

Attachment 2 – Summary of Public Comments Received during both public comment periods for the Fitchburg Northeast Neighborhood Urban Service Area amendment to the Dane County water quality management plan

Public comments common themes April 10, 2015

<p>Developable land</p> <ul style="list-style-type: none"> • Fitchburg has other developable land available in its Urban Service Area • Fitchburg has 1125 acres of developable land in its Urban Service Area, enough to meet demand for 20 years or more 	<p>The Fitchburg Northeast (NEN) Neighborhood Amendment proposes adding 985.9 acres of land and water resources to the Central Urban Service Area of the Dane County Water Quality Management Plan. The proposal identifies 273.5 acres of environmental corridor and uses demographics based on 2003 population projections. However, 2013 population projections from the US Census are currently available. With this action, the DNR approves approximately 375 acres (portions of phase 1 and phase 2a of the initial proposal) and requests that the City of Fitchburg work with CARPC to provide updated land use needs based on 2013 population projections from the US Census as well as a letter from DOA indicating support of the projections used, which is required under ch. NR121, Wis. Adm. Code (see Wis. Adm. Code NR 121.05).</p>
<p>Population projections</p> <ul style="list-style-type: none"> • Population information included in amendment application outdated • 2003 projections predicted that in 2030 Fitchburg would have 35,386 inhabitants; newest projections decreased that prediction to 29,620 • Population change represents a 16% decrease 	<p>Work with CARPC technical staff to update land projection needs based on the 2013 Census data. Provide a letter from Department of Administration (DOA) indicating support of the projections used.</p> <p>a. Applicant should work with CARPC to update land use need calculations based on 2013 population projections from US Census and adjust its 20 year development needs in the Dane County WQM Plan.</p> <p>b. CARPC should forward the population projections to the DNR, as an amendment to the Dane County WQM Plan. This staff based update does not require action by CARPC.</p>
<p>Impacts to wetlands</p> <ul style="list-style-type: none"> • Waubesa wetlands are high-quality and require extra precautions • In order to protect wetlands, important to retain current hydrology • Hydrologic impacts caused when permeable surfaces are 	<p>Provide wetland delineations, as determined through procedures specified in state and federal rules, for the approved amendment area and delineated environmentally sensitive areas (ESAs) to CARPC technical staff and the DNR to update ESA map delineations to guide development, water quality protection, and stormwater planning.</p> <p>Work with CARPC and DNR in the conduct of a wetland condition survey of all affected wetlands</p>

<p>converted to roofs and pavement could destroy downstream wetlands</p>	<p>including riparian and isolated features within the site boundary and adjacent hydrologically connected area, including the Waubesa Wetlands. This study will apply the Wisconsin Wetland Rapid Assessment Methodology for wetland condition and function, and use the Floristic Quality Assessment for plant community condition. These analyses will be used to identify compliance with ch. NR103, Wis. Adm. Code, prior to locating stormwater management facilities. The survey will include the identification of all currently placed agricultural drainage structures.</p> <p>Hydrologically connected downstream resources include the regionally important and unique Waubesa Wetlands complex. Statements by numerous experts and advocates have outlined the value of these resources and the importance and need for protection of these resources. Significant investigation regarding the specific sources and flows of surface and groundwater feeding these wetlands is warranted. The DNR, City of Fitchburg, Town of Dunn, CARPC and others should conduct a watershed-based study to provide recommendations for management actions and protection areas focusing on the Waubesa Wetlands. This study should use updated groundwater model data, storm event data, and nutrient and sediment runoff projections for areas feeding the Waubesa Wetlands.</p>
<p>Stormwater facilities inadequate</p> <ul style="list-style-type: none"> • Impervious surfaces increase the likelihood of stormwater run-off • Climate change will lead to more severe and frequent rain events; these rain events not accounted for in CARPC stormwater analysis 	<p>Stormwater management in the proposed development area, compared with other areas of the county, is complicated. The development, as initially proposed, will use wetlands as stormwater receiving waters and will result in increasing stormwater flow to Swan Creek and its corridors. Currently, portions of the land area are in agricultural use with varying levels of soil compaction. Existing land uses deliver excess nutrients and sediment to downstream resources. The variable terrain and differential water table (reflecting the perched aquifer in the eastern portion of the proposal) complicate stormwater retention in a residential development scenario. Conversely, protection of the southern riparian wetlands and downstream resources precludes channeling stormwater from newly developed areas to these resources as well.</p> <p>The release of dissolved and particulate nutrients and sediment, and a potential to increase the existing spread</p>

	<p>of aquatic invasive species (reed canary grass, phragmites, and cattails) due to hydrologic modifications resulting from a development's discharge to sensitive areas are of concern. Increased stormwater flow to Swan Creek and its riparian corridor, which feeds the Waubesa Wetlands, poses a potential significant risk to the resource. Due to this concern, a detailed stormwater plan that works in concert with, but avoids the treatment within, natural surface water features such as existing springs and wetlands, is recommended.</p> <p>The CARPC staff analysis suggested stormwater control measures that, in some aspects, exceed the applicable state requirements of ch. NR 151, Wis. Adm. Code. The City of Fitchburg has agreed to comply with infiltration of 90% of the pre-development infiltration volume for all land uses. A sitespecific stormwater management plan which delineates specific control measures will be required prior to construction. Stormwater management actions that involve using natural surface water features such as wetlands or streams as receiving waters require compliance with applicable local, regional and state regulations including chs. NR102 and NR103, Wis. Adm. Code, state water quality standards. More details regarding stormwater management are found in the conditions of the amendment decision.</p>
<p>Groundwater model not sufficient</p> <ul style="list-style-type: none"> • Plan itself encourages use of updated groundwater data before area is developed; that didn't happen • Unclear to what extent high-capacity well related drawdowns and related shallow aquifer decrease in recharge will impact wetlands, streams and Lake Waubesa 	<p>Impacts to Regionally Significant Resources: Groundwater</p> <p>Initial discussions between DNR and the WGNHS regarding the application of the Dane County Hydrological Model for analysis of this amendment revealed that a previous, coarser-scale version of the model was applied to the proposed amendment. The 2013 model results indicated that source water areas for the Waubesa Wetlands are primarily located in western portion of the county, where hydraulic conductivity and therefore permeability to the deep aquifer is high. In the east just southwest of Lake Waubesa, a geologic irregularity in the Eau Claire Shale (which acts as an aquitard where it is present), results in the deep aquifer-fed spring that helps form the Waubesa Wetlands. This information is combined with well-documented and increasing issue of aquifer drawdown in the Madison Metropolitan area ("cone of depression")</p>

	<p>and 2035 model projections hypothesizing the loss of Starkweather Creek along with significant flow reductions in numerous other surface features. Therefore, DNR requests the use of the updated Dane County Hydrologic Model for future application proposals, as well as any additional significant land use change scenarios in the region.</p> <p>CARPC technical staff, together with DNR and WGNHS, should complete the Dane County WQM Plan Appendix: Groundwater Status and Protection Plan. This study should be based on the updated (2015) Dane County Hydrologic Model to provide recommendations for source water protection areas that feed the perched fen located in the southwest portion of Lake Waubesa and provide more detail regarding current and future municipal well placement.</p> <p>The plan will identify areas recommended for more detailed studies of groundwater flow and surface and groundwater interaction areas in the southern reaches of Dane County. The study will also identify water quantity mitigation actions designed to help reduce the current cone of depression mitigate future significant surface water drawdowns. These actions should be published and shared with the public.</p>
<p>Aquatic invasives</p> <ul style="list-style-type: none"> • Cattails invade and expand with nutrient additions • Reed canary grass is Wisconsin's worst wetland invasive species, and it expands with excess water, nutrients and sediments • Reed canary grass displaces native plant species 	<p>The release of dissolved and particulate nutrients and sediment, and a potential to increase the existing spread of aquatic invasive species (reed canary grass, phragmites, and cattails) due to hydrologic modifications resulting from a development's discharge to sensitive areas are of concern.</p> <p>Increased stormwater flow to Swan Creek and its riparian corridor, which feeds the Waubesa Wetlands, poses a potential significant risk to the resource. Due to this concern, a detailed stormwater plan that works in concert with, but avoids the treatment within, natural surface water features such as existing springs and wetlands, is recommended.</p>
<p>Impacts to Lake Waubesa</p> <ul style="list-style-type: none"> • Lake Waubesa already highly eutrophic • Pollutants from development 	<p>Due to this concern, a detailed stormwater plan that works in concert with, but avoids the treatment within, natural surface water features such as existing springs and wetlands, is recommended.</p>

<p>could enter lake through Swan Creek and Murphy Creek inflows</p>	
<p>Environmental protections adequate</p> <ul style="list-style-type: none"> • Northeast Neighborhood development would create better water quality than continued use of the area for agriculture • Northeast Neighborhood plan has standards that exceed state and most local requirements, and that was done intentionally to create a higher standard for area development • Northeast Neighborhood plan includes <ul style="list-style-type: none"> ○ Engineered water retention features ○ Groundwater recharge features ○ Restoration of a small wetland ○ Designation and protection of an environmental corridor ○ Sizeable open-space buffer for Swan Creek 	<p>Sewer service area plans require the delineation of environmentally sensitive areas that are prohibited from sewer development. In addition, the proposed development should not impact the quality of these surface water features under the state’s water quality standards. In the case of wetlands, the applicable standard is ch. NR103, Wis. Adm. Code the state’s functional wetlands water standard. The initial amendment request reviewed and ultimately denied by the Commission includes lands with hydrologically complex features in the northern, eastern and southern areas.</p> <p>The initial proposal identified 273.5 acres of environmentally sensitive areas; however, only a portion of the wetland features had been professionally inventoried. There is a need for professional wetland delineations and buffers that correspond to protections requisite to maintain water quality standards for all wetland features. Additionally, a new inventory of springs conducted by WGNHS identified features that should also be identified as environmentally sensitive areas.</p> <p>Note this amendment updates the environmentally sensitive area map the WQM Plan for Dane County as well as for future City of Fitchburg development. The updated environmentally sensitive area map (to be developed) will include WGNHS inventoried springs, wetlands (as per future wetland inventory of site location and adjacent resource areas), rivers/streams with surface water features having 75 to 300 foot buffers in the development area and in surrounding areas for water features including Nine Springs Creek, Swan Creek, Murphy's Creek and the Waubesa Wetlands.</p>

Public comments common themes April 14, 2016

<p>Concerns regarding stormwater quality and quantity impacts to downstream resources, including the Waubesa Wetlands, and meeting water quality standards.</p>	<p>The Department believes that the conditions of approval, as well as additional provisions included in the settlement agreement reached with Fitchburg Lands and the Town of Dunn, as part of litigation related to the Department's April 2015 Decision, will adequately address potential impacts of stormwater runoff on the Waubesa Wetlands. In addition, any development that proceeds in the approved area will need to meet statewide stormwater, wetland, and water quality standards, as well as municipal and county ordinances. See above discussion on Stormwater Management and Impacts to Regionally Significant Resources – Waubesa Wetlands.</p> <p>In addition, the Department recommends that the DNR, City of Fitchburg, Town of Dunn, CARPC and others conduct a watershed-based study to provide recommendations for management actions and protection areas focusing on the Waubesa Wetlands. This study will use updated groundwater model data, storm event data, and nutrient and sediment runoff projections for areas feeding the Waubesa Wetlands. This is included as an Additional Recommended Action in the decision.</p>
<p>Concerns that the impact of regional groundwater depletion on surface waters is not being adequately addressed in decision.</p>	<p>The Department recognizes the need to consider regional hydrology when making water quality decisions. For this reason, we are requesting the use of the updated Dane County Hydrologic Model for future application proposals, as well as any additional significant land use change scenarios in the region. CARPC staff have drafted an appendix to the Dane County Dane County WQM Plan focused on groundwater. DNR staff has reviewed this document and are in the process of</p>

	<p>providing comments. The document identifies areas recommended for more detailed studies of groundwater flow and surface and groundwater interaction. See above discussion on Impacts to Regionally Significant Resources – Groundwater.</p>
<p>Concerns regarding the planned monitoring before development and after development.</p>	<p>The Department received numerous comments regarding the monitoring plan referenced in this staff analysis memo. To be clear, the monitoring plan was negotiated as part of a settlement agreement with the Town of Dunn and the landowner during the litigation process, and is not part of the Department’s approval. The Department does not believe it has the authority to require monitoring in the amendment approval process under § 283.83 and ch. NR121. However, the Department was involved in developing the technical aspects of the monitoring plan, and is confident that the monitoring will address most of the comments received.</p> <p>In particular, the plan, in the settlement agreement, will employ a Before/After, Control/Impact design on 4 locations within the approved amendment area immediately upstream of Swan Creek. Sampling will be conducted at sufficient frequency to capture a range of storm events, as well as base flow conditions. Data will be collected for a minimum of one year pre- and post-development of the first phase of the project to ensure that the agreed upon water quality based performance standards at the monitoring stations are being met. Detailed monitoring plans, pre-development data summary, and Phase 1 post-development monitoring report will be provided to the Department for review and concurrence with the terms of the settlement before the remaining area is developed.</p>