

## FACT SHEET

PERMITTEE/FACILITY NAME: Kent County Department of Aeronautics / Gerald R. Ford International Airport

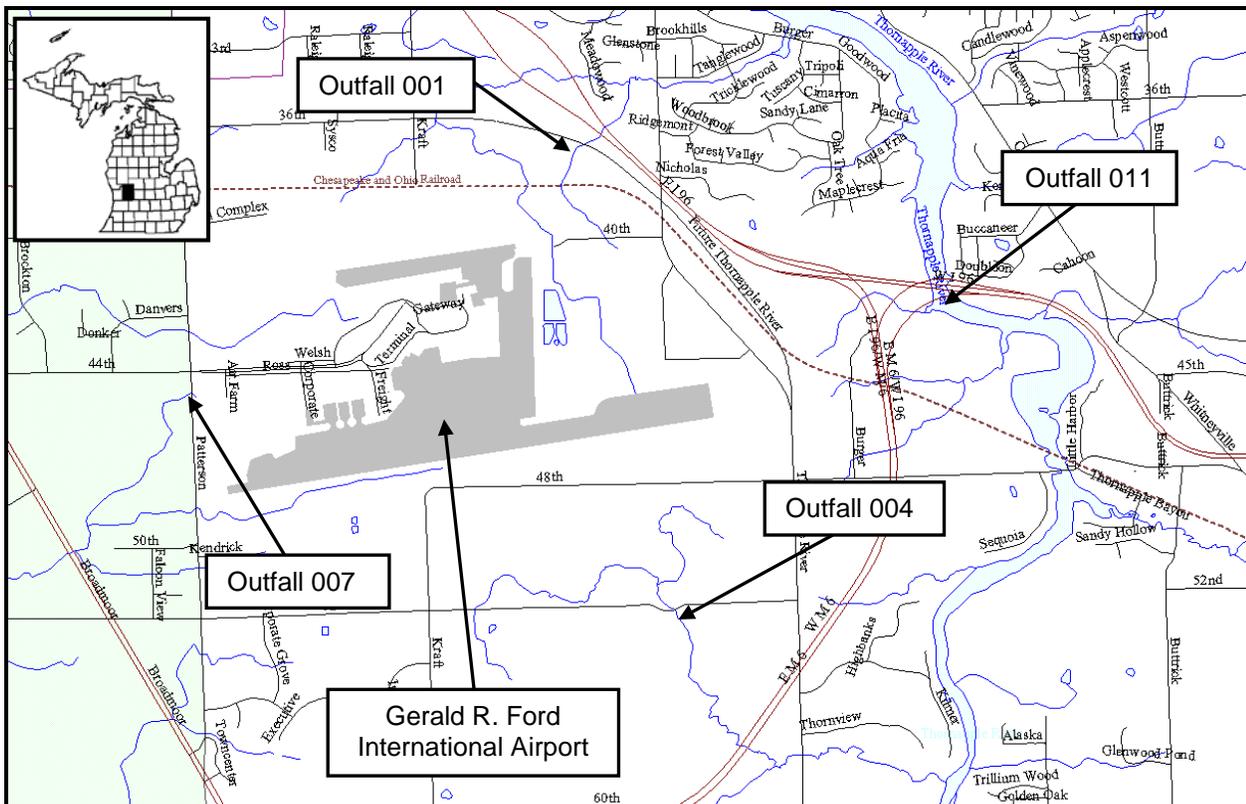
COUNTY: KENT

### DESCRIPTION OF EXISTING and PROPOSED INDUSTRIAL STORM WATER FACILITIES

The Gerald R. Ford International Airport discharges an unspecified amount of storm water associated with anti-icing and de-icing fluids/materials (ADF). The de-icing fluids are applied to aircraft and airport surfaces in order to comply with required operating procedures dealing with cold weather. Discharges of storm water with ADF are currently discharged to an unnamed tributary to the Thornapple River (Outfall 001), an unnamed tributary to Plaster Creek (Outfall 007), and another unnamed tributary to the Thornapple River (Outfall 004). The permittee currently uses and is in compliance with ADF best management practices. The permittee is proposing to redirect storm water associated with ADF from Outfalls 001 and 007 to a new outfall (011) in the Thornapple River. The permittee is proposing to build a detention basin and treatment system for the redirected storm water associated with ADF. A trash and debris collection system will be installed to prevent these materials from entering the treatment system or the Thornapple River. The detention and sedimentation basin will provide temporary detention and flow attenuation of peak storm water flows and capture suspended sediments. The proposed treatment system will use an engineered natural treatment process, which includes sub-surface flow units. Within these sub-surface units, natural microbial assimilation processes will reduce the amount of oxygen-demanding substances and other pollutants in the storm water prior to the treated effluent being discharged to the Thornapple River.

Facility Public Land Survey System Coordinates:  
SW1/4, SW1/4, Section 28, T6 N, R10W  
Cascade Township, **KENT COUNTY**

### MAP OF DISCHARGE LOCATION



RECEIVING WATER

Two unnamed tributaries to the Thornapple River, an unnamed tributary to Plaster Creek, and the Thornapple River are protected for agricultural uses, navigation, industrial water supply, public water supply in areas with designated public water supply intakes, warm-water fish, other indigenous aquatic life and wildlife, partial body contact recreation, total body contact recreation (May through October), and fish consumption.

The receiving stream flows used to develop effluent limitations for the unnamed tributary to Thornapple River (Outfall 004) are a 95 percent exceedance flow of 0.2 cfs, a harmonic mean flow of 0.5 cfs, and a 90-day, 10-year low flow of 0.2 cfs.

The receiving stream flows used to develop monitoring requirements for the unnamed tributary to Plaster Creek (Outfall 007) are a 95 percent exceedance flow of 0.0 cfs, a harmonic mean flow of 0.0 cfs, and a 90-day, 10-year low flow of 0.0 cfs.

The receiving stream flows used to develop effluent limitations for the Thornapple River (Outfall 011) are a 95 percent exceedance flow of 160 cfs, a harmonic mean flow of 430 cfs, and a 90-day, 10-year low flow of 200 cfs.

MIXING ZONE

For toxic pollutants, the volume of the two unnamed tributaries to Thornapple River, an unnamed tributary to Plaster Creek, and the Thornapple River used in assuring that effluent limitations are sufficiently stringent to meet Water Quality Standards is 25 percent of the applicable design flow of the receiving stream.

For other pollutants, the volume of the two unnamed tributaries to Thornapple River, an unnamed tributary to Plaster Creek, and the Thornapple River used in assuring that effluent limitations are sufficiently stringent to meet Water Quality Standards is the applicable design flow of the receiving stream.

EXISTING EFFLUENT QUALITY: (from DMR data from November 2008 to November 2012)

Monitoring Point 001

<u>Parameter</u>	<u>Minimum Daily</u>	<u>Maximum Monthly</u>	<u>Maximum 7-day</u>	<u>Maximum Daily</u>	<u>Units</u>
Chemical Oxygen Demand (COD)	---	---	---	1400	mg/l
	---	---	---	11588	lbs/day
pH	7.12	---	---	8.49	S.U.

Monitoring Point 004

<u>Parameter</u>	<u>Minimum Daily</u>	<u>Maximum Monthly</u>	<u>Maximum 7-day</u>	<u>Maximum Daily</u>	<u>Units</u>
Chemical Oxygen Demand (COD)	---	---	---	1200	mg/l
	---	---	---	1023	lbs/day
pH	7.75	---	---	8.61	S.U.

Monitoring Point 007

<u>Parameter</u>	<u>Minimum Daily</u>	<u>Maximum Monthly</u>	<u>Maximum 7-day</u>	<u>Maximum Daily</u>	<u>Units</u>
Chemical Oxygen Demand (COD)	---	---	---	1800	mg/l
	---	---	---	2321.9	lbs/day
pH	7.67	---	---	8.94	S.U.

PROPOSED EFFLUENT LIMITATIONS: (see draft permit)

BASIS FOR PROPOSED EFFLUENT LIMITATIONS

Based on this facility's application for an NPDES discharge permit, the Department of Environmental Quality (Department) proposes to issue the applicant a permit to discharge, subject to effluent limitations and certain other conditions within the permit. The permit has been developed with interim and final effluent limits in order to accommodate the construction of Outfall 011 and the eventual transfer of discharges from Outfall 001 and Outfall 007 to Outfall 011. Monitoring requirements for carbonaceous biochemical oxygen demand, dissolved oxygen, and ammonia nitrogen are based on water quality concerns. Monitoring requirements for flow and outfall observation are based on permit writer's judgment. Effluent limitations for carbonaceous biochemical oxygen demand, ammonia nitrogen, and dissolved oxygen are water quality based effluent limitations. Effluent limitations for pH are water quality standards.

ADDITIONAL INFORMATION

The Department proposes that the applicant's Antidegradation Demonstration, based on information required by Subrule (4) of R323.1098, shows that discharge is necessary to support the identified important social and economic development in the area. This is solely for purposes of satisfying state water quality regulations and is not intended to supplant local requirements, including land use or zoning laws. It is not, and should not be construed as, a finding by the Department that the proposed development meets local requirements or ordinances.

The proposed discharge at Outfall 011 is considered a new site-specific discharge to the Thornapple River and is therefore subject the requirements of Antidegradation. The proposed discharge at Outfall 011 is currently authorized via Outfall 001 into an unnamed tributary to the Thornapple River. As part of the modification, the permittee has indicated that they will be installing a storm water detention basin and treatment system through which the storm water associated with ADF will pass prior to being discharged to the Thornapple River. Currently the airport provides no treatment for the discharge to Outfall 001. The proposed discharge to Outfall 011 will be of better quality than what is

currently authorized to be discharged to the same watershed. The permit modification request was initiated by the permittee to comply with an existing permit requirement to eliminate the permittee's contribution to the nuisance biofilms in the unnamed tributary to the Thornapple River.

The permit also includes the addition of a Reopener Clause and a permit condition addressing Nuisance Odor Conditions. The Nuisance Biofilm Elimination and Prevention Program has been revised to address potential concerns related to the transfer of storm water associated with industrial activities from Outfall 001 to Outfall 011.

### REGISTER OF INTERESTED PERSONS

Any person interested in a particular application, or group of applications, may leave his/her name, address, and telephone number as part of the file for an application. The list of names will be maintained as a means for persons with an interest in an application to contact others with similar interests.

### PUBLIC COMMENT

Comments or objections to the draft permit received between May 29, 2013, and June 28, 2013, will be considered in the final decision to issue the permit.

If submitted comments indicate significant public interest in the application or if useful information may be produced, the Department, at its discretion, may hold a public hearing on the application. Any person may request the Department to hold a public hearing on the application. The request should include specific reasons for the request, indicating which portions of the application or draft permit constitute the need for a hearing.

Public notice of a hearing will be provided at least thirty (30) days in advance. The hearing will normally be held in the vicinity of the discharge. The Department will consider comments made at the hearing when making its final determinations on the permit. Further information regarding the draft permit, and procedures for commenting or requesting a public hearing may be obtained by contacting Sean Syts, Permits Section, Water Resources Division, Department of Environmental Quality, P.O. Box 30458, Lansing, Michigan 48909, telephone: 517-335-4123, e-mail: sytss@michigan.gov.