not only a snapshot of the Town at the present time, but a vision of the Town in the future. "That vision is intended to reflect the best interests of the Town as a whole rather than the interests of any particular individual or special interest." (1997 Berlin Town Plan). We recognized that meant that no individual member of the Planning Commission nor the Planning Commission as a whole could adequately represent the best interest of the Town without a community planning process which involves all members of the community. We have called this process our Community Planning Initiative.

COMMUNITY PLANNING

We view community planning as a process for collecting the breadth of needs and dreams of a community, connecting them, defining principals and goals, and prioritizing the actions to take to achieve those goals. In our efforts to collect this information, we held a series of seven public meetings in the various distinct neighborhoods of Berlin, often at the gracious invitation of Berlin residents. The meetings were advertised in the newspaper and posted around town. In addition, we developed and mailed a questionnaire relating to a future vision of Berlin to every resident owning property in the Town.

That effort, while a tremendous amount of work, was received enthusiastically by the residents of Berlin and has resulted in a great start to our Community Planning Initiative as well as a sense of pride and satisfaction for the Planning Commission. The community meetings were attended by a total of 94 Berlin residents meeting and discussing, and sometimes debating, the future of

Berlin. A total of 137 questionnaires were returned, often representing two or more Berlin residents. While the public meetings were characterized by an enthusiastic and wide ranging discussion of issues of concern to the Town and individual neighborhoods, the questionnaires were thoughtful and often very articulate comments describing what was important to the residents as well as the neighborhood and Town in general.

RESULTS OF COMMUNITY MEETINGS

It was very gratifying to receive many compliments from residents who appreciated the efforts by the Planning Commission to get out into the neighborhoods and discuss town issues. The discussions were often unique to the neighborhoods where the meetings were held, but several themes were repeated at each meeting.

The impact of Act 60 on the Town was of interest. The impact of the new law on taxes was felt to be important and residents felt the Commission should understand the implications of new development on taxes as a result.

Overall it seemed that Berliners want future development in Town closely monitored to prevent inappropriate development and sprawl. At the same time it was felt that more efficient and professional town government is needed to assist applicants. Strong support was given to enhancing and revitalizing the B-M Road commercial area. The concept of growth areas while protecting rural areas and neighborhoods was very popular.

Many residents felt that the feeling of community needs to be nurtured through community activities, recreation facilities, or investments in youth services or activities such as adult education. Suggestions included better use of the school facilities, the Riverton fire station, the armory, as well as the municipal building.

It is important to many Berlin residents that rural areas and residential areas are protected. It is clear that Berlin residents like their town and like the convenient access to commercial areas, but also want the rural areas of town protected.

A summary of issues raised at each of the seven community meetings is provided below.

AN INVITATION FROM THE BERLIN PLANNING COMMISSION

What will it be like to live in Berlin five years from now? How about 25 years? Before beginning the complicated job of planning for the future of our Town and its many neighborhoods the Berlin Planning Commission wants to hear the opinion of all our residents on such subjects as commercial development, conservation of resources and residential growth. Do we need more playgrounds -- better roads -- different stores -- a Town Center? We want to listen to your ideas and for you to hear what others believe will make our Town a better place to live.

To accomplish that, the Commission has arranged for a series of meetings to be held in various neighborhoods. Some of our residents have kindly offered to act as hosts. As many of the same issues will be discussed you may come to any meeting that is convenient, even if it is not near your own neighborhood. We hope you will!!

SEE REVERSE FOR DETAILS ON LOCATIONS AND DIRECTIONS

MEETING SCHEDULE

<u>NEIGHBORHOOD</u>	<u>WHERE</u>	<u>WHEN</u>
Riverton/ Rte 12 South	Riverton Fire Station	June 15, 1998
Paine Turnpike North/ 4 Corners	Berlin Armory	June 16, 1998
Berlin Pond/ 4 Corners	Berlin Municipal Building	June 18, 1998
Junction/ Jones Brook/ Rte 12 South	Home of Mr. & Mrs. Shawn Bryan	June 22, 1998
East Hill/ Airport	Home of Mr & Mrs. LeGrande Burns	June 23, 1998
Partridge Farms/ Rte 12/ B-M Rd. North	Home of Mr. & Mrs. Robert Plante	June 25, 1998
B-M Road South (Vine/Highland)	Bible Baptist Church	June 29, 1998

Please take a few minutes to complete the attached questionnaire. If you cannot attend one of the neighborhood meetings, please return the questionnaire to us by June 30, 1998 to the address below. If you plan to attend a meeting, please bring the completed questionnaire with you.

We need to hear from you or see you at one of the Neighborhood meetings.

Planning Commission members:

Henry LaGue, Jr.	Tom Willard, Chairperson	Frank Mier
Ruth Towne	Rob Beaudoin	Ron Lyon
	Enid Angstreich	

TOWN OF BERLIN PLANNING COMMISSION
MUNICIPAL OFFICE - RFD 4 BOX 2375 - MONTPELIER, VT. 05602

RESULTS OF THE QUESTIONNAIRE

A questionnaire consisting of five parts was mailed to all property owners in Berlin (See questionnaire next page). The results of sections I, III, and IV are presented on pages 12-21.

Section I

More residents agreed (41%) that "Berlin should develop a Town Center" than disagreed (24%), however, a large majority indicated that they had no opinion (35%). Some comments suggested that if there was a clear definition of what a Town Center meant they might have had a clearer sense of agreement or disagreement. Many residents suggested that adjacent land to the Town Municipal Building should be acquired for a town center and some suggested moving the town garage and using that land for a town center.

The overwhelming majority of residents (76%) felt that "The Berlin Pond Area should be maintained in its existing condition". More responses strongly agreed with that statement than any other category. This is consistent with results of other forums on this issue held by the Town Conservation Commission. Those that disagreed with this statement generally felt that there were some compatible recreation uses of the Pond and its watershed which should be considered.

The answers to "It is important to conserve the natural resources of Berlin" were the most lopsided and perhaps surprising of all responses. The majority of respondents strongly agreed with the statement and 90% either agreed or strongly agreed. This result was confirmed by many of the written comments given on the questionnaire. Section III describes what natural resources residents felt were most important.

The majority of residents felt that "Recreation opportunities for the residents should be improved. Only 16% of the answers disagreed with the statement. Of the few residents that disagreed, some qualified their answer that they were concerned with the cost of potential facilities. It seems clear that Berlin residents are supportive of more recreational opportunities in town, perhaps in part due to the success of the town skating facility and Dog River Natural Area.

In response to "The Barre-montpelier Road should be revitalized as a commercial center" 50% of residents strongly agreed and 83% either strongly agreed or agreed. The agreement to this statement was only slightly less than the support for protection of Berlin's natural resources. When considered in conjunction with the strong feelings that sprawl and inappropriate development should be controlled, it is apparent that residents feel the Barre-Montpelier Road is Berlin's "downtown" and should be enhanced.

The final statement in this section was "Commercial and

BERLIN PLANNING COMMISSION QUESTIONNAIRE

please complete and bring to meeting or mail to
TOWN OF BERLIN
MUNICIPAL OFFICE - RFD 4 - BOX 2375 MONTPELIER, VT 05602

I. On a scale of 1 to 5 please respond:

1 = *strongly agree* 2 = *agree* 3 = *no opinion* 4 = *disagree* 5 = *strongly disagree*

Circle your response to the following:

1. Berlin should develop a Town Center. If so Where? _____
1 2 3 4 5
2. The Berlin Pond area should be maintained in it's existing condition.
1 2 3 4 5
3. It is important to conserve the natural resources of Berlin.
1 2 3 4 5
4. Recreation opportunities for the residents should be improved.
1 2 3 4 5
5. The Barre-Montpelier Road should be revitalized as a commercial center.
1 2 3 4 5
6. Commercial and industrial growth in Berlin should be encouraged.
1 2 3 4 5

II. Please give us your thoughts on the following. Attach additional paper if needed.

1. What do you like most about your neighborhood?

2. What would you like to change about your neighborhood?

industrial growth in Berlin should be encouraged". Few residents (7%) indicated that they had no opinion on this issue. Of the total response, 58% agreed or strongly disagreed and 35% either disagreed or strongly disagreed. This was the only question in this section that indicated a polarity of opinion among town residents. Some of the answers to this question were qualified with statements relating to "appropriate development".

Section III

This section asked two questions; what are the most important recreation needs? and what natural resources are the most important to protect? Residents were asked to check the three most important but many indicated more than three were important.

In answer to the most important recreation need question, the need for recreation trails stole the show. The two top recreation needs cited were hiking trails (50 residents), and bike trails (50 residents). Skiing trails (15) and snowmobile trails (13) were also strongly supported. In all, 41% of the answers indicated a priority for recreation trails. Trails were followed by playgrounds, ballfields, swimming opportunities, and skating rinks. concerts, basketball courts, and dances completed the list. Other recreation needs identified included tennis, roller blading, hunting, horseback riding, and pond boating.

The second question asked what natural resources are most important to protect? Berlin Pond was listed by an overwhelming number of residents (97), while protection of forest (63) and mountain tops (51) were given high levels of support. The Dog River (53), agriculture (49), wetlands (37), Benjamin Falls (34), and Stevens Branch (23), were also identified as resources most important to protect by many. Other resources identified by residents included rolling hillsides and undeveloped land.

Section II

Section II asked 5 questions relating to life in Berlin and individual neighborhoods. The responses were varied and it was apparent that residents spent considerable time trying to answer each question. In some cases residents attached additional pages of comments. This section was by far the most difficult to summarize and the eloquence of many of the responses has been lost in our summary. There were, however, common responses which we think we have fairly summarized and presented below.

Question 1 What do you like most about your neighborhood?

By far the most frequent answer was the rural nature of the neighborhood and the separation from development. Comments such as peaceful and quiet were used to described what was liked most. On

the other hand it was commonly felt that the proximity to commercial areas was very convenient. Values such as the aesthetics and beauty of the neighborhood was a frequent value. Many listed the people in their town as what they like most. In summary, residents like the rural nature but convenience to commercial areas as well as the quiet and beautiful nature of their neighborhoods. It was clear that residents really love their town. Other attributes which describe what residents like about their neighborhood seemed to be absent.

Question 2 What would you like to change about your neighborhood?

The most common comment in some way said that they liked their neighborhood just the way it was. It is clear that many residents are satisfied with the neighborhoods where they live. The most frequent negative comment related to traffic and roads. An excess of traffic volumes through the neighborhoods and speeding traffic not adequately enforced, together with the need for better road maintenance were the most common complaints. On the other hand, both the police Department and the road crew received many compliments as well. Following traffic on the list of desired neighborhood changes was need for zoning changes, less development, and protection of natural resources.

Question 3 What do you like most about Berlin?

In order of the most frequent comments describing what is liked most about Berlin was the rural character of The town, convenience to commercial areas, lower tax rate compared to adjacent towns, the schools (especially Berlin Elementary School), the people including town officers, and the scenery, beauty, and natural resources in the town. Berlin residents expressed the general feeling that they liked their town very much. However, that did not prevent residents from suggesting changes to their town in question #4.

Question 4 What would you like to change about Berlin?

There was some anticipation that the answers to this question might be very similar to the answers to question number 2 which asked what would you like to change about your neighborhood. This wasn't the case and perhaps indicates that residents feel very differently about their town than their neighborhood. A significant number of citizens feel that the town needs better management and it is time for a town administrator or manager. Of equal concern was a feeling that sprawl is a pending problem for the town and commercial buildings and activity should be centralized. The need for a better Town identity was a common comment said in many different ways. Some felt a need for greater civic affairs participation and meeting places for residents. Many mentioned a town center and a post office. Close behind were comments relating to the need for recreation opportunities, better road maintenance, controlling traffic problems, and beautify and revitalize the Barre-Montpelier Road. Although some comments

suggested slowing down professional/commercial/industrial development in town, a significant number of residents suggest more department stores and filling of empty buildings.

Question 5 What is most important for the quality of life in Berlin?

The top four most important qualities Berlin residents felt were important for a high quality of life in Berlin were keeping the rural nature of the town, protecting the natural resources, restricting urban growth and sprawl, and good planning and management for the town. These four qualities were by far the most often mentioned in answer to this question. Other qualities mentioned were safe and clean community, community feeling, good school system, and low taxes.

Section IV

This section listed the seven identified neighborhoods where the Planning Commission held a community planning meeting and asked each resident filing a completed questionnaire to indicate which neighborhood they considered their own. The response from Riverton (West Berlin) and Berlin 4 Corners/Berlin Pond were the largest with 23% of the total responses coming from each of these neighborhoods for a total of 46%. Responses from the other neighborhoods were 12% from East Hill/Airport, 8% from the Barre-Montpelier Rd South, 8% from the Junction, 7% from the Barre-Montpelier Rd North, and 4% from Paine Turnpike North. Of the total response, 15% of the residents responding to the questionnaire felt they did not belong to any of the neighborhoods described in the questionnaire.

Section V

This section allowed respondents to make any other comments they wished to make which had not been addressed in any of the other sections. In general the comments here were very diverse and varied from fill Harry's, lower taxes, and ease the permit process to control sprawl, enforce speed limits, and protect mountain views. The one exception was a common thank you to the Planning Commission for reaching out to the residents to find out what is important to make this community a desirable place to live in the future.

Typical comments were "thanks for caring", "Keep up the good work", "congratulations to the Planning Commission", "big thank you", and "thanks for caring, keep up the good work". These comments are very much appreciated by the Planning Commission and surely will be an inspiration to us as together we work to make our town a better place to live and work.

CONCLUSION

COMMUNITY PLANNING MEETING

RIVERTON

6/15/98

The Berlin Planning Commission held a community planning meeting on June 15, 1998 at the Riverton Fire Station, the first of seven such meetings to be held over the next two weeks. The meeting was well attended with 13 residents attending, and the discussion was lively. A summary of the comments are presented below:

- With Act 60, should we develop for tax benefits anymore?
- The Planning Commission should understand Act 60 before acting on growth issues.
- If there are no tax benefits, there may be benefits for the town to develop quality jobs.
- Revitalization of the B-M road is a priority.
- Concern with excessive residential development
- B-M road is aesthetically ugly, Harry's is an eyesore.
- Bike path is an excellent idea.
- Revitalization of the B-M road is good for business.
- Existing park at Vermont Shopping Center entrance is very well done.
- Need a sign at the town line announcing you are entering Berlin.
- Need our own zip code.
- Riverton wants to secede to Northfield, feel closer to Northfield than Berlin.
- Riverton wants to feel closer to Berlin,
- There is no center of Berlin, we need a town center.
- Need to bring town together. Considerable discussion of how Riverton is isolated from rest of Berlin.
- Need a four seasons road to 4-corners.
- Don't need a four seasons road to the 4-corners.
- Trail around Irish Hill is a good idea.
- Maintaining the rural community in Berlin is important.
- Considerable discussion on the need for the PC to control sprawl.
- Agriculture in town is important.
- Need to support growth centers.
- Support villages then keep green green.
- Use Riverton fire station as a civic center with evening classes for adults and seniors. Use as a youth center.
- Need more ballfields and skating rinks.
- Protect open land and meadows along route 12.
- Obtain one town address and phone listings.
- Taxes are too high.
- Need better lighting and pedestrian accessibility.
- Need a water and sewer plan to control growth.

COMMUNITY PLANNING MEETING
BERLIN POND / 4 CORNERS

6/18/98

The Berlin Planning Commission held a community planning meeting on June 18, 1998 at the Berlin Municipal Building, the third meeting in a seven meeting series over a two week period. The meeting was attended by sixteen residents and four Planning Commission members. A summary of the comments is presented below:

- Residents complimented Planning Commission for the outreach initiative.
- Criticism given for the permitting of a funeral home in a residential district under interim zoning.
- Communication in Berlin is terrible and should be improved.
- Sally Herring plans to start a newsletter and received concept support.
- The strength of Berlin is its diversity.
- Town needs a summer event or mixer to bring town together.
- The school system is presently the focus of social life in Berlin.
- Town needs a Town newsletter. The pending home page was discussed in depth and supported.
- Citizens need to know what is happening and what the town is doing.
- Considerable discussion of increasing traffic on Scott Hill Road. Historic character of 4-corners should be protected.
- On Scott Hill Road, if mortuary is not built, can any commercial development move in?
- Compliments of the Vermont Shopping Center were received.
- The Barre - Montpelier Road should be renamed something else like Tri Town Road.
- We need more diversified businesses on the B-M Road such as a liquor agency, a movie theater, or a mall.
- The town needs more cultural events.
- We should support the B-M Road revitalization.
- We need to control ads and banners in town.
- We need to encourage commercial businesses to beautify their premises. (perhaps an award with publicity?)
- Town needs a tree warden.
- Town needs to look for grants like other towns.
- We should do a build out analysis of present town bylaws.
- Impact fees may be desirable. We should check with other towns.
- Scott Hill Road/ 4 Corners should be protected.
- Don't improve Scott Hill Road, it will only generate

COMMUNITY PLANNING MEETING
JUNCTION/JONES BROOK/RTE. 12 SOUTH

6/22/98

The Berlin Planning Commission held a community planning meeting on June 22, 1998 at the home of Mr. & Mrs. Shawn Bryan, the fourth meeting in a seven meeting series over a two week period. The meeting was attended by five residents and four Planning Commission members. A summary of the comments is presented below:

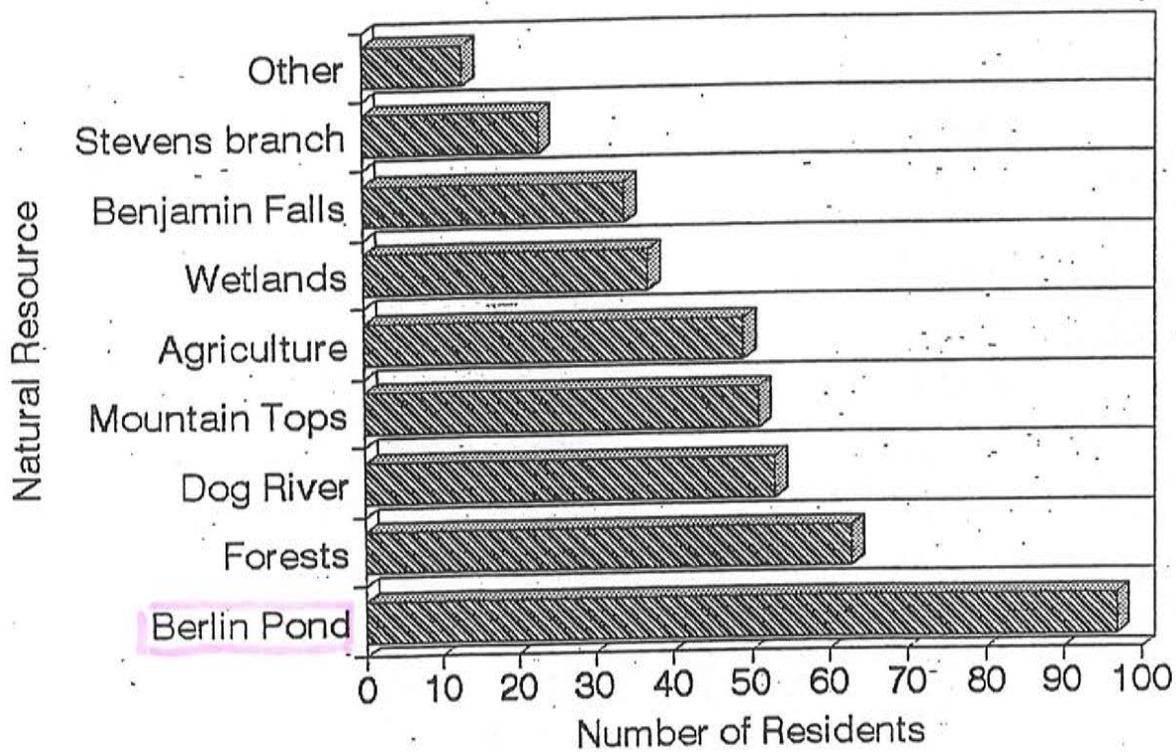
- West of the railroad tracks should be zoned Rural Residential.
- Light Industrial east of the tracks.
- Equipment storage barn built in floodplain in a residential area.
- Preserve the Winooski River and the streambanks.
- The Junction feels isolated from the rest of Berlin.
- The floodplain should be protected.
- Speed limits should be lowered and enforced.
- The road is highly used by joggers and bikers and is considered a recreational area.
- A dangerous blind spot exists at the end of Bartlett Hill.
- Bike tours use the road as part of their route.
- The bridge across the Dog River badly needs repairs but is designed way to large.
- Osprey, heron, and other wildlife are routinely observed.
- Trash by fishermen is a problem at the Dog River confluence.
- Overall, the tax rate in Berlin is nice.
- Need to designate growth centers in order to control strip development.
- We need to revitalize the B-M Road.
- Growth will happen all by itself, you don't need to spend money.
- Use the Conway or the Essex mall models for the B-M Road revitalization.
- Montpelier and Barre are the civic centers for Berlin.
- Civic center at Berlin 4-corners would be desirable.

COMMUNITY PLANNING MEETING
Partridge Farms/Rte 12/B-M Rd North
6/25/98

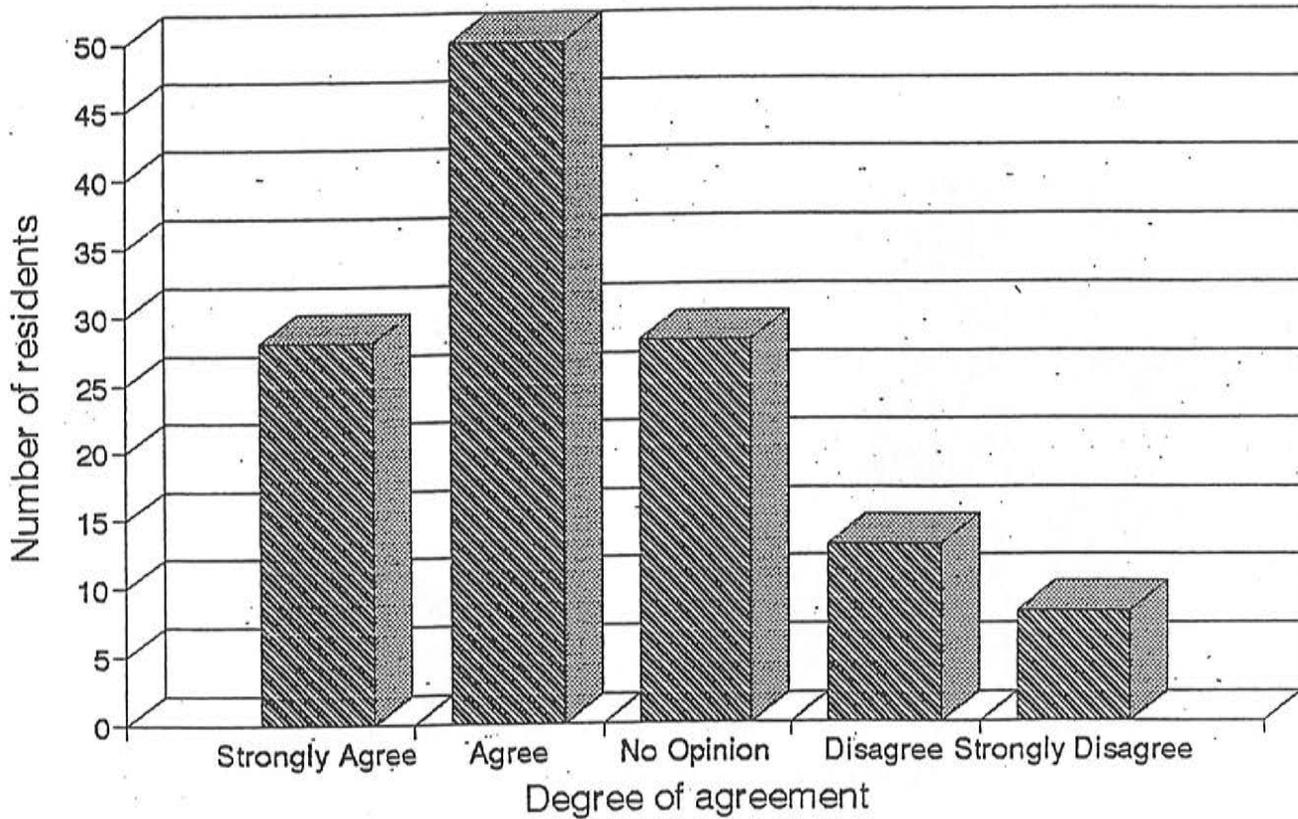
The Berlin Planning Commission held a community planning meeting on June 25, 1998 at the home of Mr. & Mrs. Robert Plante, the sixth meeting in a seven meeting series over a two week period. The meeting was attended by 7 residents and five Planning Commission members. A summary of the comments is presented below:

- It was felt that Partridge Farms was a great neighborhood, very close and very caring.
- There are a total of 26 homes.
- Existing homes have very strict covenants. This gives the neighborhood predictability.
- Concern was expressed about the effect of the proposed development on property values.
- The housing association consists of the developer with a deciding vote.
- Therefore a housing association was formed.
- The development needs recreation on site. Level areas are not common.
- The road quality should be high before acceptance by the Town.
- The association would like the 4 acres located at the entrance for recreation.
- The association supports the bike path.
- Strong support for the revitalization of the B-M road. Add more green and make pedestrian friendly.
- Need a welcome to Berlin sign.
- Town should have one zip code.
- Skating or roller skating would be desirable.
- Would like canoeing on Berlin Pond.
- Town should purchase Doug Hill's field adjacent to the town municipal building. If the field is lost then you lose the town center.
- Need a town pool. Propose a pool behind Comfort Inn.
- Should use the school grounds more than present. Support purchase of adjacent properties presently for sale.
- Would like to see a town center developed.
- The school has discussed the adjacent properties in the past.
- Very supportive of the town Web Page.
- The neighborhood has their own newsletter, the Partridge Press.
- The driving range behind Agway would make a good recreation area, bike path, go carts, batting cages, etc.

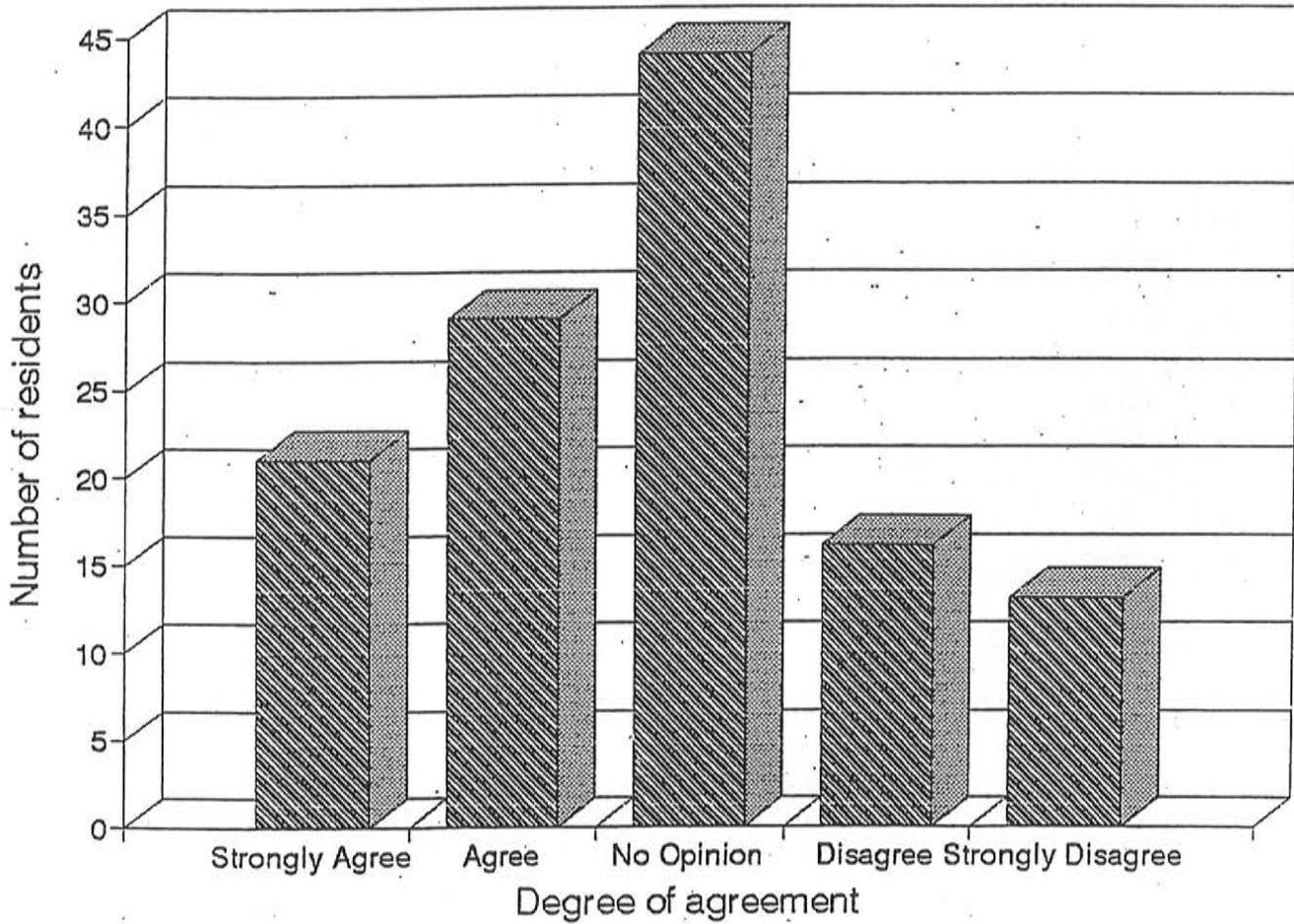
What natural resources are most important to protect



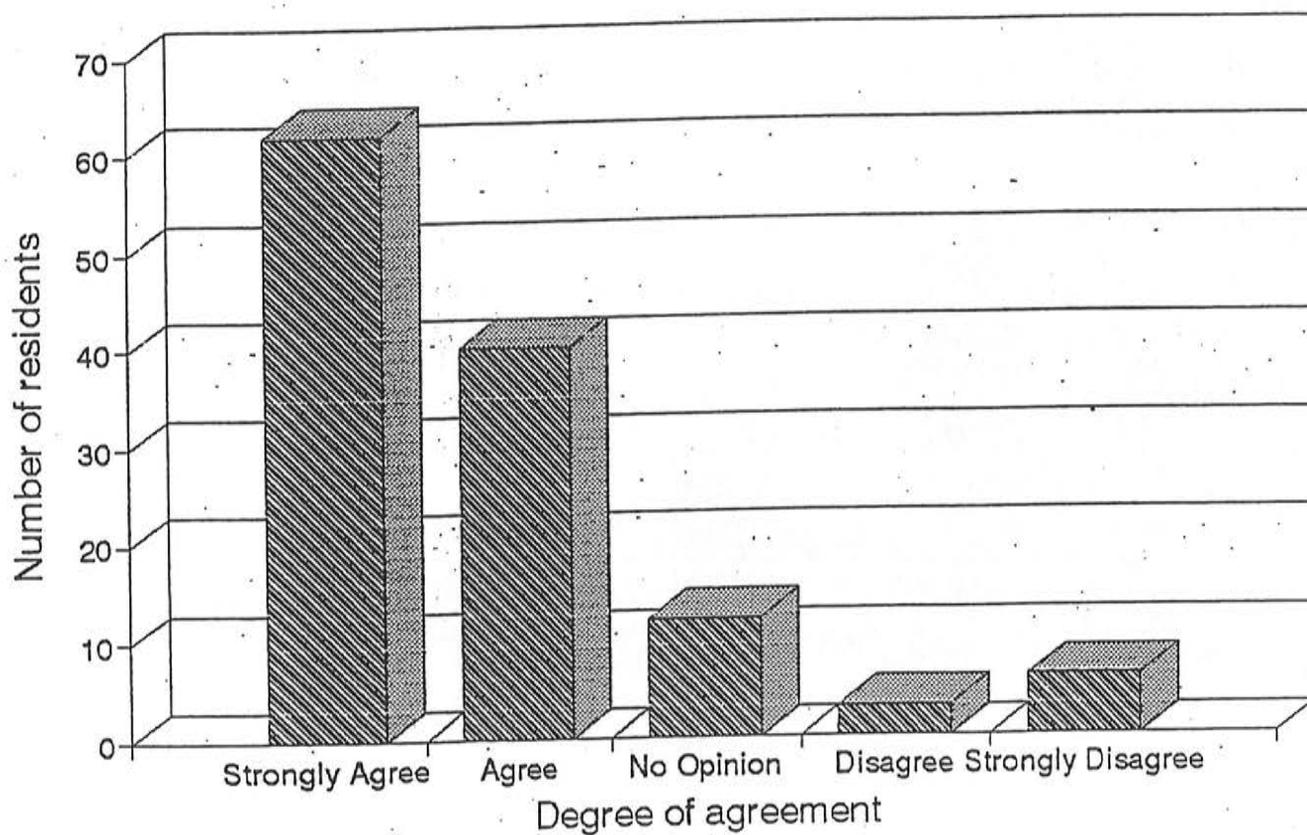
Recreation opportunities for the residents should be improved



Berlin should develop a Town Center



The Barre-Montpelier Road should be revitalized as a commercial center



Neighborhood Responses

