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AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SEWING BUILDING
103 SOUTH MAIN STREET
WATERBURY, VERMONT 05671-0405

FACT SHEET
January 2003

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

FILE NO.: 04-14
NPDES NO.: VT0100366
PERMIT NO: 3-1278

NAME AND ADDRESS OF APPLICANT:

City of South Burlington
575 Dorset Street
South Burlington, Vermont 05403

NAME AND ADDRESS OF COAPPLICANT

Town of Colchester
PO Box 55
Colchester, VT 05446

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

South Burlington Airport Parkway Wastewater Treatment Facility
Airport Parkway
South Burlington, VT

RECEIVING WATER: Winooski River, Class B with a waste management zone. Class B waters are suitable for bathing and recreation, irrigation and agricultural uses; good fish habitat; good aesthetic value; acceptable of public water supply with filtration and disinfection. A waste management zone is a specific reach of Class B waters designated by a permit to accept the discharge of properly treated wastes that prior to treatment contained organisms pathogenic to human beings.

I. Proposed Action, Type of Facility, and Discharge Location

The above named applicant and coapplicant applied for renewal of their existing discharge permit on September 30, 2002. The facility is engaged in the treatment of municipal wastewater. At this time the Department has made a tentative decision to issue a renewal of the previously issued discharge permit. The discharge is from the permittee's wastewater treatment facility to the Winooski River.

II. Description of Discharge

A quantitative description of the discharge in terms of significant effluent parameters is based upon state and federal laws and regulations and upon self-monitoring data.

III. Limitations and Conditions

The effluent limitations included in this draft permit may be found on page 2. Sampling frequencies may be found on pages 4, 5, and 6.

IV. Permit Basis and Explanation of Effluent Limitation Derivation

The City of South Burlington operates the South Burlington "Airport Parkway" Wastewater Treatment Facility which receives wastewater from the City of South Burlington and portions of the Town of Colchester. The facility utilizes the activated sludge process for treatment and alum addition for phosphorus removal. Disinfection is achieved by chlorination followed by dechlorination prior to discharge.

Flow

The flow limitation remains at 2.3 mgd annual average and is unchanged from the previous permit. This limitation is based on the application and the facility's design flow. The facility maintains a continuous discharge.

Ultimate Oxygen Demand

The UOD mass limitation remains at 2060 lbs/day maximum day and is effective from June 1st through October 31st of each year. This limitation is based on the Lower Winooski River Waste Load Allocation Order and is unchanged from the previous permit. Sampling is required once per week from the period of June 1st through October 31st.

Biochemical Oxygen Demand and Total Suspended Solids

The BOD and TSS mass limitations are 575 lbs/day monthly average, and 863 lbs/day, weekly average, and are unchanged from the previous permit. These mass limitations are based on concentration limitations and the permittted flow. The BOD and TSS effluent concentration limits are 30 mg/l monthly average, 45 mg/l weekly average. These limitations are set in accordance with the limitations specified for secondary treatment in 40 CFR Part 133.102. The permit contains a 50 mg/l maximum day BOD and TSS limitation which is the Agency's standard applied to all such discharges. These limitations are unchanged from the previous permit. The sampling frequency for BOD and TSS is once per week and is unchanged from the previous permit. The permit also requires that during the period of June 1st through October 31st, the permitee must control the discharge such that the maximum day UOD limitation is not exceeded or the BOD concentration and mass limitations are not exceeded, whichever is more restrictive.

E. coli, Settleable Solids, Total Residual Chlorine and pH

The *E. coli* limitation is 77/100ml, instantaneous maximum and is based on Section 3-04.B.3 of the Vermont Water Quality Standards effective July 2, 2000. This limitation is unchanged from the previous permit. Sampling is required once per week and is unchanged from the previous permit.

The Settleable Solids limitation is 1.0 ml/l, instantaneous maximum and is based the Agency's interpretation of Section 3-01.B.5 of the Vermont Water Quality Standards effective July 2, 2000. This limitation is unchanged from the previous permit. Sampling is required once per day and is unchanged from the previous permit.

The Total Residual Chlorine limitation is 0.1 mg/l and based on maintaining the instream water quality criteria (acute) of 0.019 mg/l of the Vermont Water Quality Standards effective July 2, 2000. Since this facility utilizes dechlorination and has a dilution of greater than 5:1, this limitation

will be met. This limitation is unchanged from the previous permit. Total residual chlorine sampling is required once per day and is unchanged from the previous permit.

The pH limitation is 6.5 to 8.5 Standard Units and is unchanged from the previous permit. This limitation is based on Section 3-01.B.9 of the Vermont Water Quality Standards effective July, 2000. Sampling is required once per day and is unchanged from the previous permit.

Total Phosphorus

The Total Phosphorus limitation is 15.3 pounds per day, monthly average, and 0.8 mg/l, monthly average, and is unchanged from the previous permit. The concentration limitation is based on 10 V.S.A. Section 1266.a. The mass limitation is based on the permitted flow and the concentration limitation. Sampling is required once per week and is unchanged from the pervious permit.

Waste Management Zone

As defined under 10 V.S.A. §1251(16), a waste management zone is "a specific reach of Class B waters designated by a permit to accept the discharge of properly treated wastes that prior to treatment contained organisms pathogenic to human beings. Throughout the receiving waters, water quality criteria must be achieved but increased health risks exist due to the authorized discharge".

The previous permit designated a waste management zone in the Winooski River beginning at the outfall of the South Burlington Airport Parkway Wastewater Treatment Facility and extending downstream for 1.2 miles. The draft permit proposes to maintain this waste management zone.

Whole Effluent Toxicity Testing

40 CFR Part 122.44(d)(1) requires the Department to assess whether the discharge causes, has the reasonable potential to cause, or contribute to an excursion above any narrative or numeric water quality criteria. Whole Effluent Toxicity testing is being required in accordance with the 1994 Vermont Toxic Discharge Control Strategy. The intent of the WET testing is to confirm the results of the WET testing conducted on this discharge in 1992, 1994, 1995 and 2000. Those results indicated that this discharge did not have an instream toxic impact. Confirmation that those findings are still valid is required by the Vermont Toxic Discharge Control Strategy at permit renewal. If the results of this test indicate a reasonable potential to cause an instream toxic impact, the Department may require additional WET testing, establish a WET limit, or require a Toxicity Reduction Evaluation.

The draft permit contains a Whole Effluent Toxicity (WET) testing requirement. Specifically, the permit requires that a two-species chronic WET test be conducted on this discharge in August or September 2003 and the results submitted by December 31, 2003.

Additional Permit Conditions

Since the Town of Colchester owns a significant portion of the collection system that contributes influent to the Airport Parkway Wastewater Treatment Facility, the Town is identified as a copermittee on the draft permit. Several permit conditions define the responsibilities of the Town as copermittee. Specifically Conditions I.H., I.I., II,A.1,2,3,6, and 9, and II.B.1 and 2, reference the responsibilities of the Town.

V. Procedures for Formulation of Final Determinations

The public comment period for receiving comments on this draft permit is from December 2, 2002 through January 2, 2003 during which time interested persons may submit their written views on the draft permit. All written comments will be retained by the Department and considered in the formulation of the final determination to issue, deny or modify the draft permit. The period of comment may be extended at the discretion of the Department.

Written comments should be sent to:

Vermont Agency of Natural Resources
Department of Environmental Conservation
Wastewater Management Division - Sewing Building
103 South Main Street
Waterbury, VT 05671-0405

Comments may also be faxed to: 802-241-2596.

Any interested person or groups of persons may request or petition for a public hearing with respect to this draft permit. Any such request or petition for a public hearing shall be filed within the public comment period described above and shall indicate the interest of the party filing such request and the reasons why a hearing is warranted.

The Department will hold a hearing if there is significant public interest in holding such a hearing. Any public hearing brought in response to such a request or petition will be held in the geographical area of the proposed discharge or other appropriate area, at the discretion of the Department and may, as appropriate, consider related groups of draft permits. Any person may submit oral or written statements and data concerning the draft permit at the public hearing. The Department may establish reasonable limits on the time allowed for oral statements and may require the submission of statements in writing. All statements, comments, and data presented at the public hearing will be retained by the Department and considered in the formulation of the final determination to issue, deny, or modify the draft permit.

The complete application, draft permit, and other information are on file and may be inspected at the VTDEC, Wastewater Management Division, Waterbury Office. Copies will be made at a cost based on the current Secretary of State Official Fee Schedule for Copying Public Records from 8:00 am to 4:00 pm, Monday through Friday.

VT0100366

CVT rc'd 2/4/0

RESPONSE SUMMARY FOR
DRAFT DISCHARGE PERMIT No. 3-1278
Proposed NPDES Municipal Discharge Permit
for the
City of South Burlington

The above referenced draft permit was placed on public notice for comment from the period of December 2, 2002 through January 2, 2003. The draft permit proposed to renew the authorization for the discharge of treated and disinfected municipal wastewater from the City of South Burlington's "Airport Parkway" wastewater treatment facility to the Winooski River. Per Section 1-01 of the Vermont Water Quality Standards effective July 2, 2000, this discharge is considered an "existing discharge" The draft permit was a renewal of the existing permit which currently authorizes this discharge with no changes in pollutants discharged or monitoring frequencies.

Comments were received during the public notice period from the Conservation Law Foundation. The following is a summary of the relevant comments received on this draft Discharge Permit, and the Agency's responses to these comments. No changes were made to the final permit based upon public comment.

Comment 1: The proposed concentrations and loads limits for phosphorus are inconsistent with the recently approved Lake Champlain Phosphorus TMDL.

Response 1: The Agency is aware that the phosphorus concentrations and mass loads in the permit are inconsistent with the recently approved Lake Champlain Phosphorus TMDL. The application for this discharge permit was received and deemed complete on September 30, 2002. The Lake Champlain Phosphorus TMDL was approved on November 4, 2002. Since the application for renewal of the permit was complete before November 4, 2002, and the Agency has no knowledge or evidence that the application was not submitted in good faith, the permittee has a right to a review under the rules, regulations, and standards in effect on September 30, 2002 and is vested as of that date. Consequently the requirements of the Lake Champlain Phosphorus TMDL cannot be applied to this discharge at this time

Comment 2: The proposed effluent limits for UOD, BOD_5, and TSS may not be sufficient to ensure compliance with the Vermont Water Quality Standards for dissolved oxygen in Class B waters. The commentor believes it is possible that dissolved oxygen violations will occur in the vicinity of the discharge and an adequate analysis should be completed before a final permit is issued.

Response 2: The Agency disagrees with this comment. The UOD, BOD_5, and TSS limitations ensure that the Vermont Water Quality Standards for dissolved oxygen in Class B waters are

met. These limitations were specifically developed as a result of the Lower Winooski Wasteload Allocation Study to ensure that the Vermont Water Quality Standards in Class B waters are maintained in the receiving water.

Comment 3: Ammonia effluent limits should be included in this permit in order to ensure compliance with the Vermont Water Quality Standards and USEPA water quality criteria. The commentor believes there is a reasonable potential for this facility to cause or contribute to violations of the Vermont Water Quality Standards for ammonia found in Appendix C. Therefore ammonia effluent limits should be included in a final permit. Specifically the commentor believes that an ammonia limit between 3.18 - 3.58 mg/l and approximately 9.65 mg/l daily maximum, assuming no dilution, should be applied to this discharge. Also a more detailed analysis of the ammonia concentration is necessary. The commentor requests that the permittee be required to conduct the sampling necessary to determine compliance with ammonia water quality standards as a conditions of the final permit. This would include weekly sampling of ammonia effluent concentrations, pH, and temperature as well as weekly sampling of ammonia concentrations, pH and temperature upstream and downstream of the outfall. Data should be collected for a minimum of two years to determine the operational range of the facility and seasonal effect on background ammonia concentrations.

Response 3: The Agency disagrees with this comment. The Agency notes that by assuming no instream dilution, the commentor has not properly calculated the ammonia effluent for the discharge as per the Vermont Water Quality Standards and EPA guidance. Therefore the calculated ammonia limitations do not support the subsequent comments for requiring an ammonia limitation and monitoring program.

Comment 4: The proposed Whole Effluent Toxicity testing in the permit is inadequate. The commentor requests that chronic and acute WET testing be conducted on this discharge quarterly to coincide with EPA requirements.

Response 4: The Agency disagrees with this comment. The Whole Effluent Toxicity testing requirements in the discharge permit are in accordance with the 1994 Vermont Toxic Discharge Control Strategy which was reviewed by EPA. Also the permit contains conditions which allow the Department to require additional WET testing, establish a WET limit, or require a Toxicity Reduction Evaluation if the results of the WET testing indicate that this discharge has a reasonable potential to cause an instream toxic impact, which at this time the effluent does not.

Comment 5: The method for calculating UOD must be more thoroughly described.

Response 5: The Agency disagrees with this comment. The formula contained on page 2 of the permit is the correct formula to calculate Ultimate Oxygen Demand and review of past discharge monitoring reports indicates that the permittee is properly utilizing the formula to calculate UOD.

Comment 6: The monitoring frequencies for BOD_5 and TSS in the influent and effluent must be consistent to properly calculate removal efficiencies as required by Condition I.A.4. Specifically, since influent monitoring and effluent monitoring are at different frequencies this could lead to incorrect calculations of removal efficiencies.

Response 6: The Agency disagrees with this comment. Since removal efficiency is based on the monthly average influent and effluent values it is not is necessary to have an equal number of sampling events to properly calculate removal efficiencies.

Comment 7: The Airport Parkway Wastewater Treatment Facility appears to have misreported its removal efficiencies for BOD_5 and TSS as required by the existing discharge permit. Specifically, instead of calculating the removal efficiencies using the monthly average concentrations of BOD_5 and TSS, the discharger has consistently used the minimum recorded concentrations for many years and in the process has failed to report violations for removal of BOD_5 in May 2000 and TSS violations in February 1999 and July 2001.

Response 7: The Agency disagrees with this comment. A review of past Discharge Monitoring Reports (WR43) indicates that the permittee is calculating removal efficiencies correctly.

Comment 8: The Commentor (Conservation Law Foundation) requests a public hearing in order to address the issues discussed above.

Response 8: The Agency does not believe that sufficient public interest has been demonstrated to warrant a public hearing. Specifically, the Conservation Law Foundation (CLF) requested public hearings to provide comment on Discharge Permit Nos. 1-1214 (Hannaford Bros., Co.and Lowes Home Center, Inc.), 1-1441 (Fletcher Allen Health Care Inc., and University of Vermont) and 3-1284 (City of South Burlington Bartlett Bay Wastewater Treatment Facility). In response to those requests, the Agency held hearings to receive public comments on those draft permits on September 26, 2000 November 27, 2000, January 17, 2001 and April 18, 2001 respectively. The only representatives of CLF that attended these hearings were paid staff members of CLF. No other members of the organization attended these hearings or provided any comments on these draft permits. The comments received at these hearings were not

substantially different from the written comments submitted by CLF prior to the hearing. In addition, and most recently, CLF requested a public hearing to provide comment on Discharge Permit No. 3-1289 (Town of Shelburne Crown Road Wastewater Treatment Facility). The Agency responded by holding a public hearing on May 29, 2002 to receive public comment on this draft permit. No one from CLF, paid staff or member, attended this hearing. Therefore based on the lack of attendance by members of CLF at these hearings combined with the lack of substantial new comments not gained through the written notice and comment period and the requirements of Section 13.3.g of the Vermont Water Pollution Control Permit Regulations, the Agency finds that this request does not represent a sufficient public interest for holding such a hearing.