



STORMWATER MANAGEMENT COMMISSION

To: Interested Parties and Watershed Stakeholders
From: Michael Warner, PE, CFM
Executive Director
Date: August 7, 2018
Subject: Upper Des Plaines River Engineering Impact Analysis

LCSMC has had numerous inquiries concerning potential upstream impacts from both Wisconsin and Illinois stakeholders regarding development in the designated Electronics and Information Technology Manufacturing (EITM) Zone. The EITM Zone includes the Foxconn site, associated road improvements, and adjacent development area. The study purpose is to objectively identify numerical quantities of stormwater, floodplain and wetland impacts, and mitigation proposed. When results of this study have been gathered, further analysis of river system effects may be recommended.

LCSMC is concerned that the EITM Zone development, without proper mitigation, may result in an adverse impact on flooding and water quality along the Des Plaines River in Lake County. The economic development and job creation potential is sizable for the region and would have a positive effect in that regard for Lake County as well. However, it has also been shown from a public cost perspective, that environmental impacts should be proactively and adequately addressed along with the development process. Lake County has made a large investment in flood mitigation activities and wants to ensure those efforts are supported watershed-wide.

On August 2, the Stormwater Management Commission (SMC) entered into a contract with Christopher B. Burke Engineering, Ltd. to review the proposed Foxconn Development and related adjacent improvements. Attached is the scope of work for the initial engineering investigation of upstream impacts within the Des Plaines River Watershed.

The analysis intent is to determine the magnitude of impact and mitigation proposed for each category, and if no significance is detected, move on to the next scope category until completion, with follow up reporting and recommendations as necessary.

If you should have any questions, please feel free to contact me at mwarner@lakecountyil.gov or 847-377-7700.

UPPER DES PLAINES RIVER EITM ZONE ENGINEERING ANALYSIS

OVERVIEW

Lake County Stormwater Management Commission (SMC) is initiating a review of the proposed Foxconn Development and related adjacent improvements in Mount Pleasant, Racine County, WI. The related improvements include local, County and State roadway improvements and other development in the Electronics & Information Technology Manufacturing Zone (EITM Zone). A significant portion of the EITM Zone is in the Des Plaines River Watershed, upstream of Lake County, IL.

The analysis consists of a multi-phased review and study of the proposed Foxconn and related developments. The scope below includes data collection, review of the proposed development, wetland mitigation and water quality impacts, and determination of stormwater, floodplain, and depressional storage.

SCOPE

Data Collection, Review and Research: Review available information to determine the potential extent of the proposed Foxconn and related developments. Gather all publicly available information such as aerial topography, natural resources, etc. for the development area. Collect baseline data and engineering calculations, including water quality data and watershed models. Assess what additional information may be required and incorporate into a GIS database as applicable.

Field Reconnaissance: Conduct field inspections and investigations (to an extent of 1 mile surrounding the site) to develop a thorough first-hand understanding of the site and surrounding area environmental/habitat.

Environmental/Wetland Resource Review: Review wetland delineation, jurisdictional determination and other permitting data from the Corps of Engineers and Wisconsin Department of Natural Resources (WDNR). Prepare a summary of materials collected and identify issues or inconsistencies with the collected information. Review the proposed wetland/waters impacts and mitigation approach. Evaluate in comparison to industry, State, and County standards to determine how the mitigation strategy may impact the downstream watershed within Illinois.

National Environmental Protection Act (NEPA): Review the project and funding sources to determine what level/type of NEPA review is appropriate for the proposed project, on a Federal and State level. Report on the defined process, appropriateness; and describe any identified inconsistencies.

Existing Conditions Depressional Storage and Drainage Analysis: Using topographic mapping, complete a GIS analysis to determine the volume of existing depressional storage within the limits of the proposed Foxconn and related developments. This volume will be quantified and based on the development information obtained, determine the amount of compensated for this volume within the proposed development plan. Verify watershed and subwatershed divides based on the topographic mapping.

Stormwater Detention Analysis: Review the stormwater detention calculations for all aspects of the proposed Foxconn and adjacent developments. Determine how much detention storage is being provided for each component of the development and compare to local, county and state stormwater detention requirements. Review the development to determine how much detention storage would be required based on Lake County Watershed Development Ordinance (WDO) criteria.

Floodplain Fill and Compensatory Storage Analysis: Review the Federal Emergency Management Agency (FEMA) floodplain maps and determine fill volumes of the proposed Foxconn and adjacent developments. Calculate the required compensatory storage volume based on local, county and state requirements. Also calculate the required compensatory storage based on WDO requirements of 1.2:1 ratio, including floodprone area requirements.

Water Quality and Runoff Volume Reduction: Compare the WDNR (NR151) requirements for stormwater infiltration and post-construction stormwater management treatment with site design information for conformance with these requirements. Compare the requirements and effectiveness in relation to the WDO.

Review of Southeast Wisconsin Regional Planning Commission (SEWRPC)

Watershed Hydrologic Analysis: Review the Hydrologic Simulation Program Fortran (HSPF) model from SEWRPC that was developed in June 2018 to analyze the proposed hydrologic impacts of the Foxconn development. Technical comments on the model, input, parameter assumptions, and the statistical analysis that was completed on the model output.

Site Analysis Summary Memorandum: Results of the site analysis with respect to the above tasks, (e.g.; wetlands, NEPA compliance, depressional storage, stormwater detention, floodplain compensatory storage, and water quality) will be summarized in a technical memorandum.

Additional Analysis, Response to Requests, Meetings: Additional analysis, responses to requests, and meeting time to coordinate tasks. Conferring with government authorities is assumed.