

ENVIRONMENTAL ANALYSIS AND DECISION ON THE NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT (EIS)

Form 1600-1

Rev. 6-2001

Department of Natural Resources (DNR)

Region or Bureau NER
Type List Designation Type II – Connected Enlargement, Channel Change > 500 feet Type III – Small Dam

NOTE TO REVIEWERS: This document is a DNR environmental analysis that evaluates probable environmental effects and decides on the need for an EIS. The attached analysis includes a description of the proposal and the affected environment. The DNR has reviewed the attachments and, upon certification, accepts responsibility for their scope and content to fulfill requirements in s. NR 150.22, Wis. Adm. Code. Your comments should address completeness, accuracy or the EIS decision. For your comments to be considered, they must be received by the contact person before 4:30 p.m., [July 15, 2009](#).

Contact Person: Jon Brand
Title: Water Management Specialist
Address: 2984 Shawano Avenue Green Bay, WI 54313-6727
Telephone Number 920-662-5466

Applicant: Garners Creek Storm Water Utility

Address: 405 Wallace Street, Combined Locks, WI 54113

Title of Proposal: Springfield Wetland / Pond

Location: County: Outagamie City/Town/Village: Buchanan

Township Range Section(s): NW ¼ of Section 32, T21N, R18E

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PROJECT SUMMARY

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1. Brief overview of the proposal including the DNR action (include cost and funding source if public funds involved)

The Garners Creek Storm Water Utility (GCSWU) desires to construct the Springfield Wetland / Pond in an unnamed tributary of Garners Creek, located south of Creekview Lane, east of Stoney Brook Road, north of Springfield Drive, and west of Eisenhower Drive. The Springfield Wetland / Pond will be funded, owned, operated, and maintained by the GCSWU, a public entity. The three members that comprise the GCSWU include the Town of Buchanan, Village of Combined Locks and Town of Harrison. The total cost of the project is projected to be approximately \$1.4-\$1.5 million. The GCSWU funds these types of projects by charging a storm water utility fee to property owners within the jurisdictional Garners Creek watershed. The primary purpose of the Springfield Wetland / Pond is to improve water quality and comply with NR 216 storm water regulations. Ancillary benefits of the Springfield Wetland / Pond include reducing stream erosion and flooding potential, peak flow control, increasing habitat and diversity of fish and wildlife, and increasing public education and recreational opportunities. The proposed wetland / wet detention pond will treat/serve a 674 acre watershed. The project will include constructing the Springfield Wetland / Pond (2.88 acre permanent pool) and the Buchanan Cottages Pond (0.24 acre permanent pool). The Buchanan Cottages Pond is to be constructed to satisfy storm water requirements for the future multi-family / commercial Buchanan Cottages development. Approximately 23 acres of land will be disturbed as part of this project. An estimated 0.34 acres of stream bank disturbance and wetland disturbance will occur as a result of the proposed project. Approximately 1,0068 linear feet of the tributary will be realigned.

2. Purpose and Need (include history and background as appropriate)

The Garners Creek watershed has experienced major urbanization over the last 60 years. The combination of increased imperviousness, storm sewer pipes, compacted soils, and altered flood plains dramatically changes the hydrology of urban streams such as Garners Creek. The increased frequency of flooding, particularly from smaller storm events, often impacts streams by transporting sediments and causing channel erosion. Urban streams such as Garners Creek, respond to the increased frequency and magnitude of flooding by enlarging their channel cross section to accommodate the increased flows. Channel erosion can also cause extensive damage to both public infrastructure and private property. In 1996, the Park Lane Bridge in the Village of Combined Locks was washed out due to the effects of urbanization within the Garners Creek

watershed. Combined Locks, located at the very downstream end of Garners Creek, threatened to sue the upstream communities (Appleton, Buchanan, and Harrison) for not taking care of their storm water runoff. This political pressure, along with the desire to protect the health and safety of the general public, resulted in the formation of the GCSWU. The GCSWU was created in 1998 in order to control peak flow rates and reduce stream erosion within the watershed. The Springfield Wetland / Pond will utilize an outlet structure designed to reduce peak flows and prevent trash from leaving the wetland / pond. Peak flow control, especially during smaller rainfall events, will assist in reducing stream erosion and channel expansion. During large rainfall events, peak flow control can reduce flood damage potential. By controlling peak flows, ancillary benefits such as improved habitat can also occur.

Since inception, the GCSWU has installed a fair amount of rip-rap along Garners Creek to combat the stream erosion problem. While these types of projects certainly improve the condition of the stream at specific locations, they are not viable, long-term solutions to reducing stream erosion and flooding potential. In 2004, the GCSWU decided to develop and adopt a peak flow objective to reduce stream erosion and prevent future rip-rap projects along the stream corridor. This peak flow objective consists of reducing peak flow rates to a pre-development condition, as recommended by the Distributed Runoff Control (DRC) method. The DRC is based on the argument that channel erosion is minimized if the erosion potential of bank materials remains the same as in pre-development conditions over the range of flows at which sediment transport begins (i.e., mid-bank full to bank full flow events). The premise of this approach is that runoff will be stored and released so gradually that critical erosive velocities will seldom be exceeded in downstream channels. The GCSWU selected 1955 as the pre-development date, as the Garners Creek watershed was essentially undeveloped at that time. A hydrologic computer model was used to develop the rainfall / runoff relationship within the 1955 Garners Creek watershed. The XP-SWMM computer model was used to generate surface runoff hydrographs for each sub-basin within the watershed. In order to justify the XP-SWMM model, peak flow rates were also computed using the regression methods contained within the Water-Resources Investigations Report 03-4250, entitled *Flood-Frequency Characteristics of Wisconsin Streams* (USGS, 2003). Road, culvert and bridge crossings were modeled to serve as compliance points for the 1955 peak flow objective. The 1955 peak flow objective determined allowable peak flow rates at the various compliance points for the 1, 2, 10, and 100-year storm events. Unfortunately, there are only a few undeveloped properties remaining within this portion of the Garners Creek watershed. The Springfield Wetland / Pond was identified as a critical BMP retrofit for satisfying the 1955 peak flow objective. Without the Springfield Wetland / Pond, it is unlikely the 1955 peak flow objective will be met, particularly along the portion of Garners Creek located between CTH "N" and Creekview Lane.

Pursuant to NR 216, the Town of Buchanan, Village of Combined Locks, and Town of Harrison were all required by the EPA and State of Wisconsin to obtain WPDES (Wisconsin Pollution Discharge Elimination System) Municipal Storm Water Discharge Permits. The purpose of the permit is to control urban non-point source pollution by regulating discharges from municipal separate storm sewer systems (MS4). As part of these MS4 permits, each community is responsible for developing a Storm Water Management Plan (SWMP). Non-point sources of pollution in this case pertain to developed areas of commercial and residential properties that have resulted in impermeable surfaces and increased runoff of contaminants and sediment. Each municipality is required to achieve a 20% TSS (total suspended solids) reduction by December, 2008 and a 40% TSS reduction by March, 2013. Each of the three communities has developed a SWMP that achieves the 20% and 40% TSS reductions. Three alternatives which provide 20% and 40% TSS reductions were selected on a cost effective basis. In an effort to reduce capital costs associated with meeting the NR 216 regulations, a separate SWMP was prepared for the GCSWU. The GCSWU's SWMP addresses the 20% and 40% TSS reduction requirement by treating the Garners Creek watershed as a separate entity. Each community is then left with meeting the 20% and 40% TSS reductions for the areas within their respected municipal boundaries, outside of the Garners Creek watershed. By working together within the watershed, more cost-effective alternatives become available to each community. In January of 2008, several alternatives were presented to the GCSWU that took this watershed based approach. The Springfield Wetland / Pond was again identified as a critical BMP for meeting NR 216 regulations.

In January of 2008, the GCSWU was presented five alternatives, all achieving the water quality goal of 40% TSS reduction. One of the five alternatives satisfied both the 40% TSS reduction requirement and the 1955 peak flow objective. The GCSWU decided to implement the alternative satisfying both the 1955 peak flow objective and the 40% TSS reduction requirement, as it satisfies two primary goals / objectives within the watershed. Again, the Springfield Wetland / Pond was identified as a critical and cost effective component of the adopted alternative.

In addition to satisfying NR 216 requirements and 1955 peak flow objective, the Springfield Wetland / Pond will assist in satisfying future water quality requirements / standards. A Total Maximum Daily Load (TMDL) report is currently being developed for the Lower Fox River (LFR) Basin, which includes the Garners Creek watershed. The LFR Basin TMDL will specify reductions required from both nonpoint and point sources of sediment and phosphorus to achieve water quality standards. There is also a draft revision to NR 102.06 that would specify state wide phosphorus limits for Wisconsin's surface waters. Per this draft document, streams such as Garners Creek will be expected to meet a total phosphorus criterion of 75 µg/L. Addressing anticipated water quality regulations before they are implemented can potentially reduce the number of future projects that would be required to satisfy such regulations.

In summary, the Springfield Wetland / Pond is an essential part of the GCSWU's future plans to address four major issues / requirements within the Garners Creek watershed. The Springfield Wetland / Pond would reduce peak flows, reduce stream erosion, comply with new NR 216 requirements, and improve water quality within Garners Creek.

### 3. Authorities and Approvals (list local, state and federal permits or approvals required)

The proposed project will require a federal permit from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act. At the state level, permits from the WDNR under Chapter 30 and 31, Wisconsin Statutes will be required. A Wetland Water Quality Certification under NR103 Wisconsin Administrative Code will also be need. The WDNR will also require construction site NOI permit. Outagamie County will require a conditional use permit as part of their shoreland-wetland ordinance.

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PROPOSED PHYSICAL CHANGES (more fully describe the proposal)

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4. Manipulation of Terrestrial Resources (include relevant quantities - sq. ft., cu. yard, etc.)

The proposed project will minimize the impacts to wetlands and other natural resources while still meeting the project objective. Wetlands are located within and along the unnamed tributary to Garners Creek. As shown in the plan set, the wetland becomes confined to the bed / banks of the stream at the point where the stream will be diverted into the pond. The area to the south of the project is where the wetland widens and becomes much more functional, including a red-tail hawk's nest within a small wooded wetland. The location of Springfield Wetland / Pond was situated in order to minimize the disturbance of the existing wetlands. Approximately 0.34 acres of wetlands will be disturbed as part of this project, all of which are confined to the bed / banks of the existing stream. The south pond was placed to east of the existing stream bed in order to maintain the existing tree line / natural habitat and reduce sediment entering the stream during construction activities. As shown in the plan set, the placement of the south pond allows the stream to remain online as the south pond is constructed. The north pond is located in an area identified by DNR personnel as a "mowed area along the stream creating a lack of connectivity, erosion problems, and lack of wildlife usage." Once constructed, the Springfield Wetland / Pond will increase the amount of wetland and extend its connectivity. The proposed project includes a variable vegetated buffer along the unnamed tributary that will extend the connectivity of the stream corridor. The buffer consists of wet to wet-mesic prairie (0.62 acres) and mesic prairie (3.15 ac) plantings. The wet to wet-mesic prairie is a grass / wildflower seed mix consisting of 50 species, 60% of which are associated with wetlands. The wet to wet-mesic prairie is to be planted two feet above the permanent pool down to the permanent pool. The mesic prairie is a grass / wildflower seed mix consisting of 47 species and is to be planted upland of the wet to wet-mesic prairie plantings. The prairie plantings will provide food sources, shelter, and nesting habitat directly adjacent to an open water source for small mammals, song birds, butterflies, and insects.

The proposed project also includes desirable emergent and submerged wetland plantings. The wetland plantings include shallow marsh and deep marsh native wetland species. The shallow marsh (1.51 acres) plantings include 11 species and will be planted in 0 to 12 inches of water depth. The shallow marsh will entail planting approximately 5,135 potted plants in 12 inches of topsoil within the safety shelf, surrounding the deep waters perimeter. These plantings will improve public safety by limiting access, whether accidental or intentional, to deep water. The deep marsh (0.39 acres) plantings include 12 species and will be planted in 12 to 48 inches of water depth. The deep marsh will entail planting approximately 700 potted plants in 12 inches of topsoil on the side slopes of the forbays. The shallow and deep marsh wetland plantings will provide food sources, shelter, and nesting habitat for small mammals, song birds, butterflies, insects, invertebrates, and fish. The wetland plantings will cover nearly 66% of the permanent pool of water, therefore shading the shallow water and reducing water temperatures. Wetland plants hide litter, reduce shoreline erosion, reduce accessibility to deep water, provide habitat for mosquito predators, and improve water quality. The wetland and prairie plantings will also reduce the potential for Canadian geese residence.

There are no woodlands within the project limits, and the few isolated trees to be cleared consist of Cottonwood, Willow, and Elm trees. Several existing spruce trees (approximately 50) will be spaded and moved to various locations around the pond. Native trees including Bur Oak (12) and Shagbark Hickory (9) will be planted around the pond, providing natural habitat and food (seeds/acorns/nuts) for wildlife. Several of the proposed or moved trees will be located on the southern slopes of the Springfield Wetland / Pond in order to further shade the water and reduce water temperatures.

5. Manipulation of Aquatic Resources (include relevant quantities - cfs, acre feet, MGD, etc.)

A partially rippapped lined channel will divert the existing stream into the Springfield Wetland / Pond down to the permanent pool of water, which is approximately 8 feet lower than the existing stream bed. The Springfield North (1.86 acres) and South (1.02 acres) Ponds will create a total permanent pool area of 2.88 acres. The total storage that is created below the normal water surface elevation (743.00) is 9.09 ac-ft. During the 100-year rainfall event, an additional 39.65 ac-ft of storage is provided, providing 48.74 ac-ft of total storage. As previously mentioned, one of the Springfield Wetland / Pond's objectives is to reduce peak flow rates and the potential for stream erosion. The peak flow rates leaving the pond for the 1, 2, 10, and 100-year rainfall events are approximately 41, 54, 134, and 383 cfs, respectively. Please refer to the Storm Water Management Plan for more information.

6. Buildings, Treatment Units, Roads and Other Structures (include size of facilities, road miles, etc.)

The Springfield Wetland / Pond has a total watershed of approximately 674 acres. As part of this project, storm water runoff from an adjacent watershed (55 acres) will be conveyed to the Springfield Wetland / Pond. A 48" storm sewer (640 feet) will convey flows from the intersection of Creekview Lane and Eisenhower Drive to the Springfield Wetland / Pond.

The existing stream currently flows through a 24" and 42" CMP under Stoney Brook Road. The low point in the road above these two culverts currently overtops during the 10-year rainfall event. In an effort to control the 10-year rainfall event, and reduce the number of times Stoney Brook Road is overtopped, the low point of the road is to be raised 6 inches.

Due to the tight constraints of existing buildings and property lines, an open channel connecting the Springfield North and South Ponds was not feasible due to grading. However, an effort was made to reduce the culvert length while minimizing the disturbance of the existing tree line / natural habitat west of the existing stream bed. The 54" culvert will also be set 6" below the permanent pool elevation, allowing the bottom of the culvert to eventually silt in and create a natural bottom similar to existing stream bed conditions. A 12' wide maintenance / recreational trail (1,330 total feet) will be constructed over this culvert and around the ponds. The trail will provide access for the general public and for future maintenance of the pond.

A ranch style house (approx. 1,500 sf) will also be cleared in order to construct the Springfield North pond.

7. Emissions and Discharges (include relevant characteristics and quantities)

The proposed Springfield Wetland / Pond will improve water quality prior to discharge to Garners Creek, and eventually the Fox River. Garners Creek and the Fox River are both 303(d) listed water bodies. A 303(d) waterway is considered impaired. The Springfield Wetland / Pond will target the 303(d) pollutants of concern, total suspended solids (TSS) and total phosphorus (TP). The TSS reduction provided by the Springfield Wetland / Pond is approximately 65%, or 190,000 pounds of TSS per year, as compared to no other BMP's (best management practices) used within the watershed. Likewise, the TP reduction provided by the Springfield Wetland / Pond is approximately 50%, or 355 pounds of TP per year as compared to no other BMP's used within the watershed. The water quality analysis for the study area was prepared using the Source Loading and Management Model (SLAMM) (v9.1.2). Peak flow rates leaving the pond for the 1, 2, 10, and 100-year rainfall events are approximately 41, 54, 134, and 383 cfs, respectively. Please refer to the Storm Water Management Plan for more information.

8. Other Changes

None known

9. Identify the maps, plans and other descriptive material attached

- Attachment  County map showing the general area of the project
- Attachment  USGS topographic map
- Attachment  Site development plan
- Attachment  Plat map
- Attachment  DNR county wetlands map
- Attachment  Zoning map
- Attachment  Other - Describe:

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AFFECTED ENVIRONMENT (describe existing features that may be affected by proposal)

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10. Information Based On (check all that apply):

Literature/correspondence (specify major sources)

See attached memorandums from WDNR Staff

Personal Contacts (list in item 26)

Field Analysis By:  Author  Other (list in item 26)

Wetland Delineation Report  
McMahon Associates, June 11, 2008  
By: Stuart Boerst, P.S., P.H.  
Senior Hydrogeologist

Past Experience With Site By:  Other (list in item 26)

Jon Brand, WDNR Water Management Specialist  
Richard Nikolai, WDNR Wildlife Biologist  
David Rowe, WDNR Fisheries Biologist  
David Bougie, WDNR Storm Water Specialist  
Gus Glaser, WDNR Storm Water Engineer  
Miles Winkler, WDNR Water Regulations and Zoning Engineer  
Nicholas Domer, US Army Corps of Engineers Biologist

11. Physical Environment (topography, soils, water, air)

The project area is located within an unnamed tributary of Garners Creek, which is a navigable stream and flows to the north before reaching Garners Creek. The existing stream will be diverted into the Springfield Wetland / Pond by a rip-rap lined channel at a 5 percent slope. The existing stream will be realigned to flow through the pond and discharge at the intersection of Creekview Lane and Stoney Brook Road. The existing topography consists of mild slopes that drain towards the stream, ranging from 2 to 20 percent. These slopes will be disturbed as part of the grading of the pond. The proposed Springfield Wetland / Pond will have side slopes ranging from 4:1 to 10:1.

Soil information was obtained from the SCS Soil Survey for Outagamie County. The soils report indicates the following: Topsoil depth of 1-12 inches, silt loam and clay soils to a depth of 5 feet, high groundwater depth 1 to 6 feet, and bedrock depths greater than 5 feet.

12. Biological Environment (dominant aquatic and terrestrial plant and animal species and habitats including threatened/endangered resources; wetland amounts, types and hydraulic value)

As mentioned in Item #4, approximately 0.34 acres of wetlands will be disturbed as part of this project, all of which are confined to the bed / banks of the existing stream. The area to the south of the project was avoided, as this is the area where the wetland widens and becomes much more functional. The wetland delineation report compiled by McMahon Associates describes the wetland as primarily dominated by reed canary grass and water sedge. The hydrology is provided by both groundwater and surface water. The construction of the Springfield South and Buchanan Cottages ponds will require the tree line to the east of the existing stream to be cleared. In addition, several trees on the residential property where the Springfield North pond is to be located will need to be cleared. On 1/10/08, Richard Nikolai (WDNR) observed signs of wildlife near the site including red-tailed hawks, meadow voles, cottontail rabbits, mourning doves, muskrat, fox, and some tree sparrows. In a memo from David Rowe (WDNR) dated 6/9/08, a 2006 DNR fish survey of Garners Creek showed a community comprised of brook stickleback, creek chub, fathead minnow, and green sunfish. This assemblage is common for first order streams that have moderate impacts from development and urbanization. There are no known threatened or endangered species located within the area.

13. Cultural Environment

- a. Land use (dominant features and uses including zoning if applicable)

The Springfield Wetland / Pond will require re-zoning of the property to be owned by the GCSWU. The existing land uses / zoning within the project area are residential, commercial, and agricultural. Future land uses / zoning includes multi-family residential and commercial (Buchanan Cottages Development).

- b. Social/Economic (including ethnic and cultural groups)

There should be no significant change to social/economic ethnic or cultural groups. There are no identified group, other than white European, that has utilized resources at or near this location during recent time.

- c. Archaeological/Historical

No archaeological/historical concerns identified based on Department staff review.

14. Other Special Resources (e.g., State Natural Areas, prime agricultural lands)

Area currently is not identified as any type of special resource. It can be considered unique do to the fact that is one of the last remaining undeveloped stream corridors in the Garners Creek watershed.

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#### ENVIRONMENTAL CONSEQUENCES (probable adverse and beneficial impacts including indirect and secondary impacts)

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15. Physical (include visual if applicable)

The proposed project involves the construction of the Springfield Wetland / Pond within an unnamed tributary of Garners Creek, a navigable stream. Several physical changes will occur to the existing landscape as part of this project. The house on the residential lot (Springfield North pond) is to be cleared prior to the pond's construction. The existing house is vacant, and therefore, shall not cause any adverse impacts to the property owners. A significant amount of grading will occur within and adjacent to the existing stream during the construction of the ponds. A majority of the pond's side slopes will be graded at 4:1, with access locations to the pond being graded at 10:1. Currently, the residential properties located to the north of the unnamed tributary mow right up to the stream. As part of this project, the side slopes will be planted with a variable vegetated buffer along the pond / stream. The buffer will consist of wet to wet-mesic prairie and mesic prairie plantings. Planting the side slopes with prairie plantings will greatly improve the stream corridor and its connectivity. The vegetated buffer will decrease erosion along the pond / stream, increase connectivity with the existing wetland, and create an environment more suitable to support wildlife. The proposed project will also enhance the natural scenic beauty of the area, and allow residents the ability to use an area that was previously unusable.

16. Biological (including impacts to threatened/endangered resources)

The proposed project will minimize the impacts to wetlands and other natural resources while still meeting the project objective. As previously mentioned, approximately 0.34 acres of wetlands will be disturbed as part of the construction of the Springfield Wetland / Pond. The wetlands to be disturbed are all within the bed / banks of the existing stream. In order to mitigate the disturbed wetlands, the safety shelf will be planted with desirable emergent and submerged wetland plantings. Shallow and deep marsh wetland plantings will cover nearly 66% of the permanent pool of water, therefore shading the shallow water. This will greatly benefit any fish community within the pond / stream by reducing the temperature of the water. Several trees will need to be cleared, including the tree line to the east of the existing stream and all the trees on the residential properties within the project limits. This could possibly impact any wildlife using these trees as natural habitat. It's noteworthy that the Springfield South pond was placed to east of the existing stream bed in order to maintain the existing tree line / natural habitat and reduce sediment entering the stream during construction activities. In order to replace any natural habitat that will be cleared as part of this project, there will be several types of trees planted around the pond. Several existing spruce trees will be spaded and moved to various locations around the pond. Bur Oak and Shagbark Hickory trees will be also be planted around the pond, providing natural habitat and food (acorns / nuts) for wildlife. The overall proposed project

benefits such as improved stream / wetland buffers, enhanced aquatic / wildlife habitat, improved aesthetics, and greater public access to the waterway. Specifically, it is anticipated that fish and wildlife habitat may increase with the proposed pond enhancement.

17. Cultural

a. Land Use (including indirect and secondary impacts)

The location of the Springfield Wetland / Pond was selected to due its ability to collect, detain, and treat all of the water within the unnamed tributary's watershed. Nearly the entire Springfield Wetland / Pond watershed is developed, primarily consisting of commercial and industrial land uses. Watersheds containing commercial and industrial land uses typically have very high pollutant loadings and peak flow rates, and therefore are targeted as cost effective BMP retrofits. Many of the existing commercial and industrial developments in the Town of Buchanan have very small dry detention facilities that discharge directly into the unnamed tributary. For purposes of NR 216 compliance, dry detention facilities provide no water quality benefits. The location of the Springfield Wetland / Pond within the unnamed tributary is essential for collecting and treating runoff, and therefore reducing the pollutants and peak flows entering Garners Creek. It is noteworthy that Garners Creek and the Fox River are 303(d) impaired water bodies. The Springfield Wetland / Pond will target the 303(d) pollutants of concern, TSS and TP.

b. Social/Economic (including ethnic and cultural groups, and zoning if applicable)

The proposed Springfield Wetland / Pond will be a social and economic gain for the Town of Buchanan and its residents. Construction activities should lead to short-term increases in employment and purchase of goods and services near the project location. The current property is owned by the various residential and commercial property owners, and is unusable to the general public. The proposed project will enhance the natural scenic beauty of the area, and allow residents the ability to use an area that was previously unusable. The maintenance / recreational trail will provide residents with access from Stoney Brook Road and the future Buchanan Cottages development. The Town has expressed an interest to eventually incorporate the maintenance / recreational trail with their overall trail plan. Public support for similar projects could increase due to the convenience of experiencing the natural open space within the community. It is hopeful that the Springfield Wetland / Pond could change the attitudes and practices of the general public. People may be inclined to embrace sustainable practices, such as installing rain gardens, on their own property. As previously mentioned, the Springfield Wetland / Pond has been identified as a cost-effective BMP in helping the GCSWU reach their "big picture" goals of 40% TSS reduction and 1955 peak flow objectives. If the Springfield Wetland / Pond is not permitted, the GCSWU would need to spend significantly more money on less cost-effective options.

c. Archaeological/Historical

There are no known archeological or historical facts within the project boundary.

18. Other Special Resources (e.g., State Natural Areas, prime agricultural lands)

There are no other special resources within the project boundary.

19. Summary of Adverse Impacts That Cannot Be Avoided (more fully discussed in 15 through 18)

- Grading activities will change the existing topography.
- Construction activity and transportation impacts (short-term)
- Disturbance of 0.34 acres of wetlands, confined to the bed / banks of the existing stream.
- Clearing of trees that could provide natural habitat for wildlife.
- Realignment of a navigable stream, possible impacts to existing fish / aquatic community.

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DNR EVALUATION OF PROJECT SIGNIFICANCE (complete each item)

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20. Environmental Effects and Their Significance

a. Discuss which of the primary and secondary environmental effects listed in the environmental consequences section are long-term or short-term.

The primary environmental effect is that the existing waterway will be significantly changed in the proposed project area. The project proposes approximately 1,068 linear feet of stream realignment. Approximately 0.34 of stream bank disturbance and wetland disturbance will occur as part of project. There will be two stormwater detention ponds created that will be at the same elevation and are considered connected enlargements to the existing waterway. A significant amount of grading will occur within and adjacent to the existing waterway during the construction of the ponds. During the construction period there will be an increase in soil erosion. This is a short-term environmental effect and with erosion control practices included in the proposed plan this increase will be substantially controlled. Currently the property is a stream corridor of undeveloped property, but the waterway carries a considerable amount of stormwater and is subject to increased (flashy) flows. Based on the proposed plan there should be considerable improvement in water quality, control of flows, and wetland habitat. The stormwater ponds and adjacent area will be planted with native wetland and upland plant species. The existing wetland 2.84 (acres) to the south of the proposed ponds will be converted and enhanced to include a lowland hardwoods wetland.

- b. Discuss which of the primary and secondary environmental effects listed in the environmental consequences section are effects on geographically scarce resources (e.g. historic or cultural resources, scenic and recreational resources, prime agricultural lands, threatened or endangered resources or ecologically sensitive areas).

The location of the proposed project is currently undeveloped and is part of the stream corridor. Further upstream and in both lateral directions there is commercial/industrial development and agricultural use. Habitat is limited to the existing waterway corridor and the 2.84 acres south of the proposed project location. The resource value associated with the present waterway in the location of the proposed project would be considered low. However it is a corridor and does about the 2.84 acres wetland to the south. With the proposed plants and the enhancement/conversion of the 2.84 acres wetland the area should increase in resource value. Invasive species will be removed and/or controlled as part of the overall project. There is little likelihood that the environmental effects from the activities associated with the proposed construction activities will result in adverse affect to geographically scarce resources. A Natural Heritage check did not show any valuable resources.

- c. Discuss the extent to which the primary and secondary environmental effects listed in the environmental consequences section are reversible.

The environmental effects of the proposed project may result in some wildlife habitat loss. There is currently no indication of a fishery resource. This loss is considered acceptable considering the potential benefits of the proposed project including the enhancement/conversion of the existing wetland, the placement of suitable structure to allow fish passage, improved water quality, ~~and, and~~ the wetland and upland plant species to be located in and around the two stormwater ponds.

## 21. Significance of Cumulative Effects

Discuss the significance of reasonably anticipated cumulative effects on the environment (and energy usage, if applicable). Consider cumulative effects from repeated projects of the same type. Would the cumulative effects be more severe or substantially change the quality of the environment? Include other activities planned or proposed in the area that would compound effects on the environment.

Based on the location and type of construction activities there should be no cumulative effects on the environment. In this case the stormwater ponds and stream corridor habitat features proposed should improve water quality and habitat (terrestrial and aquatic). Passage of fish species and corridor use of wildlife species should improve based on proposed design. No other activities planned or proposed for this area have been identified at this time that would compound effects on the environment.

## 22. Significance of Risk

- a. Explain the significance of any unknowns that create substantial uncertainty in predicting effects on the quality of the environment. What additional studies or analysis would eliminate or reduce these unknowns?

Based on the information provided, there should not be a need for additional studies or analysis.

- b. Explain the environmental significance of reasonably anticipated operating problems such as malfunctions, spills, fires or other hazards (particularly those relating to health or safety). Consider reasonable detection and emergency response, and discuss the potential for these hazards.

The proposed activities will involve the use of heavy equipment such as backhoes, scrapers, dump trucks and bulldozers. Some hazard exists with spill and malfunction of such equipment. Procedures should be in place to deal with these types of problems. Erosion control is a significant concern given the scale of the proposed project. Control devices will need to be in place and monitored for effectiveness during the entire project and afterward until area has stabilized. Sediment movement off site must be controlled/minimized.

## 23. Significance of Precedent

Would a decision on this proposal influence future decisions or foreclose options that may additionally affect the quality of the environment? Describe any conflicts the proposal has with plans or policy of local, state or federal agencies. Explain the significance of each.

This proposed project should not have any influence on the future decisions related to the quality of the environment. Stormwater detention basins are commonly used and required to control erosion and improve water quality. Some controversy may exist because the design is considered "in-line" stormwater treatment. In-line ponds are those that enlarge navigable waterways. These types of ponds can become controversial because wildlife corridors, such as fish passage, may be reduced or eliminated because of structures associated with these ponds. The Garners Creek Stormwater Utility is the applicant of record and has initiated the permit process.

## 24. Significance of Controversy Over Environmental Effects

Discuss the effects on the quality of the environment, including socio-economic effects, that are (or are likely to be) highly controversial, and summarize the controversy.

The proposed project should not have any measurable effects on the environment. The location is surrounded by commercial/industrial development or in agricultural use and planned in the near future to be further developed. Commercial and residential development has occurred throughout the area and will continue to occur. Seven landowners have signed agreement/support letters for the proposed project including the channel change portion.

## ALTERNATIVES

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25. Briefly describe the impacts of no action and of alternatives that would decrease or eliminate adverse environmental effects. (Refer to any appropriate alternatives from the applicant or anyone else.)

No action would allow erosion and water quality problems to continue in the basin under the current type of land use. There is a need for improved stormwater management in the basin do to past development practices that have resulted in increased flows to the waterway during storm events. This situation has lead to diminished water quality and increased erosion of bed/bank areas in Garners Creek. Controlling stormwater run-off, and peak flow rate increases should improve water quality conditions in the basin..

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## SUMMARY OF ISSUE IDENTIFICATION ACTIVITIES

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26. List agencies, citizen groups and individuals contacted regarding the project (include DNR personnel and title) and summarize public contacts, completed or proposed).

<u>Date</u>	<u>Contact</u>	<u>Comment Summary</u>
1/30/08	Richard Nikolai – WDNR Wildlife Biologist	Memo on site inspection.
5/15/08	Richard Nikolai – WDNR Wildlife Biologist	Follow-up memo with additional comments on earlier site inspection.
6/9/08	David Rowe – WDNR Fishery Biologist	Memo on site inspection on comments on proposed project.
11/9/08	Miles Winkler – WDNR Watershed Engineer	Draft dam authorization and approval for Springfield Pond Dam
7/15/08	David Rowe – WDNR Fishery Biologist	Memo on site visit with McMahon Associates discussing design of stormwater ponds and potential impacts. Plant species, culvert vs. open channel and carp control were discussion topics
1/15/09	Nick Domer – U.S. Army Corps of Engineers	Correspondence from McMahon Associates including a practicable alternative analysis for wetland impacts and pond cost analysis.
4/24/09	Nick Domer – U.S. Army Corps of Engineers	Correspondence from McMahon Associates outlining a mitigation plan to off-site wetland lose as a result of the proposed project.
3/12/09	Gus Glaser – WDNR Stormwater Engineer	Memo on review of proposed culvert vs. open channel conveyance related to fish passage and slope stability
5/28/09	Jim Doperalski – WDNR Environmental Analysis and Review Specialist	Comment on and Review Environmental Assessment.

Project Name: Springfield Wetland / Pond County: Outagamie

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DECISION (This decision is not final until certified by the appropriate authority)

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In accordance with s. 1.11, Stats., and Ch. NR 150, Adm. Code, the Department is authorized and required to determine whether it has complied with s.1.11, Stats., and Ch. NR 150, Wis. Adm. Code.

Complete either A or B below:

A. EIS Process Not Required

The attached analysis of the expected impacts of this proposal is of sufficient scope and detail to conclude that this is not a major action which would significantly affect the quality of the human environment. In my opinion, therefore, an environmental impact statement is not required prior to final action by the Department.

B. Major Action Requiring the Full EIS Process

The proposal is of such magnitude and complexity with such considerable and important impacts on the quality of the human environment that it constitutes a major action significantly affecting the quality of the human environment.

Signature of Evaluator	Date Signed

Number of responses to news release or other notice:

Certified to be in compliance with WEPA	
Environmental Analysis and Liaison Program Staff	Date Signed

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NOTICE OF APPEAL RIGHTS

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If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

For judicial review of a decision pursuant to sections 227.52 and 227.53, Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

Note: Not all Department decisions respecting environmental impact, such as those involving solid waste or hazardous waste facilities under sections 144.43 to 144.47 and 144.60 to 144.74, Stats., are subject to the contested case hearing provisions of section 227.42, Stats.

This notice is provided pursuant to section 227.48(2), Stats.