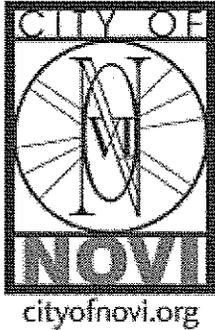


MEMORANDUM



TO: BRIAN COBURN, PE; SENIOR CIVIL ENGINEER
MARK SPENCER, AICP; PLANNER

FROM: BEN CROY, P.E.; CIVIL ENGINEER *BC*

SUBJECT: REVIEW OF IMPACT ON PUBLIC UTILITIES
SPECIAL PLANNING PROJECT AREA 1

DATE: MARCH 13, 2009

The Engineering Division has reviewed the Special Planning Project Area 1 potential study area as requested by the Planning Division. The request consists of approximately 84 acres located south of 10 Mile Road and east of Novi Road in Section 26. The study area involves four parcels, two currently zoned OS-1 and two zoned I-1. The proposed change designates 4 areas, where Area 1 would allow retail or office uses, Area 2 would allow office or RM-1 uses, and Areas 3 and 4 would allow industrial, office or RM-1 uses. Water main and sanitary sewer service exists along the majority of the Ten Mile and Novi Road frontage of this property. This analysis is based on the potential uses of the property as shown on the attached figure provided by the Planning Division.

Water System

The City's water model indicates that the proposed uses of the property would have a negligible impact to the water system. This is due to the size, location and looping of the water mains in this area of the City.

Sanitary Sewer

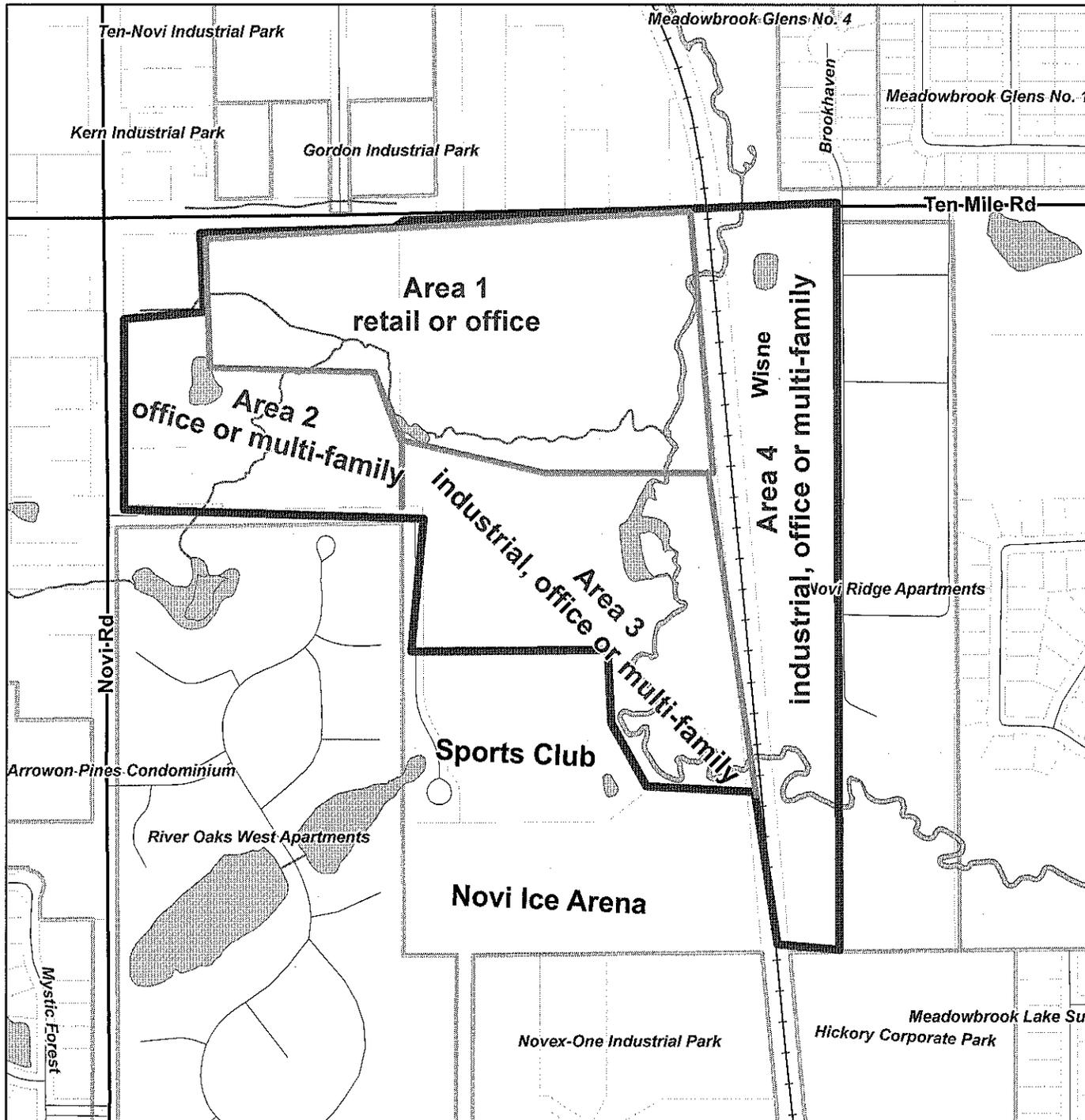
The study area falls within three sanitary sewer districts - the Simmons, Nine Mile, and Interceptor districts. Based on the information provided we can estimate that a zoning revision allowing RM-1 uses would increase the demand by approximately 1.5x for the three areas where RM-1 is an option, or approximately double the demand for the entire property considering all four areas together. Additional sanitary sewer design information would be required to determine if any system upgrades are required to accommodate the increased sanitary sewer flow. If RM-1 was not included as a potential use within the study area, a mix of only office, retail and industrial uses would not increase the demand relative to the existing zoning, and would not have a negative impact on the sanitary sewer system.

Summary

Of the uses proposed, RM-1 has the greatest impact to the utility demand. However, a mix of only office, retail and industrial uses would result in a demand similar to the existing zoning without any negative impact. A zoning change for this study area that includes an RM-1 use would have a noticeable impact on the sanitary sewer system, approximately doubling the sanitary sewer demand for the area, and increasing the peak sanitary discharge from the City.

The increase in the peak discharge is notable because the City is currently seeking opportunities to resolve the limit on its contractual sanitary sewer capacity at its outlet to Wayne County. Additional contractual capacity (estimated to be 0.47 cfs, or a 2.5% increase, based on the information provided) will be needed to serve the increased density proposed for this study area.

Special Planning Project Area 1 Study Area & Sub Areas

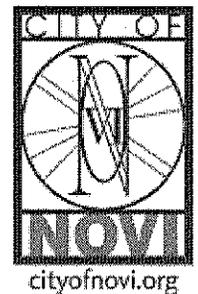
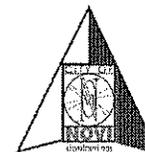


- +—+— railroad
- ▭ Potential Study Area
- Rivers

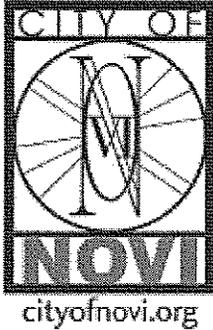


Created by Mark Spencer, AICP
rev. 3/16/09

NOVI PLANNING DIVISION
45175 W. TEN MILE ROAD
NOVI, MI 48375-3024
(248) 347-0475
WWW.CITYOFNOVI.ORG



MEMORANDUM



TO: MARK SPENCER, AICP, PLANNER
FROM: DAVID BESCHKE, RLA, LANDSCAPE ARCHITECT
SUBJECT: SPECIAL PLANNING PROJECT AREA 1
ENVIRONMENTAL OVERVIEW
DATE: MAY 13, 2009

Special Planning Project Area 1 Study Area has many positive environmental features worth consideration for any rezoning or development that may be proposed. These features include wetlands, woodlands, habitat, river corridors and floodplains. Below is a brief overview of some of the environmental assets of this study area.

City of Novi Regulated Wetland Map

Novi's current Regulated Wetland Map shows that approximately 18 acres of the study area is regulated wetlands. The map serves as a guide indicating the likely presence of regulated wetlands. Any parcel that is proposed for development must first be field delineated for site wetlands to determine the true wetland boundaries. Preliminary review by City of Novi staff and consultants indicate that the study site does in fact indicate a much greater area of wetlands than depicted on the Regulated Wetland Map, as is often the case. The site wetlands classifications are a mix of shrub-scrub and wooded, and are generally of high quality. Any proposed development on the subject site should be carefully considered in light of these environmental features.

City of Novi Regulated Woodland Map

Novi's current Regulated Woodland Map shows that approximately 60 acres of the study area is regulated woodlands. The map serves as a guide indicating the likely presence of regulated woodlands. Any parcel that is proposed for development must be field surveyed for all trees 8" and larger, as well as documenting all understory and lower vegetation to determine the true woodland boundaries. Preliminary review by City of Novi staff and consultants indicate that the study site has a much greater area of regulated woodlands than depicted on the Regulated Woodland Map. Much of the site woodland area is associated with wetlands and provides high quality habitat. Any proposed development on the subject site should be carefully considered in light of these existing woodlands.

City of Novi Natural Features Habitat Map

The City of Novi Natural Features Habitat Map indicates that a small area at the extreme southern end of the study area and east of the railway should be considered as valuable natural features that support habitat for local flora and fauna.

Oakland County Green Infrastructure Project

The recently completed Oakland County Green Infrastructure Visioning Project identified all interconnected networks of open spaces, natural areas and waterways within the county. The project focused on conservation values and the services provided by natural systems in concert with land development. A green infrastructure network is important as it supports native species, sustains natural ecological processes, maintains air and water resources, and contributes to our health and quality of life.

The visioning process included the classification of land areas utilizing the terms Hubs, Links or Sites. Hubs are larger environmental areas that anchor the green infrastructure network and provide an origin or destination for wildlife while helping to maintain natural ecological processes. Links are the connections that hold the network together and enable strong environmental functions. Sites are typically smaller than Hubs, and serve as points of origin or destination within a green infrastructure network.

Designated as a Site, Special Planning Project Area 1 Study Area has been identified through the Oakland County Green Infrastructure Visioning Project as being an environmental area worthy of consideration as a valuable portion of an interconnected environmental network. Approximately 80% of the subject study area has been identified as a Site, including all of the subject study area west of the existing railway.

Oakland County Priority Green River Corridors

Oakland County's Priority Green River Vision Map was unveiled in October of 2007. The map was part of a multi-disciplinary study intended to identify priority river corridors that provide significant wildlife habitat, biodiversity function, water quality protection, and community amenities including scenic, recreational, historical and cultural values. The value of riparian buffers and challenges to development implementation were considered.

A significant portion of Special Planning Project Area 1 Study Area is dominated by a waterway identified as the Walled Lake Branch of the Middle Rouge River. This segment of river has high environmental value and is worthy of special consideration should any development be proposed in the vicinity. In addition to the river, Chapman Creek flows centrally through the project area and feeds directly into the Walled Lake Branch of the Middle Rouge River.

Federal Emergency Management Agency (FEMA) Floodplain

FEMA floodplain mapping indicates that roughly approximately 20 acres of the study area is prone to flooding. For the floodplain area to be specifically delineated for the subject area, a detailed on site survey would be necessary. The FEMA designated floodplain areas are associated with both Chapman Creek and Walled Lake Branch of

ENVIRONMENTAL OVERVIEW

MAY 13, 2009

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the Middle Rouge River. The vast majority of the floodplain is designated AE, which are areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. A small portion is designated zone X, which are areas outside the 1% annual chance floodplain, areas of 1% sheet flow where average depths are less than 1 foot, areas of 1% annual chance stream flooding where the contributing drainage area is less than one square mile, or areas protected from the 1% annual chance flood by levees. Areas identified by FEMA mapping are federally regulated and identified floodplain areas cannot be disturbed without prior federal approval and without being mitigated. Mitigation typically occurs on the property to be developed. Due to the fact that the site floodplains are sizeable and wide spread, care must be taken for any proposed development plans that may affect site floodplain.