PLAN COMMISSION RECOMMENDED REVISIONS TO THE DRAFT PUMPKIN HOLLOW NEIGHBORHOOD DEVELOPMENT PLAN

At their February 25, 2008 meeting, the Madison Plan Commission recommended adoption of the Pumpkin Hollow Neighborhood Development Plan with the following revisions to the October 2007 draft plan:

RECOMMENDED REVISIONS TO THE PLAN MAPS

Land Use and Street Plan (Map 6)

Roadway Alignments:

- Anderson Road is shown as a neighborhood public street extending west from Portage Road to the Interstate Highway generally on its current alignment, except for a potential northward shift at the eastern end of the road, through the southeast corner of Token Creek Park, to align with the future east-west connecting street between Portage Road and Rattman Road.
- Local streets illustrated in the portion of the neighborhood south of Token Creek Park are realigned as required to interconnect with Anderson Road and to reflect modifications to the north-south greenway. A modified street configuration is also shown west of the greenway, but the street alignments illustrated could vary, depending on the lot sizes and specific development pattern established within the Potential Office/Employment Area.
- The relocated entrance to Token Creek Park is recommended to be on Anderson Road, about 400 feet east of the currently-closed former entrance, opposite the northern end of the proposed north-south greenway. The shift eastward would not need to occur until there is development south of Anderson.

Land Uses:

- In the area south of Token Creek Park, the configuration of the Potential Office/ Employment Area is modified to reflect changes to the illustrated street pattern.
- In the area south of Token Creek Park, the largest of the alternative Potential Office/ Employment Area configurations conceptually illustrated on the Alternative Land Use Concepts map (Map 7) is now shown as the "base alternative" on the Land Use and Street Plan (Map 6).
- In the area south of Token Creek Park, a slightly different pattern is illustrated for the four residential Housing Mix districts, still reflecting the recommendation to focus higher-density types closest to the proposed Mixed Use Neighborhood Center.

Greenways and Environmental Corridors:

- The proposed major north-south greenway between Hoepker Road and Token Creek Park has been widened to a minimum width of 150 feet, and is wider where stormwater detention/retention facilities are indicated. The shape of the greenway and the locations for stormwater management facilities were also modified to allow for a more-direct bicycle path connection between Hoepker Road and Token Creek Park. As noted in the plan text, the exact alignments of greenways and locations of stormwater management facilities may be modified in detailed development plans.
- The environmental corridor along the intermittent stream that crosses Portage Road south of Hoepker Road has been widened to a minimum width of 150 feet.
- The environmental corridor along the intermittent stream that crosses Portage Road just south of its intersection with Rattman Road has been widened to a minimum width of 200 feet through the conceptual conservation subdivision illustrated west of Portage Road, and is wider at the western edge of the subdivision.

Note: Other maps that use the Land Use and Street Plan as a base (Maps 7, 8, 9 and 10) will be modified as required to incorporate the revisions to Map 6.

Note: The plan narrative will be revised as required to accurately describe the revised land use and street alignment recommendations. Acreage and dwelling unit estimates will also be adjusted as needed to correspond with revisions to the mapped land uses.

Transportation Plan–Pedestrian/Bicycle Facilities (Map 9)

- Replace the off-street pedestrian-bicycle path shown along southern edge of the Hoepker Road right-of-way with an alternative located about one block farther south that combines street segments designated as "local through streets for bicyclists" with off-street paths to create a low-traffic bike route between American Parkway and the Interstate Highway. This route returns to the Hoepker Road right-of-way along the eastern edge of the wetland south of Hoepker Road to connect with the bicycle path within the north-south greenway to Token Creek Park, and to cross over the Interstate at the Hoepker Road Bridge. The short Hoepker Road segments would be off-street but within the right-of-way. The plan text will note that until a local street network exists south of Hoepker Road, consideration might be given to locating additional segments of the off-street path within the Hoepker right-of-way on a temporary basis.
- An additional pedestrian-bicycle path is recommended along the western edge of the wetland south of Hoepker Road and extending from Hoepker Road southwest to a proposed underpass beneath the Interstate Highway to connect with the proposed Starkweather Creek path toward the Madison Area Technical College. This is probably a long-term alternative. The plan text will note that at the time this underpass is constructed, a more-direct connection across the wetland to the east-west path south of Hoepker Road might be considered.

- An additional pedestrian-bicycle connection is recommended between the southern end of Sommer Valley Circle and Token Creek Park. The plan narrative will note that this potential path is intended primarily for the convenience of Sommer Valley Circle residents and would only be established if they supported the concept. The text will also note that issues related to ownership, access control and maintenance responsibility would need to be addressed.
- On-street bicycle lanes are recommended on Anderson Road between Portage Road and the Interstate Highway, in lieu of the off-street bicycle path along Anderson Road proposed in the draft plan. The on-street lanes would be a continuation of the lanes recommended on the future east-west connecting street between Portage Road and Rattman Road. Anderson Road does not cross over the Interstate and the proposed bridge is for pedestrians and bicycles only.
- It is recommended that the easternmost north-south through street in the portion of the neighborhood that will eventually become part of the City of Madison be identified as a "Local Through Street for Bicyclists." This route begins at Hoepker Road and splits at the northern end to connect with both Portage and Rattman Roads.
- An additional off-street pedestrian-bicycle path segment is recommended through the proposed area park north of the proposed school site.
- An additional pedestrian-bicycle path is recommended extending into The American Center from Hoepker Road and the east-west path south of Hoepker. This path is illustrated on the alignment of a former construction access road, but alternative routes are possible. Currently, no public streets or driveways connect The American Center to Hoepker Road.
- The recommended pedestrian-bicycle path within the proposed north-south greenway between Hoepker Road and Token Creek Park has been realigned to be more direct, and will cross Anderson Road and enter the park just west of the proposed relocated park entrance to reduce potential conflicts with vehicular traffic using the park entrance.
- Text boxes have been added to Map 9 at the points where recommended off-street pedestrian-bicycle paths extend beyond the planning area (indicated by an arrowhead at the end of the illustrated path segment) to describe other existing or planned components of the regional bicycle network to which the path will eventually connect. These connections are also noted in the plan narrative.

Note: The plan narrative will be revised as required to accurately describe the revised street alignment and pedestrian-bicycle facility recommendations.

RECOMMENDED REVISIONS TO THE PLAN NARRATIVE

Note: The recommended revisions listed below do <u>not</u> include the narrative revisions that will be made to accurately describe the revised land use and street alignment recommendations illustrated on the revised Land Use and Street Plan and Transportation Plan maps. These revisions are essentially descriptive. The recommended revisions listed below also do not include corrections of typographical errors, editorial corrections (dropped words, case agreement), and correction of obvious technical errors (writing "east" for "west"). The additional revised narrative and text corrections will be included in the revised Pumpkin Hollow Neighborhood Development Plan prior to publication.

BACKGROUND INFORMATION AND PLANNING CONTEXT

Existing Transportation Facilities

Transit Service

• Replace the narrative in the "Transit Service" section with the following paragraph (Page 13):

There is no transit service to the Pumpkin Hollow planning area at the present time. Madison Metro's Route 25, which travels between the Capitol Square and The American Center, is the closest bus route. This route currently provides limited reverse commute service to The American Center during weekdays, with two trips outbound in the morning and two buses returning downtown in the afternoon peak. There is also a Park-and-Ride lot in The American Center on Eastpark Boulevard. The City of Sun Prairie operates a shared-ride Taxi Service for trips originating in that jurisdiction.

Pedestrian and Bicycle Facilities

• Replace the second sentence in the "Pedestrian and Bicycle Facilities" section with the following two sentences (Page 14):

Although Portage Road and Rattman Road are identified in the *Regional Transportation Plan 2030* as part of the recommended regional Bicycle Way System, no marked bicycle lanes are provided on any of the neighborhood roadways at this time. Portage Road is identified on the Dane County Bicycle Map as a recommended route to the countryside beyond the urban area.

RECOMMENDATIONS

Traditional Neighborhood Development Design Principles

New Section on Street Trees and Trees in Public Parks

• Add the following new section heading and narrative after the "Strong Orientation to the Street" section (Page 21):

Street Trees and Trees in Public Parks

Street trees are important elements in establishing the visual framework which defines the space along public rights-of-way, and proper tree selection can help to create a pleasing proportional relationship between height and street width. In many older neighborhoods, the overhead canopy of mature street trees is recognized as one of the most valued components of neighborhood character---although the trees are often compromised by pruning done for utility clearance. In new neighborhoods, utilities are required to be underground, and it is recommended that street trees in the Pumpkin Hollow neighborhood be full-canopy trees to the extent compatible with other community objectives. The selection of street trees needs to be coordinated with the design width of street terraces and other street characteristics, and this should occur as part of detailed subdivision planning.

It is also recommended that the mix of tree varieties planted in neighborhood and area parks include large canopy trees as well as smaller varieties. Large trees can be shown to full advantage in the more-open spaces of public parklands, and can help create a dramatic setting for other park activities.

Parks and Open Space Recommendations

Proposed Token Creek Conservation Area

• Revise the last sentence in the third paragraph in the "Proposed Token Creek Conservation Area" section to read as follows (Page 40):

Fortunately, the owners for the most part have been excellent stewards of the land; but development pressures in this area will only increase, and more active steps will need to be taken to ensure that this wonderful resource can be preserved for future generations.

• Revise the second and third sentences in the next to last paragraph in the "Proposed Token Creek Conservation Area" section to read as follows (Page 41):

It is not necessary (and may not always be desirable) to provide general public access to all parts of the open space area, however. Where public access is provided, there may be opportunities for limited, low-impact recreational activities such as fishing, hiking, and perhaps biking.

New Section on Starkweather Creek

• Add the following new section heading and narrative between the "Proposed Token Creek Conservation Area" section and the "Token Creek Park" section (Page 42):

Starkweather Creek¹

Starkweather Creek is a unique resource, representing one of the few streams located almost entirely within the highly-developed Madison urban area. But since the time of first settlement, multiple factors associated with development have significantly altered the creek from its natural state. Over the years, degradation in both water quality and baseflow has occurred as the result activities such as stream rechannalization and dredging, draining and filling of supporting wetlands, contamination from industrial uses on adjoining lands, general urban and agricultural stormwater run-off, poor stream bank maintenance, and high-capacity well pumping.

There have always been concerned citizens interested in preserving and improving Starkweather Creek, but several major studies conducted in the 1980's and 1990's helped energize renewed efforts both to improve the water resource and enhance creekside amenities, such as bicycle paths, walking trails and adjacent parklands. The *1983 Starkweather Creek Water Quality Plan* provides an excellent summary of background information specific to the creek and its history, and includes goals and specific recommendations for stream improvement. Subsequent other studies and plans also provided additional information and analysis particularly relevant to Starkweather Creek and the Yahara-Monona watershed; and these were used during the preparation of an update to the Starkweather Creek plan in 2005.

The *Starkweather Creek Master Plan 2005 Update* was initiated by City of Madison alderpersons and citizen groups representing areas affected by the watershed. The purpose of this project was to revise the earlier plan's goals and proposed improvements to reflect current regulatory changes, and to add new goals and recommended improvements that would address environmental concerns and recreational opportunities within the watershed. The 2005 update was prepared by City Engineering and Parks Division staff, working with City and Dane County elected officials, the Wisconsin Department of Natural Resources, the Dane County Watershed Coordinator, Town governments, the Friends of Starkweather Creek and other neighborhood and citizen groups. *Master Plan 2005* focuses on the area from the mouth of the creek at Lake Monona upstream along both branches to their junction with Interstate 39-90-94. Reaches of the creek beyond the Interstate were to be addressed as part of the neighborhood planning process and through application of the mandatory stormwater management plans required by state law.

The Pumpkin Hollow neighborhood planning area comprises the northernmost portion of the watershed of the west branch of Starkweather Creek, and visible stream features are limited to a wetland area south of Hoepker Road and west of Portage Road, which extends west to the Interstate Highway, and two intermittent streams. One of the intermittent streams flows westward through a wooded gully from a hilly area north of The American Center and under Portage Road to the Interstate. The other intermittent stream begins in the area north of Hoepker Road and east of

¹ Note: As authorized by the Plan Commission on 2-25-08, this section incorporates further revisions developed by Planning Division staff in response to additional comments submitted by Friends of Starkweather Creek.

Portage Road, and flows west under Portage and then south under Hoepker Road into the wetland area. This stream is considered navigable west of Portage Road, although it is dry most of the time. Two sets of culverts direct these streams under the Interstate Highway to a larger wetland, where Starkweather Creek surface water becomes a permanent feature.

Because Starkweather Creek is not a permanent surface water feature within the planning area, the recommendations in the Pumpkin Hollow Neighborhood Development Plan focus primarily on protection and improvement of the water quality of the creek, rather than on development of creekside recreational amenities. However, a segment of the recommended pedestrian-bicycle path south of Hoepker Road is located adjacent to the wetland area, a short path is proposed across the navigable stream north of Hoepker Road, and other proposed paths are located within the planned open greenways designed as part of the stormwater management system.

Stormwater in the Starkweather Creek watershed flows through the steep, heavily wooded gullies, open ravines and natural swales across plowed agricultural fields into the intermittent streams; and currently, there is little to prevent sediment, phosphorus and other agricultural contaminants from reaching the creek and its wetlands. Nor is there any control of the volume of stormwater runoff, which can scour and erode the creek channel downstream during heavy rains---adding even more sediment and pollutants. These conditions heavily influence the water quality in downstream segments of Starkweather Creek and ultimately in Lake Monona.

Several approaches are recommended in the neighborhood plan to protect and improve Starkweather Creek water resources:

<u>Stream Improvements</u>. Both of the designated intermittent streams are currently heavily overgrown and shaded by large trees, and there is relatively little groundcover to help stabilize their banks and prevent erosion. It is recommended that the southern stream, and the navigable portion of the northern stream west of Portage Road, be maintained in a relatively natural state; and that the banks of these streams be stabilized through selective tree pruning to increase sunlight, installation of appropriate native plants and grasses, and if indicated, limited use of natural boulders or similar materials. These improvements should occur at the time the adjacent land is developed or earlier.

<u>Open Greenways</u>. A major open stormwater greenway is recommended running north-south between Hoepker Road and Token Creek Park, generally following the current natural drainage course across agricultural fields. This greenway has a recommended minimum width of 150 feet, and will be wider where detention ponds are located. Another open greenway is recommended following the general alignment of the non-navigable segment of the northern intermittent stream located east of Portage Road and north of Hoepker Road. This greenway also may contain detention facilities, and is proposed to extend east to the proposed neighborhood park also illustrated on the Land Use and Street Plan (Map 6). <u>Detention Basins</u>. Currently, dry detention basins are recommended to promote infiltration and collect sediment before stormwater is released to wet basins, wetlands, or streams. Preliminary locations for stormwater detention and retention basins are shown on the Land Use and Street Plan, but the ultimate locations may be different, as discussed in the Stormwater Management section of the plan.

<u>Erosion Control during the Construction Phase of Development</u>. City and State regulations on erosion control have been greatly strengthened in recent years, and now include a system of best management practices and specific staff assigned to review, approve and inspect erosion control plans. It is recommended that special emphasis be placed on inspection of construction sites adjacent to the intermittent streams and wetlands that feed Starkweather Creek due to the more immediate impact that uncontrolled erosion would have from those locations.

As noted elsewhere in this plan, development in the Pumpkin Hollow neighborhood will also need to comply with all special regulations related to shoreland development adjacent to wetlands and waterways. These include development setback requirements and maximum building coverage restrictions.

The recommended stream improvements, wide stream and greenway buffers, stormwater management facilities, and enforcement of City and State regulations have the potential to reduce soil erosion and agricultural runoff and improve the quality of water entering Starkweather Creek and Lake Monona, compared to its current condition. However, as pavement and urban development replace cropland, the intermittent streams will remain major downstream conduits of potential new sources of pollution associated with urban activities, including heavy metals and hydrocarbons from motor vehicles. It is essential, therefore, that planning and construction within the Pumpkin Hollow neighborhood ensure that uncontrolled stormwater runoff and contaminants are prevented from reaching the intermittent streams and wetlands that feed the creek.

Proposed City of Madison Parks

• Revise the fourth sentence in the "Area Park" section of the "Proposed City of Madison Parks" section to read as follows (Page 43):

Future detailed park development planning will be needed to determine the exact park configuration and facilities, but conceptually, the Area Park might contain open playfields that can be adapted for soccer, softball, ultimate Frisbee and similar sports; tennis courts, basketball courts; a picnic shelter and a playground.

• Revise the first sentence in the second paragraph of the "Neighborhood Parks" section of the "Proposed City of Madison Parks" section to read as follows (Page 43):

Neighborhood parks provide facilities for active recreation, such as a playground, basketball court, and open field space; but are also intended to provide amenity and more passive enjoyment to the neighborhood through picnic areas, benches and attractive landscaping that includes canopy trees, shrubs, and may include naturalized areas at some locations.

Transportation Recommendations

Arterial and Collector Roadways

• Add the following sentences at the end of the second paragraph in the "Hoepker Road" section (Page 48):

Although it is recommended that direct driveway access to Hoepker Road be limited, land uses adjacent to the roadway should maintain at least a secondary orientation to Hoepker Road, and not be walled off with high fences or present only the "back sides" of buildings to the street. Alternatives to consider include designing developments that front on Hoepker Road but have driveway access via an alley at the rear, and developments that effectively front on both Hoepker and on an interior street that provides driveway access, but which have walkways and entryways to both streets.

New Section on Roundabouts

• Add the following new section heading and narrative after the "Local Streets" section of the Transportation Recommendations section (Page 52):

Roundabouts

Roundabouts provide a cost-effective, safer alternative to other methods of traffic control at many types of street intersection. Well-designed roundabouts can reduce traffic speeds while also improving traffic flow and increasing safety for pedestrians and bicyclists. Several roundabouts are conceptually illustrated on the plan maps at selected intersections, but other intersections may also be good locations. It is recommended that the alternative of a roundabout be considered at all intersections where traffic signals are planned or may be planned in the future.

Future Transit Service

• Replace the narrative in the "Future Transit Service" section of the draft plan with the following two paragraphs (Page 55):

Future Transit Service

Currently, no bus service is provided to the Pumpkin Hollow planning area, and only limited peak-hour service is available to The American Center. Supplemental school day service by Metro Transit vehicles will not occur, as these lands fall outside the Madison Metropolitan School District boundaries. Because ridership potential will remain relatively low until substantial additional development has occurred, bus service to the Pumpkin Hollow neighborhood probably will not be financially feasible for the foreseeable future.

Initial service to the neighborhood could either be an extension of the current route serving The American Center or of new routes developed to serve the industrial employment district west of Interstate Highway 39-90-94. Service could also be implemented under a reorganized regional transit authority or in another, similar partnership with the City of Sun Prairie. The most likely routes would travel along Hoepker or Portage Roads to serve the proposed Mixed-Use Neighborhood Center and the neighborhood's highest-density residential areas. There might also be a potential for a neighborhood feeder route operating from the Park-and-Ride lot on Eastpark Boulevard. It is recommended that improved transit service to the Pumpkin Hollow area be implemented at the earliest feasible time to help attract transitoriented residents to the neighborhood and encourage transit usage from the beginning as the neighborhood develops.

Other Public Services and Utilities Recommendations

Sanitary Sewer Service

• Add the following new paragraph at the end of the "Sanitary Sewer Service" section (Page 57):

All developing parcels can expect one or more charges from the Madison Sewer Utility for the privilege of connecting to public sewer. This charge can be in the form of an impact fee, direct or deferred assessment, or a simple connection charge. Certain parcels could reside in multiple fee districts. These charges represent a prorated share of the cost for the City to extend sewer to serve the respective parcel. Additionally, all parcels will incur sewer area charges from the Madison Metropolitan Sewerage District for both downstream facilities and treatment plant connection charges. All costs are adjusted annually for interest or inflation.

Public Water Service

• Replace the narrative in the "Public Water Service" section of the draft plan with the following revised narrative (Page 57):

Public Water Service²

Water Distribution System. The design of the water supply system to serve the Pumpkin Hollow Neighborhood should be anchored on the concept of sustainability. Sustainability would occur if the projected water use of the neighborhood should come from the neighborhood.

² Note: This revised section recommended by Larry D. Nelson, City Engineer-Interim General Manager, Madison Water Utility, was distributed to the Plan Commission and approved at their 2-25-08 meeting.

The Madison Water Utility will extend public water service to the Madison portion of the Pumpkin Hollow planning area as new development occurs. The planning area will be served by extension of existing water mains within Pressure Zone 123, which includes the developing lands east of Interstate Highway 39-90-94. There currently is a 12-inch main serving the Parkway Village subdivision, just southeast of the planning area, which will be extended west along Hoepker Road; and a water main that will be located at the intersection of Eastpark Boulevard and Portage Road will be extended north along Portage Road. Eventually, this system will be looped to connect the two legs and provide increased service reliability. As development occurs, additional water distribution mains will be extended into the neighborhood within street rightsof-way. The mains along the local streets will be 8 inches in diameter.

Reservoirs and Wells. Pressure Zone 123 is pressurized by the Cross Hill water tower located near Nelson Road and USH 151. This tower has the ability to provide appropriate water pressure to elevations between about 900 feet to 1,040 feet U.S.G.S., which should be sufficient to serve future development in the planning area. No additional water towers are planned within the Pumpkin Hollow planning area.

Development in the Pumpkin Hollow planning area, and on the northeast side of the City of Madison generally, will increase the demand for water and eventually may require new municipal wells to ensure a reliable supply. The Madison Water Utility has already acquired a well site in the Center for Industry and Commerce west of Interstate Highway 39-90-94 (Unit Well 35), and the Water Utility Master Plan identifies other potential future well sites within and near the Pumpkin Hollow planning area. Unit Well 38 is proposed to be located on the ridge within the Pumpkin Hollow Neighborhood, and Unit Well 39 is located east of American Parkway.

The Madison Water Utility's Hydraulic Model indicates a need for one or more of these wells by 2025. In addition, existing wells, which are presently being operated, are being monitored for contaminants, including volatile organic compounds. These wells include Unit Well 15, which serves the northeast side of the City.

There are potential negative effects of municipal well pumping near Token Creek on the creek and on other springs and seepages that provide critical base flow to Cherokee Marsh and the Madison lakes. The limited available data suggest that the groundwater supplying the Token Creek springs may primarily be coming from north of the creek.

The presence and characteristics of the Eau Claire Shale aquitard beneath the area shall be assessed. If the Eau Claire Shale is present in the area, any new well will need to be cased through the aquitard to minimize the movement of groundwater between the upper and lower aquifer.

Regardless, to permit the development of municipal wells at any location, there will be requirements to minimize the impact on existing surface water resources and the movement of pollutant plumes. Existing codes for well development are being reviewed by the Department of Natural Resources to address these situations.

The Madison Water Utility has just concluded its most recently commissioned pump tests of Unit Well 29, which serves the east side of the City. That test recommended an average annual pumping rate of 50 percent of the maximum capacity of the well in order to minimize the movement of groundwater between the upper and lower aquifer and the movement of pollutants. Similar tests shall be conducted on new neighborhood wells to assess aquifer characteristics with the results being used to develop proper pumping strategies for area aquifers.

Stormwater Management

Introduction:

• Add the following additional narrative to the end of the introductory paragraph in the "Stormwater Management" section (Page 58):

In no case will stormwater be allowed to flow directly from streets or developed areas into Starkweather or Token Creek or their associated wetlands. All stormwater not retained on site will be directed to planned drainage swales, retention and detention facilities, or infiltration facilities designed to protect streams and wetlands from sediment or other pollutants and release water to these bodies at managed rates.

• Add the following new paragraph after the introductory paragraph in the "Stormwater Management" section (Page 58)

For existing conditions and post development conditions, stormwater management is handled by the Madison Storm Water Utility. The Storm Water Utility has been in existence since 2001, and imposes user fees to all City of Madison parcels from the time of their annexation to the City to provide this service at a level determined by the Common Council to meet the expectations of the public.

Open Drainageways:

• Add the following additional sentences to the end of the first paragraph of the "Open Drainageways" section of the Stormwater Management section (Page 58):

To the extent compatible with stormwater management objectives and other intended uses of the corridor, more natural groundcovers are encouraged as an alternative to mowed swales. Groupings of larger trees or shrubs are also encouraged at appropriate locations along the corridor to provide additional aesthetic value and potential wildlife habitat.

• Add the following new paragraph at the end of the "Open Drainageways" section of the Stormwater Management section (Page 58):

The open space corridors shown on the Land Use and Street Plan and other plan maps illustrate the recommended minimum width of the area along the corridor that should be maintained in a relatively natural, undeveloped state. In some cases, the corridor indicated on the maps may be wider than the corridor that will be acquired by the public for stormwater management or other purposes—typically as part of subdivision approvals. Portions of the corridors illustrated on the map may remain located on adjacent private property along the public greenways. Note also that lands adjacent to wetlands and streams may be subject to special regulations that are applicable to an area larger than the green corridors illustrated on the plan maps.

Stormwater Management in the Token Creek Watershed:

• Replace the narrative in the "Stormwater Management in the Token Creek Watershed" section of the plan with the following revised narrative (Pages 58 and 59)³:

Stormwater Management in the Token Creek Watershed. Token Creek is an important and sensitive water resource, and relatively restrictive stormwater management regulations are required to protect the Creek's cold water and steady base flow. These regulations might be more restrictive by the time that development in the Pumpkin Hollow neighborhood reaches this watershed. In any case, an increasing understanding of the resource and more advanced stormwater management techniques should improve the ability to mitigate the impacts of future development on the Creek. Two potential stormwater management techniques applicable to the Token Creek watershed that have been discussed by the new Capital Area Regional Planning Commission are outlined below:

- To help maintain the amount of groundwater reaching Token Creek, some recent developments have been required to infiltrate the same amount of stormwater that was being infiltrated under pre-development conditions. In addition, some developments have been required to infiltrate an additional amount of stormwater equivalent to the amount of potable water that will be used by residents of the development that would presumably be pumped from within the watershed by municipal wells. These recharging requirements are intended to maintain the groundwater source that feeds seeps, springs, tributaries and ultimately the Creek's base flow. There are indications that these requirements are very difficult to meet.
- Thermal controls may also be required for stormwater runoff from developments in the watershed in order to maintain the cool water temperature of Token Creek and its tributaries, and new developments may be required to demonstrate that future stormwater runoff will not increase the temperature of these waterways. These techniques may be applied to Token Creek and the two primary tributaries located between the Creek and STH 19 that are classified as a Coldwater Community.

³ Note: This revised section recommended by Planning Division staff was distributed to the Plan Commission and approved at their 2-25-08 meeting.

These potential stormwater management techniques would make stormwater infiltration the principal approach to groundwater recharge and mitigation of cumulative groundwater impacts. However, the proposed approaches would not be feasible or reasonable in an urban context, particularly in regard to the proposed pumpage offsets---which also ignore important issues related to potential groundwater contamination. A broader strategy is recommended that would take account of many other potential approaches to reducing and reversing groundwater drawdown, both locally and regionally, and to protecting the base flow supporting surface water resources of special quality. It is recommended that the City work with County, Regional Planning Commission, and Wisconsin Department of Natural Resources staff to develop a comprehensive multi-jurisdictional strategy to protect and preserve groundwater resources which includes realistic infiltration requirements that can effectively be implemented in new development areas.

The ability of a particular development to comply with any infiltration recommendations will be partly dependent on specific site characteristics, such as the types of soils and the ability to infiltrate stormwater; and soil conditions could require modifications to the development locations and development densities recommended in the Land Use and Street Plan for the Pumpkin Hollow neighborhood. The possible need for modifications to the neighborhood plan will be considered at the time of future specific development proposals when more-detailed information about soil conditions will be available.

Police Protection Services

• Revise the third sentence in the second paragraph of the "Police Protection Services" section to eliminate the phrase "from time-to-time." The revised sentence will read as follows (Page 59):

The City of Madison continues to grow and expand, and additional police officers and support personnel will be needed in order to maintain the staffing levels required to serve a larger population and more spread-out community.

3-4-08