

West Waubesa Preservation Coalition

P.O. Box 259211, Madison, WI 53725-9211

(608) 223-9571

www.westwaubesa.org

westwaubesa@sbcglobal.net

Dear Tom,

This Tuesday, March 16, the Plan Commission will hold a public hearing, and possibly vote on a Neighborhood Plan for the Northeast Neighborhood. We commend the attention that the city has given to the issues that we and others have raised in the past 4 years. We appreciate that we have been listened to as we have sought to point out the problems with this proposal. City staff and elected officials have been very open, and have sometimes proposed changes to the plan based on our points. We have even made many new friends in the process!

But we cannot endorse the Neighborhood Plan that has emerged from this process. This letter contains:

- our reasons for urging you to delay consideration of this very controversial proposal until 2014;
- our reasons for urging rejection of the proposal should you decide to vote on it now; and
- our suggestions for amendments to the plan should you decide to approve it.

Why it's in Fitchburg's interest to delay consideration of the NEN plan

- The Fire Station that would provide coverage for the neighborhood won't be done 'til 2014, or 2013 at the earliest.
- A water tower by the planned interchange would be necessary to service the NEN, at a significant cost to taxpayers. In order to justify that cost, it should be for a large development, not a small one. And for water freshness reasons, you need to build a large number of homes in a new area all at once, so that the water that comes out the tap isn't more than 3 days old.
- Therefore, you need to have enough pent-up demand to quickly fill a large portion of a new development before opening it up. Obviously, with the economy languishing, and so many Fitchburg homes on the market unsold, there is no pent-up demand now, so why approve this development and pay for a water tower now?
- Green Tech Village, which is closer to Fitchburg's core, should be nearly full before trying to bring another big chunk of land into the Urban Service Area. The CARPC is promoting infill of existing USA's before approving expansions. If the North McGaw USA expansion is approved, it will provide more than enough room for development until 2014.
- Waiting 'til 2014 will give the city a chance to build elsewhere according to the proposed "Form Based Code," which encourages "New Urbanist" neighborhoods. Then if the city decides that it needs to develop the Northeast Neighborhood, it can build on that experience.
- The economic situation is terrible for building new homes and commercial buildings. If you let the Northeast Neighborhood be developed now, and the lots don't sell, you may be left with a ghost town of empty lots on streets that need to be plowed, swept, and maintained, without the

tax base to pay for these services. The yards would be lost to agriculture, and would need to be mowed to prevent them from returning to forest. Who would pay for that, and how?

- Fitchburg homeowners trying to sell their homes, and Fitchburg businesspeople trying to survive the recession don't need the added competition that new development would bring.

Why it's in the interests of the wider community to reject this development plan.

Creating acres of impervious surfaces just upstream from Swan Creek, the Waubesa Wetlands (and the Northern Pike hatchery within them), and Lake Waubesa, may cause silting, flooding, and phosphorus overload, all of which would damage or destroy these delicate eco-systems. Engineering solutions are not fail-safe, and we don't want to risk damaging these treasured natural resources that so many Dane County residents enjoy. Please review the brochure from the Wisconsin Wetlands Association, which designates the Waubesa Wetlands as a "Wetland Gem."

Increasing climate instability means that we have been experiencing and will continue to experience increasing frequency and intensity of storms. Engineering techniques that might have worked in the 1980's may now result in flooding. The Meadowview Neighborhood in the Town of Dunn, downhill from the NEN, is already prone to flooding. Though the stormwater should not flow into it, back-to-back storms which cause an overflow of ditches could send water across Larsen Rd. and into Meadowview.

Would the city be liable? Would public pressure mean that they would have to buy out the homes in Meadowview? Remember the cost to the Village of Oregon and Dane County after flooding (some say caused by construction of The Bergamont subdivision) on Florida Ave. led to a buyout of 6 homes. The lower parts of Meadowview contain 14 homes.

Over 200 acres of high quality farmland would be destroyed in this plan. As citizens and institutions look for ways to curb CO2 emissions, strengthen local economies, and combat the epidemics of obesity and diabetes, local agriculture is growing in popularity. Within a short time, Fitchburg's NEN could be home to large numbers of market gardeners, artisanal cheesemakers, and other small local enterprises. Its proximity to Madison, the very reason why it "made sense" to put commuter homes on it during the past era, is the reason to save it for community food production in the new era.

Needed Improvements to the Plan

If, despite all the above reasons, you approve this plan, we urge you to make the following changes.

1. The reconstructed wetland just west of Larsen Rd. needs a much bigger buffer in order to survive. The testimony of Dr. Joy Zedler, Professor of Botany and Aldo Leopold Chair in Restoration Ecology at the UW Arboretum in Madison, at the NEN Land Use Committee on May 20, 2008 was clear in that regard.

She spoke of how buffers help protect wetlands from the negative effects of stormwater runoff, which are: excess water, excess nutrients, and excess sediment. At the Arboretum, Dr. Zedler's team has shown how tubs planted with 14 native species are filled with nothing but Reed Canary Grass (a highly invasive, non-native species) within just one season when exposed to these effects.

She also quoted Dr. Ray Semlitsch's work, which says that amphibians need a total buffer of at least 728 ft. to survive long term. The 300 ft. buffer that some members of the committee were urging is not enough for either the amphibians or the wetland plants to survive, and yet it was cut down to 75 ft. on the SW corner of the wetland. We suggest that instead of using a rigid # of feet, that you use a contour line to delineate the wetland buffer. On enclosed pages you will see:

- a graphic showing the extent of the flooding around the proposed wetland in June 2008
- a screen shot from the DCI map of the area, with the contours
- a freehand rendition merging the two, with the area shaded that we propose for a buffer.

Our proposal follows the 884 ft. contour line, and links the wetland to a small existing wetland on the north side of Goodland Park Rd. via a culvert under a road. This would make a good escape route for especially high floodwaters.

(Remember that since the water table was at 876 ft. in 2008, that would mean that houses built at 884 ft. with 8 ft. basements would have their basement floors just above the water table. This is much safer than building them at the 880 ft. line, which would mean water seeking a way into their basements at 4 ft. above the floor.)

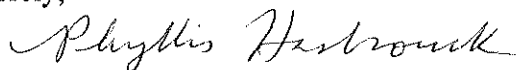
Using this buffer plan has the following advantages:

- It's more likely that the newly constructed wetland will survive as a true wetland, not just a patch of reed canary grass.
- It's more likely that its amphibians will survive, which will attract more cranes and other wildlife.
- The city is less likely to be confronted with angry NEN homeowners with flooded basements, who want to know who allowed their houses to be built in a flood plain.

2. We think that the draft Neighborhood Plan made at the rezoning charrette is a better plan than the existing one from an inhabitant's point of view and a planner's point of view. If it were amended to include the larger wetland buffer, it would be preferable to the current plan.

In conclusion, we urge the Plan Commission to consider all of these arguments, and to not approve the plan as it exists. We hope that you will delay this vote and look instead for ways to help struggling taxpayers, homeowners and businesses in Fitchburg.

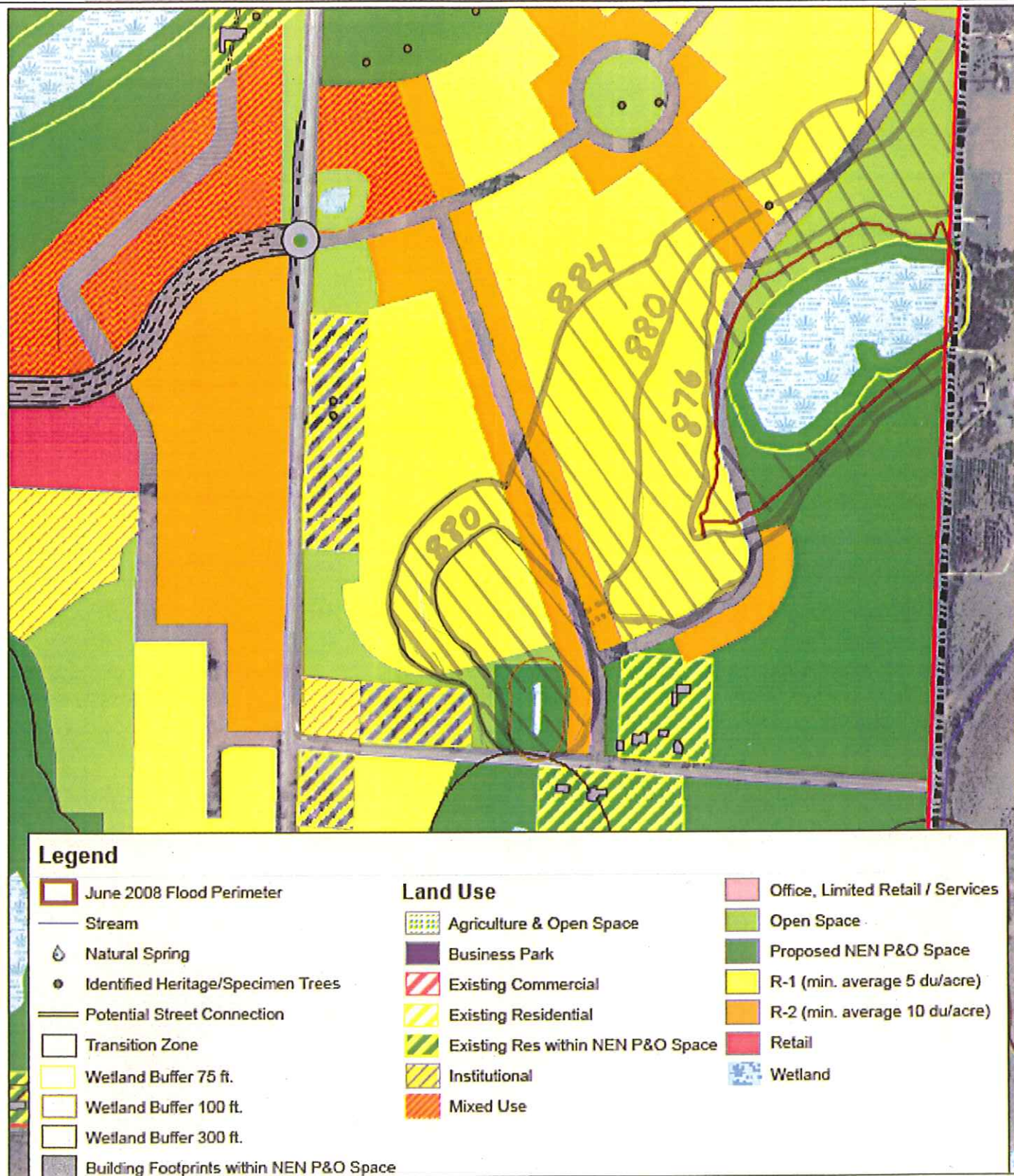
Sincerely,



Phyllis Hasbrouck
Chair, West Waubesa Preservation Coalition

Figure 5 - 4: Larsen Road Wetland Detail

Discussion: R-2 orientation may change depending on the figure 5-1 decision.



WETLAND GEMS



DANE COUNTY



WAUBESA WETLANDS

Property Owners: The Nature Conservancy, WDNR
 Recognitions & Designations: WI State Natural Area, WI Land
 Legacy Place, WI Wildlife Action Plan Reference Site

Funding for this project provided by The McKnight Foundation, which seeks to improve the quality of life for present and future generations through grantmaking, coalition-building and encouragement of strategic policy reform.

**Wisconsin
Wetlands
Association**

wisconsinwetlands.org



Cal DeWitt

WAUBESA WETLAND TYPES

Sedge meadow, fen, marsh, shrub carr

ECOLOGY & SIGNIFICANCE

This Wetland Gem, located just south of Madison along the southwest shoreline of Lake Waubesa, is one of the more diverse wetland complexes remaining in southern Wisconsin. Waubesa Wetlands comprises more than 500 acres of relatively high quality sedge meadow, fen, marsh and shrub carr habitats. The site is characterized by deep peat deposits and numerous springs, which provide these wetlands with a continuous source of clean, cool and mineral-rich groundwater. Two streams, Murphy's Creek and Swan Creek, meander through the site and empty into the lake. These wetlands are important to water quality in the lake and the larger Yahara River system. The proximity of this site to Madison means that it is heavily used for research, education and recreation.

FLORA & FAUNA

The majority of the site is sedge meadow habitat with species diversity that is created by varying hydrology across the site. Species include bluejoint grass, tussock sedge, sawgrass sedge, cattails and common bur-reed.

A floating mat of cattails and sedges lines the lakeshore and marsh plants line the streams. Calcareous fen areas feature a diversity of plants including grass-of-parnassus, Riddell's goldenrod, northern bog aster, sage willow and the rare lesser fringed gentian. Other abundant wetland plants at the site include common lake sedge, tussock sedge, woollyfruit sedge, swamp loosestrife, American water horehound and numerous asters.

This Wetland Gem provides habitat for many species of waterfowl and other migrating birds including sandhill crane, green heron, marsh wren, sedge wren, blue-winged teal, green-winged teal, American coot, blue-gray gnatcatcher, common yellowthroat, great blue heron and willow flycatcher. Rare and unusual birds include least bittern, American bittern and black tern. This area also provides important spawning habitat for many Lake Waubesa fishes. The site could provide good spawning habitat for northern pike, but lake level drawdowns reduce the availability and accessibility of the flooded mats of grasses and sedges that pike need to lay their eggs.



Willow flycatcher — Scott Franke

THREATS

Runoff from watershed agriculture and residential development has degraded water quality and habitat at this site. Spring flow has also been diminished because of alterations to watershed hydrology. Invasive species, particularly reed canary grass, are of great concern. The lack of fire and resulting encroachment of woody vegetation is also of concern.

ACCESS

This site is best enjoyed by canoe. For details visit the Wisconsin State Natural Areas Program website: dnr.wi.gov/org/land/er/sna.

Sources:

Wisconsin State Natural Areas Program (WDNR)
 Wisconsin Land Legacy Report (WDNR)
 Wisconsin's Strategy for Wildlife Species of Greatest Conservation Need (WDNR)

Waubesa Wetlands Recognized as a Wetland Gem

Waubesa Wetlands was recognized as a *Wetland Gem* by the Wisconsin Wetlands Association (WWA). WWA released a list of 100 *Wetland Gems* in May 2009 in celebration of American Wetlands Month and kicked off a new outreach program to spread the message about the value of these and other state wetland treasures to a broad public audience.

What is a *Wetland Gem*? In the geological sense, a gem is a high quality representative of the vast and wonderful natural mineral riches found in the earth. In the figurative sense, a gem is any highly valued and treasured object. WWA uses the designation *Wetland Gems* for sites that serve as high quality representatives of the vast, diverse and wonderful wetland riches that are a part of Wisconsin's landscapes – marshes, swamps, bogs, fens and more. These sites, which historically made up nearly a quarter of Wisconsin's landscape, are critically important from a biodiversity perspective, and also provide valuable ecological services as well recreational and educational opportunities. They are landscapes that both preserve the past and inspire for the future.

WWA's list of 100 *Wetland Gems* includes 93 sites selected for their ecological value. These sites are distributed throughout the state and include examples of all of Wisconsin's wetland community types. WWA also selected an additional seven sites called *Workhorse Wetland Gems* illustrate the functional values including wildlife habitat, fishery habitat, flood/stormwater attenuation, water quality protection, shoreline protection, groundwater and recreation/education.

WWA created the *Wetland Gems* list because the misunderstanding and undervaluation of wetlands continues to be a key obstacle to wetland protection, conservation and restoration efforts. Historically, wetlands were not recognized and valued as natural treasures, but were instead usually considered wastelands and obstacles to progress. Since European settlement in the early 1800's, nearly half of Wisconsin's original 10 million acres of wetlands have been drained or filled to make way for land uses like agriculture, forestry, and urban and suburban development. A large portion of the 5 million remaining acres have been altered and degraded, which only heightens the value of the high quality wetland treasures that remain.

WWA's purpose in promoting *Wetland Gems* is to increase appreciation for these precious resources. Their vision – which the West Waubesa Preservation Coalition shares – is that the citizens of Wisconsin will someday value all wetlands as natural treasures and that the historic and ongoing loss of wetland acres will be reversed.

To promote the *Wetland Gems* program, WWA has created a portfolio of outreach materials that describe how the sites were selected and that provide ideas for citizen and community involvement, a visitor's guide, a list and map of the *Wetland Gems* sites, and a one-page fact sheet for each site. To conserve resources, WWA is focusing on electronic distribution of these materials and has made them all available for download on their website at www.wisconsinwetlands.org. Look for the *Wetland Gems* logo!

Statement of Calvin B. DeWitt
to the Fitchburg Planning Commission
March 16, 2010

Dear Members of the Commission,

I am addressing four points that are critical for you to address before giving any approvals to a Neighborhood Plan for the Northeast Neighborhood (NEN):

1. ***Building footprints.*** Plotting of existing building footprints across the Fitchburg, using the Dane County GIS system (DCi), show unequivocally that the NEN is so widely distant from the area of existing building footprint concentration that it clearly conflicts with accepted planning practice that ensures contiguous new development and avoids “*leapfrog*” development. The NEN is so widely separated both by absolute distance and by U.S. Highway 14 from *existing fire, police and other services*, making development of the NEN more costly than contiguous development.
2. ***Watersheds.*** The NEN is located in the Nine Springs Creek and Swan Creek watersheds, both of which are part of the Lake Waubesa watershed. Mapping of the NEN in its watershed shows the presence within it of wetland element whose surface elevation is upwards to 876 feet above sea level in springtime—and which is contiguous to and part of a larger wetland system that continues across Larsen Road to the east of Fitchburg. Its high water level persists in springtime because it is at the same elevation on both sides of Larsen Road and cannot drain, or be drained to the east until the entire larger wetland is lowered by flow toward Lake Waubesa.
3. ***Groundwater.*** Groundwater flows from Fitchburg east toward Lake Waubesa producing rich outflows as springs and fens within and along Nine Springs Creek, Swan Creek, Murphy Creek and associated wetlands. Thus the names we know so well: Nine Springs Creek, Nine Springs E-Way, Capital Springs Centennial State Park and Capital Springs Recreation Area. Included are Deep Spring and the Great Fen, both of regional and state significance in State Natural Area 114. Pumpage by high capacity wells, at 700,000 to 1,000,000 gallons per day would compete for this groundwater supply.
4. ***Eau Claire Formation components.*** In western Fitchburg a deep water aquifer is separated from a shallow aquifer by the Eau Claire Formation—a geologic deposit that gets thinner and thinner in an easterly direction until it disappears completely at the four lakes. This formation is made up of five different lithofacies, labelled A through E. Lithofacies A and B are formed from fine silts, and prevent vertical water movement. Lithofacies C, D, and E are formed from sand and are permeable to water, allowing vertical passage. Examination by geologist Wasinee Aswasereelert shows that lithofacies A and B diminish and disappear from west to east well before lithofacies C, D, and E. This deep wells in Fitchburg pump from a secure deepwater source in western Fitchburg but not eastern Fitchburg. Deepwater wells are seriously problematic in eastern Fitchburg, including the NEN because deep water is not separated surface waters.

My judgement is that points 1 through 4 above make it unwise to proceed with development of the Northeast Neighborhood in accord with the City of Fitchburg’s “Respecting the Past.... Safeguarding the Present... and Assuring a Vital Future....”

Calvin B. DeWitt

4. Eau Claire Formation components. In the western part of Fitchburg a shallow aquifer and a deep aquifer carry groundwater separated from each other by the Eau Claire Formation—a geologic formation that thins in an easterly direction until in the vicinity of the chain of four lakes it disappears altogether. This formation is made up of five different lithofacies, labelled A through E. Each has a different natural history of formation. Lithofacies A and B are formed from fine silts, and when turned to rock prevent water from penetrating vertically. Lithofacies C, D, and E were formed from sands that increase in coarseness from C to E, and are permeable to water, allowing vertical passage. Examination by geologist Wasinee Aswasereelert of rock cores from western Fitchburg and easterly toward Lake Waubesa, shows that lithofacies A and B diminish and disappear even as lithofacies C, D, and E continue to be present. This means that pumpage from municipal wells comes from a deep aquifer on the west side of Fitchburg, but not toward the east including the region in which the NEN is located. Deepwater wells are seriously problematic in the NEN and the wider region in which it is located, where deep water is not separated surface waters.

Further information is available from my three PowerPoint presentations, posted by the Fitchburg Planning Department on their website, and I am available as you wish to provide further information.

My judgement is that points 1 through 4 above make it unwise to proceed with development of the Northeast Neighborhood in accord with the City of Fitchburg's "Respecting the Past.... Safeguarding the Present... and Assuring a Vital Future...."

Sincerely yours,



Calvin B. DeWitt

Professor

Nelson Institute for Environmental Studies

and

Member of the Graduate Faculties of

Environment & Resources (Land Resources)

Water Resources Management

Conservation Biology & Sustainable Development

Limnology and Marine Science

and

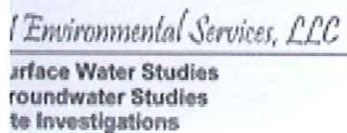
Member of the following professional societies:

Society of Wetland Scientists

American Association of Ichthyologists and Herpetologists

The Geological Society of America (Limnogeology Section)

Ecological Society of America



DRAWN BY

DATE _____

1

FILE

CITIZEN REGISTRATION FORM

Meeting of Plan Commission Date March 16, 2010 Agenda Item # Northeast
(Council, Plan Commission, etc) Neighborhood Plan

NAME: Paula Brown
(Please print)

ADDRESS: 5492 Lacy Road

REPRESENTING: Self
(Organization, Business, Self, etc.)

I WISH TO: _____ SPEAK: _____
In support of the above matter
In opposition to the above matter
Answer questions if needed

OR

I WISH TO: X REGISTER ONLY _____
In support of the above matter
X In opposition to the above matter

ADDITIONAL
COMMENTS: Oppose the current plan

SIGNATURE: Paula Brown

CITIZEN REGISTRATION FORM

Northeast Neighborhood
PlanMeeting of Plan Commission Date 3/16/10 Agenda Item # ?

(Council, Plan Commission, etc)

NAME: Michael Holmes

(Please print)

ADDRESS: 5491 B Lacy Rd., Fitchburg, WIREPRESENTING: Self

(Organization, Business, Self, etc.)

I WISH TO: _____ SPEAK:

☐ In support of the above matter☒ In opposition to the above matter☐ Answer questions if needed

OR

I WISH TO: ☒ REGISTER ONLY☐ In support of the above matter☒ In opposition to the above matter

ADDITIONAL

COMMENTS: Oppose Plan in its current form.SIGNATURE: 

From: "Rich Eggleston" <rich@wiscities.org>
To: <thomas.hovel@city.fitchburg.wi.us>, <jay.allen@city.fitchburg.wi.us>, <...
Date: 3/16/2010 11:19 AM
Subject: testimony to Plan Commission on proposed Northeast Neighborhood

Mr. Mayor and members of the Plan Commission:

My name is Rich Eggleston and I reside at 2358 Fitchburg Rd. Among my extracurricular activities, I am a member of the Board of Directors of the Wisconsin Wetlands Association, and my remarks will focus chiefly on the environmental impact of the proposed Northeast Neighborhood as currently envisioned. They are inspired by discussions of the association's board, but the association doesn't even know about the proposed Northeast Neighborhood, much less have a position.

First and foremost for the future of Fitchburg and Dane County's economy and our quality of life, every development decision the city makes should be based on the sound scientific information. This includes assessments of the environmental impacts of development. When I was involved in Fitchburg's comprehensive planning process, I advocated a minimum 300-foot buffer around wetlands as a compromise.

But the best available science today indicates that as far as the Northeast Neighborhood is concerned, that may not be enough.

I'll leave with you a copy of the Wisconsin Wetlands Association's Local Decision Makers' Guide to Wetland Conservation, but let me highlight one of the major points in the pamphlet: Local governments can establish "avoid and minimize" standards for development that go beyond state or federal requirements.

I'm unaware that we have such standards in place. Dr. Joy Zedler, professor of Botany and Aldo Leopold Chair in Restoration Ecology at the UW Arboretum in Madison, told city officials almost two years ago that research indicates amphibians need a total buffer around a development's wetlands of at least 728 feet to ensure their long-term survival. Why then did I have to grope for a 300-foot compromise?

Does a buffer larger than 300 feet constitute a "taking" of property without just compensation, contrary to the U.S. Constitution? No, the Wisconsin Supreme Court ruled in *Just v. Marinette*, because (emphasis added), "the owner of land has no absolute right to change the essential natural character of the land so as to use it for a purpose for which it was unsuited in its natural state and which injures the rights of others."

My testimony doesn't even touch on the legitimate concerns of Fitchburg taxpayers about the additional infrastructure costs the proposed Northeast Neighborhood would impose on our community, about the financial impact on water utility customers or about the traffic impacts for residents of Fitchburg and neighboring communities. Fitchburg needs sound scientific information on these economic impacts as well as on the environmental impacts.

For all the above reasons, I recommend that the plan be sent back to the drafting board.

Thank you.

March 16, 2010

Mr. Tom Hovel
City Planner
City of Fitchburg
5520 Lacy Road
Fitchburg, WI 53711-5318

Re: Groundwater recharge rates in the Northeast Neighborhood

Dear Tom,

We have briefly reviewed the letter report prepared by RJN Environmental Services (RJN) for Peter McKeever dated March 11, 2010 that was recently sent to the City of Fitchburg by the Town of Dunn.

The premise of the RJN analysis is that the proposed development in the Northeast Neighborhood (NEN) will increase recharge rates compared to current conditions, potentially raising groundwater elevations and exacerbating existing drainage problems to the east of the NEN, particularly in the Meadowview subdivision area. For their analysis, RJN modified the Dane County Regional Groundwater Model. Results of the modeling analysis indicated a modest rise (0.3 to 0.6 ft) in the water table near the Meadowview subdivision, and increased groundwater discharge to the Nine Springs Creek and Swan Creek. These results are presented as concerns.

Our comments are as follows:

1. The Northeast Neighborhood Plan specifies the following performance standard for groundwater recharge: "Maintain an average recharge rate of at least 7.6 inches per year" (Figure 4-6 of the NEN plan). This is consistent with City of Fitchburg and Dane County ordinance requirements. The issue of maintaining the groundwater recharge rates that sustain flow to springs at the southern end of Lake Waubesa was a major topic of conversation during development of the NEN plan. Reducing this requirement to maintain existing recharge rates would be inconsistent with the water resource management goals for the NEN.
2. RJN's assertion that requiring a minimum of 7.6 inches per year of recharge would result in an increase in recharge rates is inconsistent with 2 recent estimates of recharge rates in the area. The Dane County Regional Groundwater Model utilized in the RJN analysis, which was published in year 2000, uses recharge rates of 5.8 to 6.5 in/yr for the areas that are proposed for development in the NEN (not the 2.2 to 6.5 in/yr referred to in the RJN report). More recently, Dr. Susan Swanson developed a detailed model for the Fitchburg area for her work in evaluating the sources of spring flow along Nine Springs Creek. This model was based on the Dane County model, but used a more refined model grid, a more detailed geologic representation, and was calibrated using detailed local data and observations, and resulted in recharge rate estimates averaging 8.1 inches per year. Even more recently, the Wisconsin Geological and Natural History Survey developed a GIS-based hydrologic model (WGNHS Open-File Report 2009-01) to estimate recharge rates in the

County. This model estimates recharge in the NEN area to be between 9 and 10 inches per year. Therefore, the Northeast Neighborhood Plan stormwater performance standard of a minimum of 7.6 inches per year of recharge is not expected to implicitly require an increase in recharge rates over existing conditions, or an increase in groundwater levels.

3. Because the NEN Plan's 7.6 in/yr recharge performance standard is not expected to increase recharge rates over existing conditions, the conclusions on flooding potential presented in the RJN report are essentially moot. However, as background, the poor drainage in the Town of Dunn Meadowview subdivision was discussed in several NEN Land-Use Committee meetings. The Town's engineering analyses (see Appendix A of the Plan) concluded that drainage from Fitchburg was not the cause of the flooding problems, and that several options could somewhat improve the drainage in the very flat portions of the subdivision. The NEN Committee concluded that it was not appropriate to specify requirements in the NEN Plan related to the Meadowview subdivision drainage issue.
4. The comments in the RJN report regarding increased stream base flow are also based on an assumed substantial increase in recharge rates, which is not one of the hydrologic objectives of the NEN plan and does not appear to be likely. The comments regarding surface water quality are addressed in the storm water management performance standards contained in Figure 4-6 of the NEN plan.

In summary, the RJN report presents concerns based on the premise of substantially increased recharge rates in the NEN after development, which is not consistent with the latest scientific studies in the area, or with the performance standards for the project, and City and County ordinances.

I will be at the plan commission meeting tonight and available to answer questions. Please contact me at 608-223-9585 if you would like to discuss these issues.

Sincerely,

Montgomery Associates: Resource Solutions, LLC



Robert J. Montgomery, PE
Principal

cc. Paul Woodard, City of Fitchburg

From: Anne Hecht <annehecht@sbcglobal.net>
To: <jay.allen@city.fitchburg.wi.us>
Date: 3/16/2010 6:36 AM
Subject: West Waubesa Neighborhood

CC: <thomas.hovel@city.fitchburg.wi.us>

It is vitally important that this Neighborhood area be left as a rural part of the Fitchburg environs. I am a Fitchburg resident and I am vitally concerned that we develop, where it is appropriate, we farm where it is appropriate and that we keep a strong rural, with mixed use, where it is appropriate. We have a wonderful opportunity to be a community that expands with wise and sensitive use of the land and water facilities we possess.

Thanks
Anne Hecht
2524 Targhee St.
Fitchburg

From: "Gary Leverington" <drumbo@mailbag.com>
To: <carpenterterryl@gmail.com>, "Elsa" <eelev@charter.net>, <ekinney@Settle...
Date: 3/15/2010 6:21 PM
Subject: NE Neighborhood point of view:

Fitchburg Fields - We'll Get By with A Little Help from Our Friends
Hi Mr. Council member (name withheld),

It was good to chat with you yesterday. That said, it's disturbing to learn you still favor more houses being built in Fitchburg.

Your comment that there's plenty of land available for organic farming, I would counter that organic farming is not so easy to achieve. One needs the right land to do so.

If only 1/10th of the energy, and funding that went into the planning for the NE Neighborhood, went into a robust effort to establish Fitchburg Fields, we would already be well on our way to creating a viable, robust enterprise for the benefit of all residents and businesses in the community of Fitchburg.

Remaining stuck in time, and unsupportive of an incredible opportunity, is no longer an acceptable excuse. Supporting something that makes no sense amid today's economic and environmental challenges does not serve our community.

Even with the Housing TAX credit... home prices are still falling, and MANY commercial spaces sit empty. With a jobless recovery likely to remain for much of this decade, I do not anticipate a turn around in the housing or commercial sectors anytime soon.

Thanks for considering this point of view. I hope you will ponder it with great wisdom.

Gary Leverington / Fitchburg WI

Subject: Fitchburg Fields - We'll Get By with A Little Help from Our Friends

A sampling of our fundraising products

© 2009 Edie Devine

Dear Gary,

The theme of this newsletter is "We'll get by with a little help from our friends."

This e-newsletter will inform you about:

- Become a Friend of Fitchburg Fields
- The \$3 solution
- Sign up today for Spring workshops
- A CSA to learn self-reliance skills
- Book a film and speaker for your group
- More ways to be a part of Fitchburg Fields

Do you pledge to your local public radio or t.v. station?

If so why? Because you value what they offer you and the whole community. We hope that you value what Fitchburg Fields offers: hands-on workshops, community education, fresh, organic produce that we donate to food pantries and a vision we share of a local, organic food system.

We don't have a radio station to broadcast an appeal for help, but we do have our email list.

Your donation is greatly appreciated!

Thank you!

Or, you can send a tax-deductible gift to Fitchburg Fields, P.O. Box 259876, Madison, WI 53725-9876. The skills we are teaching and the food we are raising are making a difference in many peoples lives...please help us to continue!

Can You Become a Friend of Fitchburg Fields Today?

For a donation of \$45 or \$100, you can provide us with the support we need right now to continue our work, and receive 1 or 2 of the items shown above. If you become a sustaining friend at a minimum of \$10 per month, you'll also get a break on workshop prices. [Click here](#) for the details on how you can keep Fitchburg Fields running and receive beautiful gifts. And [click here](#) to learn how you can purchase these products for very reasonable prices.

Roxanne smiling big
© 2009 Joann Ringelstetter
The \$3 Solution

So you don't have \$45, let alone \$100 in your recessionary budget. We know that times are tough and people don't have the money they once did. But that's why we need Fitchburg Fields more than ever – our programs are teaching people to grow and preserve their own food in this time of need!

We even have a scholarship fund to help people afford our workshops.

Can you afford to give \$3?
Please [click here](#) and say yes!

With over 1000 people on our email list, we can immediately raise \$3000, which is what we need to get through April, if everyone just gives \$3.

Of course we'd love to get \$30, \$300, or \$3000 from those who have more than enough to feed and shelter their families, but getting \$3 from hundreds of people will really touch our hearts as well as fill our bank account.

Volunteers tending to a young garden
© 2009 Joann Ringelstetter
Sign up today for Spring workshops!

([Click here](#) for more details, locations, prices, and scholarship info. If you pay for 3-5 workshops at once, take 5% off, and if you buy 6, take 10% off!)

Sat., March 20 - "Seed Starting": Step-by-step instructions from germination to transplanting. All supplies included. Organic lunch optional.

Sat., March 27- "Mini Hoophouse Construction": build and take home your own 3- or 4-season mini-hoophouse to extend your growing season. Supplies & tools provided.

Sat., April 24 - "Transplanting Seedlings": make sure that your baby plants get what they need to grow up healthy. Organic lunch optional.

Sat., May 1 - "Spring Garden Preparation": NO FEE. Help get Fitchburg Fields's garden ready for the 2010 growing season while learning how to prepare your own garden.

Sat., May 15 - "Scythes & Other Garden Tools": Learn the valuable skills of using traditional hand-operated gardening tools.

Sat., June 5 - "Garden Planting": NO FEE. Help plant Fitchburg Fields' garden using a variety of planting designs that you can use in your own garden!

Sat., June 12 - "Bentwood Trellis Construction": Build and take home an elegant structure up to 8 ft. tall for your garden goodies to grow on. All supplies provided.

Sat., June 26 - "Vermiculture": make and take home a worm bin for indoor composting, complete with bedding and worms!

Learning self-reliance at a young age

© 2009 Katrin Talbot

CSA to learn self-reliance skills

A farmer has the bulk of his or her expenses in the spring, and that's why the CSA (Community Supported Agriculture) model has helped so many farmers to create sustainable businesses. Non-profits teaching food security skills, such as Fitchburg Fields, have the same needs.

Just as you help the farmer when you join a CSA and pay upfront for your share of vegetables, you can help Fitchburg Fields by buying a block of workshops in advance. We'll give you 5% off when you register and pay for 3-5 workshops at once, and 10% off when you register and pay for 6!

By purchasing your workshops in bulk, you will be helping us offset the following expenses:

- a.. raising seedlings
- b.. bringing in compost and amendments to our expanding garden
- c.. purchasing seeds, sets and garden equipment
- d.. workshop supply costs for classes like Mini-hoophouse construction
- e.. staff time to plan all the workshops, create the publicity for them, and organize the scores of volunteers it takes to create a garden from scratch each spring

There are many wonderful summer and fall workshops in the planning stages that will teach you to freeze, can, dry, and preserve foods, prepare healthy, affordable meals and to cook one day a week and eat home-cooked, healthy meals for 7 days

We can't do this without you!

Our volunteers are working very hard, but we need to retain our staff person to meet the challenges of 2010. Please join our "CSA" by purchasing your workshops in bulk! (It's OK to pay now and choose your workshops later, but you'll need to register for them before they fill up.) [Click here to sign up!](#)

Book a film and speaker for your group

One of the movies available from our collection.

Do you belong to a club, place of worship, book group or class that would like to learn more about "how" and "why" of local, organic agriculture?

We have a collection of great films that we can rent to you, with a speaker to introduce them, lead the discussion, and give an overview of what Fitchburg Fields does.

Click here for a list of films, with descriptions and prices. We can tailor talks to any age or interest.

Bee hard at work in the garden © 2009 Jon Tanke

Thank you for all of your help!

If you're looking to volunteer in our garden, or to schedule a group of volunteers for a workday, please contact us soon. If you can do specialized, non-garden tasks click here to see what our current needs are, please contact Catherine Murray at ffvolunteers@gmail.com or (608) 335-7295.

Also, if you can donate anything on our wish list please contact her as well.

We hear so often from people who love to read our newsletters. We hope that we'll hear from each one of you who feels that way, to help us meet our goal of raising at least \$3000 within the next week!

Here's to community support for community education!

Yours for the the whole Fitchburg Fields team,
Phyllis Hasbrouck,

www.fitchburgfields.org and www.madison.com/communities/ff

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From: "Neon Ringwood" <neonringwood@att.net>
To: <jay.allen@city.fitchburg.wi.us>, <Thomas.Hovel@city.fitchburg.wi.us>
Date: 3/15/2010 7:49 PM
Subject: Northeast Neighborhood Plan

Please delay action on the Northeast Neighborhood Plan until 2014 for several reasons.

My primary concerns are:

1. The possible damage to the Waubesa Wetlands, a treasured natural resource that we are very fortunate to have.
2. The more than 200 acres of farmland that would be destroyed.

Waiting until 2014 would give the city a chance to build elsewhere. Given the size of Fitchburg, there must be locations that would not be detrimental to the environment.

I could go on and on, but you are busy as am I.

Thank you for consideration of my request.

Neon K Ringwood
5672 Byrneland St
Fitchburg WI 53711-5478

From: Thomas Hovel
To: Peter McKeever
Subject: Fwd: Re: Brief Review of March 11, 2010 Evaluation letter by RJN Environmental Services, LLC

Peter:

Following are a few comments from the City's Environmental Engineer regarding the RJN review of the draft NEN plan.

TH

>>> Paul Woodard 3/15/2010 1:41 PM >>>
FYI

>>> Rick Eilertson 3/15/2010 1:35 PM >>>
Yes,

1. Mr. Nauta mentions flooding several times throughout the letter, but does not distinguish between surface flooding and groundwater flooding. Also, there is no description as to the extent of the surface or groundwater flooding experienced.
2. Page 2 - Mr. Nauta mentions "calibrated recharge rates ranging from 2.2 to 6.5 inches per year, resulting in an increase in recharge of 1.1 to 5.4 inches per year." The UW-EX/WGNHS Open File Report 2009-01 "Groundwater Recharge in Dane County, Wisconsin, Estimated by a GIS-Based Water-Balance Model", dated Jan. 20, 2009 indicates estimated current recharge at 9-10 inches per year which would significantly alter Mr. Nauta's model showing a net decrease in groundwater elevation instead of a 0' to 1.0' increase.
3. Page 2 - Mr. Nauta describes that he reduced the cell size for greater resolution and that "Swan Creek was added to the model, using the same hydraulic parameters as were used for other streams in the area." In my opinion, reducing the cell size without adding actual measured data from the watershed and adding fictitious hydraulic parameters from other streams in the area would not result in a better, more calibrated model than the current Dane County Groundwater Model. The letter does not mention the Nine Springs Inset Model, conducted by Susan Swanson, which actually did add refinements to the Dane County Groundwater Model based on additional data collected throughout the Nine Springs Creek watershed.
4. Page 3 - Mr. Nauta's last two statements under "Impacts to Water Quality" are only true under "no stormwater control" scenarios and do not reflect the response under the proposed stormwater performance standards.

Rick Eilertson, P.E.
Environmental Engineer
City of Fitchburg
5520 Lacy Rd, Fitchburg, WI 53711
rick.eilertson@city.fitchburg.wi.us
270-4264 direct, 235-0412 cell

>>> Paul Woodard 3/11/2010 4:31 pm >>>
Any comments on this study?

>>> Thomas Hovel 3/11/2010 3:25 PM >>>
Please review, and let me know your thoughts. Perhaps you should be at PC meeting next week.

TH

>>> Susan Sloper 3/11/2010 3:04 PM >>>

*Rick Eilertson
Comments*

Plan Commission Members:

The Town of Dunn requested that I forward on the e-mail below along with the attachment regarding the Northeast Neighborhood Plan. This was submitted after the Plan Commission meeting packet was prepared therefore it will not be included as part of the packet.

Please do not respond to this e-mail.

Thanks,
Susan Sloper

Susan Sloper, Community Planner
City of Fitchburg, Wisconsin
5520 Lacy Road, Fitchburg, WI 53711
phone: 608.270.4256
fax: 608.270.4275
susan.sloper@city.fitchburg.wi.us
www.city.fitchburg.wi.us (<http://www.city.fitchburg.wi.us/>)
fitchburgzoning.com

>>> "Erica Schmitz" <ESchmitz@town.dunn.wi.us> 3/11/2010 2:53 PM >>>
Good afternoon Susan,

I am submitting the study Peter McKeever called to discuss distributing to the Plan Commission earlier this afternoon. Thank you for sending it on to the Plan Commission. Would you please include the following cover-message?

Dear Plan Commissioners,

Peter McKeever contracted with RJN Environmental Services, LLC, to review the Fitchburg Northeast Neighborhood Plan in the context of the concerns the Town has had since the beginning of the planning process: the stormwater polices and the implications they might have for properties in Dunn. Please review Mr. Nauta's findings and take them into consideration as your review the Northeast Neighborhood Plan.

Sincerely,

Erica Schmitz

Land Use Manager | Deputy Clerk Treasurer

Town of Dunn

4156 County Road B

McFarland, WI 53558

Phone: 608.838.1081 x205

Fax: 608.838.1085

<http://town.dunn.wi.us> (<http://town.dunn.wi.us/>)

CC: Paul Woodard; Rick Eilertson

From: Nancy Hylbert <nhybert@yogaforhealth.net>
To: <Thomas.Hovel@city.fitchburg.wi.us>
Date: 3/15/2010 10:30 AM
Subject: Reasons for not approving the NEN

Dear Mr. Hovel,

Although I cannot attend the meeting on Tues., 3/16, I am registering in opposition to the NEN plan.

Please vote to delay consideration of this very controversial proposal until 2014.

In your position, you have an obligation to protect the best interests of City of Fitchburg taxpayers. We who are taxpayers, homeowners and businesses owners in Fitchburg will not benefit from the increased competition of homes for sale in a brand-new neighborhood. We have a huge number of existing homes for sale in Fitchburg. Nor are we in a position to take on the increased expenses of maintaining city services on this out-lying piece of land.

Add to these concerns the proven environmental impacts on Lake Waubesa, the Lake Waubesa watershed, and the Lake Waubesa wetlands.

Ask yourself- Who will benefit from the NEN? We, your constituents will not benefit. The City of Fitchburg will not benefit. The environment will not benefit.

The only benefits will be to the land owner, Phil Sveum. And as to Phil Sveum's promises, we know from the Swan Creek Development that he really has nothing to do with the neighborhood once it is built.

One great example of Phil Sveum's lack of neighborhood stewardship is the unsightly block at the center of our own Swan Creek Neighborhood, along Cheryl Drive. This long block between Sunflower and Crinkleroot has become a dump spot for large boulders; there is also a large discarded cement culvert laying on this parcel. I personally know of at least one young child who was injured while playing on this pile of landscape boulders. He fell into a sharp rock and gouged his side. Each year, more rocks are dumped on this site, and the pile gets taller and wider. Our property values are certainly affected by this boulder dumpsite.

The City of Fitchburg itself has also contributed to the environmental degradation of Swan Creek. The proposed 30 ft wide 'green spaces' on both sides of major portions of the bike/pedewstrian path, which were supposed to provide for habitat for nesting song birds have, with our own Scott Endl's blessing, been turned into an obligation to the taxpayers of the city of Fitchburg. At the time, I offered to assist Scott in educating the neighboring landowners on the benefits of these green spaces. I offed to distribute city-approved literature on the benefits of these green spaces to birds and other wildlife, and to talk to neighbors/landowners on an as-needed, volunteer basis.

Gas and labor are both wasted during the entire growing season to keep this area mowed short, simply because Scott Endl caved in to the

complaints of a few adjacent land owners. There may even be a swing set or two on this city-owned and maintained property by now...

This unfortunate situation IS relevant to the NEN, because it shows what can happen to 'green spaces' that were planned with the best of intentions.

If you must vote on the NEN now, I urge you to deny approval.

At the very least, please vote to delay consideration of this very controversial proposal until 2014.

Thank you,
Sincerely,
Nancy Hylbert
2809 Hollyhock St.
Fitchburg, WI 53711

From: Christine Hess-Molloy <cphm@att.net>
To: <jay.allen@city.fitchburg.wi.us>, <Thomas.Hovel@city.fitchburg.wi.us>
Date: 3/14/2010 11:55 PM
Subject: Please, no Northeast Development

Dear Mr. Allen and Mr. Hovel,

I guess it would be easier to understand this Northeast Development if Fitchburg were out of space in the areas west of Highway 14. But, there are still places to fill in close to the area you are calling your downtown, a downtown that already has fire, water and police services. A downtown with existing businesses that are hoping enough customers will frequent their establishments. Filling in the spaces would seem much more efficient, and you would not incur the expense of replicating city services in an area that is disconnected from the rest of Fitchburg by a four-lane highway with one crossroad, Lacy Road. I know some folks seem pretty sure that a new exchange will be built, extending Cheryl Parkway across Highway 14, but is the need for housing outside your downtown area so great that we can't wait to see if the exchange actually happens?

I know, the developers are here right now, pressing their cause. They've already spent their money, they have speculated that they can make this happen, and they know how to exert pressure and argue their cause. Citizens don't have the same monetary resources to press their concerns. They rely on their governments to look out for them. And so it happens, that you must try to create a balance between what the city needs, what your citizens want, and what the developers are offering. The sagacity of your decision will be your legacy.

So, why is it so important that we leave that space open? Because space is important to the quality of living, too...for recreation, for farming, for wildlife, for a sense of retreat. The Northeast Neighborhood butts the Town of Dunn, the open space it provides for Fitchburg is amplified by the space left open in the Town of Dunn. It's like getting two for one, your open space with our open space. Think of the praise New York City planners received for Grand Central Park. It's hard to imagine now, but NYC once had farmland and open spaces, and still someone saw the need to keep that big, and much loved, park open.

I can't come to this week's meeting, but I have been concerned with this issue from the beginning. I am not from Fitchburg, but your decision will have such a great impact on the Town of Dunn. It is only through you that we can channel our concerns.

Thank you for listening,

Christine Hess-Molloy
2758 Lalor Rd.
Oregon, WI 53575/Town of Dunn
608/221-9469
cphm@att.net



THE NELSON INSTITUTE
FOR ENVIRONMENTAL STUDIES
University of Wisconsin-Madison

March 12, 2010

Dear Members of the Fitchburg Plan Commission,

I am writing with regard to the upcoming public hearing this Tuesday, March 16 on a Neighborhood Plan for the Northeast Neighborhood (NEN) and the actions you might take on this Plan. You have kindly provided the opportunity over the past 4 years for me to make three substantial Power Point presentations based upon my research, have been highly responsive, and have made these three productions available on the Fitchburg Planning Department website so appropriately introduced as "Respecting the Past.... Safeguarding the Present... and Assuring a Vital Future...."

Your response as Commissioners and the response of the Planning Department has been deliberate, respectful, and thoughtful. And it is this that provides confidence that you will appreciate and respond appropriately to a partial summary of what already you have allowed me to present as well as additional information that has come from my continuing study and research. I present this as follows:

1. **Building footprints.** Plotting of building footprints in Fitchburg, using the Dane County GIS system (DCi), show unequivocally that (a) the NEN is so widely distant from the area of existing building footprint concentration that it clearly conflicts with accepted planning practice that ensures *contiguity* of new development and avoids "*leapfrog*" development, and (b) the NEN is so widely separated both by absolute distance and by U.S. Highway 14 from *existing fire and police services*, that it makes development far more costly to the City of Fitchburg than contiguous development.

2. **Watershed components.** The primary surface hydrologic feature of the NEN is its location within the Nine Springs Creek Watershed and the Swan Creek Watershed, both of which are part of the Lake Waubesa watershed. Mapping of the NEN in its watershed shows that (a) the NEN includes a wetland element whose elevation is upwards to 876 feet above sea level in springtime—an element contiguous with and part of a larger wetland system that continues across Larsen Road east of Fitchburg, and that (b) its high water level persists in springtime because it is at the same elevation on both sides of Larsen Road and therefore cannot drain off from the NEN to the east side of the road in springtime.

3. **Groundwater components.** Groundwater flows from Fitchburg east toward Lake Waubesa providing rich outflows as springs and fens within and along Nine Springs Creek, Swan Creek, Murphy Creek and associated wetlands. Abundance of springs in the vicinity of the NEN is signaled by names such as Nine Springs Creek, Nine Springs E-Way, Capital Springs Centennial State Park and Capital Springs Recreation Area. Groundwater outflows include Deep Spring and the Great Fen, both of regional and state significance, on the west side of Waubesa Wetlands in State Natural Area 114. Pumpage by high capacity wells, at 700,000 to 1,000,000 gallons per day compete for this groundwater supply.

4. Eau Claire Formation components. In the western part of Fitchburg a shallow aquifer and a deep aquifer carry groundwater separated from each other by the Eau Claire Formation—a geologic formation that thins in an easterly direction until in the vicinity of the chain of four lakes it disappears altogether. This formation is made up of five different lithofacies, labelled A through E. Each has a different natural history of formation. Lithofacies A and B are formed from fine silts, and when turned to rock prevent water from penetrating vertically. Lithofacies C, D, and E were formed from sands that increase in coarseness from C to E, and are permeable to water, allowing vertical passage. Examination by geologist Wasinee Aswasereelert of rock cores from western Fitchburg and easterly toward Lake Waubesa, shows that lithofacies A and B diminish and disappear even as lithofacies C, D, and E continue to be present. This means that pumpage from municipal wells comes from a deep aquifer on the west side of Fitchburg, but not toward the east including the region in which the NEN is located. Deepwater wells are seriously problematic in the NEN and the wider region in which it is located, where deep water is not separated surface waters.

Further information is available from my three PowerPoint presentations, posted by the Fitchburg Planning Department on their website, and I am available as you wish to provide further information.

My judgement is that points 1 through 4 above make it unwise to proceed with development of the Northeast Neighborhood in accord with the City of Fitchburg's "Respecting the Past.... Safeguarding the Present... and Assuring a Vital Future...."

Sincerely yours,

Calvin B. DeWitt
Professor
Nelson Institute for Environmental Studies
and
Member of the Graduate Faculties of
 Environment & Resources (Land Resources)
 Water Resources Management
 Conservation Biology & Sustainable Development
 Limnology and Marine Science

and
Member of the following professional societies:
 Society of Wetland Scientists
 American Association of Ichthyologists and Herpetologists
 The Geological Society of America (Limnogeology Section)
 Ecological Society of America



March 11, 2010

Peter E. McKeever, Esq.
Garvey, McNeil & Associates, S.C.
One Odana Road
Madison, Wisconsin 53719

RE: Evaluation of Hydrology Changes
Caused by the Northeast Neighborhood Development
Fitchburg, Wisconsin

Dear Mr. McKeever:

Pursuant to your request, RJN Environmental Services, LLC ("RJN") has reviewed the City of Fitchburg's Northeast Neighborhood ("NEN") Plan (the "Plan" - draft dated December 15, 2009), with respect to the potential impacts on the hydrology of the Town of Dunn, particularly between the NEN and the western shore of Lake Waubesa. As Figure 1 shows, the NEN is bounded on the north by Nine Springs Creek, on the south by Swan Creek, on the west by US Highway 14, and on the east by Larsen Road.

Figure 2 illustrates the topography of the NEN. Its most prominent topographic feature is a high area near its center, which is some 150 feet higher than Nine Springs Creek. As such, the NEN is a prominent recharge area, resulting in a mound of groundwater, which flows radially to the surrounding area. Surface flow (i.e., storm water) also flows from this elevated area, in the directions shown on the figure.

ISSUES

Low-lying areas in the Town of Dunn, immediately east of the NEN, have a history of flooding, due to heavy rains or prolonged rainfall events. Swan Creek, which is at the southern boundary of the NEN, flows through the Town of Dunn. Additionally, the Meadowview neighborhood, where the flooding events have been most chronic, is immediately east (downgradient) from the NEN.

Although impervious surfaces (e.g., roofs and roads) may accelerate the rate of runoff in areas of the NEN, another concern is the requirement by the City of Fitchburg for groundwater recharge in developed areas. According to the Plan, "Development sites shall maintain a recharge rate of 7.6 inches per year under post-development conditions." This is based on an average calculated recharge rate for the county; however, the recharge rates in Dane County vary greatly from location to location. A calibrated groundwater flow model of Dane County

was constructed several years ago by the Wisconsin Geological and Natural History Survey ("WGNHS") and the United States Geological Survey ("USGS"). Recharge is among the parameters that are calibrated in the construction of a groundwater flow model. In the Dane County model, the NEN area had calibrated recharge rates ranging from 2.2 to 6.5 inches per year, resulting in an increase in recharge of 1.1 to 5.4 inches per year. An increase of this magnitude is very large, and could result in more regular and severe flooding in portions of the Town of Dunn.

ANALYSIS APPROACH

RJN utilized the Dane County model to evaluate the effects of increased recharge in the NEN area. The Dane County model is a finite difference model, meaning that the model area is divided (discretized) into cells and layers. Each cell in each layer has its own set of hydrogeological parameters. Equations are then computed for each cell, resulting in the calculation of groundwater elevations and flow. Modifications were made to the Dane County model to make it more useful for the purposes herein. First, to enhance resolution, the cell dimensions in the NEN and Town of Dunn areas were reduced. Figure 3 shows the original cell size, as well as the modified size in the study area. Conductance values in streams and lakes were cell sizes were reduced were adjusted accordingly.

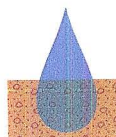
The original Dane County model did not simulate Swan Creek, because of its small size relative to the other features in the model. For this analysis, Swan Creek was added to the model, using the same hydraulic parameters as were used for other streams in the area.

Modeling Procedure

Any change made to a calibrated model may result in a change in model results. Consequently, after reducing the cell size in the study area, the model results were tested against the undisturbed model. Figure 4 shows the results of a simulation of the original Dane County model. Figure 5 shows the results after the reduction of cell size. A comparison shows no change in the simulated water table, indicating that the model was functioning properly after the modifications.

Figure 6 shows the model results after the addition of Swan Creek. The groundwater contours "V" upstream. This is an expected and appropriate response.

After completion of the modifications, the model was again modified, to adjust the recharge rate to 7.6 inches per year in the areas to be developed. Figure 7 shows the areas in which recharge was increased. This is based on Figure 5-1 of the Plan. This figure indicates areas that will be developed, areas that will be maintained as green space and open space, and areas that will not be changed. The recharge was changed to 7.6 inches per year only in the areas that this figure shows to be developed.



Results

As expected, the added recharge caused an increase in groundwater elevation in the NEN and surrounding area. Figure 8 shows the simulated increase in the water table elevation. The model simulates an increase in water table elevation of 1 foot in the center of the NEN, with an increase of as much as 0.6 foot at the west end of Meadowview Road.

The increased recharge also results in greater flow in Nine Springs Creek and Swan Creek. Table 1 summarizes the per-cell and total simulated flows under current conditions and with the increased recharge for Nine Springs Creek, and Table 2 presents the results for Swan Creek. The model predicts an increased flow in Nine Springs Creek of 10,310 gallons per day, and an increase in Swan Creek of 15,638 gallons per day.

Note that the results presented above are average. However, the increase in groundwater levels will accelerate the discharge of groundwater, because it increases the flow gradient. It is also expected that the increase in groundwater levels can be expected to result in more frequent flooding, because it will not take as much of a precipitation event to raise the water levels above ground surface as it does now. Additionally, the increased stream flow will result in less of a precipitation or snow melt event to cause flooding.

IMPACTS TO WATER QUALITY

Although the Plan indicates that steps will be taken to preserve surface water quality, some impacts may occur due to the changes in the topography and surfaces. Urban runoff will differ from the current conditions in several ways. Water running off from impervious surfaces such as roads and driveways can contain contaminants ranging from petroleum products to garbage. Summer storm runoff from heated roads can cause rapid increases in downgradient water temperatures, which can be detrimental to cold-water fisheries. Finally, the flashy nature (i.e., faster response to precipitation events) that is often a result of urbanization, as well as the availability of sediment from construction activities, can result in extreme loading of stream sediment to streams.

Thank you for the opportunity to provide this evaluation. If you have any questions, or need additional analyses, please call.

Sincerely,
RJN ENVIRONMENTAL SERVICES, LLC



Robert J. Nauta, P.G.
Hydrogeologist

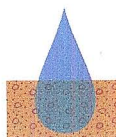


TABLE 1
GARVEY, McNEIL & ASSOCIATES, S.C.
SIMULATED GROUNDWATER DISCHARGE TO NINE SPRINGS CREEK
(Gallons per day)

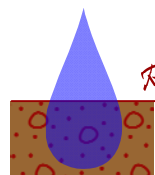
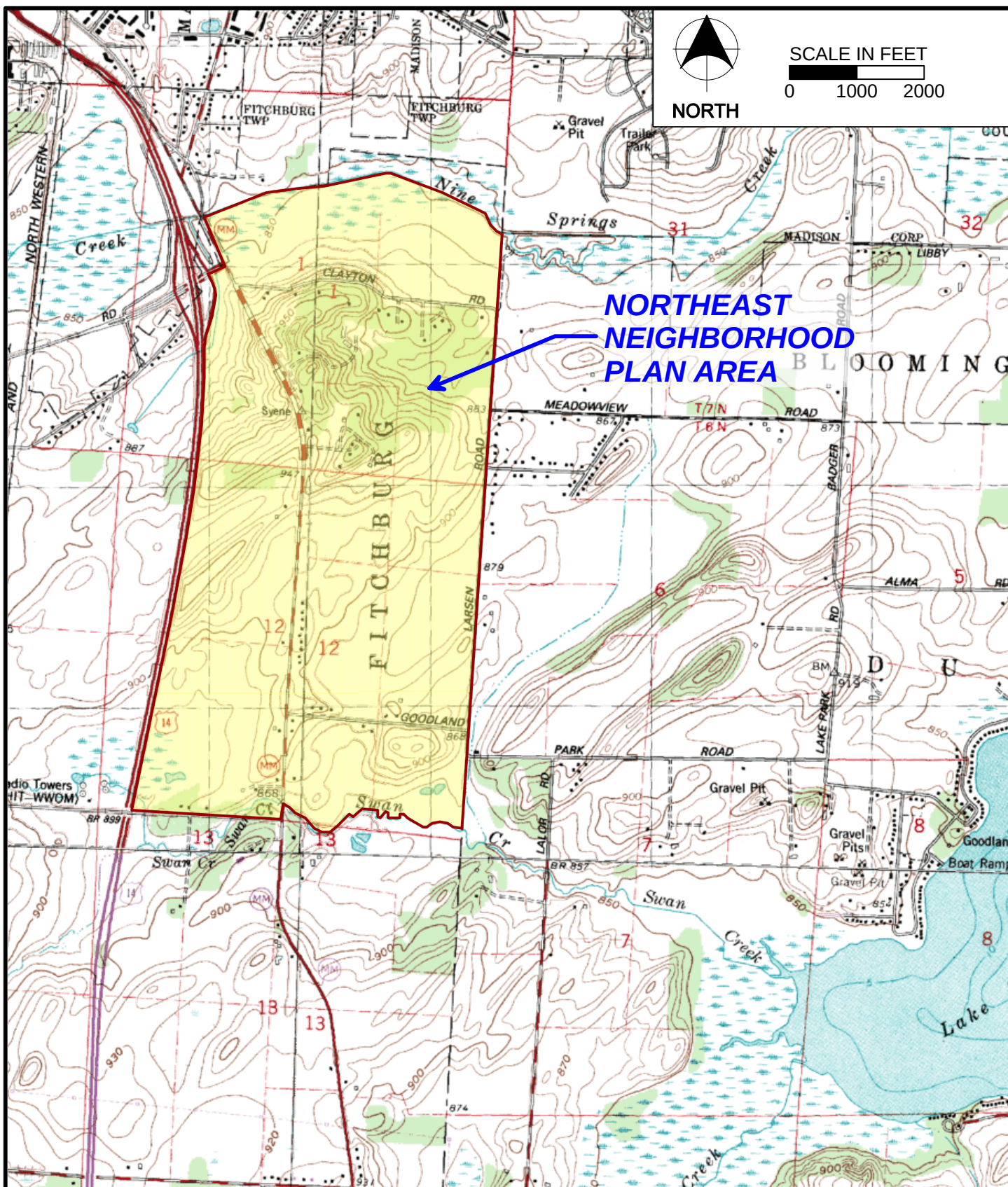
ROW	COLUMN	FLOW TO STREAM		DIFFERENCE
		BASE	INC. RECH.	
138	112	274250	274561	311
136	113	56241	56351	110
134	114	43137	43240	103
132	117	50412	50634	221
132	119	49424	49893	469
132	121	38144	38684	540
132	127	5886	5968	82
132	131	30005	30190	185
132	133	44671	44890	219
130	133	14219	14249	30
128	135	13642	13694	52
128	137	16546	16614	69
127	137	15811	15842	31
127	139	7624	7677	54
132	126	32425	33097	672
131	121	28524	28576	51
131	123	25337	25638	301
131	125	19358	19573	215
131	133	18094	18156	63
131	126	6184	6211	27
133	114	82042	82146	103
133	116	115248	115939	692
133	127	51149	52215	1066
133	128	34973	35567	594
132	130	32128	32277	149
133	129	46352	47051	699
132	132	28523	28708	185
130	134	20466	20541	76
128	134	12039	12057	19
129	134	11738	11768	30
128	133	30918	30978	61
128	136	11213	11265	52
128	138	23411	23480	69
127	138	5247	5263	16
127	140	8912	8966	54
131	124	23280	23581	301
131	122	27676	27881	206
132	120	44339	44832	494
132	118	37367	37637	270
135	113	100824	100935	111

TABLE 1
GARVEY, McNEIL & ASSOCIATES, S.C.
SIMULATED GROUNDWATER DISCHARGE TO NINE SPRINGS CREEK
(Gallons per day)

ROW	COLUMN	FLOW TO STREAM		DIFFERENCE
		BASE	INC. RECH.	
135	114	104059	104478	419
137	112	153909	154031	122
137	113	159843	160254	410
133	115	95613	95923	310
TOTAL CHANGE IN DAILY FLOW				10310

TABLE 2
GARVEY, McNEIL & ASSOCIATES, S.C.
SIMULATED GROUNDWATER DISCHARGE TO SWAN CREEK
(Gallons per day)

ROW	COLUMN	FLOW TO STREAM		DIFFERENCE
		BASE	INC. RECH.	
145	121	88120	92029	3910
145	122	24280	27316	3035
145	123	3241	6996	3755
146	123	27521	28036	514
146	126	44188	45320	1132
146	127	46040	46812	772
146	128	38118	38941	823
147	123	118213	118522	309
147	124	72790	73201	412
147	125	66823	67234	412
147	126	47275	47326	51
147	128	80198	80249	51
147	129	59930	60187	257
147	130	64508	64765	257
147	131	54322	54528	206
147	132	44343	44548	206
148	132	55351	55248	-103
148	133	39404	39044	-360
TOTAL CHANGE IN DAILY FLOW				15638



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Groundwater Studies
Site Investigations

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GARVEY, McNEIL & ASSOCIATES, S.C.
TOWN OF DUNN, WISCONSIN
NORTHEAST NEIGHBORHOOD
PLAN AREA

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DATE

FILE

RN

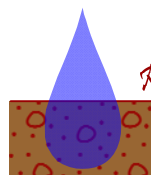
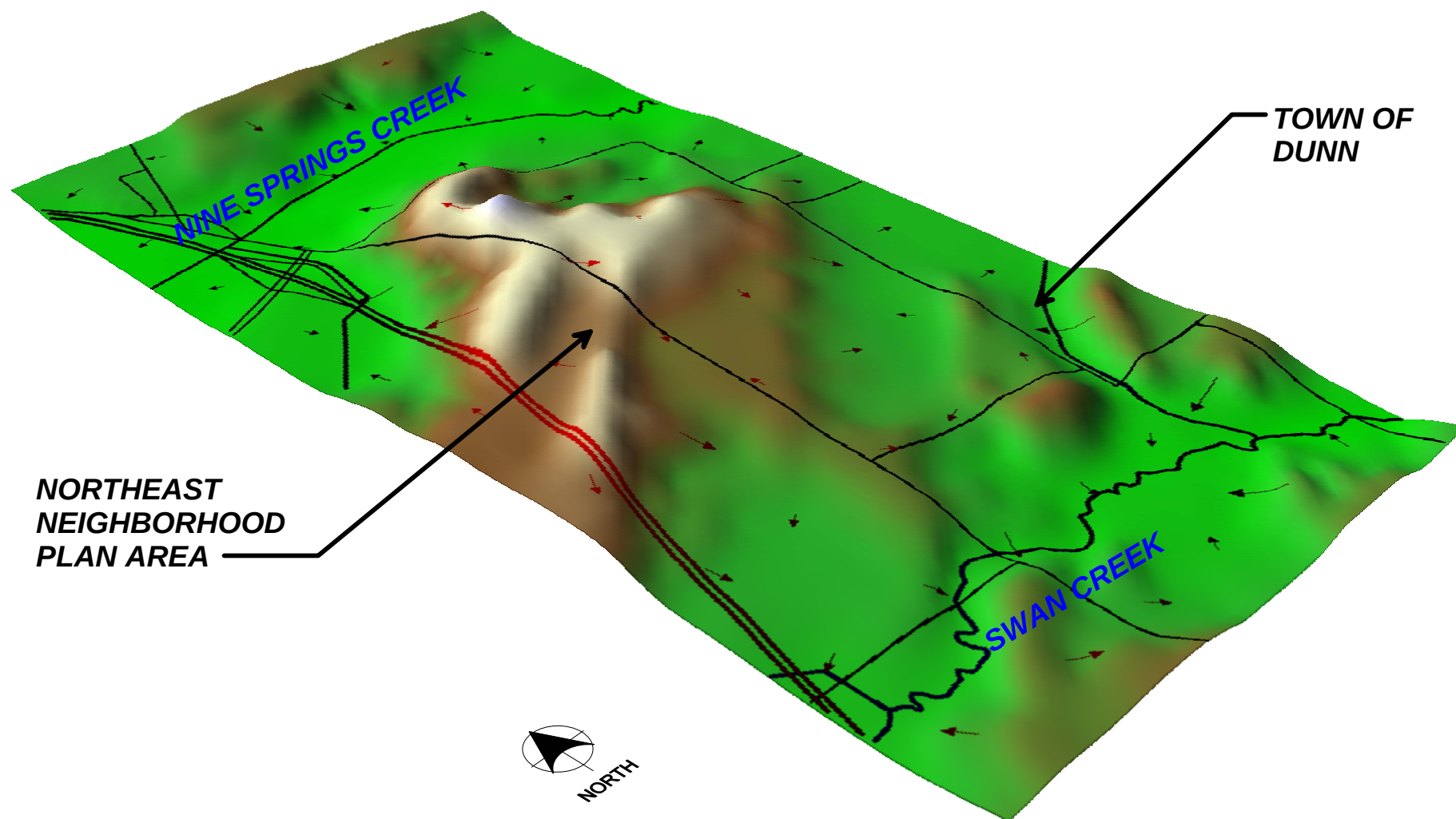
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PLAN AREA

FIGURE

1



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NORTHEAST NEIGHBORHOOD
TOPOGRAPHY

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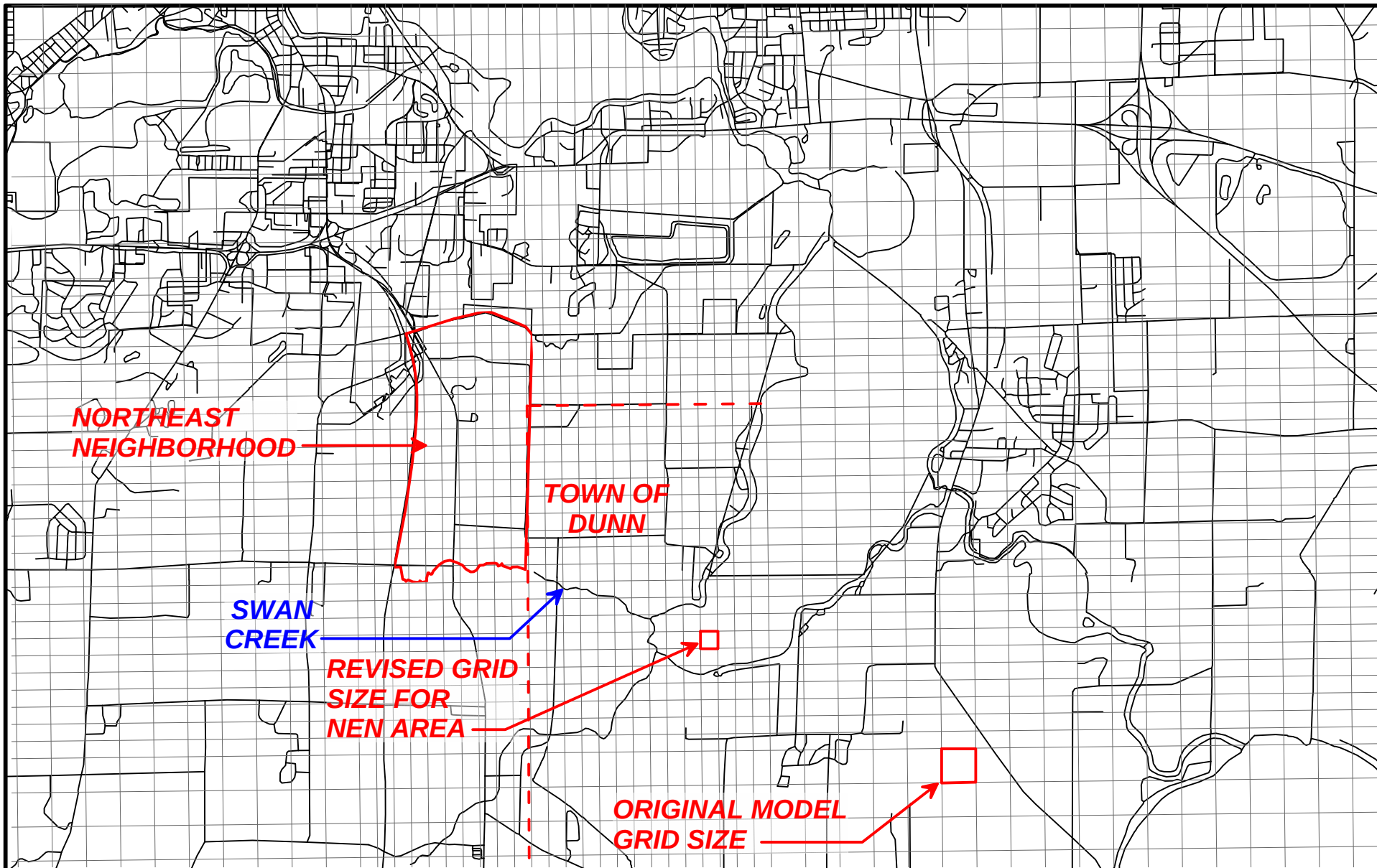
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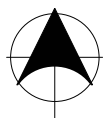
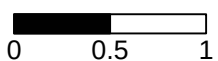
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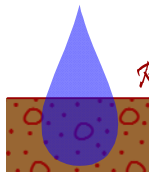
FIGURE
2



SCALE IN MILES



NORTH



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Groundwater Studies
Site Investigations

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GARVEY, MCNEIL & ASSOCIATES, S.C.
TOWN OF DUNN, WISCONSIN
REFINED MODEL GRID

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DATE

FILE

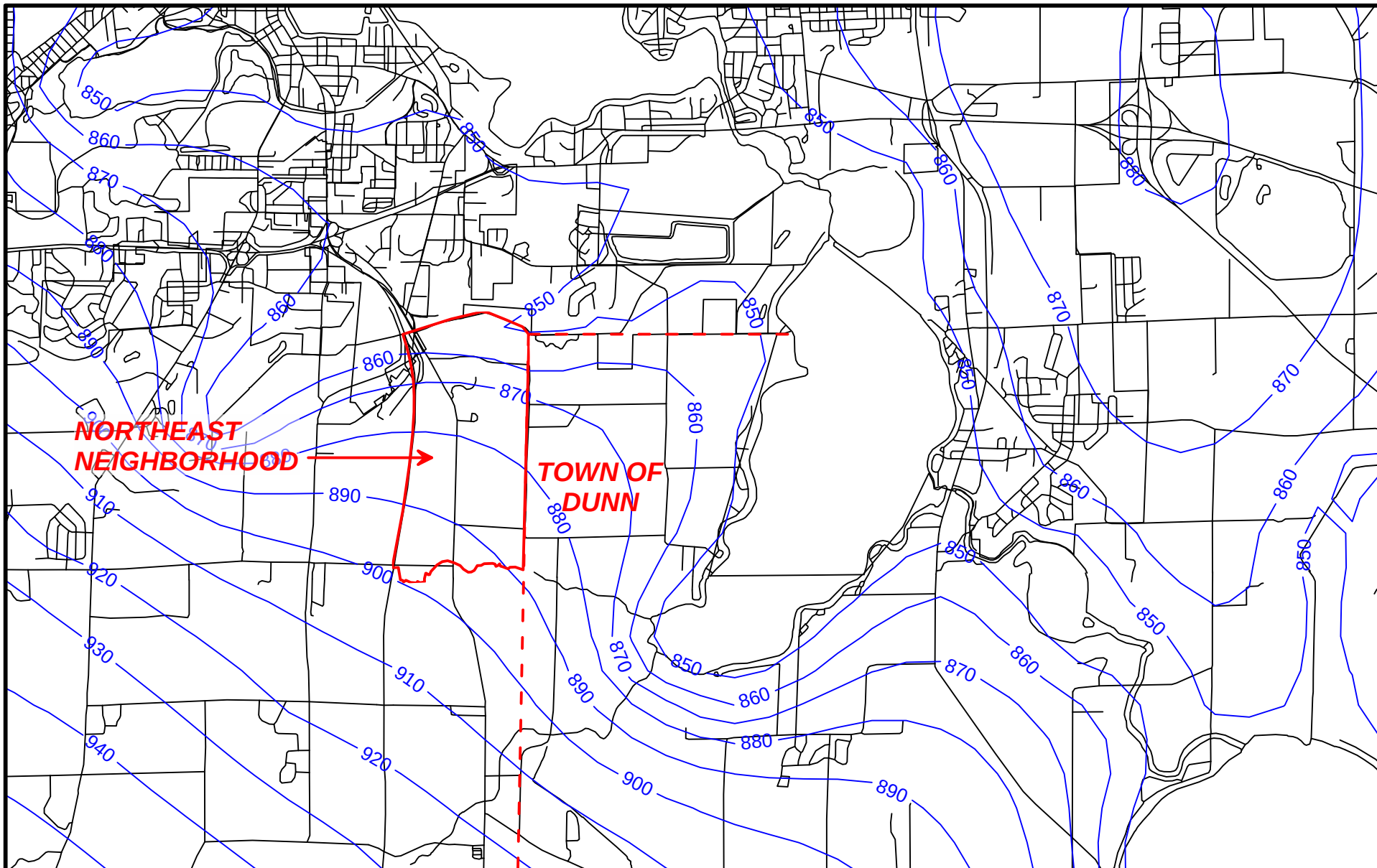
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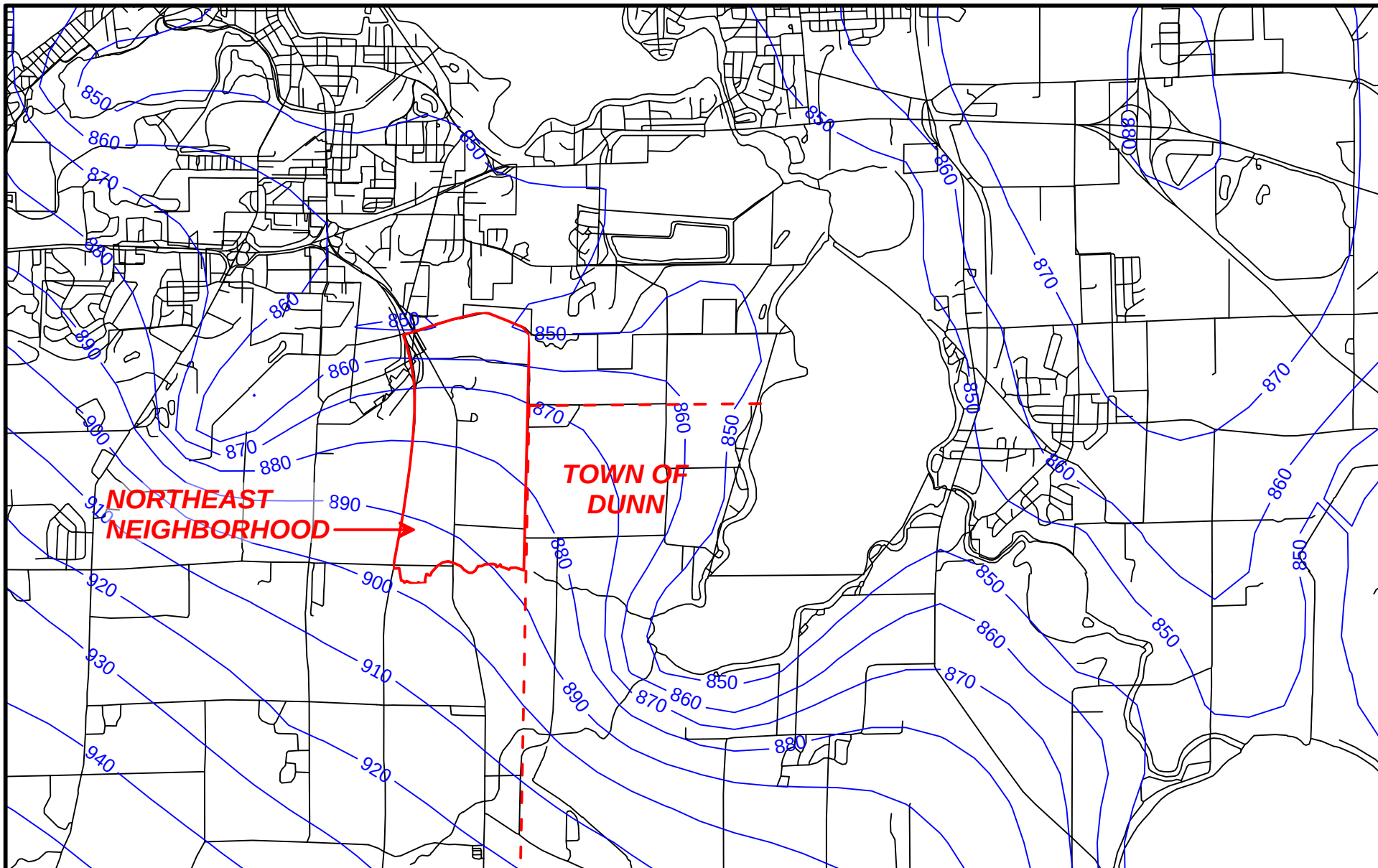
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22 FEB 10

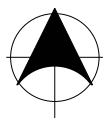
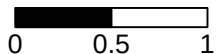
GRID

FIGURE
3



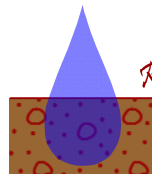


SCALE IN MILES



NORTH

— 900 — SIMULATED GROUNDWATER ELEVATION (ft. MSL)



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Site Investigations

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GARVEY, McNEIL & ASSOCIATES, S.C.
TOWN OF DUNN, WISCONSIN
SIMULATED WATER TABLE WITH
REFINED GRID

FIGURE

5

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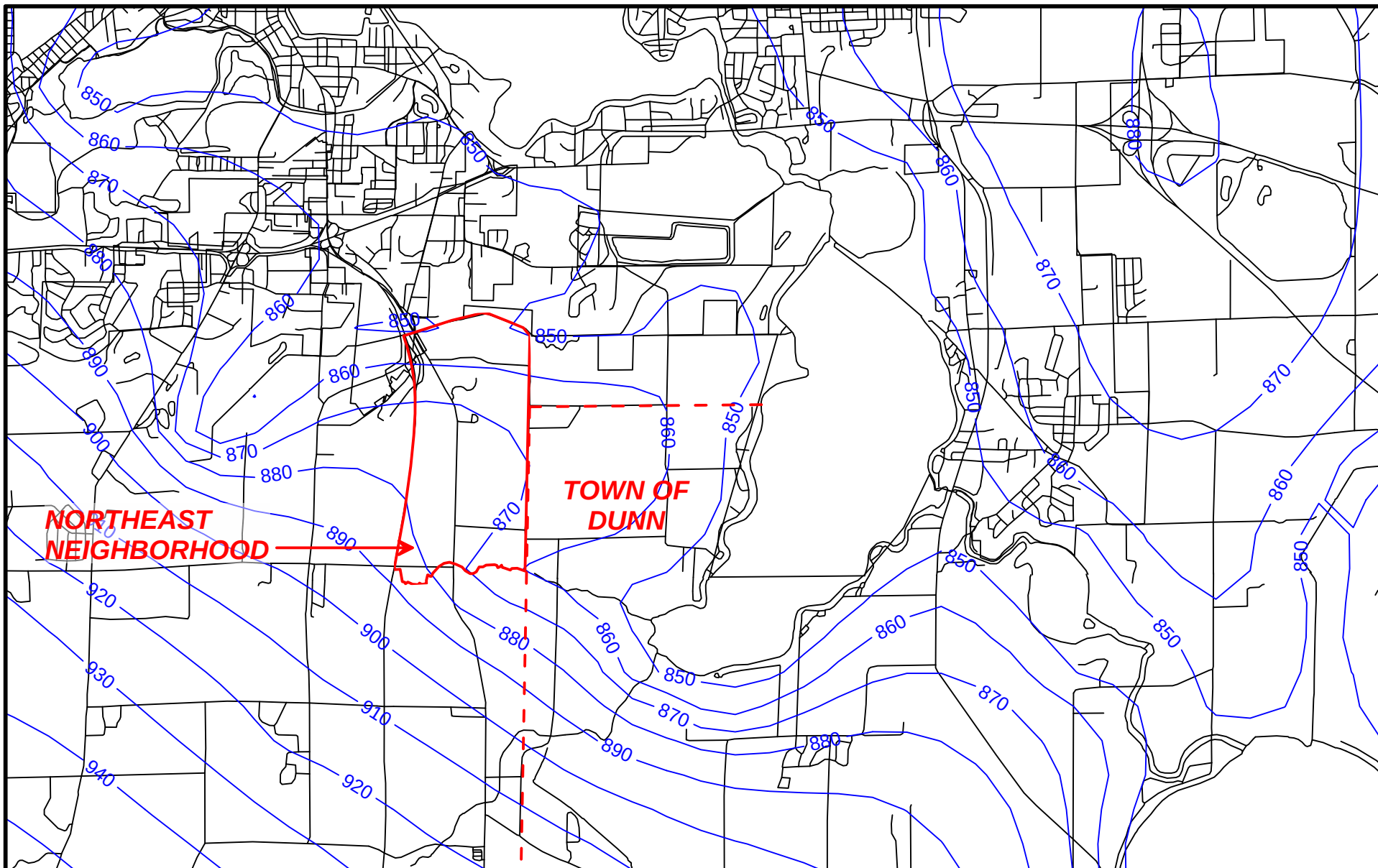
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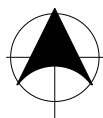
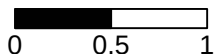
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22 FEB 10

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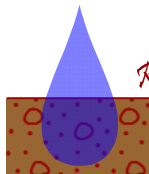


SCALE IN MILES



NORTH

— 900 — SIMULATED GROUNDWATER ELEVATION (ft. MSL)



R/N Environmental Services, LLC

Surface Water Studies
Groundwater Studies
Site Investigations

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GARVEY, MCNEIL & ASSOCIATES, S.C.
TOWN OF DUNN, WISCONSIN
SIMULATED WATER TABLE
WITH SWAN CREEK

FIGURE

6

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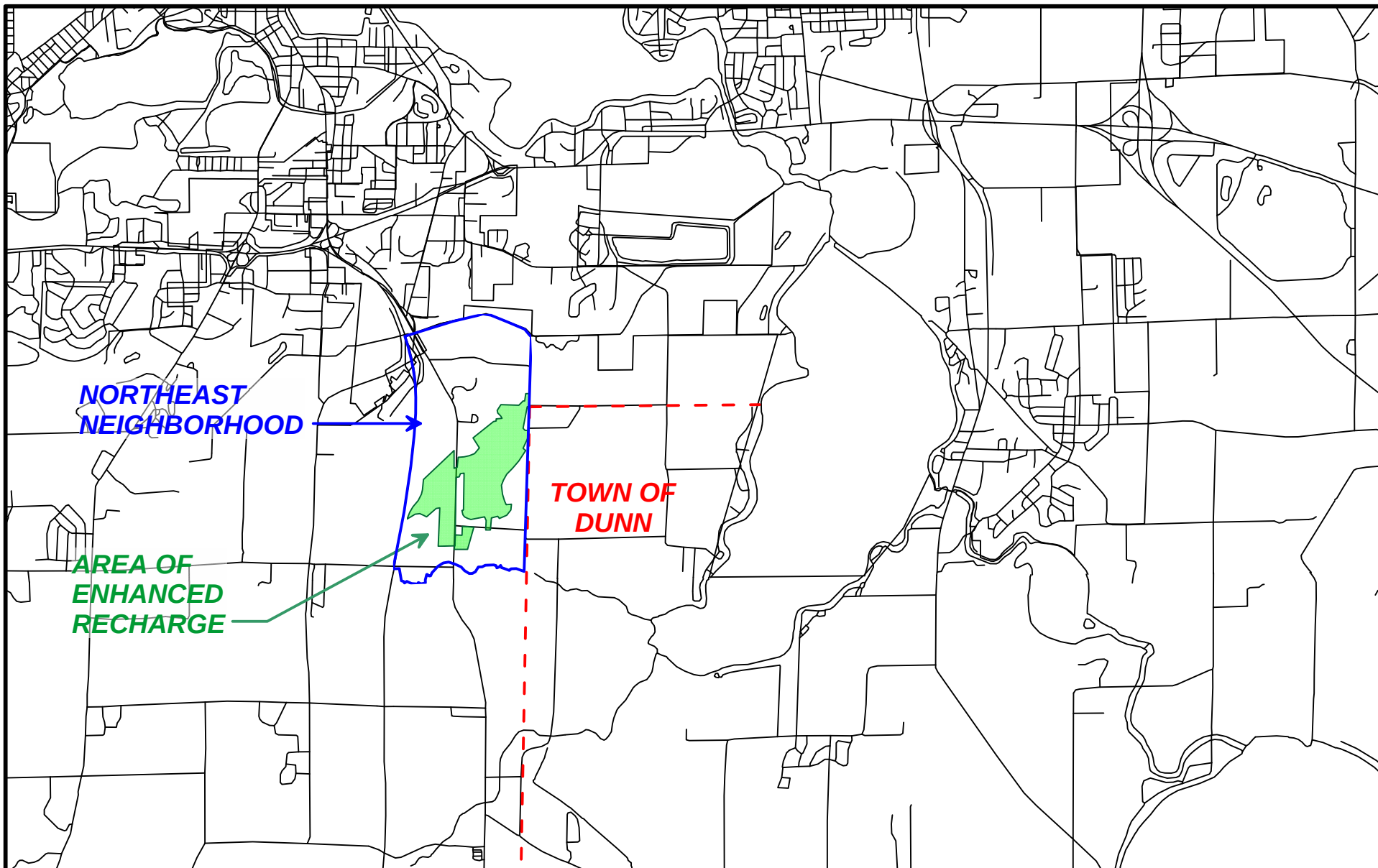
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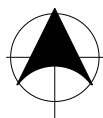
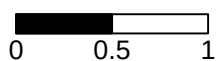
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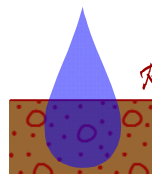
SWAN BASE



SCALE IN MILES



NORTH



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Site Investigations

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GARVEY, MCNEIL & ASSOCIATES, S.C.
TOWN OF DUNN, WISCONSIN
AREA OF INCREASED RECHARGE

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DATE

FIGURE

7

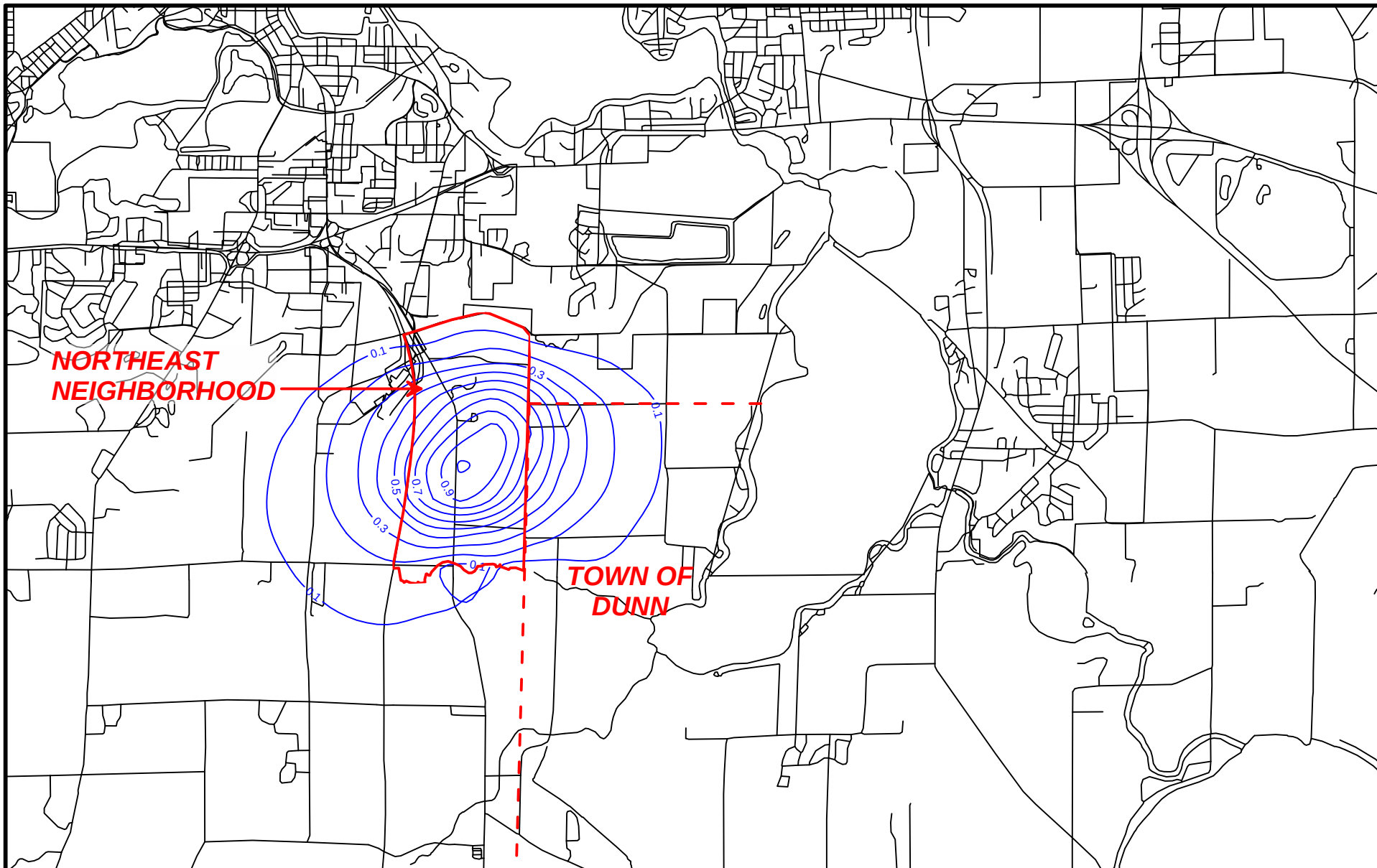
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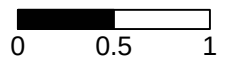
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RECHARGE

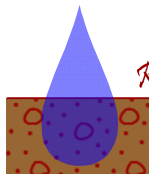


SCALE IN MILES



NORTH

— 0.5 — SIMULATED INCREASE IN
GROUNDWATER ELEVATION (ft)



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Groundwater Studies
Site Investigations

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GARVEY, MCNEIL & ASSOCIATES, S.C.
TOWN OF DUNN, WISCONSIN
SIMULATED GROUNDWATER MOUNDING
WITH INCREASED RECHARGE

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DATE

FILE

RN

10-202

23 FEB 10

MOUNDING

FIGURE

8

From: "Gary Leverington" <drumbo@mailbag.com>
To: <thomas.hovel@city.fitchburg.wi.us>
Date: 3/11/2010 9:37 AM
Subject: Housing Crisis getting worse, key data to consider:

Hi Tom, a message from Fitchburg resident Gary Leverington:

I've sent the following data/report to Mr. Mayor and your the majority of your colleagues. Please pass this on to Mr. Ron Johnson.

Thanks for your good work.

Data and report follows:

I'm aware the NE Neighborhood plan (to add houses) is coming up for discussion. Due to a recent heart attack I will not be able to attend the upcoming meeting.

Please factor in the following comments and housing data into your decision making process.

There are multiple reasons why adding additional housing stock into our community is not a wise move. The reality is, no matter how far this is along the path, it did not make sense initially.... and it makes even less sense based on the dire conditions in the U.S. economy.

We are blessed to have land here that can be used to grow organic food. To use that land to build additional housing and commercial that is not founded on sound economics (short and long-term) would be a disservice to our community.

Preserving home values for current home owners is a another key reason to reject the building of a large number of new houses and condos.

Housing data follows (note this is not just my subjective opinion):

From: gary leverington

Sent: Wednesday, March 10, 2010 11:10 AM

Subject: Housing Crisis getting worse:

Mort Zuckerman (editor in chief of U.S. News and World Report) :
Housing Crisis is Getting Worse, March 5, 2010

America's housing crisis has not gone away. If anything, it is getting more severe. Today, median single family house prices nationwide are down by slightly more than 30 per cent from their early 2006 peak. Fusion IQ, the research group, estimates that excess inventories will push prices down by a further 10 per cent. This is a critical issue because home equity was for years the largest asset on the balance sheet of the average American family.

Zuckerman estimates that it would take another \$1 trillion of government money to stabilize house prices by matching mortgage balances to market values. He feels that if foreclosures soar, house prices will crash.

My personal belief is that the best way to resolve this problem is to focus less on supporting house prices and more on increasing employment. Then the prices of houses will reach a market clearing level without a crash.

But, barring a dramatic economic recovery, housing prices will definitely reach a lower bottom than has been seen so far. We can only hope that it is within the 10% lower window projected by Fusion IQ and not

the crash level that Zuckerman fears.

_____:

Also, please see March 4th article in Financial times (a must read to understand the on-going housing crisis):

<http://www.ft.com/cms/s/0/4582f4b6-27c5-11df-863d-00144feabdc0.html?catid=9&SID=google>

Existing home values and local home owners need to be protected from oversupplying the market. In particular during a long-term jobless (non) recovery.

Thank you for raising your housing IQ and being well informed regarding this issue.

Regards, Gary L. / Fitchburg WI

Former Director of Research (19 years, now retired) ChrisKen Residential Trust (a private Real Estate Investment Trust investing in luxury apartments nationally).

From: <kathylemke@aol.com>
To: <Thomas.Hovel@city.fitchburg.wi.us>
Date: 3/10/2010 5:59 PM
Subject: Nrtheast neighborhood

3/10/2010

Dear Tom,

We are opposed to the current plan to develop the Northeast neighborhood. Adding upwards of 900 homes, and the services necessary to serve this area come at a time when our economy is not strong. The development of these homes will impact current home sales of existing property. Creating new homes and commercial spaces now would create competition for the Fitchburg homeowners trying to sell their houses and the business owners trying to survive the recession.

The Plan Commission and Common Council should delay action on this Neighborhood Plan until 2014.

That is the soonest the neighborhood could be built for several reasons:

- The Fire Station that would provide coverage for the neighborhood won't be done 'til 2014, or 2013 at the earliest.
- A water tower by the planned interchange is necessary, and that shouldn't be built until there is enough pent-up demand to quickly develop a large area. (Sending water to a small new development would mean that the water wouldn't be fresh enough.)
- Green Tech Village, which is closer to Fitchburg's core, should be nearly full before trying to bring another big chunk of land into the Urban Service Area.
- Waiting 'til 2014 will give the city a chance to build elsewhere according to the proposed "Form Based Code," which encourages "New Urbanist" neighborhoods. Then if the city decides that it needs to develop the Northeast Neighborhood, it can build on that experience.
- The economic situation is terrible for building new homes and commercial buildings. If the city lets the Northeast Neighborhood be developed now, they may be left with a ghost town of empty lots on streets that need to be plowed, swept, and maintained, without the tax base to pay for these services. The yards would be lost to agriculture, and would need to be mowed to prevent them from returning to forest.

We will be in attendance at the March 16th City Council meeting, and look forward to a dialogue in which the voices of the residents of Fitchburg are heard.

Sincerely,

Kathleen Lemke and Thomas Werner
5454 Lacy Road

To: Planning Commission, Jay Allen Chairmen

From: Brian and Diane Pasley

Date: March 10, 2010

RE: North East Neighborhood

We are sorry we are unable to attend this meeting regarding the Northeast Neighborhood. We appreciate the opportunity to be on record with our thoughts. In principle we are in support of the NEN and attended the majority of the steering committee meetings.

Our property is located on Highway MM and Goodland Park Road. A culvert runs under Goodland Park Road that drains land from the NEN through our wetland into Swan Creek that is on the southern part of our property.

During the steering committee meetings pre-development and post-development water patterns were evaluated. We felt that an easement was required for the storm water to pass through our restored wetlands. Our wetland was documented as "pristine" by Michael Anderson of Biologic Environmental Consulting in a report that I had prepared. Phil Sveum and his staff earned my confidence by ensuring post-development standards would be met and that an easement would not be necessary.

As the development moves forward I will be paying close attention to NEN water drainage patterns during the build out and beyond. If at anytime I feel that these standards are being neglected I will challenge the standards with engineering and fieldwork.

Cc:
Tom Hovel
Phil Sevem
Rick Eilertson
Paul Woodard