

**COMMENTS AND RESPONSE OF THE LAKE BEULAH
PROTECTIVE AND IMPROVEMENT ASSOCIATION, (INSERT
OTHERS) REGARDING THE VILLAGE OF EAST TROY'S 2030
COMPREHENSIVE COMMUNITY PLAN**

Background.

The Village of East Troy, Walworth County, Wisconsin, has re-opened discussion and consideration of the 2030 Comprehensive Community Plan that was initially adopted by the Village on July 14, 2008. The plan was promulgated pursuant to the State of Wisconsin's "Smart Growth" legislation, found at Wisconsin Statute § 66.1001. Under state law, municipalities must enact comprehensive plans incorporating nine prescribed elements no later than January 1, 2010. Thereafter, any local governmental actions affecting land use must be consistent with the plan. The nine elements required of such plans are incorporated into the Village's plan, each of which has a chapter in the plan devoted to it.

Among the primary objectives of the Smart Growth legislation is community input into local land use planning. The Village recognized the vital importance of public input in the process of developing its plan, noting that the law "requires public participation at the local level in deciding how a community wants to look and grow in the future." (Village Plan, Introduction, page 5.) The Village agreed to reconsider its plan due to widespread public dissatisfaction with the plan adopted last summer.

The "community" affected by the Village's plan extends well beyond the present borders of East Troy. Under Wisconsin law, the Village has the ability to annex lands currently in neighboring townships. As do other cities and villages in the State, the Village also has extraterritorial jurisdiction over all unincorporated areas within 1.5 miles of the Village limits. Such jurisdiction allows the Village considerable authority over the development of lands within that range. Should the Village expand through annexation, that range is extended correspondingly. The Village took all facets of its ability to expand, and to control development within its extraterritorial jurisdiction into consideration while preparing its initial plan.

Among the areas outside the present boundaries of the Village that will be

affected by its comprehensive plan are lands currently within the Town of East Troy, including lands surrounding Lake Beulah. Lake Beulah is a spring fed body of water located to the north of the Village. Much of the area surrounding the lake falls within the extraterritorial jurisdiction of the Village, the Village not long ago having annexed lands abutting the Southeast corner of the lake. As will be discussed, this natural resource contributes substantially to the Village's economy and to its quality of life. The lake and its surroundings also feature remarkable natural areas deserving of protection, the safeguarding of such areas being a pronounced goal of Smart Growth planning.

Identity and Interest of the Commenting Parties.

The Lake Beulah Protective and Improvement Association (LBPIA) is a non-profit organization with over 250 members, governed by a board of directors. The LBPIA was founded in 1894, its current mission being the general improvement and protection of Lake Beulah and its adjacent wetlands and waterways. To that end, the LBPIA is active in stocking fish, monitoring water quality, providing educational opportunities for East Troy school groups to learn about the lake environment, fighting the spread of invasive species, and in a variety of other measures aimed at protecting the lake for the benefit and enjoyment of everyone. The LBPIA is a member of the Wisconsin Association of Lakes, a statewide organization dedicated to working with state and local officials to implement legislation and programs for the protection of the State's 15,000 lakes.

(Insert other parties)

Each of the parties signing onto these comments has a strong interest in the Village's 2030 Comprehensive Community Plan, as that plan likely will govern future land use decisions in the East Troy region, including the area surrounding Lake Beulah and its adjacent waterways. Those decisions, in turn, will determine whether the ecosystem will remain as clean and attractive as it is, or whether it will become a tragic casualty of lack of foresight.

Unless indicated otherwise, the following comments represent the collective views of those who have signed onto this document, on behalf of the organizations they represent. The remarks are organized to correspond to the numeric Chapter headings set forth in the Village's plan. While these

comments may appear uniformly critical of certain aspects of the Village's plan, they are intended to be constructive. The parties to these comments desire a better dialogue with the Village regarding its development, as we have been longstanding neighbors whose best interests, in reality, are far more compatible than they are adverse.

Chapter One: Issues and Opportunities.

Preserving Natural Areas and Environmental Corridors.

In February 2007, the Village conducted a community workshop involving Village residents and residents of neighboring towns. The purpose of the workshop was to assist the Village in identifying goals for its comprehensive plan and threats to community values. The exercise was also intended to identify key areas for preservation and development.

Among the top values residents wanted to preserve are "small-town character...rural community...and an attractive environment." Some of the top threats identified were "unplanned growth, environmental concerns, quality of development..." Key assets to be preserved included "the area's natural resources and conservation ethic." The summary of the land use mapping exercise lists natural and environmental corridors to be preserved as areas around East Troy Pond, Swan Lake, Pickerel Lake, and the area east of Booth Lake. (Plan, p. 15.)

Surprisingly, there is no reference in this section to preserving natural areas and corridors in and around Lake Beulah, the area's largest and most obvious natural resource. Rather, in this section and in many sections of the plan, the authors avoid or minimize specific reference to Lake Beulah. For example, among the development recommendations in this section is a bullet point suggesting larger lots (20,000 square feet +) "for the northern area near the lakes." Notwithstanding that the Village recently annexed farmland in this "northern area" and permitted development at the minimum lot size possible, going forward the Village must recognize the overwhelming desire of the public to preserve natural areas and environmental corridors around its invaluable water resources. Lake Beulah, so consumed as it is within the extraterritorial jurisdiction of the Village, deserves prominent consideration as an area vulnerable to excessive development and worthy of protection.

Community Growth.

For a variety of reasons, the Village's plan assumes that the Village population will grow faster than State estimates, reaching 6384 by 2030. (Plan, p. 11.) Clearly, the Village wishes to expand in terms of both residential and commercial development. Somehow, in order to remain true to the professed desires of its residents, whatever growth the Village intends ought not destroy its "small-town character," a concern expressed in regard to recent Village expansions.

The Village's growth estimates, and perhaps its outlook on growth entirely, appear inconsistent with the observations of real estate professionals and developers the Village invited to participate in focus group sessions. According to the Village's plan, "(t)his group has noticed that people are looking to leave the Village....(perhaps) due to high taxes, sewer and water increases, and the development of more custom homes in the rural areas." (Plan, p. 16.) If true, the explanation for the population exodus is directly related to development decisions already made by the Village.

Village officials admitted not long ago that substantial water and sewer rate increases, above those previously experienced, would be necessary to pay for new municipal Well #7. That well, in turn, is intended to support additional development, as discussed below. Additional development will lead to the need for even more municipal services and employees, the costs of which are ever increasing.

The Village might revisit where its economic breakeven points are, relative to development. Thus far it appears that development is driving up costs, and driving out residents. Further, it is difficult to square the popular desire for a small town atmosphere, coupled with the preservation of farmland and natural corridors, with the Village's growth plans and projections.

Key Planning Issues: The Comprehensive Plan Steering Committee.

The Village's plan sets forth a chart of key planning issues identified by the Village's Comprehensive Plan Steering Committee (the "Smart Growth Committee"). Juxtaposed with that Committee's concerns are those of the Village Board and Planning Commission. Although the chart is significant in several respects, the parties to this document wish to emphasize a few striking particulars.

First, under the heading “Environment,” to which expressions of concern regarding waterways and wetlands, forests, natural resources, and pollution were invited, the Village Board/Planning Commission responded that it “would like to see a 2 mile radius of no development surrounding lakes and parks.” The Smart Growth Committee “(w)ould like to see the continued protection of surrounding farmland.” (Plan, p. 19.) Perhaps these comments reflect a wholesale change in attitude relative to the Village’s recent decision-making. We would applaud new light on these issues. The Lake Bluff development alone, north of St. Peters Road, turned farmland into minimum-sized residential lots within 1000 feet of Lake Beulah. The question presented is how the expressed desires of Village officials and their appointed committees will translate into aspects of the 2030 Comprehensive Community Plan to which the Village may be held accountable?

Second, under the heading “Intergovernmental Issues,” the Village Board/Planning Commission stated that “Relations with surrounding communities are really bad!” Further, there “Has been tension between the Village and Town over land use, boundaries and shared services.” Finally, there appears the cryptic but telling notation: “Three communities: 1) Village 2) Lake residents 3) everyone else.” The comments of the Smart Growth Committee reinforce the lack of good relationships with “neighbors” and the lack of intergovernmental agreements, as well as annexation and land use issues. (Plan, p. 20).

As among those party to such bad relations, the Village alone has annexation authority, and has exercised it. The Village alone has extraterritorial jurisdiction, which has expanded over much of the Town and areas surrounding Lake Beulah through annexation. The Village’s actions have invited expensive litigation against its neighbors. The Village appears willing to engage the services and rely upon the advice of costly attorneys and outside consultants, such as the firm that prepared its 2030 Comprehensive Community Plan. The conflicting interests of those the Village has relied upon for planning purposes, particularly engineering consultants who have benefited and stand to profit additionally from future development and related projects, likely contribute to the strife between the Village and its neighbors.

The Village signed on to a 1991 agreement with the Town of East Troy, agreeing to consult with the Town on future annexation plans. That

agreement is not referenced anywhere in the Village's plan, nor was it honored when the Village annexed the land that is now the aforementioned Lake Bluff development. This is another example of the source of bad relations between the Village and its neighbors.

The 2030 Comprehensive Community Plan should be viewed as a tool and an important opportunity to resolve regional conflicts and to promote orderly, appropriate and responsible development for the benefit of all residents and taxpayers in the region. The plan, if done with the involvement, input and approval of all interested parties, should result in consensus. The plan should identify what type of growth and development is suitable, and where it should occur. The plan should identify the type of municipal infrastructure and utilities any agreed upon development will require. Developers should bear the expense of added infrastructure in order to alleviate burdens on area taxpayers.

If the resulting plan is adopted and supported by the Village, the Town of East Troy, and the Lake Beulah Management District, then these regional governments, with the concurrence of their constituents, can move forward with much needed legal measures such as intergovernmental agreements, extraterritorial plat approval and zoning regulations, updated and coordinated zoning, subdivision and other development codes. Without a plan that has the support and approval of all interested parties, the costly and lamentable "bad relations" are likely to continue.

There is a pressing need for intergovernmental agreements, including boundary agreements between the Village of East Troy and its neighboring governmental authorities. Such agreements, once in place and honored, would go far in repairing relationships and avoiding future litigation.

Finally, the "Village of East Troy: 2030 Vision" block, highlighted at the end of this section, states "the Village will protect its natural assets through efficient land use and careful development around valued environmental corridors within the Village." (Plan, p. 22.) Environmental corridors should not be developed or further fragmented, not only for aesthetic reasons but also because the region's biodiversity relies on healthy ecosystems for survival. Walworth County's Conservation Subdivision Design ordinance is one tool that can be used to preserve the remaining environmental corridors while allowing residential development around them. Placing conservation easements on them can further protect the preserved environmental

corridors within Conservation Development Design subdivisions.

Chapter Two: Agricultural, Natural, and Cultural Resources.

This section of the plan is devoted to goals and policies concerning agricultural protection and natural resource conservation. Among the recommendations summarized at the outset of this section are cooperation with the Town to conserve agricultural areas and “Protect natural features and ecological systems throughout the Village’s planning area.” (Plan, p. 23.)

Density and Location of Development.

The Village’s plan notes the Town’s efforts to preserve farmland, but states that the Town “must take a firmer, and more proactive stance, on the preservation of farmland.” (Plan, p. 23.) In particular, the Village’s plan is critical of the Town’s allowance of low-density residential developments along the lakeshores.

Certainly, low-density residential development in areas logically positioned for more dense, carefully designed development can work against the desire to preserve open spaces. Yet the Village’s plan fails to account for the Village’s contribution to the problem. Without intergovernmental agreements or a commitment to conservation subdivisions, low-density developments are seen by some as the only defense to the type of standard, high-density development the Village has approved on lands annexed from the Town, particularly on lands near Lake Beulah.

The plan’s criticism of the Town allowing low-density residential development along lakeshores (Plan, p. 23) is inconsistent with other stated objectives in the plan and suggests, at least in this aspect of the plan, that the Village prefers high-density development along lakeshores. Does the Village wish to preserve scenic areas and protect sensitive environmental areas, as is so often stated in its plan, or does it intend to maximize development opportunities on and near the shores of area lakes?

The plan recognizes that among the most significant environmental corridors within the Village’s planning area are lands around the “lakes to the north.” (Plan, p. 31.) Specific concerns among those party to this document relate to the Village’s plans for the Divine Word Seminary

property along the southern shore of Lake Beulah. The Divine Word property abuts critical wetlands, includes environmental corridors, and provides a scenic buffer against high-density developments on land annexed by the Village. This property is precisely the type that ought to be preserved for the benefit of the public and protection of the natural environment.

In addition to the expressed desire of preserving existing environmental corridors, the Village of East Troy's plan has the potential for *increasing* environmental corridors through the use of conservation subdivisions in areas where residential development is deemed appropriate. The plan currently shows planned sewer residential development in sections 25 and 36 in the Town of Troy. (Plan, Maps 3, 5.) These sections contain FEMA preliminary 100-year floodplain, environmental corridor, and steep slopes, as well as Wisconsin Department of Natural Resources delineated wetlands, none of which are recommended for development. Through the use of Conservation Subdivision Design, the Houghton Muck, Palms Muck, and Sebewa Silt Loam hydric soils can be restored to wetland, increasing environmental corridor and wildlife habitat, while protecting steep slopes and allowing residential development clustered on appropriate soil types.

The plan also shows planned sewer residential development on sections 32 and 33 in the Town of East Troy. These sections also contain FEMA preliminary 100-year floodplain, along with Houghton Muck, Palms Muck, and Sebewa Silt Loam hydric soils. Again, these areas can be restored to wetland and provide a useful storage function during storm events, while increasing open space and wildlife habitat. Conservation Subdivision Design would be the best solution should development proceed in this region.

Citing a SEWRPC study, the plan identifies eight significant Natural Areas in the Village's planning area. However, the plan incorrectly states that only one of those areas, the Swan Lake Wetland Complex, "contains rare, threatened or endangered species." (Plan, p. 34.) In fact, there are many threatened species living within the Village's extraterritorial boundary, and many other species dependent upon environmental corridors within the planning region for necessary habitat. While Swan Lake is an important area deserving of protection, the concern for preserving habitat should extend to all environmental corridors in the region.

Surface and Groundwater Protection.

One of the three Natural Resource objectives listed in the plan is to “(p)rotect surface water and groundwater quality in the Village’s planning area.” Another listed objective is to “(r)ecognize that the natural environment is an integrated unit composed of interacting land, water, and air resources, and to ensure that the stability of this resource system is maintained.” (Plan, p. 35.)

As the plan observes, Lake Beulah flows into the Mukwonago River, home to 40 species of fish and possibly more native mollusk species than anywhere else in the state. (Plan, p. 35.) The Mukwonago River is a near pristine waterway and a focal point of state efforts to preserve and enhance both natural features and recreational activities in Southeastern Wisconsin.

Lake Beulah is a high quality, hard water lake. Its hard water is due to the discharge of groundwater into the lake. The minerals in the groundwater bond with phosphorus, reducing algae production. The flow of groundwater also impacts the temperature of the surface waters. The highest concentration of groundwater flow into Lake Beulah occurs at the southern part of the lake, in the vicinity of Well #7.

According to a 1994 study published by the Wisconsin DNR, Lake Beulah has eight areas identified as “sensitive,” meaning that they offer critical fish and wildlife habitat, or water quality or erosion control benefits to the lake. (Lake Beulah Sensitive Area Study, Wisconsin DNR, May 1994.) A review of the study discloses that the sensitive areas on Lake Beulah, which include wetlands, perform all of those functions.

The Village’s plan, in conjunction with other development-related actions undertaken by the Village in recent years, poses a significant threat to the Lake Beulah/Mukwonago River watershed. While the plan purports that protection of natural resources and environmental corridors is a priority, it also lays out the prospect of more high-density development in areas around the lake. In general, such development is inconsistent with the objective of preserving natural areas and environmental corridors.

One recently approved development is home to a high capacity well, the aforementioned Well #7, capable of withdrawing nearly 1.5 million gallons of water per day from the same aquifer that feeds Lake Beulah and, ultimately, the Mukwonago River. Well #7 is on property adjacent to one of the eight sensitive areas of the lake. The Village’s plan was carefully crafted

to align with the views of its attorneys and consultants that high capacity wells drawing less than 2 million gallons per day *need not* be “evaluated in terms of whether they impair public water rights, future water use plans, cause adverse groundwater effects, or otherwise contribute to environmental degradation.” (Plan, p. 41.) Thus the Village began pumping from Well # 7 without adequate regard or study of its likely impact on public rights, surface and ground waters, wetlands or the ecosystem in general.

The plan notes that “(i)f groundwater is removed from an aquifer more quickly than it is recharged, the amount of water available in the aquifer is reduced.” (Plan, p. 40.) The primary solution to this elementary predicament, as per the plan, is to “monitor any WISDNR decisions regarding high-capacity well decisions” should new well sites be proposed “in the vicinity of the Village over the planning period.” (Plan, p. 41.) The plan further states “(t)he Village should participate in cooperative groundwater management plans with municipalities, industries, local and regional planning agencies, and state agencies where appropriate, should Groundwater Protection Areas or Groundwater Management Areas be formed in the future.” (Plan, p. 41.)

In reality, given the Village’s view of state law requirements, the plan offers no protection to the public or the environment from the impacts of new or existing high capacity wells drawing less than 2 million gallons per day, but for those proposed near a Groundwater Protection Area (GPA) as presently defined. (Lulu Lake is the only GPA in the Town of East Troy, and the protections afforded by a Groundwater Management Area are very limited.) The consequences could be dire: a reduction in flow of groundwater might affect the water level, but more likely the water temperature and chemistry of the lake. The ripple effect on water clarity, plant life, habitat, fish and wildlife would chart its course through the ecosystem. The cost of addressing the resulting damage done, even if possible, would be exorbitant.

As part of its 2030 Comprehensive Community Plan, the Village should identify and afford meaningful protection to environmentally sensitive areas, including but not limited to Groundwater Management Areas, that directly or indirectly impact the quality and quantity of both ground and surface waters. One step in that direction would be participation in the development of the Lake Beulah Management Plan, which is underway through grants awarded the Management District. With a plan in hand, the

Village, Town and the Management District could implement protective measures for the identified areas through passage of ordinances, cooperative groundwater management strategies and other regulations. Development will ensue, but that development will be governed by a plan protective of the very resources that give economic life to the region and quality of life to its residents. To proceed as the Village has, trusting in the advice that adherence to the most minimal standards suffices to protect the public interest, renders meaningless every reference in this plan to cooperative efforts and protection of our shared natural resources.

Chapter Three: Land Use.

To a great extent, our views with respect to this chapter echo those already made, the primary point being that the Village's designs over the region, particularly the region beyond the present borders of the Village, ought to reflect a regional consensus regarding growth and protection of natural areas. Additional comments will be responsive to specific representations made in this chapter.

Annexation vs. Preservation of Small Village Character.

The Village describes its development history as that of a "free-standing small village with defined edges" whose "unique and beautiful natural setting... has been significantly jeopardized by exurban development." (Plan, p. 50.) Further, the plan reports "(t)he planning area's *Exurban Residential* development is found outside the Village's municipal limits." (Plan, p. 51, emphasis original.)

Succinctly put, this view of the Village's tarnished setting overlooks its land annexations and commensurate approvals of high density developments in areas once beyond its borders, but now squarely within its municipal limits. It may be argued that such developments are an aspect of demand and predicted growth, but clearly their beauty lies exclusively in the eyes of their beholder. The Village's plan invites further growth and additional annexation, measures not consistent with the preservation of a bucolic, well-defined community.

Among the policies listed in this chapter is that the Village should "(b)e receptive to the annexation of property in the EJT." (Plan, p. 63.) Many of those who participated in discussions leading to these comments reside

within the Village's extraterritorial jurisdiction and are fearful of, and opposed to the prospect of further annexation. Moreover, the Village's inclination to annex more land is at odds with its open space and environmental corridor preservation goals, as well as its projected land use needs.

Based on its optimistic population growth projections, the Village estimates land use demand through 2030 will consume an additional 726 acres. (Plan, p. 56.) The Village has, at present, 792 acres of undeveloped agricultural or open space land within its borders. According to its policies, whatever expansion the Village intends will be served by municipal water and sewer, fostering higher density development in land it acquires. Thus annexation will not be driven by a perceived need to protect farmland or natural areas, nor will it be driven by demand for new housing vastly exceeding vacant land supply within existing Village borders.

The Village, and/or those drafting its plan, needs to make clear the guiding reasons for future annexation. Even assuming that some open land within Village borders might not be available to willing developers and eager consumers, the Village's projections simply don't justify a need for significant, if any, annexation by 2030. Moreover, the Village's population growth projections, as noted above, are not consonant with current trends or state estimates. In sum, the annexation objectives reflected throughout the plan don't flow from an economic or preservation perspective.

Specific Land Use Policies.

While the plan generally discourages development in environmental corridors, it comes far short of prohibiting such new development. Even the highest projections in future land use demand do not justify a need to develop these areas.

Furthermore, the plan states "(i)f development is proposed in areas where environmental corridors have been mapped...the landowner or developer is responsible for determining the exact boundaries of the Environmental Corridor..."(Plan, p. 68.) Presumably, this statement is intended to emphasize the liability of the landowner/developer, and not the authority of such parties to delineate environmental corridors.

Commendably, this section does "encourage" use of conservation

subdivision design principles when developing lands that include environmental corridors. (Plan, p. 68.) As discussed above, such principles ought to be incorporated more broadly in any future developments, and certainly made mandatory if sensitive natural areas are affected.

Land Use Recommendations and Mapping.

Map 5 depicts the Village's vision of future land use. The map shows considerable single family, residential development both north and south of St. Peters Road, much of which is adjacent to sensitive natural areas. The map includes developments that will be sewerred, according to the Village's plan, but not within its municipal boundaries.

We reiterate the concerns expressed previously about the need and wisdom to develop in these areas. There is nothing consistent about wishing to preserve a small town character, having identifiable Village bounds, preserving farmland and environmental corridors, providing a buffer between scenic areas and development----and then adopting a map guiding future land use which is inimical to those goals. As drawn this map does not represent the wishes of area residents or the goals expressed elsewhere in the plan.

Redevelopment opportunities abound within existing Village limits. While the plan "encourages" infill development prior to soliciting annexation (Plan, p. 75), infill and re-development opportunities ought to be exhausted before any annexation is considered. The Village cannot achieve the look and atmosphere area residents desire if annexation and sprawl are as readily approved in the future as in the past.

Chapter Five: Utilities and Community Facilities.

Our comments in regard to this section relate to existing and planned high capacity wells, and the need for additional sources of high quality groundwater. These issues are germane not only to the protection of vital natural resources, but factor into the Village's development intentions.

Need for Additional Sources of Water.

Citing concerns of the Wisconsin DNR, the Village has claimed in the recent past that it needed additional sources of water in order to satisfy state

requirements that it be able to meet its maximum demand level. State requirements establishing maximum demand are based on a catastrophe scenario, in which the Village would temporarily lose access to its highest generating well, coupled with a fire emergency or other urgent but temporary need for more water. Under this criterion, the Village's current water supply, prior to Well # 7 going on-line, fell short of its maximum demand by less than 500 gallons per minute.

The consultant employed by the Village to assemble its plan, Crispell-Snyder, Inc., cites its own study as evidence of the need for an additional well supply to meet existing maximum daily demands, and a second additional well before "resident-equivalent demand exceeds a population increase of 5000." (Plan, p. 104.) This consultant was instrumental in the planning and construction of Well # 7. Presumably it will be involved in the development of additional Village wells.

Throughout the controversy over Well # 7, Village officials consistently maintained that that well was needed for existing demand, not development. The plan does not specify the amount by which maximum water demand currently exceeds supply. The 2003 application submitted by the Village for Well # 7 sought approval for a well with capacity to pump 1000 gallons per minute, over twice the needed maximum daily supply identified in documents exchanged between the Village and DNR a few years ago. The plan now acknowledges that new development, both "(h)igher density residential development---along with business and industrial users..." is predicated on the availability of additional, high quality water. (Plan, p. 109.)

The plan fails to recognize the threat high capacity wells pose to the natural areas in the region. This problem is not unique to East Troy; rural and suburban areas in Southeastern Wisconsin have grown beyond the capacity to supply good, safe water. This lack of planning has carried over into reckless disregard of the impact new water sources, chiefly high capacity wells tapping into shallow aquifers, may have on lakes, streams, wetlands and wildlife. The plan does not address this issue, but if promulgated threatens instead to exacerbate the existing problem.

Environmental Concerns Must Factor into the Village's Plans for Two New Wells.

The plan states that the Village “currently plans for two additional wells, one in the Lake Bluff Subdivision and another behind Prairie View School.” (Plan, p. 103.) The high capacity Well # 7 in the Lake Bluff Subdivision began pumping water at a limited volume in August 2008.

Well # 7 is withdrawing water from the aquifer that supplies groundwater to Lake Beulah. During the initial approval phase for this well, it was widely publicized by the Village that an impermeable separation layer existed between that aquifer and the source of water for the well. It was later verified by data collected through a Cooperative Water Monitoring Agreement between the Village and the Management District that no such layer exists.

We remain very concerned that the operation of Well # 7 will reduce water flow from the shallow aquifer that feeds Lake Beulah, thereby potentially changing the chemistry of the surface water, as previously described. Other changes, such as water temperature and water levels, may also ensue. The limited studies done by the Village’s consultants do not support the previously articulated position that the well will not harm the lake, its wetlands, or the waters downstream.

The Prairie View School site was initially proposed, and its drilling and water testing paid for by Lake Beulah residents, who were later reimbursed by the Village. That was done to provide the Village with an alternative high capacity well location whose operation would not impact Lake Beulah. The Village decided not to proceed with the immediate development of this alternative well location despite the protection it would have afforded one of the region’s most significant natural resources. As studies have shown that this site does not threaten the lake, we request that the Village develop this site as an immediate replacement for Well # 7.

Participation in Regional Groundwater Flow Studies.

The plan states that “(t)he Village has contributed to a regional groundwater flow study that will hopefully add to the understanding of how natural and man-made processes affect groundwater supplies and flows...Further in the future, insights from similar studies may point (the) way to methods for returning pumped and treated groundwater to its point of origin, thereby allowing municipal well water in a given area to be used and reused in a sustainable way.” (Plan, p. 109.)

These statements evoke the following observations. First, the need for additional study highlights the difficulty inherent in accurately predicting the impact of high capacity wells on water availability for public use and sustainability of natural resources. Second, the referenced study involves significant input from a consulting firm that does substantial work for municipalities in Southeastern Wisconsin developing high capacity wells. Without discounting in advance the results of this study, the Village should also review and consider the document and its associated model that was funded by the Wisconsin DNR, completed and released in September 2008. This document is titled “*Hydrostratigraphic and Groundwater Flow Model: Troy Valley Glacial Aquifer, Southeastern Wisconsin.*” Professors and students at the University of Wisconsin-Madison authored this study.

Third, Lake Beulah Management District Ordinance 2006-3 mandates that “No proposed water use, diversion or transfer shall be permitted unless a volume of water equal to at least 95% of the water actually diverted or transferred is returned to the Lake Beulah hydrologic basin.” The Village should incorporate the LBMD water use and diversion regulations as established by Ordinance 2006-3 into its 2030 Comprehensive Community Plan so that future development and any associated water needs are consistent with these regulations, for the protection of Lake Beulah and its wetlands. Methods and practices already exist to transfer water from treatment facilities back to original sources. There is no need to await further studies to adopt these important regulations.

Chapter Seven: Economic Development.

The emphasis in this chapter is on business development. The plan does point out that economic development “is closely tied to a number of other issues...including...natural and agricultural resources.” (Plan, p. 132.) However, this chapter of the plan does not address, with any specificity, the contribution and importance of natural resources to the region’s economy.

Increasingly, economists, scientists and others are focusing on the significance of clean surface waters to the economic health of the regions in which they are found. One recent study published in *Environmental Science and Technology* and titled *Eutrophication of US Freshwater: Analysis of Potential Economic Damages* considered the monetary impact of pollution due to excess nitrogen and phosphorus in lakes and rivers. The

study revealed annual losses nationwide of at least \$4 billion due to diminished values of waterfront properties, reduced fishing and recreational activities on lakes, cost of biodiversity loss, and cost of purifying water.

In a related vein, the University of Wisconsin-Whitewater has published a study of the economic value of Delavan Lake to the regional economy in Walworth County. That document, released in February 2005, is titled "What Is the Value of a Clean and Healthy Lake to a Local Community?" The study focused on the detrimental economic impact of eutrophication, an effect caused by overabundance of nutrients such as phosphorus that results in poor water clarity. Among other striking findings, the authors of the study estimated that regional expenditures would decline by \$5-6 million per year in the event lake quality declined to the extent it had prior to a costly renovation project.

There is every reason to believe that the East Troy area would suffer a similar loss of expenditures, proportionate to the spending directly and indirectly attributable to Lake Beulah, should the water quality of that lake deteriorate. Lake Beulah contributes significantly to the economy and quality of life in this region. As one example, the property tax contribution coming from Lake Beulah, which helps support East Troy's school system and a technical college in the area, would be expected to diminish if the quality of the lake is impaired by eutrophic affects---the kind a steady supply of groundwater has prevented. The impact of lake and stream degradation on fisheries is economically significant and measurable. These factors alone compel much closer scrutiny of development plans and their connected water requirements, particularly where additional high capacity wells are contemplated, than has occurred in this region.

Chapter Eight: Intergovernmental Cooperation.

The plan evinces a desire that the Village "Work Cooperatively with the Town of East Troy to Plan for the Area." The plan also states that while it "does not recommend halting of all development to the north of the existing Village boundary, it does recommend preservation of large, contiguous blocks of preserved open space and environmental corridors near area lakes." (Plan, p. 147.)

We have commented already on the need for much better cooperation, including the urgent need for a boundary agreement to address the issue of

future annexation. Such cooperation should include the incorporation of our collective voice into the development of this plan. Much of the Town of East Troy, and approximately 75 % of the Lake Beulah Management District, are within the Village's extraterritorial jurisdiction and planning region. We share in the desire to develop a thoughtful, beneficial and realistic plan for this area in order to protect the attributes and resources deemed so important by others and ourselves who have provided input to the Village. We stand ready to partner with the Village to address its various concerns and objectives, as long as the Village recognizes and takes appropriate action to protect the natural resources, public rights and economic interests we have emphasized.

Throughout this paper the plan adopted by the Village in July 2008 will be referred to as the Village's plan, even though forthcoming public comment may persuade Village officials to adopt a revised plan at some future date.