STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

Mr. Mark Phillips
Dow Highway Properties LLC
35 Hodgdon Lane
Newington, NH 03801
greatbaynh@comcast.com

March 24, 2014

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit ME0037052
Maine Waste Discharge License (WDL) Application #W000880-5C-E-R
Proposed Draft Permit

Dear Mr. Phillips:

Enclosed is a **proposed draft** MEPDES permit and Maine WDL (permit hereinafter) which the Department proposes to issue as a final document after opportunity for your review and comment. By transmittal of this letter you are provided with an opportunity to comment on the proposed draft permit and its conditions (special conditions specific to this permit are enclosed; standard conditions applicable to all permits are available upon request). If it contains errors or does not accurately reflect present or proposed conditions, please respond to this Department so that changes can be considered.

By copy of this letter, the Department is requesting comments on the proposed draft permit from various state and federal agencies, as required by our new regulations, and from any other parties who have notified the Department of their interest in this matter.

All comments must be received in the Department of Environmental Protection office on or before the close of business **Wednesday, April 24, 2014.** Failure to submit comments in a timely fashion will result in the final document being issued as drafted. Comments in writing should be submitted to my attention at the following address:

Maine Department of Environmental Protection
Bureau of Land & Water Quality
Division of Water Quality Management
17 State House Station
Augusta, ME 04333

If you have any questions regarding the matter, please feel free to call me at (207) 446-1875.

Sincerely,

Rodney Robert
Division of Water Quality Management
Bureau of Land and Water Quality

Enc.

cc: William Johnson, DEP/CMRO
Barry Mower, DEP/CMRO
Pam Parker, DEP/CRMO
Lori Mitchell, DEP/CMRO
Oliver Cox, DMR
Environmental Review, DMR
Environmental Review, DIFW
Kathleen Leyden, DACF
David Webster, USEPA
David Pincumbe, USEPA
Alex Rosenburg, USEPA
Olga Vergara, USEPA
Ivy Frignoca, CLF

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION
AUGUSTA, ME 04333

DEPARTMENT ORDER

IN THE MATTER OF

DOW HIGHWAY PROPERTIES LLC.	)	MAINE POLLUTANT DISCHARGE.
KITTERY, YORK COUNTY, MAINE	)	ELIMINATION SYSTEM PERMIT
OVERBOARD DISCHARGE	)	AND
ME0037052	)	WASTE DISCHARGE LICENSE
W000880-5C-E-R **APPROVAL**	)	**RENEWAL**

In compliance with the applicable provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, Conditions of Licenses, Maine Law 38 M.R.S.A. Section 414-A, *et seq.*, and applicable rules of the Department of Environmental Protection (Department). The Department has considered the application of DOW HIGHWAY PROPERTIES LLC. (permittee), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On February 21, 2014, the Department accepted as complete for processing an application from the permittee for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0037052/Maine Waste Discharge License (WDL) #W000880-5C-C-R (permit) which was issued by the Department on April 15, 2009, for a five year term. The 4/15/09 permit authorized the year round, monthly average discharge of 5,000 gallons per day (gpd) of secondary treated waste waters from (Outfall #001) to Chickering Creek a tributary of Spruce Creek, Class B, in Kittery, Maine.

PERMIT SUMMARY

This permit is carrying forward all the terms and conditions of the previous permitting action.

CONCLUSIONS

BASED on the findings in the attached **PROPOSED DRAFT** Fact Sheet dated March 24, 2014, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with State law.

3. The provisions of the State's antidegradation policy, 38 M.R.S.A. §464(4)(F), will be met, in that:

   (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;

   (c) Where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;

   (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and

   (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharges will be subject to effluent limitations that require application of best practicable treatment as defined in Maine law, 38 M.R.S.A., §414-A(1)(D).

5. The overboard discharge system was in continuing existence for the 12 months preceding June 1, 1987.

6. A non-discharging sub-surface waste water disposal system cannot be installed in compliance with the Maine Subsurface Waste Water Disposal Rules at the time the renewal application was accepted for processing by the Department.

7. A publicly owned sewer line is not located on or abutting land owned or controlled by the permittee or is not available for the permittee's use.

CONCLUSIONS (cont'd)

8. The discharge is located within the boundaries of a sanitary district or sewer district however connection to the existing infrastructure is cost prohibited.

ACTION

THEREFORE, the Department APPROVES the application of DOW HIGHWAY PROPERTIES LLC. to discharge a year round, monthly average flow of 5,000 gpd of secondary treated sanitary waste water (Outfall #001) to an unnamed tributary of Spruce Creek, Class B, in Kittery, Maine, SUBJECT TO ALL APPLICABLE STANDARDS AND REGULATIONS AND THE FOLLOWING CONDITIONS:

1. "*Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable to All Permits*," revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. This permit becomes effective upon the date of signature below and expires at midnight five (5) years after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [Maine Administrative Procedure Act, 5 M.R.S.A. §10002 and Rules Concerning the Processing of Applications and Other Administrative Matters, 06-096 CMR 2(21)(A) (amended August 25, 2013)]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____ 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
PATRICIA W. AHO, Commissioner

Date of initial receipt of application 02/21/14
Date of application acceptance 02/21/14

Date filed with Board of Environmental Protection _____

This Order prepared by Rodney Robert, Bureau of Land and Water Quality

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Beginning the effective date of this permit, the permittee is authorized to discharge secondary treated sanitary waste water from **Outfall #001** to Chickering Creek, a tributary of Spruce Creek, Class B. Such discharges shall be limited and monitored by the permittee as specified below[(1)]:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow ***[50050]***	5,000 gpd *[07]*	---	Report (gpd) *[07]*	---	---	---	1/Month *[01/30]*	Metered *[MT]*
BOD_5 ***[00310]***	1.2 lbs/day *[26]*	1.9 lbs/day *[26]*	2.1 lbs/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Month *[01/30]*	Grab *[GR]*
BOD_5 Percent Removal[(2)] ***[81010]***	---	---	---	85% *[23]*	---	---	---	Calculate *[CA]*
TSS ***[00530]***	1.2 lbs/day *[26]*	1.9 lbs/day *[26]*	2.1 lbs/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Month *[01/30]*	Grab *[GR]*
TSS Percent Removal[(2)] ***[81011]***	---	---	---	85% *[23]*	---	---	---	Calculate *[CA]*
Settleable Solids ***[00545]***	---	---	---	---	---	0.3 ml/L *[25]*	---	Grab *[GR]*
E. *coli* Bacteria[(3)] ***[31616]*** ***(May 15 – September 30)***	---	---	---	64/100 ml[(4)] *[13]*	---	427/100 ml *[13]*	1/Month *[01/30]*	Grab *[GR]*
Total Residual Chlorine[(5)] ***[50060]***	---	---	---	---	---	0.04 mg/L *[19]*	2/Week *[02/07]*	Grab *[GR]*
pH ***[00400]***	---	---	---	---	---	6.0 – 9.0 SU *[12]*	---	Measure *[MS]*

Footnotes **See Pages 5 and 6 of this permit for applicable footnotes.**

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes

1. **Sampling** – Sampling shall be conducted after the last treatment process such that samples are representative of what is actually being discharged to the receiving waters. Sampling shall be conducted in accordance with federally approved methods for sampling, handling and preservation. Samples shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services and in accordance with methods approved by 40 Code of Federal Regulations (CFR) Part 136. Samples that are sent to a POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000).

   All analytical test results shall be reported to the Department including results which are detected below the respective reporting limits (RLs) specified by the Department or as specified by other approved test methods. If a non-detect analytical test result is below the respective RL, the concentration result shall be reported as <Y where Y is the RL achieved by the laboratory for each respective parameter. Reporting a value of <Y that is greater than an established RL or reporting an estimated value ("J" flagged) is not acceptable and will be rejected by the Department. Reporting analytical data and its use in calculations must follow established Department guidelines specified in this permit or in available Department guidance documents.

2. **Percent Removal –** The treatment facility shall maintain a minimum of 85 percent removal of both BOD_5 and TSS for all flows receiving secondary treatment. If required to do so, the percent removal shall be calculated based on influent and effluent concentration values.

3. **Bacteria Limits –** *E. coli* bacteria limits and monitoring requirements are in effect between May 15th and September 30th of each year. The Department reserves the right to require year-round disinfection to protect the health, safety, and welfare of the public.

4. **Bacteria Reporting –** The monthly average *E. coli* bacteria limitation is a **geometric mean** limitation and sample results shall be reported as such.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes

5. **Total residual chlorine** (**TRC)** – Limitations and monitoring requirements are applicable whenever elemental chlorine or chlorine based compounds are being used to disinfect the discharge. The permittee shall utilize approved test methods that are capable of bracketing the TRC limitation in this permit.

B. ANNUAL DISCHARGE FEES

Pursuant to Maine law, 38 M.R.S.A. §353-B, the permittee is required to pay an applicable annual fee for discharges authorized by this permit. Failure to pay an annual fee within 30 days of the billing date of a license/permit is sufficient grounds for accruing interest charges, penalties or revocation of the license.

C. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usages designated for the classification of the receiving waters.

2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated for the classification of the receiving waters.

3. The discharges shall not cause visible discoloration or turbidity in the receiving waters which would impair the usages designated for the classification of the receiving waters.

4. Notwithstanding specific conditions of this permit, the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

D. TREATMENT PLANT OPERATOR

The person who has the management responsibility over the treatment facility must hold a **Grade I** certificate (or higher) or must be a Maine Registered Professional Engineer pursuant to *Sewerage Treatment Operators*, Title 32 M.R.S.A., Sections 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

SPECIAL CONDITIONS

E. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on February 21, 2014; 2) the terms and conditions of this permit; and 3) only from Outfall #001. Discharges of waste water from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition B(5)(*Bypass*) of this permit.

F. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee shall notify the Department of the following.

1. Any substantial change or proposed change in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change shall include information on:

   (a) the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and

   (b) any anticipated impact caused by the change in the quantity or quality of the wastewater to be discharged from the treatment system.

G. SITE EVALUATION FOR TRANSFERRED AND RENEWED PERMITS

Prior to permit transfer or **transfer of the property** occupying the permitted overboard discharge system, a site evaluation must be performed by a licensed site evaluator with experience in designing systems for the replacement of overboard discharge systems.

The Department may not grant approval for a **permit transfer** if the site evaluation concludes that a non-discharging wastewater disposal system designed in compliance with the Maine Subsurface Waste Water Disposal Rules administered by the Maine Department of Health and Human Services, Division of Environmental Health can be installed as a replacement system for the overboard discharge.

The Department may not grant approval for a **permit renewal** if the site evaluation concludes that a non-discharging wastewater disposal system can be installed as a replacement system for the overboard discharge and the Department has offered the permittee funding for the removal of the discharge.

SPECIAL CONDITIONS

H. SEPTIC TANKS

1. Septic tanks and other treatment tanks shall be regularly inspected (at least once per calendar year) and maintained to ensure that they are providing best practicable treatment. The permittee shall maintain logs of inspections/maintenance that records the date, notes on observations, repairs conducted etc. The logs shall be maintained on site at all times and made available to Department personnel upon request**.**

2. Tank contents should be removed whenever the sludge and scum occupies one-third of the tank's liquid capacity or whenever levels approach maximum design capacity. Following pumping, the tanks shall be checked for damage at key joints and the inlet and outlet baffles, and repaired promptly if damaged. The permittee shall keep a pumping log including the date of pumping, quantity of material removed, name and number of licensed contractor, pumping frequency and other relevant observations.

I. OPERATION & MAINTENANCE (O&M) PLAN

This facility shall have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan shall provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year, **or within 90 days of any process changes or minor equipment upgrades,** the permittee shall evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is up-to-date.

The O&M Plan shall be kept on-site at all times and made available to Department and EPA personnel upon request.

Within 90 days of completion of new and or substantial upgrades of the waste water treatment facility (excepting the current yet to be completed substantial upgrade), the permittee shall submit the updated O&M Plan to their Department inspector for review and comment.

SPECIAL CONDITIONS

J. MONITORING AND REPORTING

Monitoring results shall be summarized monthly and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and postmarked on or before the thirteenth (13th) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the Department's compliance inspector (unless otherwise specified) at the following address:

Overboard Discharge Compliance Inspector
Department of Environmental Protection
Bureau of Land and Water Quality
Division of Water Quality Management
17 State House Station,
Augusta, Maine 04333-0017

Alternatively, if submitting an electronic DMR (eDMR), the completed eDMR must be electronically submitted to the Department by a facility authorized DMR Signatory not later than close of business on the 15th day of the month following the completed reporting period. Hard Copy documentation submitted in support of the eDMR must be postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office such that it is received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period. Electronic documentation in support of the eDMR must be submitted not later than close of business on the 15th day of the month following the completed reporting period.

K. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time and with notice to the permittee, modify this permit to: (1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded; (2) require additional effluent or ambient water quality monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

SPECIAL CONDITIONS

L. SEVERABILITY

In the event that any provision or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE LICENSE

PROPOSED DRAFT FACT SHEET

Date: **March 24, 2014**

MEPDES PERMIT: **ME0037052**
WASTE DISCHARGE LICENSE: **W000880-5C-E-R**

NAME AND ADDRESS OF APPLICANT:

DOW HIGHWAY PROPERTIES LLC
Attn: Mr. Mark Phillips
35 Hodgdon Farm Lane
Newington, NH. 03801

COUNTY: **Rockingham County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:
Johnson's Mobile Home Park
4 Dana Avenue
Kittery, Maine 03904

RECEIVING WATER / CLASSIFICATION: **Chickering Creek, a tributary of Spruce Creek/Class B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mark Phillips**
(603) 433-1566
greatbaynh@comcast.net

1. APPLICATION SUMMARY

a. Application – On February 21, 2014, the Department accepted as complete for processing an application from the permittee for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0037052/Maine Waste Discharge License (WDL) #W000880-5C-E-R (permit) which was issued by the Department on April 15, 2009, for a five year term. The 4/15/09 permit authorized the year round, monthly average discharge of 5,000 gallons per day (gpd) of secondary treated waste waters from (Outfall #001) to Chickering Creek, a tributary to Spruce Creek, Class B, in Kittery, Maine. See **Attachment A** of this Fact Sheet for a location map of the facility.

1. APPLICATION SUMMARY (cont'd)

b. Source description: The source of waste water is from a year round mobile home park with 35 units, situated on a 5 acre parcel.

c. Waste water treatment: The waste water generated by the facilities flows by gravity to a series of septic tanks. Liquid from the septic tanks is pumped to a distribution box with a valve that enables the operator to switch between two sand filters. The filtered waste water flows from the bottom of the sand filters to the chlorinator station for disinfection. The treated waste water then flows into a 2-inch diameter outfall pipe and is discharged into Chickering Creek, a tributary of Spruce Creek / Class B. The permittee contracts with a local septic hauler for septic tank pumping and maintenance.

d. Replacement Options: In May of 2003, the State Legislature adopted several amendments to the licensing of overboard discharges and the Department revised its rule Chapter 596, *Overboard Discharges: Licensing and Abandonment*, accordingly. One of the amendments in the revised rule required OBD owners that were applying to the Department to renew their OBD license, to hire a licensed site evaluator (LSE) to determine whether there is a technologically feasible replacement of the existing system prior to license renewal and install the replacement system within 180 days if grant money is offered by the Department.

The permittee has provided the Department with a statement dated 11/20/08 from a LSE/PE that has determined there are no feasible replacement options due to the lack of room to construct disposal fields, mapped soil types and a predominance of bedrock on the property. The permittee has also stipulated on the 2014 renewal application that the park will be connected to the planned 2015 expansion of the Kittery Sewer System.

2. PERMIT SUMMARY

This permit is carrying forward all the terms and conditions of the previous permitting action.

3. CONDITIONS OF PERMIT

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., Section 420 and Department rule 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A. §468 classifies Chickering Creek, a tributary to Spruce Creek at the point of discharge as a Class B waterbody. Standards for classification of fresh surface waters, Maine law, 38 M.R.S.A. §465(3) describes the standards for Class B waters.

5. RECEIVING WATER QUALITY CONDITIONS

The permitted outfall is discharged to Chickering Creek, a tributary of Spruce Creek / Class B, which flows into Portsmouth Harbor. The 2010 Integrated Water Quality Monitoring and Assessment Report published by the Department pursuant to Section 305(b) of the Federal Water Pollution Control Act lists the waters of Portsmouth Harbor and vicinity (Kittery) in Category 4-A: Estuarine and Marine Waters Impaired Use (TMDL Completed). Currently, the Maine Department of Marine Resources ("Maine DMR") shellfish harvesting Area 2-A, [Portsmouth Harbor and vicinity (Kittery) and Isles of Shoals], is closed to the harvesting of shellfish. The Maine DMR closed or restricted Area 2-A on August 28, 2008, based on ambient water quality data that, at that time, indicated the area did not meet or marginally met the standards in the National Shellfish Sanitation Program. In addition, the Maine DMR closes areas by default in the vicinity of outfall pipes associated with treated sanitary waste water discharges in the event of a failure of the disinfection system. Therefore, Area 2-A remains closed as of the date of this permitting action. See **Attachment B** of this Fact Sheet for a map of Area 2-A.

Compliance with the year-round E. coli coliform bacteria limits in this permitting action will ensure that the discharge from Dow Highway Properties will not cause or contribute to the shellfish harvesting closure.

The 2010 305(b) report also lists all estuarine and marine waters in a category entitled, Category 5-D: Estuarine and Marine Waters Impaired by Legacy Pollutants. The waters are listed as partially supporting fishing ("shellfish consumption) due to elevated levels of PCB's and other persistent, bioaccumulating substances in lobster tomalley.

Department rule Chapter 519, Interim Effluent Limitations and Controls for the Discharge of Mercury, establishes controls on the discharge of mercury to the surface waters of the State through interim effluent limits and implementation of pollution prevention plans. However, Section 1(A)(1) of the Chapter 519 rule states in part:

"*This rule applies to all persons licensed or permitted pursuant to 38 MRSA §413 to discharge pollutants to the surface waters of the State except as described below. For the purposes of this rule, the term licensee also means permittee.*

Categorical exclusions. This rule does not apply to the following categories of licensees: combined sewer overflows, snow dumps, pesticide applications, and over board discharges licensed pursuant to 38 MRSA §413.[emphasis added] Except, however, specific members of these categories may be required by the department to comply with this rule on a case by case basis…"

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. Best Practicable Treatment (BPT) - Overboard discharges may be permitted only where no technologically proven alternative exists. Overboard discharge treatment systems must be capable of meeting secondary treatment standards as described in CMR Chapter 525, Section 3 and Chapter 596 section 9, unless the Department finds that alternate limits are appropriate. After accepting a renewal application as complete for processing, the Department shall approve an overboard waste discharge license only if all of the following criteria are met.

(1) A publicly owned sewer line is not located on or abutting land owned or controlled by the applicant or is not available for the applicant's use.

(2) A subsurface wastewater disposal system cannot be installed in compliance with the Subsurface Rules, 10-144 CMR 241, on land owned or controlled by the applicant. Or, a subsurface wastewater disposal system can be installed on land owned or controlled by the applicant and the applicant is eligible for grant funding pursuant to 38 M.R.S.A § 411-A but no funding is available.

(3) The discharge is not located within the boundaries of a sanitary or sewer district and the district has not agreed to service and maintain a holding tank at an annual fee that does not exceed those fees charged to other similar users of the district's services who are physically connected to the sewers of the district.

(4) For a school, the volume or quantity of waste water that is discharged does not exceed;

(a) the limit imposed by the previous license.

(b) the actual or estimated flow at the time of current application if a license volume increase is necessary.

(5) The receiving water is not:

(a) A Class GPA, AA, A, or SA water;

(b) A tributary to Class GPA water; or

(c) A waterbody with a drainage area of less than 10 square miles,

(6) The discharge meets the requirements of *Maine's Pollution Control Laws* 38 M.R.S.A. §414-A, and Maine's *Water Classification Laws* 38 M.R.S.A. §§ 464 to 469.

(7) The discharge receives best practicable treatment consistent with requirements in Section 9 of Department rule Chapter 596.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

The discharge from the permittee's facility has met all the above criteria with the exception of 5(c) because it has a drainage area of 0.6 square miles. However, in a letter dated November 20, 2008, a qualified LSE/PE determined that Dow Highway Properties' OBD system could not be replaced with a subsurface alternative due to the lack of room to construct disposal fields. Therefore, the Department is approving the renewal of the permittee's waste discharge license.

b. Flow: Waste water flows are measured using two water meters located on either side of Dana Avenue. The meter readings are added together to determine flow totals. The previous permitting action established a monthly average flow limitation of 5,000 gallons per day (GPD) and a monthly measurement frequency, both of which are being carried forward in this permitting action.

Flow data information was inadvertently omitted from the monthly DMR's for the period October 2009 – July 2013.

Flow

Value	Limit (gpd)	Range (gpd)	Mean (gpd
Monthly Average	5000	2,361 - 22,400	6,630

c. Dilution Factors - The Department established applicable dilution factors for the discharge in accordance with freshwater protocols established in Department Rule Chapter 530, Surface Water Toxics Control Program, October 2005. With a monthly average flow limit of 5,000 gpd and a 7Q10 of 0.029 cfs (18, 750 gpd), the dilution factors are as follow:

Acute: 1Q10 = 16,160 gpd[(1)]* $\frac{16,160 \text{ gpd} + 5,000 \text{ gpd}}{5,000 \text{ gpd}}$ = 4:1

Modified Acute: = 4,040 gpd[(2)] * $\frac{4,040 \text{ gpd} + 5,000 \text{ gpd}}{5,000 \text{ gpd}}$ = 2:1

Chronic: 7Q10 = 18,750 gpd[(3)*] $\frac{18,750 \text{ gpd} + 5,000 \text{ gpd}}{5,000 \text{ gpd}}$ = 5:1

Harmonic Mean: = 56,250 gpd[(4)] * $\frac{56,250 \text{ gpd} + 5000}{5,000 \text{ gpd}}$ = 12:1

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6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

Footnotes:

(1) 85% of the 7Q10

(2) Chapter 530 (4)(B)(1) states that analyses using numeric acute criteria for aquatic life must be based on 1/4 of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The 1Q10 is the lowest one-day flow over a ten-year recurrence interval. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it. Based on information provided by the permittee as to the configuration and location of the outfall pipe, the Department has made the determination that the discharge does not receive rapid and complete mixing with the receiving water, therefore, the default stream flow of ¼ of the 1Q10 is applicable in acute statistical evaluations pursuant to Chapter 530.

(3) The 7Q10 was calculated by USGS equation using a watershed area of 0.6 mi^2.

(4) The harmonic mean dilution factor is approximated by multiplying the chronic receiving water flow (7Q10) by a factor of three (3). This multiplying factor is based on the guidelines for estimation of human health dilution presented in the USEPA publication "*Technical Support Document for Water Quality-Based Toxics Control*"(Office of Water; EPA/505/2-90-001, page 88), and represents an estimation of harmonic mean flow on which human health dilutions are based on a riverine 7Q10 flow situation.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

d. Biochemical Oxygen Demand (BOD5) and Total Suspended Solids (TSS): The previous permitting action established technology based monthly average, weekly average and daily maximum BOD5 and TSS concentration limits of 30 mg/L, 45 mg/L and 50 mg/L, respectively. The monthly average and weekly average concentration limits are based on secondary treatment requirements as defined in Department rule, 06-096 CMR
Chapter 525(3)(III) and the daily maximum concentration limit of 50 mg/L is based on a best professional judgment by the Department of best practicable treatment (BPT). This permitting action is carrying forward all three technology-based concentration limits.

The previous permitting action established mass limitations for BOD5 and TSS pursuant to Department rule Chapter 523, Waste Discharge License Conditions, Section 6, Calculating NPDES permit conditions, sub-section f(1) states that, "all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass…." Therefore, this permitting action is establishing monthly average, weekly average and daily maximum BOD5 and TSS mass limitations based on calculations using the permittee's daily maximum permitted flow limitation of 5,000 GPD (0.005 MGD) and the applicable concentration limits as follows:

Monthly Average Mass Limit: (30 mg/L)(8.34 lbs/gallon)(0.005 MGD) = 1.2 lbs/day

Weekly Average Mass Limit: (45 mg/L)(8.34 lbs/gallon)(0.005 MGD) = 1.9 lbs/day

Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs/gallon)(0.005 MGD) = 2.1 lbs/day

The previous permitting action established a minimum monitoring frequency requirement of 1/Month for BOD5 and TSS that is being carried forward in this permitting action.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

A review of the discharge data as reported on the permittee's Discharge Monitoring Reports (DMR's) submitted to the Department for the period October 2009 – July 2013 (n=46) indicate the following:

BOD concentration (DMRs = 46)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	<2 – 95	24
Weekly Average	45	<2 – 95	24
Daily Maximum	50	<2 – 95	24

TSS concentration(DMRs = 46)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	4.4 – 84	22
Weekly Average	45	4.4 – 84	22
Daily Maximum	50	4.4 – 84	22

BOD Mass(DMRs = 46)

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	1.2	0.13 – 6.1	1.2
Weekly Average	1.9	0.13 – 6.1	1.2
Daily Maximum	2.1	0.13 – 6.1	1.2

TSS Mass(DMRs = 46)

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	1.2	0.16 – 5.8	1.1
Weekly Average	1.9	0.16 – 5.8	1.1
Daily Maximum	2.1	0.16 – 5.8	1.1

This permitting action is establishing a new requirement for a minimum of 85% removal of BOD5 and TSS pursuant to Chapter 525(3)(III)(a)(3) and (b)(3) of the Department's rules.

e. Settleable Solids: : The previous permitting action established a Department BPT based daily maximum concentration limit of 0.3 ml/L. No monitoring requirements were established as sand filter systems tend not to discharge settleable solids provided the systems are well maintained and operated. However, the concentration limit is in effect and enforceable at all times.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

f. *E. coli* bacteria: : The previous permitting action established seasonal (May 15 – September 30) monthly average and daily maximum concentration limits for E. coli bacteria of 64 colonies/100 ml (geometric mean) and 427 colonies/100 ml (instantaneous), respectively. State of Maine Water Classification Program criteria for Class B waters found at 38 M.R.S.A. §465(4)(B) establishes instream E. coli bacteria levels at 64 colonies/100 ml as a monthly average and 236 colonies/100 ml as a daily maximum that replaced previous standards of 64 colonies/100 ml as a monthly average and 427 colonies/100 ml as a daily maximum. The Department made the determination that after taking into consider the dilution associated with the discharge, the daily maximum limit established in the previous permitting action is protective of the more stringent instantaneous AWQC for bacteria and is therefore being carried forward in this permitting action along with the 1/Month monitoring requirement. Although E. coli bacteria limits are seasonal, the Department reserves the right to impose year-round bacteria limits if deemed necessary to protect the health, safety and welfare of the public.

A review of the monthly average and daily maximum data as reported on the DMRs submitted to the Department for the period May 2010 – July 2013 indicates the monthly (geometric mean) and daily maximum E. coli bacteria discharged as follows:

***E. coli* Bacteria (DMRs = 23)**

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100ml)
Monthly Average	64	2 - > 10,000	1311
Daily Maximum	427	2 - > 10,000	1311

g. Total Residual Chlorine (TRC): The previous permitting action established a daily maximum water quality-based TRC concentration limit of 0.04 mg/L at a testing frequency of 2/Week. Limitations on TRC are specified to ensure that ambient water quality standards are maintained at all times of the year and that BPT technology is being applied to the discharge. Department permitting actions impose the more stringent of either a water quality-based or BPT-based limit.

With dilution factors as determined in Section 6c of this Fact Sheet, end-of-pipe (EOP) water quality-based concentration thresholds for TRC may be calculated as follows:

Calculated Acute (A) Criterion	Calculated Chronic (C) Criterion	A & C Dilution Factors	Acute Limit	Chronic Limit
0.019 mg/L	0.011 mg/L	2:1(A) 5:1(C)	0.04 mg/L	0.06 mg/L

Example Acute Limit Calculation: (0.019)(2) = 0.04

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine-based compounds. For facilities that need to dechlorinate the discharge in order to meet water quality based thresholds, the Department has established daily maximum and monthly average BPT limits of 0.3 mg/L and 0.1 mg/L, respectively. Based on the calculated acute (modified) and chronic total residual chlorine limits, Dow Highway Properties is required to dechlorinate the effluent prior to discharge in order to consistently achieve compliance with the calculated water quality-based thresholds. Therefore, this permitting action is establishing a daily maximum water quality-based concentration limit of 0.04 mg/L for total residual chlorine.

A review of the daily maximum data as reported on the DMRs submitted to the Department for the period May 2011 – July 2013 indicates the maximum TRC discharged has been as follows;

Total residual chlorine

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L) (n=25)
Daily Maximum	0.04	0.01 – 0.04	0.025

h. pH: The previous permitting action established a BPT pH range limit of 6.0 – 9.0 standard units (SU), pursuant to Department rule found at Chapter 525(3)(III)(c). This permitting action is not establishing a regular monitoring frequency to determine compliance but the limitations are in effect and enforceable at all times.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected, and that the discharge as permitted will not cause or contribute to the failure of the water body to meet standards for Class SB waters.

8. PUBLIC COMMENTS

Public notice of this application was made in the Portsmouth Herald newspaper on or about March 05, 2014. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

9. DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from, and written comments sent to:

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Bureau of Land & Water Quality
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10. RESPONSE TO COMMENTS

Reserved until the close of the formal 30-day public comment period.