

OAKLAND COUNTY WATER RESOURCES COMMISSIONER
Clinton River Water Resource Recovery Facility

CRWRRF Septage Unloading Site Operating Plan

The Clinton River Water Resource Recovery Facility (CRWRRF) Septage Unloading Site is a “Receiving Facility” under Part 117 (“Septage Waste Servicers”) of NREPA (Act 451 of 1994), as amended (NREPA Part 117). This Operating Plan has been developed for the CRWRRF Septage Unloading Site under the authority of and as required by NREPA Part 117.

Categories of septage waste accepted at the CRWRRF Septage Unloading Site.

The only category of septage waste currently accepted at the CRWRRF Septage Unloading Site is “Domestic Septage,” defined for purposes of the Receiving Facility as follows:

“Domestic Septage” means liquid or solid material removed from a septic tank, cesspool, or similar storage or treatment works that receives only “Domestic Sewage.” For purposes of this Operating Plan, Domestic Septage does not include, and the CRWRRF Septage Unloading Site will not accept, liquid or solid materials removed from any of the following sources (either singly or in combination with any other waste):

- Portable toilets.
- Type III marine sanitation devices.
- Liquid or solid material removed from any septic tank, cesspool, or similar facility that receives any amount of commercial wastewater or industrial wastewater (“Nondomestic Waste”) or that receives anything other than segregated “Domestic Waste.”
- Domestic Treatment Plant Septage.
- Food Establishment Septage (blended or unblended), including, but not limited to, FOG interceptor or Alternative FOG Pretreatment Technology clean-out material, waste cooking oil, or frying oils and greases.
- Sanitary Sewer Cleanout Septage.
- Any Nondomestic process waste (commercial or industrial) regardless of the source of the waste.
- Any liquid or solid material that would not qualify as Domestic Septage as defined by Michigan statutes, rules, or regulations.
- Any other liquid or solid material that the Director determines may have an adverse effect on the facilities or operations of the CRWRRF Septage Unloading Site or the CRWRRF.

Receiving Facility Service Area.

The Service Area for the CRWRRF Septage Unloading Site (i.e., the “Receiving Facility’s Service Area” under NREPA Part 117) is the geographic territory from which the CRWRRF Septage Unloading Site receives and treats Domestic Septage. The CRWRRF Septage Unloading Site’s

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Service area extends 25 radial miles from the CRWRRF Septage Unloading Site as shown on Appendix A (attached).

Hours of operation for receiving septage waste.

The CRWRRF Septage Unloading Site's hours of operation will initially be Monday through Friday from 7:00 am until 3:30 pm. In the future these hours of operation may be changed so that the Site is open for septage unloading 24 hours a day, seven days per week. The Site's hours of operation will be subject to WRC's normal holiday schedule and the Site will be closed on the following holidays: New Year's Day, Martin Luther King Jr Day, President's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday After Thanksgiving, Christmas Eve, Christmas Day, New Year's Eve, New Year's Day.

Other conditions for receiving septage waste established by the CRWRRF Septage Unloading Site.

The CRWRRF Sewer Use Ordinance (CRWRRF SUO) prohibits the discharge of septage waste to the CRWRRF except at specifically designated septage unloading stations, subject to first obtaining and complying with a Domestic Septage Waste Discharger Permit from the CRWRRF; subject to compliance with the CRWRRF Septage Unloading Site Operating Procedures; and subject to compliance with the terms, conditions, and requirements of this CRWRRF Septage Operating Plan, NREPA Part 117, and other applicable state and federal laws and regulations. Copies of the current CRWRRF Domestic Septage Waste Discharger Permit form, the CRWRRF Septage Unloading Site Operating Procedures, CRWRRF Septage Hauler Procedures, and CRWRRF Sewer Use Ordinance may be reviewed online here: <http://Oakgov.com/WRCSeptage>.

A Permittee's authorization to discharge hauled Domestic Septage to the CRWRRF Septage Unloading Site as provided by a Domestic Septage Waste Discharger Permit is valid only if the Permittee has obtained and maintained in effect at all times during discharge all other authorizations and permits required to transport septage or wastewater as provided by local, state, and federal laws and regulations, including, but not limited to, a State of Michigan Septage Waste Servicing License and Septage Waste Vehicle License for each vehicle that is used to discharge as provided by NREPA Part 117. The Permittee's authorization to discharge is also contingent on the Permittee obtaining and maintaining insurance coverage as specified by the Permit.

The CRWRRF Domestic Septage Waste Discharger Permit and the CRWRRF Septage Unloading Site Operating Procedures include the following types of provisions applicable to all permitted septage waste haulers:

- Discharge prohibitions, effluent limitations, and requirements.
- Prohibition against the discharge of septage that originates from any area other than within the CRWRRF Septage Unloading Site's Service Area.
- Unloading, sampling, and metering procedures and requirements.
- Reporting, notification, and records retention provisions.
- Signature and certification provisions that require reports, notices, and other required submissions to be signed and certified by the Permittee's Responsible Agent.

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- Septage Waste Vehicle requirements, including provisions that require haulers to have in their possession the Permittee's "Septage Waste Vehicle License" and the Permittee's "Septage Waste Servicing License," and requirements applicable to information that must be displayed on each vehicle.
- Waste tracking system requirements for the Permittee to establish, keep up to date, and certify a written waste log regarding the Permittee's sources of septage waste.
- Provisions regarding Permit modification, suspension, revocation, reissuance, and expiration, and prohibiting Permit transfers.
- Inspection, surveillance, and monitoring provisions, providing authority of the CRWRRF to observe loading/unloading of vehicles; obtain representative samples of each load; examine all required permits, authorizations, licenses, and other local, state, or federal documents required for the Permittee's transportation and disposal of septage; and to enter the Permittee's facilities to examine documents and records and conduct inspection, surveillance, and monitoring activities as necessary to determine compliance with applicable requirements.
- Enforcement provisions, including authority to assess municipal civil infraction fines, seek criminal (misdemeanor) liability, and judicial remedies for violations.
- Cost reimbursement provisions requiring Permittees to reimburse the WRC for expenses, costs, losses or damages (direct or indirect) payable or incurred by the WRC and/or the CRWRRF associated with a Permittee's discharges to the CRWRRF Septage Unloading Site.
- Authority to require Permittees to provide surety, including cash in an escrow account or a performance bond, as a condition to discharging to the CRWRRF Septage Unloading Site.
- Requirements for Permittees to obtain workers' compensation insurance, commercial general liability insurance, and motor vehicle liability insurance; to provide proof of coverage; and to name the County of Oakland, CRWRRF Drainage District, WRC, and others as additional named insured.
- Provisions regarding fees and billing for septage discharged to the CRWRRF Septage Unloading Site.
- Where determined necessary or appropriate based on the specifics of a Permittee's proposed discharges, a Permit may also contain special conditions applicable to those discharges.

Noncompliance with any term, condition, or requirement of a Domestic Septage Waste Discharger Permit is a violation of the Permit and the CRWRRF SUO that may result in enforcement action, including but not limited to, the revocation of the Permit and/or termination of the Permittee's authorization to discharge, and the assessment of fines.

Overview of Septage Operations at the CRWRRF Septage Unloading Site.

Background.

The CRWRRF Septage Unloading Site has been installed to allow septage to be accepted at the CRWRRF. At the CRWRRF Septage Unloading Site, the septage will be screened and the solids will be separated from the liquid portion of the septage. The solids can then be handled in the

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CRWRRF anaerobic digesters as opposed to being treated in a liquids secondary process. By treating the solids in the anaerobic digesters, the cost of treatment and the energy required for treatment can be substantially reduced. After the debris has been removed, the screened liquid will ultimately be pumped to the thermal hydrolysis process (THP).

Design.

To accommodate the differential in the processing rate of received septage, and the maximum loading rate of septage to the sludge screens upstream of the THP, the CRWRRF Septage Unloading Site has been designed to include a 55,000 gallon storage tank. The storage tank will provide the flexibility to allow the Receiving Facility to accept multiple septage loads in a very short period without the necessity to pump the septage to the CRWRRF headworks. The storage tank is below grade with cast-in-place concrete.

The CRWRRF Septage Unloading Site has been designed based on the anticipated loading parameters listed below, as follows:

Anticipated Septage Receiving Station Loading Parameters

Design Limits for Septage Receiving Loading	Average Month	Maximum Month
Totalized Monthly Flow (million gallons)	1.2	2.2
Average Daily Flow (gpd)	40,000	73,300
Septage Characteristics		
BOD 5 (lb/day)	1,249	2,280
NH3-N (lb/day)	36	66
Total Phosphorus (lb/day)	79	144
TSS (lb/day)	7,245	13,223
VSS (lb/day)	5,559	10,145
FOG (lb/day)	265	484

The average day design criteria used for the CRWRRF Septage Unloading Site was as follows:

Average Day Design Criteria

	Criteria
Average Day Hydraulic Loading	53,500 gpd
Average Day Septage Loads Received	13 Loads
Average Day Septage Concentration	~15,000 mg/L
Average Day TSS	7,245 lb/day
Average Day BOD5	1,249 lb/day

There will be two (2) septage unloading stations at the CRWRRF Septage Unloading Site. Each unit will have a hydraulic loading capacity of up to 400 gpm.

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As noted above, debris will be removed from the septage with fine screens, and the screened septage will be pumped to the sludge screens upstream of the THP. Large debris will be removed before the septage is sent to further solids treatment in the THP. Wash water will be used to clean the screens and the tank after septage has passed through the screens. This will result in an additional 1040 gallons of washwater being added to each load of septage received with an anticipated dilution of the septage from approximately 2.0% solids to approximately 1.5% solids on average.

Following completion of the CRWRRF Septage Unloading Site facilities and based on the anticipated loadings for the parameters discussed above, the remaining CRWRRF MAHL (headworks load) and MAIL (industrial load) expressed as percentages are anticipated to be as follows:

Anticipated Remaining Percent MAHL AND MAIL (CRWRRF)

Pollutant Parameter	Remaining % MAHL	Remaining % MAIL
BOD5	35%	94%
Ammonia Nitrogen	7%	27%
Total Phosphorus	21%	64%
TSS	26%	94%
FOG Total	58%	98%
FOG Nonpolar	80%	100%

Septage Waste Vehicle unloading procedures.

The Septage Waste Vehicle unloading procedures that must be followed by a septage hauler at the CRWRRF Septage Unloading Site are set forth in each septic hauler’s Domestic Septage Waste Discharger Permit and the CRWRRF Septage Unloading Site Operating Procedures.

Sampling procedures and requirements.

Sampling procedures and requirements applicable to loads of septage transported to the CRWRRF Septage Unloading Site for unloading shall be as provided by each septage hauler’s Domestic Septage Waste Discharger Permit, the CRWRRF Septage Unloading Site Operating Procedures, and also as required by the CRWRRF SUO.

Billing.

Billing will be based on the flow of septage (metered) as provided by the septage hauler’s Domestic Septage Waste Discharger Permit and the CRWRRF Septage Unloading Site Operating Procedures.

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Appendix A
CRWRRF Septage Unloading Site Service Area

