

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



STATE OF CONNECTICUT

vs.

TOWN OF PUTNAM, and PUTNAM

WATER POLLUTION CONTROL AUTHORITY)

)

)

) DIV-2008-1011V

)

)

CONSENT ORDER

A. With the agreement of the Town of Putnam ("Town") and the Putnam Water Pollution Control Authority ("WPCA"), the Commissioner of Environmental Protection ("the Commissioner") finds:

1. Since on or before July 1, 1982, the Town, operating through the WPCA, has been diverting water from the Little River at Shepherds Pond Dam ("Dam") located immediately east of Peake Brook Road in Woodstock, Connecticut ("Little River Diversion") in excess of 50,000 gallons per day. The Town and the WPCA are collectively referred to in this Consent Order as "Respondents."
2. In 1982, the Water Diversion Policy Act ("Diversion Act") was adopted which required any person or municipality withdrawing or diverting ground or surface waters in excess of 50,000 gallons per day to either register such diversion by July 1, 1983 or obtain a diversion permit. Following passage of the Diversion Act, Respondents failed to register the Little River Diversion as required by Connecticut General Statutes ("C.G.S.") §22a-368.
3. In October 1984, the WPCA submitted an application to the Commissioner for a determination of permit need on its unregistered Little River Diversion. On November 8, 1984, the Commissioner determined that a permit for the Little River Diversion was needed. On December 6, 1985, the Commissioner granted a five year grace period, which allowed continued operation of the unpermitted Little River Diversion until December 6, 1990. On May 7, 1990, the Commissioner notified the WPCA that a diversion permit application was required on or before December 6, 1990. The WPCA failed to submit such a permit application for the Little River Diversion by December 6, 1990.
4. On July 22, 1991, the Commissioner issued a letter regarding the WPCA's 1984 petition for diversion registration and erroneously acknowledged a registration of the WPCA's

diversions under C.G.S. §22a-368 as valid. On November 8, 1993, the Commissioner issued a correction letter to the WPCA memorializing that such registration under C.G.S. §22a-368 was not valid because the WPCA failed to meet the July 1, 1983 statutory deadline, and requested that the WPCA submit a diversion permit application.

5. On January 21, 1999, the WPCA submitted to the Commissioner water diversion permit application no. DIV-19990289 for its Park Street Wellfield.
6. On June 20, 2000, the Commissioner issued a Notice of Violation ("NOV") to the WPCA for maintaining unpermitted diversions and required that the Town apply for all necessary diversion permits within 12 months. The WPCA responded to the NOV advising that it anticipated submission of a preliminary diversion permit application by April 2001.
7. On June 28, 2002, the Commissioner issued a letter advising the WPCA that enforcement would be stayed provided the Respondents file required operating data and a diversion permit application for the Little River Diversion in accordance with Public Act 02-102. On December 31, 2003, the Commissioner issued a letter memorializing the WPCA's failure to comply with such requirements of Public Act 02-102 and advised that the outstanding Little River Diversion violations must be resolved through an enforcement action.
8. On March 22, 2004, the WPCA filed a request for authorization under section 3(a)(2) of the General Permit for Diversion of Water for Consumptive Use issued on June 12, 2002 ("Water Diversion General Permit") for the Little River Diversion.
9. On August 1, 2005, the Commissioner issued Consent Order DIV-1999-1009V to allow Respondents to withdraw up to 1.47 million gallons per day ("MGD") of water from the Little River at Shepherds Pond Dam in Woodstock for a period of 3 years while Respondents evaluated alternative backup water supply sources and sought to obtain a permit for the Little River Diversion.
10. On December 14, 2006, the Commissioner denied the WPCA's March 22, 2004 request for coverage under the Water Diversion General Permit for insufficiency and advised the WPCA that an individual permit would be required. In July 2007, the WPCA submitted an application for an individual permit for the Little River Diversion.
11. In April 2008, the Commissioner issued a Notice of Tentative Determination to Issue Water Diversion Permit No. DIV-200702013 ("proposed Water Diversion Permit") to the WPCA for its Little River Diversion. The WPCA advised the Commissioner in April and June 2008 that it was not able to meet required permit conditions for the Little River in the proposed Water Diversion Permit.

12. On the following dates, the WPCA reported withdrawals from the Little River that were greater than 1.47 MGD allowed under Consent Order DIV-1999-1009V

DATE	REPORTED WITHDRAWAL
October 3, 2006	1,570,300 MGD
October 4, 2006	1,555,300 MGD
June 27, 2007	1,545,100 MGD

13. The WPCA reported that, on the following dates, Little River stream flow downstream of the Little River diversion was less than required minimum stream flow under Consent Order DIV-1999-1009V:

DATE	REQUIRED MINIMUM STREAM FLOW	REPORTED DOWNSTREAM FLOW
October 3, 2005	12.33 cfs	8.92 cfs
October 4, 2005	12.33 cfs	8.92 cfs
October 5, 2005	12.33 cfs	8.92 cfs
October 6, 2005	12.33 cfs	8.92 cfs
October 7, 2005	12.33 cfs	10.36 cfs

"cfs" = cubic feet per second

14. By virtue of the above, the WPCA has violated Conn. Gen. Stat. §22a-368 et seq. and Respondents violated an order of the Commissioner issued under Conn. Gen. Stat. §22a-6.
15. Respondents have requested that temporary diversion authorization be provided for three additional years in order to investigate, develop and operate back-up alternative water supply sources, including expansion of the WPCA's Park Street Wellfield and possible interconnection with CT Water Company for the supply of water from sources outside of Putnam.
16. Respondents have retained CME Associates, Inc. to prepare the studies and documents, and oversee the actions required by this Consent Order ("Consultant").
17. On October 21, 2009, Respondents submitted to the Commissioner an up-to-date distribution map of the Putnam WPCA water distribution system.

B. With the agreement of the Respondents, the Commissioner acting under Conn. Gen. Stat. §22a-6 orders Respondents as follows:

1. Cease Unauthorized Water Diversions and Develop Additional Water Supply Sources. Respondents shall immediately cease all unpermitted diversions except as provided in paragraph B.2 below. Respondents shall use due diligence and make best efforts to investigate, develop and operate alternative water supply sources.
2. Temporary Permission. Notwithstanding the prohibition contained in paragraph B.1 above, Respondents may, on a temporary basis, maintain the unpermitted Little River Diversion in accordance with the following:
 - a. Temporary Unpermitted Water Diversion Allowed with Limitations. Provided Respondents comply with the requirements of this Consent Order including the requirements of the Interim Source Operation Plan dated February, 2009 ("ISOP") and appended hereto as Attachment A to this Consent Order, Respondents may divert a total maximum of, but shall not exceed, 1.47 million gallons per day ("MGD") from the Little River for a period of time not to exceed 3 years from the date of issuance of this Consent Order or until the Commissioner's final decision on Putnam WPCA's water diversion permit application DIV-200702013 under Conn. Gen. Stat. § 22a-368, whichever occurs first. The 3-year period allowed herein for unpermitted water diversion may be extended by the Commissioner in writing, provided the Respondents file a written request for extension with the Commissioner at least 120 days prior to the expiration of the 3-year period, and demonstrate adequately to the Commissioner that they have proceeded with all best efforts to investigate and develop alternative water supply sources and to obtain all required diversion permits and are in full compliance with the terms and conditions of this Consent Order.
 - b. Maximize Use of Groundwater Sources. Respondents shall maximize the use of authorized groundwater wells prior to and while withdrawing from the Little River Diversion when a minimum stream flow trigger in the ISOP is not being met.
 - c. Exercise Due Diligence and Good Faith Efforts. Respondents shall exercise due diligence and good faith efforts in completing all required actions and in submitting all documents and information required herein or that may be required by the Commissioner to facilitate the review and processing of any information or document including any permit application submitted to the Commissioner. If the Commissioner issues any notices, including notice of insufficiency and/or request for additional information, to any Respondent pertaining to any deficiencies identified during the review and processing of any permit application or information submitted

or with regard to compliance with any of the actions required by this Consent Order, such Respondent shall submit any necessary information or document and/or make the necessary revisions in a manner that represents Respondent's best efforts in addressing all deficiencies noted by the Commissioner in any such notice or request for additional information. Unless otherwise specified in the notice or request for additional information, such Respondent shall submit any requested information or document, including any necessary revisions, to the Commissioner on or before 45 days following the date of issuance of such notice or request for additional information.

- d. Revocation of Temporary Diversion Allowance. The Commissioner may in writing revoke the above 3-year allowance or any extension issued by the Commissioner for unpermitted water diversion if she determines at any time prior to the expiration of said allowance or extension thereof that any of the Respondents did not comply with any provision or requirement of this Consent Order.
3. Subsequent Authorization(s). Nothing in this Consent Order shall be interpreted to obligate the Commissioner to permit or authorize any of the Respondents to withdraw any amount of water under any past, present or future permit application or request. It shall be the Commissioner's sole authority to determine any such amount that may be permitted or authorized based upon information relevant to any such request or permit application submitted by such Respondent(s) under Conn. Gen. Stat. § 22a-368.
4. Temporary Suspension of Water Main Extensions and New Service Connections.
 - a. Scope. Without the prior written approval of the Commissioner, Respondents shall neither extend water mains to areas not served with public water as of the date of issuance of this Consent Order, nor allow any New Service Connection to the Putnam public water supply system for properties within the water service area that are not being served by a lateral water supply line as of the date of issuance of this Consent Order until the temporary suspension is terminated in accordance with subparagraph B.4.d.
 - b. Definition of "New Service Connection." For purposes of this Consent Order, the term "New Service Connection" shall mean a connection to the Putnam public water supply system of a property where a new lateral must be installed to connect the property to a water main. Excluded from this definition is any replacement or repair of an existing lateral.

- c. Exceptions. The foregoing temporary suspension shall not apply to New Service Connections for the specific projects identified in Attachment F. Should there be a need to modify or waive the foregoing temporary suspension to address a significant public health issue that may arise, Respondents shall submit a written request for the Commissioner's review and written approval.
- d. Duration. The temporary suspension set forth in subparagraph B.4.a shall remain in effect until the termination of the temporary water diversion allowance, as provided in Paragraph B.2.a, or until such time as Respondents have demonstrated reductions in demand or secured new water supplies approved by the Commissioner and the Connecticut Department of Public Health (DPH), which together are sufficient to replace the 1.47 MGD currently provided by the Little River Diversion during periods when the Little River Diversion must cease temporarily due to river flows dropping below the levels specified either in the ISOP or in a diversion permit that may be issued for the Little River Diversion. In the event the Commissioner approves a minimum withdrawal amount as part of a diversion permit for the Little River Diversion, the amount of new water required from other sources will be reduced by the amount allowed by the diversion permit.
- e. New Sources of Water; Demand Reductions. Respondents shall use their best efforts to achieve 1.47 MGD in demand reductions and/or approved new water supply sources through: 1) an enhanced water conservation program, as set forth in subparagraph B.4.g; 2) the securing of a diversion permit for an expansion of the Park Street Wellfield; 3) an agreement with an outside water company to supply water to customers within the Putnam WPCA water service area or to the Putnam water supply system directly; and/or 4) some other increase in water supply capacity approved by the Commissioner. As set forth in subparagraph B.4.d, the amount of new water to be obtained from other sources will be reduced by the amount that is authorized as a minimum withdrawal in a diversion permit issued for the Little River Diversion and as realized through documented reductions in water usage due to the implementation of the Conservation Measures set forth in Paragraph B.4.g or of the Supplemental Environmental Project set forth in Paragraph B.9.b.
- f. Schedule for New Sources of Water.
 - i. Park Street Wellfield Expansion. The Respondents have received funding from the CT Department of Public Health and the U.S. Department of

Agriculture Rural Development Program to expand the Park Street Wellfield. As of the date of this Consent Order, Respondents have reported that the exploratory wells have been completed and new production wells are in the process of being installed. Pump tests of the new wells will be conducted in accordance with good hydrogeological practice during the appropriate low flow time period in 2010. Respondents shall make best efforts to submit a diversion permit application for the wellfield on or before February 15, 2011. Respondents expect that the expanded wellfield will produce an additional 0.67 MGD above the current wellfield yield.

- ii. Agreement with Connecticut Water Company. On March 25, 2010, the WPCA executed an agreement with the Connecticut Water Company ("CWC") to supply up to 0.8 MGD of additional water from sources outside the Putnam system, but CWC has not to date secured the approvals referenced in Paragraph B.4.d..
- g. Conservation Measures. Respondents shall undertake efforts to conserve water that shall, at a minimum, include the following.
 - i. The adoption, on September 20, 2010, by the Town Meeting of a Water Use Restriction Ordinance ["Ordinance"] that includes emergency water conservation measures in substantial conformance to the Model Water Use Restriction Ordinance provided by the Department. The Ordinance is appended hereto as Attachment G to this Consent Order.
 - ii. On or before November 30, 2010, Respondents shall finalize the reports of water use audits of a) the three largest private water customers served by the Putnam public water supply system, and b) municipal buildings and facilities, other than municipally owned housing. Respondents shall, within thirty (30) days after completing the reports of such audits on the three largest private water customers, provide the report of the audit to each of the three largest private customers. Based on the results of the audits of municipal buildings and facilities, the Town shall incorporate into the budget for the fiscal year commencing on July 1, 2011, the cost for installation of water saving devices recommended by the audits, and the Town shall complete the installation of such devices on or before December 31, 2011. Upon completion, Respondents shall certify in writing to the Commissioner that it has completed installation of water

saving devices in municipal buildings and facilities, other than municipally owned housing, as recommended by the audits.

- iii. Provide existing housing units with water conservation devices whenever the Town of Putnam rehabilitates those units through the Small Cities Grant.
- iv. Complete a study on the use of treated effluent for certain process uses at the Putnam Publicly Owned Treatment Works ("Putnam POTW") by July 1, 2011.
- v. Provide documentation of "off-sets" (quantifiable reductions in use of water from existing customers, including the Putnam POTW) for the Commissioner's review and written approval to facilitate development within the water service district for properties not identified on Attachment F.
- vi. Develop a water supply contingency plan for the summer of 2011 in the event that stream flows fall below the applicable minimum stream flow trigger in Table ISOP-1 in Attachment A. The contingency plan will include a provision for installation and potential use of permanent or temporary water supplies from the Connecticut Water Company, which Respondents shall make best efforts to place into service by May 15, 2011.
- vii. Participate as a Promotional Partner in the U.S. Environmental Protection Agency's WaterSense Program.

5. Submission of an Amended Application for Little River Diversion.

- a. On or before March 31, 2010, Respondents shall complete a report of an instream flow study of the Little River conducted in accordance with protocols approved by the Commissioner.
- b. On or before March 31, 2010, Respondents shall submit an amended application for the Little River Diversion Permit proposing minimum stream flow cut-offs for the Little River Diversion or minimum flow operating conditions that are protective of aquatic resources.

6. Monitoring and Reporting of Water Withdrawals and Downstream Flow. Upon the date of issuance of this Consent Order and continuing until either the expiration of the temporary diversion allowed under paragraph B.2 or the Commissioner's final decision on Putnam WPCA's water diversion permit application DIV-200702013 under Conn. Gen. Stat. §22a-368, whichever is earlier, Respondents shall:

- a. Monitor Water Withdrawals. Respondents shall monitor and record its Little River water withdrawals using a totalizing flow meter ("meter") at the discharge side of the withdrawal point from the Little River into the water treatment plant, and shall continuously operate and maintain such meter. In the event of meter malfunction or breakage, Respondents shall notify the Commissioner in writing and shall repair or replace such meter within 72 hours. Respondents shall read such meter and record such reading at the same time of day on each day following the issuance of this Consent Order ("daily meter records"). If Respondents' monitored water withdrawal is in violation of paragraph B.2 at any time, Respondents shall report such violation to the Commissioner in accordance with paragraph B.25.
- b. Monitor Downstream Flow. Respondents shall monitor and record Little River flow downstream of the diversion daily by recording the stage of water flowing over the Shepherd Dam spillway using a USGS Type A stream gauge daily at 3:00 PM each day, and calculating the volume of water flowing over the spillway. Respondents shall record each such stage reading, calculated flow, and minimum stream flow trigger on each day following the issuance of this Consent Order ("daily downstream flow records"). If Respondents' calculated downstream flow is less than such minimum stream flow trigger at any time, Respondents shall report such violation to the Commissioner in accordance with paragraph B.25.
- c. Maintain Monthly Records. Respondents shall at the end of each calendar month compile said daily meter records and daily downstream flow records for such month into monthly reports ("monthly meter report" and "monthly downstream flow report," respectively). Each individual that prepares any such monthly report shall clearly state and sign his name on such report and shall include the following certification statement:

"I certify under penalty of false statement that the information I have recorded in this document is true and complete to the best of my knowledge and belief, and I understand that any false statement in this report may be punishable as a criminal offense."

- d. Report Annual Withdrawal Records. On or before January 15th of each year following the issuance of this Consent Order, Respondents shall submit to the Commissioner a compilation of the monthly meter reports and monthly downstream flow reports ("annual meter report") for the previous year ending December 31st. Upon the Commissioner's written request, Respondents shall also submit copies of any meter reading, record or report so requested. The Commissioner may inspect such meter or any record or report at any time.
 - e. Record and Report Annual Meter Calibration. Respondents shall annually calibrate the meter in accordance with the manufacturer's specifications to within two percent accuracy and maintain the meter in optimal operating condition. Respondents shall record all calibration and maintenance performed, and shall submit an annual report of such calibration and maintenance to the Commissioner on or before January 15th of each applicable year.
7. Retain the Consultant. The Commissioner hereby approves the Consultant named in paragraph A.16 as acceptable for preparing the studies and documents required by this Consent Order and for overseeing the actions required by this Consent Order. Respondents shall retain the approved consultant until this Consent Order is fully complied with and within 10 days after retaining any consultant other than the approved consultant, Respondents shall notify the Commissioner in writing of the identity of such other consultant(s). Nothing in this paragraph shall preclude the Commissioner from finding a previously acceptable consultant unacceptable.
 8. Payment of Processing Costs. On or before July 1, 2011 and continuing annually thereafter for as long as unpermitted water diversions are allowed under paragraph B.2, above, Respondents shall pay an amount of money that is equivalent to the annual fees for consumptive water diversion under Conn. Gen. Stat. §22a-379 as may be amended to cover the costs of processing information that is submitted in accordance with this Consent Order.
 - a. The payment of processing costs assessed above shall increase by 5 percent if it is not paid on or before the due date, provided that if it is not paid until 31 or more days after it is due, the payment for processing costs shall increase by 10 percent. In addition, interest at the compounded rate of two-thirds percent per month shall accrue on any unpaid balance of the payment for processing costs.
 - b. Payment shall be by certified or bank check payable to the Connecticut Department of Environmental Protection and shall state on the face of the check "WPLR- Diversion Consent Order Processing Cost - IWRD Consent Order# DIV-2008-1011V". Any such check shall be mailed or personally delivered to the

Department of Environmental Protection, Bureau of Administration - Accounts Receivable Office, 79 Elm Street, Hartford, CT 06106-5127 and a copy of said check and/or transmittal letter used for payment under this paragraph shall also be sent to the individual identified under paragraph B.26 of this Consent Order.

9. Supplemental Environmental Project. In settlement of the past violations specifically described in paragraphs A.12, A.13, and A.14 of this Consent Order, Respondents have agreed to undertake the following supplemental environmental project ("SEP") requiring an expenditure of at least one-hundred-twenty-five thousand dollars (\$125,000), or make payment(s) as follows:
- a. Respondents shall, by April 30, 2011, submit written certification that they have performed all work necessary at and around Respondents' Peake Brook Road Water Treatment Plant to i) recycle filter backwash water from the settling ponds to the headworks of the water treatment plant, to the greatest extent possible, up to ten percent(10%) of the plant's total inflow from the Little River Diversion, and ii) direct the discharge of any remaining filter backwash waters that cannot be recycled from such settling ponds to the Little River in accordance with Respondents' SEP Proposal, dated December 16, 2009, for Option C, which is appended hereto as Attachment B. Respondents shall also, by May 31, 2011, submit written certification that they are fully operating such system for recycling filter backwash waters. Respondents shall obtain any federal, state or local permit or approval necessary to carry out such SEP.
 - b. Respondents shall, by November 30, 2010, submit: 1) a written report demonstrating that the discharge of treated filter backwash waters associated with this SEP to the Little River is compliant with the terms and conditions contained in the General Permit for the Discharge of Water Treatment Wastewater Into the Waters of the State of Connecticut ("Water Treatment Wastewater General Permit"), which was issued on March 30, 2010 and is hereby incorporated in this consent order as Attachment C; and 2) a complete registration for the discharge of treated filter backwash waters under Section 4 of the Water Treatment Wastewater General Permit. Respondents shall comply with all terms and conditions of the Water Treatment Wastewater General Permit.
 - c. Subsequent Authorization(s). Nothing herein shall be interpreted to obligate the Commissioner to permit or authorize any of the Respondents to discharge any amount of wastewater under any past, present or future permit application or request. It shall be the Commissioner's sole authority to determine any such amount that may be permitted or authorized based upon information relevant to

any such request or permit application submitted by such Respondent(s) under Conn. Gen. Stat. §§22a-430 or 22a-430b.

- d. If Respondents fail to fully perform the above SEP by April 30, 2011, Respondents shall immediately notify the Commissioner in writing of such noncompliance and shall, upon written request by the Commissioner, remit a payment equal to the total estimated cost, as determined by the Commissioner, of all such SEP(s), plus either \$2,500 or 10 percent of such total estimated cost, whichever is greater. Within 14 days after the date of the Commissioner's written request, Respondents shall make such payment in accordance with the remittance procedures for unexpended SEP funds in subparagraph B.9.f of this Consent Order.
- e. On or before 30 days after completion of the SEP, Respondents shall submit for the Commissioner's review and written approval a comprehensive final report that certifies completion of the SEP.
- f. Should the Commissioner determine that the actual cost to the Respondents of the fully completed SEP is less than the estimated cost of the SEP, as determined by the Commissioner, Respondents shall pay the difference between such actual cost and the estimated cost to the Commissioner as unexpended SEP funds. The Commissioner shall notify the Respondents in writing of the amount of any such unexpended SEP funds that are due. Respondents shall, within 14 days after the date of such written notice, remit the full amount of the unexpended SEP funds. Payment of unexpended SEP funds shall be by certified or bank check payable to "Treasurer, State of Connecticut" and the check shall state on its face "Statewide SEP Account, Consent Order No. DIV-2008-1011V." Respondents shall mail or personally deliver such payment to the Department of Environmental Protection, Bureau of Financial and Support Services, Accounts Receivable Office, 79 Elm Street, Hartford, Connecticut 06106-5127.
- g. If and when Respondents disseminate any publicity, including but not limited to any press releases regarding funding a SEP, Respondents shall include a statement that such funding is in partial settlement of an enforcement action brought by the Commissioner.
- h. Respondents shall not claim or represent that any SEP payment made pursuant to this Consent Order constitutes an ordinary business expense or charitable contribution or any other type of tax deductible expense, and Respondents shall not seek or obtain any other tax benefit such as a tax credit as a result of the payment under this paragraph.

10. Progress reports. Respondents shall, upon the Commissioner request, meet to discuss Respondents' progress with investigating, developing and operating new water supply sources. On or before the last day of March, June, September, and December of each year after issuance of this Consent Order, and continuing until all actions required by this Consent Order have been completed as approved and to the Commissioner's satisfaction, Respondents shall submit a written progress report to the Commissioner that includes:
 - a. A description of the actions that Respondents have taken to date to comply with this Consent Order, including investigating, developing and operating new water supply sources,
 - b. A description of the actions that Respondents have taken in performing each required SEP(s), a complete accounting of actual project costs incurred to date for such SEP, planning for remaining projects tasks to be performed, significant finding related to the project, and any other reasonable information requested by the Commissioner for the purpose of evaluating Respondents' progress in performing such SEP, and
 - c. A certification of Respondents' compliance with the monitoring and reporting requirements of paragraph B.6 and the minimum stream flow triggers and water supply emergency requirements of the ISOP.
11. Full compliance. Respondents shall not be considered in full compliance with this Consent Order until all actions required by this Consent Order have been completed as approved and to the Commissioner's satisfaction.
12. Approvals. Respondents shall use best efforts to submit to the Commissioner all documents required by this Consent Order in a complete and approvable form. If the Commissioner notifies Respondents that any document or other action is deficient, and does not approve it with conditions or modifications, it is deemed disapproved, and Respondents shall correct the deficiencies and resubmit it within the time specified by the Commissioner or, if no time is specified by the Commissioner, within 30 days of the Commissioner's notice of deficiencies. In approving any document or other action under this Consent Order, the Commissioner may approve the document or other action as submitted or performed or with such conditions or modifications as the Commissioner deems necessary to carry out the purposes of this Consent Order. Nothing in this paragraph shall excuse noncompliance or delay.
13. Definitions. As used in this Consent Order, "Commissioner" means the Commissioner or a representative of the Commissioner.

14. Dates. The date of "issuance" of this Consent Order is the date this Consent Order is deposited in the U.S. mail or personally delivered, whichever is earlier. The date of submission to the Commissioner of any document required by this Consent Order shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this Consent Order, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is deposited in the U.S. mail or is personally delivered, whichever is earlier. Except as otherwise specified in this Consent Order, the word "day" as used in this Consent Order means calendar day. Any document or action which is required by this Consent Order to be submitted or performed by a date which falls on a Saturday, Sunday or a Connecticut or federal holiday shall be submitted or performed by the next day which is not a Saturday, Sunday or Connecticut or federal holiday.
15. Certification of documents. Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this Consent Order shall be signed by each Respondent or, if such Respondent is not an individual, by Respondent's chief executive officer or a duly authorized representative of such officer, as those terms are defined in §22a-430-3(b)(2) of the Regulations of Connecticut State Agencies, and by the individual(s) responsible for actually preparing such document, and each such individual shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under §53a-157b of the Connecticut General Statutes and any other applicable law."
16. Noncompliance. This Consent Order is a final order of the Commissioner with respect to the matters addressed herein, and is nonappealable and immediately enforceable. Failure to comply with this Consent Order may subject Respondents to an injunction and penalties.
17. False statements. Any false statement in any information submitted pursuant to this Consent Order may be punishable as a criminal offense under §53a-157b of the Connecticut General Statutes and any other applicable law.
18. Notice of transfer; liability of Respondents. Until Respondents have fully complied with this Consent Order, Respondents shall notify the Commissioner in writing no later than 15 days after transferring all or any portion of the facility, the operations, or the site

which is the subject of this Consent Order or after obtaining a new mailing or location address. Respondents' obligations under this Consent Order shall not be affected by the passage of title to any property to any other person or municipality.

19. Commissioner's powers. Nothing in this Consent Order shall affect the Commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for past, present, or future violations of law. If at any time the Commissioner determines that the actions taken by Respondents pursuant to this Consent Order have not successfully corrected all violations, fully characterized the extent or degree of any pollution, or successfully abated or prevented pollution, the Commissioner may institute any proceeding to require Respondents to undertake further investigation or further action to prevent or abate violations or pollution.
20. Respondents' obligations under law. Nothing in this Consent Order shall relieve Respondents of other obligations under applicable federal, state and local law.
21. No assurance by Commissioner. No provision of this Consent Order and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by Respondents pursuant to this Consent Order will result in compliance or prevent or abate pollution.
22. Access to site. Any representative of the Department of Environmental Protection may enter the site or facility without prior notice for the purposes of monitoring and enforcing the actions required or allowed by this Consent Order.
23. No effect on rights of other persons. This Consent Order neither creates nor affects any rights of persons or municipalities that are not parties to this Consent Order.
24. Notice to Commissioner of changes. Within 15 days of the date Respondents become aware of a change in any information submitted to the Commissioner under this Consent Order, or that any such information was inaccurate or misleading or that any relevant information was omitted, Respondents shall submit the correct or omitted information to the Commissioner.
25. Notification of noncompliance. In the event that a Respondent becomes aware that it did not or may not comply, or did not or may not comply on time, with any requirement of this Consent Order or of any document required hereunder, such Respondent shall immediately notify by telephone the individual identified in the next paragraph and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. Within 5 days of the initial

notice, the Respondent shall submit in writing the date, time, and duration of the noncompliance and the reasons for the noncompliance or delay and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved, and the Respondent shall comply with any dates which may be approved in writing by the Commissioner. Notification by a Respondent shall not excuse noncompliance or delay, and the Commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically so stated by the Commissioner in writing.

26. Submission of documents. Any document required to be submitted to the Commissioner under this Consent Order shall, unless otherwise specified in this Consent Order or in writing by the Commissioner, be directed to:

Steven Tessitore, Supervising Environmental Analyst
DEP Inland Water Resources Division
79 Elm Street
Hartford, CT 06106-5127

27. Joint and several liability. Respondents shall be jointly and severally liable for compliance with this Consent Order.

Respondents consent to the issuance of this Consent Order without further notice. The undersigned certify that they are fully authorized to enter into this Consent Order and to legally bind the Town of Putnam and Putnam Water Pollution Control Authority, respectively, to the terms and conditions of this Consent Order. Attached hereto as Attachments C and D are resolutions of the Town of Putnam's Board of Selectmen and resolution of the Putnam Water Pollution Control Authority granting such authorization.

By: Richard C Place
Robert G. Viens, Mayor
Town of Putnam RICHARD C PLACE
ACTING MAYOR

11/2/2010
Date

By: John Dignam
John Dignam, Vice Chairman
Putnam Water Pollution Control Authority

11/2/10
Date

Issued as a final order of the Commissioner of Environmental Protection.

Amey W. Marrella
Amey W. Marrella
Deputy Commissioner, for
Susan Frechette,
Acting Commissioner

3/7/11
Date

- Attachment A: Interim Source Operation Plan
- Attachment B: Supplemental Environmental Project Proposal
- Attachment C: General Permit for the Discharge of Water Treatment Wastewater Into the Waters of the State of Connecticut
- Attachment D: Resolution of the Town of Putnam's Board of Selectmen
- Attachment E: Resolution of the Putnam Water Pollution Authority
- Attachment F: Exceptions from Temporary Suspension of Water Main Extensions and New Service Connections
- Attachment G: Model Water Use Restriction Ordinance

ATTACHMENT A
CONSENT ORDER DIV-2008-1011V
INTERIM SOURCE OPERATION PLAN

Town of Putnam
And
Putnam Water Pollution Control Authority
Peake Brook Road Surface Water Diversion
Little River
Woodstock, Connecticut

February 2010

I. DEFINITIONS

“Commissioner” means Commissioner of Environmental Protection.

“cfs” means cubic feet per second.

“DEP” means Connecticut Department of Environmental Protection.

“Putnam” means the Town of Putnam and Putnam WPCA.

“Putnam Declaration of Water Supply Emergency” means an official written declaration of a Putnam water supply emergency signed by the Putnam WPCA.

“Putnam WPCA” means Putnam Water Pollution Control Authority.

“ISOP” means Interim Source Operation Plan dated February 2009.

“Little River Diversion” means the diversion of surface water by Putnam WPCA and/or the Town of Putnam from the Little River at Shepherds Pond Dam north of Peake Brook Road in Woodstock, CT.

“MGD” means million gallons per day.

“Minimum Stream Flow Trigger” means base flow criterion for the Little River immediately downstream of Putnam’s Little River Diversion.

II. INTRODUCTION

The largest water supply source for the Town of Putnam is the Putnam WPCA’s Little River Diversion at Shepherds Pond Dam north of Peake Brook Road in Woodstock, CT. This surface water diversion is presently unpermitted, in violation of C.G.S. §22a-368. With the agreement of Putnam, DEP issued Consent Order DIV-1999-1009V on August 1, 2005 requiring, among other things, that Putnam identify alternative water supply sources to be used as back-up to the Little River Diversion during low flow periods. The 2005 Consent Order provided a three-year temporary allowance for withdrawals from the Little River. The 2005 Consent Order has been extended during negotiations on a new Consent Order. The new Consent Order will provide an additional 3 years for temporary withdrawals from the Little River to enable Putnam to develop needed supply capacity in

the area of Putnam's Park Street Groundwater Well Field, perform an instream flow study of the Little River, and amend its Little River Diversion permit application to propose minimum stream flow triggers or minimum flow operating conditions that are protective of aquatic resources. Consent Order DIV-2008-1011V is intended to provide the necessary authorization to allow work to be completed.

III. CONFLICTS WITH WATER DEMAND/SUPPLY

Sources Currently in Use. Putnam's current sources of water supply to meet its normal and peak summer demands are the Park Street Well Field (permit # DIV-199900289) and the Little River diversion, which is presently unpermitted and is processed through a water treatment facility located on Peake Brook Road in Woodstock. The Park Street Well Field has been permitted to produce up to 0.66 MGD; however, the current practical yield from the well field is approximately 0.32 MGD, due to the deteriorating performance of the supply wells. Putnam WPCA is working to expand the well field to add additional groundwater supply capacity.

The water treatment facility for the Little River Diversion has a capacity of 3.02 MGD; however, actual withdrawal rates to meet peak demand since 2001 have generally been below 1.5 MGD. Since August 1, 2005, Putnam WPCA has been allowed to withdraw up to 1.47 MGD from the Little River, subject to terms and conditions of Consent Order DIV-1999-1009V, while evaluating alternative water supply sources.

Environmental Conflict/Concerns. Putnam WPCA's withdrawals from the Little River diversion have, at times, caused stream flows to fall below minimum acceptable levels, as defined in Consent Order DIV-1999-1009V. Analysis of Little River flows, as measured downstream of the diversion and reported by Putnam WPCA from August 2005-2008 indicates that minimum stream flows, as proposed in DEP permit DIV-200702013, would not have been maintained approximately 60 percent of the time. Putnam WPCA currently lacks adequate alternative water supply sources and is, therefore, unable to shift its water withdrawals to such sources when low flow conditions are present in the Little River.

Need for Interim Source Operation Plan. In 2009, Putnam WPCA replaced an existing groundwater supply well (SG-1) in the Park Street Well Field that had deteriorated in performance. The replacement well (SG-1A) has a significantly greater yield than the original well, allowing Putnam WPCA to withdraw the full permitted amount from this replacement well. Putnam WPCA is also currently working to install

seven additional supply wells in the Park Street Well Field to provide adequate back-up supply for the Little River diversion during periods of low flow. This ISOP establishes interim requirements for monitoring stream flow downstream of the Little River diversion and describes conservation actions to be taken under a water supply emergency triggered by low flow conditions.

IV. MINIMUM STREAMFLOW

Minimum Stream Flow Triggers. Minimum stream flow triggers for the Little River immediately downstream of Putnam WPCA's water diversion at Shepherds Pond Dam are shown in Table ISOP-1. The minimum stream flow triggers apply to downstream flow as measured over the Shepherd Pond Dam spillway using a USGS Type A stream gauge.

TABLE ISOP-1 Minimum Stream Flow Requirements Putnam WPCA—Little River Diversion Peake Brook Road Woodstock, CT		
Applicable Month	Minimum Stream Flow Trigger	Comments
July	9.04 cfs	Water withdrawal from the Little River when stream flow drops below the trigger after trigger is reached is only allowed if Putnam is in compliance with ISOP Paragraph V-, <u>Water Supply Emergencies</u> , and maximizes use of all other authorized water supply sources.
August	6.30 cfs	
September	6.03 cfs	
October	12.33 cfs	
Minimum stream flow triggers apply to downstream flow as measured at the Little River gauge for the Peake Brook Road Water Treatment Plant as required under Consent Order DIV-2008-1011V. No minimum stream flow triggers are required under this ISOP for November 1 through June 30.		

V. WATER SUPPLY EMERGENCIES

Water Supply Emergency. A water supply emergency exists when:

1. The volume of water flowing over the spillway at Shepherds Pond Dam, as measured at the Little River gauge for the Peake Brook Road Water Treatment Plant, is less than the applicable minimum stream flow trigger set forth in Table ISOP-1, and
2. During the next 24 hour period, the water level flowing over such spillway is not demonstrated through such measurement to be greater than or equal to such applicable minimum stream flow trigger and the Putnam WPCA either does not have the capacity or cannot provide the amount of additional water supply from other sources to meet its water supply needs without requesting relief from compliance with such minimum stream flow trigger.

When a water supply emergency exists for more than twenty-four (24) hours, Putnam shall issue a Putnam Declaration of Water Supply Emergency and take the following phased actions:

Phase I Emergency Level. A Phase I Emergency is reached when a water supply emergency under this ISOP exists for more than twenty-four (24) hours, but less than seven (7) days. Phase I requires that the following actions be taken.

REQUIRED ACTIONS UNDER PHASE I EMERGENCY	
1.	Contact State and local agencies, including DEP's Inland Water Resources Division, concerning initiation of Phase I of a water supply emergency. This is the first phase of mandatory conservation. At this level, all unnecessary water usage including outdoor water use will be banned. A 15% reduction in usage from the arithmetic average of water usage from the previous three years for the same month will be targeted.
2.	Notify the media and all customers, including state facilities, of the implementation of the first phase of mandatory compliance.
3.	Ask local police to help enforce water use restrictions.
4.	Request from the CT Department of Public Health a Declaration of Public Drinking Water Supply Emergency, as described below, pursuant to C.G.S. §25-32b.
5.	Prepare weekly water supply status reports for in-house evaluation and for distribution

	to State and local officials, including the Director of DEP's Inland Water Resources Division.
6.	Review and update the high priority consumer list contained in the most recent Water Supply Plan or, if updated, the most recent list.

CT Department of Public Health Emergency Declaration. No later than four (4) days after the date a Putnam Declaration of Water Supply Emergency is required under this ISOP, Putnam shall request from the CT Department of Public Health a Declaration of Water Supply Emergency pursuant to C.G.S. §25-32b. Putnam shall provide a copy of any declaration issued pursuant to this ISOP or C.G.S. §25-32b to the Commissioner within twenty-four (24) hours of obtaining such declaration. Such request may only be withdrawn if the water supply emergency is abated and no water supply emergency existed within seven (7) days prior to the request.

Phase II Emergency Level. A Phase II Emergency is reached when a water supply emergency under this ISOP exists for seven (7) days or more, but less than fourteen (14) days. Phase II requires that the following actions be taken.

REQUIRED ACTIONS UNDER PHASE II EMERGENCY	
1.	Contact State and local agencies, including DEP's Inland Water Resources Division, concerning initiation of Phase II of a water supply emergency. Putnam will continue to ban outside water use and all other unnecessary water use, and will enforce by local police as necessary. A 20% reduction in usage from the arithmetic average of water usage from the previous three years for the same month will be targeted.
2.	Prepare twice weekly water supply status reports for in-house evaluation and for distribution to State and local officials, including the Director of DEP's Inland Water Resources Division.
3.	Issue press releases to inform customers, including state facilities, of the drought status and how to best cope with the situation.
4.	Issue warnings to those users exceeding reasonable and necessary water usage, taking into account the 20% targeted water usage reduction, a normal quota of water. For

	repeat violators of restrictions and warnings—reduce service through insertion of a flow restrictor in the service line and exercise appropriate enforcement authority.
5.	Formulate a Drought Hazard Response Plan in consultation with State and local officials, including the Director of DEP's Inland Water Resources Division, in anticipation of a potential Phase III emergency. The details for the response plan will depend on the nature of the individual water system and availability of additional water supply, and shall consider: 1) the most recent high priority consumer list, 2) the need to provide for the bare essentials of life sustenance for as long as possible, 3) medical needs and fire protection, and 4) needs for emergency service of drinking and cooking water by tanker to any areas where normal water service must be terminated.
6.	Investigate alternate means of obtaining additional emergency water supplies in consultation with the DEP.

Phase III Emergency Level. A Phase III Emergency is reached when a water supply emergency under this ISOP exists for fourteen (14) days or more. Phase III requires that Putnam, in coordination with appropriate state officials, including the Director of DEP's Inland Water Resources Division, implement the actions necessary under the Drought Hazard Response Plan described in Item #5 of the Phase II--Required Emergency Actions. Putnam will ensure adequate emergency service of drinking and cooking water is provided by tanker to areas in the event normal water service must be cut off. Appropriate police and Putnam WPCA personnel will strictly enforce mandatory rationing of water if rationing is necessary.

ATTACHMENT B
CONSENT ORDER DIV-2008-1011V

SUPPLEMENTAL ENVIRONMENTAL PROJECT
PROPOSAL

Town of Putnam
And
Putnam Water Pollution Control Authority

Peake Brook Road Surface Water Diversion
Little River
Woodstock, Connecticut

Proposal Date: December 16, 2009

CME Associates, Inc.

32 Crabtree Lane, PO Box 849, Woodstock CT 06281
Phone: 860.928.7848 Fax: 860.928.7846

December 16, 2009

Denise Ruzicka, Director
Inland Water Resources Division
Bureau of Water Protection and Land Reuse
Connecticut Department of Environmental Protection
79 Elm Street
Hartford, CT 06106

Re: Supplemental Environmental Project Proposal
Violation File DIV 2008-1011V
Putnam WPCA

Dear Ms. Ruzicka:

As you requested, the Putnam Water Pollution Control Authority (WPCA) and CME Associates have developed a scope and cost estimate for a Supplemental Environmental Project (SEP) in conjunction with the referenced violation. We understand that completion of a SEP will be a condition of a new CTDEP consent order that will allow continued operation of the Little River Diversion at the Putnam WPCA's Peake Brook Road Water Treatment Plant (WTP).

After identifying and evaluating a number of SEP options, and reviewing these options with you and staff at CTDEP and CTDPH, we propose a SEP that involves modifying operations at the WTP to reduce the impact of the surface water diversion on the Little River by (a) recycling filter backwash into the WTP, in accordance with the USEPA's Filter Backwash Recycling Rule and CTDPH guidance, and (b) discharging that portion of the filter backwash that cannot be recycled directly to the Little River.

The tasks, costs and benefits of the proposed SEP are described more fully in the attached SEP Proposal. Please contact me at 860-928-7848 or Greg Sharp at 860-240-6046 if you wish to discuss this matter.

Sincerely



Wayne H. Bugden, LEP
Director of Environmental Services

- c. M. Hart, CTDEP
E. Napier, CTDEP
L. Mathieu, CT DPH
G. Sharp, Murtha Cullina
W. Trayner, WPCA
J. DiPilato, WPCA
D. Cutler, Town of Putnam



CME

Toll 888.291.3227

Equal Opportunity Employer

www.cmeengineering.com

**SUPPLEMENTAL ENVIRONMENTAL PROJECT PROPOSAL
PUTNAM WATER POLLUTION CONTROL AUTHORITY
VIOLATION FILE DIV 2008-1011V
SUBMITTED: DECEMBER 2009**

PROJECT DESCRIPTION

The proposed project involves modifications to the Putnam Water Pollution Control Authority's Peake Brook Road Water Treatment Plant (WTP) that will:

- a. recycle filter backwash water from the WTP (up to 10 percent of the total daily raw water intake volume, in accordance with the USEPA's Filter Backwash Recycling Rule), and
- b. discharge the balance of the filter backwash water (i.e., any volume of backwash greater than ten percent of the raw water intake) directly to the Little River.

Currently, water from the WTP's filter backwashing is routed to on-site settling lagoons. After settling, the water is discharged from the lagoons to the sanitary sewer, which carries the water to the Water Pollution Control Facility (WPCF) located on the Quinebaug River. As a result, under current operating conditions, none of the water used for filter backwashing is returned to the Little River. Implementation of this proposed SEP will reduce the effect of the WPCA's diversion on the flow within the downstream reach of the Little River by:

- a. reducing the total volume of water that must be withdrawn from the River through the use of filter backwash recycling, and
- b. returning a portion of the water that is withdrawn to the Little River.

The SEP tasks include:

- Design
- Water quality testing and permitting (for backwash discharge)
- Construction and installation of equipment and infrastructure
- Long-term operation and maintenance
- SEP Summary Report

These tasks are described below.

SEP TASKS

A. Design

The design for the SEP will include preparation of engineering plans and specifications for the necessary pumps, piping, valves, controls and treatment system. The design will be developed jointly by WPCA and a professional engineer. With respect to the water recycling, critical components of the design will include mechanisms to ensure compliance with the USEPA's Filter Backwash Recycling Rule. Specifically, the design must ensure that recycled filter backwash does not exceed 10 percent of the total raw water intake. With respect to the discharge of filter backwash water to the Little River, the design components must include mechanisms to:

- Ensure a relatively steady discharge to the River during periods when the WTP is actively withdrawing raw water from the river
- Treat the water prior to discharge to ensure compliance with applicable regulations and permit conditions
- Comply with other applicable local, state and federal rules and regulations

Figure 1 shows a portion of the WTP, including the current layout of the system for routing and treating the filter backwash water, and discharging this water to the sanitary sewer. Figure 1 also shows conceptual designs for the proposed modifications in accordance with this SEP.

The design of the recycling system will involve dual pumps, valves and piping to route filter backwash into the WTP, and a metering system to ensure accurate measurements of the rates and volumes of backwash recycling.

Note that the proposed discharge location to the Little River, identified as "Option C" on Figure 1, is changed from the proposed discharge locations identified in our previous SEP proposal dated March 4, 2009. This change was made following on-site meetings and discussions with staff of the CTDEP's Inland Fisheries Division and Inland Water Resources Division. Our March 4, 2009 SEP proposal offered two options for filter backwash discharge: Option A would discharge near the base of the WPCA's dam, whereas Option B would discharge to an existing storm drain/swale that joins the Little River approximately 1200 feet downstream of the WPCA's dam and intake. However, CTDEP staff indicated their preference that the point of discharge should be directly across Peake Brook Road from the WTP lagoons – roughly 700 feet downstream of the WPCA's dam and intake. Although the longer piping required by Option C makes it more expensive than either Option A or Option B, Option C will not require blasting or excavating bedrock close to the dam (as in Option A), and will ensure that the water goes directly into the River (unlike Option B, where water discharged to the swale could soak into the ground before reaching the River).

Under Option C, a buried drain pipe will be installed to carry the discharge northward from the lagoon beneath Peake Brook Road. The pipe will continue straight across the open lawn area and narrow strip of woods, and will discharge to the streambank along the Little River.

Depending on the volume of filter backwash to be discharged on any given day, the rate of discharge may range up to a maximum of about 180 gallons per minute (gpm), or about 0.4 cubic feet per second (cfs). On most days, the rate of discharge will be considerably less; on many days, 100 percent of the filter backwash will be recycled instead. The use of discharge valves and/or orifices will allow discharge to be maintained at nearly steady rates, though slight variations are expected due to differences in the hydraulic head within the settling lagoon.

B. Water Quality Testing and Permitting

CTDEP Permit

The discharge of the backwash water to the Little River will require authorization under a permit from CTDEP in accordance with Section 22a-430b of the Connecticut General Statutes. Previously, the discharge of backwash water to the WPCF was authorized under a CTDEP General Permit (this *General Permit for the Discharge of Water Treatment Wastewaters*, DEP-PERD-GP-002) has since expired. For the purpose of this SEP Proposal, we have assumed the conditions of this General Permit will apply to the discharge of filter backwash water to the Little River.

The General Permit requires testing of the discharge water for the following parameters:

- Temperature
- Salinity
- pH
- Appearance
- Total copper, zinc, aluminum, manganese, iron
- Total dissolved solids (TDS)
- Total suspended solids (TSS)
- Total settleable solids
- Total residual chlorine
- Aquatic toxicity

To assess the feasibility of the plan to discharge filter backwash to the Little River, WPCA conducted several tests of the backwash water in January and February, 2009. The analytical results demonstrated that chemical parameters are within the permissible range, based on the maximum anticipated instream waste concentration. With respect to the aquatic toxicity test on the initial sample of the backwash effluent, the vertebrate test organisms, *Pimephales promelas* (fathead minnows), had 100 percent survival. However, the sample failed the invertebrate aquatic toxicity test

for *Daphnia pulex*; ($LC_{50} = 46.6$). WPCA hypothesized that the trace residual chlorine in the backwash had caused the toxicity because *Daphnia* are highly susceptible to chlorine.

To test this theory, WPCA conducted two additional bioassay tests on the effluent. One sample was untreated before the bioassay; a second sample was treated with sodium bisulfite to remove the residual chlorine. The results indicated that the untreated sample again failed the bioassay test for *Daphnia*, whereas there was 100 percent *Daphnia* survival in the sample treated with sodium bisulfite.

Based on the findings of the preliminary water testing, we conclude that the discharge of backwash water from the lagoons to the Little River is feasible if WPCA first treats the effluent with sodium bisulfite to eliminate residual chlorine.

Town of Woodstock Inland Wetlands Permit

Under discharge Option C, the pipe carrying effluent from the settling lagoons will cross beneath Peake Brook Road, and discharge to the Little River downstream of the dam. The installation of this pipe will require construction activities within an area regulated under the Connecticut Inland Wetlands and Watercourses Act (Sections 22a-36 through 22a-45 of the Connecticut General Statutes). This State regulation is administered by the Town of Woodstock Inland Wetlands and Watercourses Agency (IWWA). WPCA will submit an application to the Woodstock IWWA for the construction work within the regulated area.

Other Permits

CME has evaluated the project with respect to other state and federal rules and regulations. Based on this review, we conclude that the proposed activities are not subject to other federal or state permits. It is anticipated that the conditions of the backwash recycling and backwash discharge, including the timing, treatment and analytical testing of the discharge, will ultimately be incorporated into the WCPA's Water Diversion Permit.

C. Construction and Installation of Equipment and Infrastructure

A portion of the piping needed to allow recycling of filter backwash water was installed when the WTP was constructed. Subcontractors under the direction of WPCA will install additional pipes, pumps and valves to allow filter backwash to be returned to the WTP raw water intake. Subcontractors will also install the bisulfite treatment system inside the WTP building. The construction of the backwash discharge system will be subcontracted to a licensed contractor, experienced in excavation and piping installation within sensitive wetland environments. Construction will be overseen by a Connecticut-licensed professional engineer.

D. Long-Term Operation and Maintenance

Long-term O&M of the backwash recycling system will require: (1) inspections of flow meters, pumps and valves, with maintenance, repairs and replacement as needed; (2) regular calibration of flow meters; and (3) continued maintenance of the settling lagoons to ensure low turbidity of the recycled backwash water.

The bisulfite treatment system to be constructed within the treatment building will require daily inspection by on-site personnel, replacement of any worn parts, and replenishment of bisulfite, as needed. The backwash water will be routed from the lagoons to the Little River via gravity drainage. Maintenance of the piping system between the settling lagoons and the Little River will consist of regular inspection of the piping and valves, cleanout of the pipes, as needed, to maintain unimpeded flow, and inspection and maintenance of any erosion and sedimentation control structures (i.e., riprap at the point of discharge). WPCA personnel will conduct inspections, perform most maintenance and repair work, and maintain a log of Operation and Maintenance activities.

E. Summary Report

Once the backwash recycling and water discharge systems begin operating, WPCA will submit to CTDEP a SEP Summary Report. This Report will describe the project implementation and will provide documentation of WPCA's expenditures related to the SEP.

EXPECTED ENVIRONMENTAL BENEFITS

The proposed SEP will directly benefit the environment of the Little River downstream of the WPCA's Peake Brook Road diversion by partially reducing the effects of the diversion on streamflow. Currently, the WPCA's filter backwash is routed to the settling lagoons, and then to the water pollution control facility (WPCF) via the sanitary sewer. The WPCF is located about two miles southeast of the Peake Brook Road WTP, on the Quinebaug River. Thus, none of the backwash water is currently returned to the Little River. In contrast, under the proposed plan, backwash water will be recycled or returned to the Little River.

The amount of backwash generated each day by the WTP varies. In 2008, the maximum daily backwash was 365,000 gallons and the arithmetic mean volume of backwash was 95,500 gallons per day. During 2008, approximately 11 percent of the total water withdrawn from the Little River was used for backwashing. On individual days, as much as 29 percent of the raw water diverted from the Little River was used for filter backwashing. The amount of backwash also varies seasonally; in general, the greatest volume of backwash is generated by the WTP in late summer and early fall, when the river flows are frequently low and the river contains suspended algae.

The proposed SEP will recycle or return to the Little River nearly all filter backwash water (minus an insignificant amount lost to evaporation and seepage from the settling lagoons). The proposed backwash discharge system will be designed to ensure that the water will be discharged to the Little River at a fairly steady rate. This discharge will also be timed to occur predominantly during the WPCA's Little River withdrawals, optimizing the benefits to the Little River.

PROJECT COST ESTIMATE

The proposed SEP costs are estimated to be at least \$125,000. Putnam WPCA understands that it will be required to document expenditures of at least \$125,000 in the completion of this SEP.

SCHEDULE OF SEP

The proposed SEP is expected to require approximately 10 to 12 months to complete, once approved and budgeted by the Putnam WPCA. This schedule depends on agreement by all involved parties and timely approval by the various regulatory agencies, including CTDEP, CTDPH and Woodstock IWWA.

ATTACHMENT C
CONSENT ORDER DIV-2008-1011V

**GENERAL PERMIT FOR THE DISCHARGE OF
WATER TREATMENT WASTEWATER INTO THE
WATERS OF THE STATE OF CONNECTICUT**

ISSUANCE DATE: March 30, 2010

EXPIRATION DATE: March 29, 2015

**Town of Putnam
And
Putnam Water Pollution Control Authority

Peake Brook Road Surface Water Diversion
Little River
Woodstock, Connecticut**



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
PERMITTING & ENFORCEMENT DIVISION
860-424-3018

General Permit for the Discharge of Water Treatment Wastewater

Issuance Date: March 30, 2010
Expiration Date: March 29, 2015

Printed on recycled paper

General Permit for the Discharge of Water Treatment Wastewater

Table of Contents

Section 1.	Authority.....	3
Section 2.	Definitions.....	3
Section 3.	Authorization Under This General Permit.....	5
	(a) Activities Authorized	5
	(b) Geographic Area.....	6
	(c) Effective Date and Expiration Date.....	6
	(d) Effective Date of Authorization	6
	(e) Issuance of an Individual Permit	6
Section 4.	Registration Requirements.....	6
	(a) Who Must Submit a Registration	6
	(b) Scope of Registration	7
	(c) Contents of Registration	7
	(1) Fees	7
	(2) Registration Form	7
	(d) Where to Submit a Registration	10
	(e) Correction of Inaccuracies.....	11
	(f) False Statements.....	11
	(g) Additional Information.....	11
	(h) Disapproval of Registration.....	11
	(i) Transfer of Authorization.....	11
Section 5.	Permit Terms and Conditions.....	12
	(a) Treatment and Control Requirements; BMPs; Other Special Conditions.....	12
	(b) Effluent Limitations.....	15
	(c) Monitoring Requirements.....	19
	(d) Reporting and Record Keeping Requirements	22
	(e) Recording and Reporting of Violations.....	23
Section 6.	General Conditions	25
Section 7.	Unauthorized Activities	26

General Permit for the Discharge of Water Treatment Wastewater

Section 1. Authority

This general permit is issued under the authority of Section 22a-430b of the General Statutes.

Section 2. Definitions

The definitions of terms used in this general permit shall be the same as the definitions contained in Section 22a-423 of the General Statutes and Section 22a-430-3(a) and Section 19-13-B102(a) of the Regulations of Connecticut State Agencies. If any term has multiple definitions in such statutes and regulations, the definitions in Section 22a-423 of the General Statutes, and Section 22a-430-3 (a) of the Regulations of Connecticut State Agencies shall apply. In addition, the following definitions shall apply:

"Coastal waters" means those waters of Long Island Sound and its harbors, embayments, tidal rivers, streams and creeks which contain a salinity concentration of at least five hundred parts per million under low flow conditions.

"Filtration" means a process of reducing concentrations of sand, grit, iron, manganese, or turbidity by passing water through a straining media.

"Filter to waste" Means the initial volume of filtrate produced following backwash of a filter, or following the initial construction, rebuilding or maintenance of a filter.

"Laboratory wastewaters" means laboratory utensil cleaning wastewaters with no chemical additives or reagents containing any of the substances listed in Appendix B, Tables II, III, and V, or Appendix D of Section 22a-430-4 of the Regulations of Connecticut State Agencies. Laboratory wastewater covered under this general permit includes only that which is generated at a facility which treats water supplies for potable or industrial process use.

"Oxidation/filtration" means the process of converting an undesirable dissolved solid to a particulate which is then removed by the addition of ozone, oxygen, manganese dioxide or permanganate followed by filtration.

"Permittee" means any person who or municipality which initiates, creates, originates or maintains a discharge in accordance with Section 3 of this general permit.

"Point of entry water treatment device" means a device for the treatment of potable water which is located at the water service entry in a building.

"POTW Authority" means the chairperson, or duly authorized representative, of the Water Pollution Control Authority which owns or operates a Publicly Owned Treatment Works.

"Public Water System" as defined in Section 19-13-B102(a) of the Regulations of Connecticut State Agencies.

"Raw water" means water withdrawn from a reservoir or well prior to any physical treatment of such water.

"Registrant" means a person who or municipality which submits a registration in accordance with Section 4 of this general permit.

"Registration" means a completed registration form and registration fee submitted to the Commissioner pursuant to Section 4 of this general permit.

"Site" means geographically contiguous land on which an authorized activity takes place under this general permit. Non-contiguous land owned by the same person and connected by a right-of-way which such person controls and to which the public does not have access shall be deemed the same site.

"Source Water" as defined in Section 19-13-B102(a) of the regulations of Connecticut State Agencies.

"Water Quality Standards" means water quality standards as adopted by the Commissioner in accordance with Section 22a-426 of the General Statutes.

"Water Treatment Facility" means any system, excluding a reservoir, used to treat water for potable or industrial process use, including but not limited to any industrial, municipal or private water treatment facility.

"Water Treatment Wastewaters or WTW" means wastewaters generated by a well or water treatment facility, used to produce water supplies for potable or industrial process use, including but not limited to wastewaters from the following:

- (a) clarifier tank sludge blowdown;
- (b) clarifier tank supernatant;
- (c) facility and equipment cleaning rinsewaters, excluding rinsewaters generated by the rinseout of containers used to store any chemical for which an effluent limitation is not specified in Section 5(b) of this general permit;
- (d) activated carbon and filter media backwash, including filter to waste, and regeneration wastewaters;
- (e) raw or treated water from equipment leakage and bleed-off;
- (f) mechanical and non-mechanical sludge dewatering wastewaters;
- (g) infiltration bed and settling lagoon wastewaters;
- (h) raw or treated water from process sampling points and on-line process analytical instrumentation;

- (i) designed overflows from storage tanks and other WTW facilities resulting from emergency conditions and routine maintenance;
- (j) start-up wastewaters for water treatment plants, facilities or equipment which commenced operation after the date of issuance of this General Permit;
- (k) ion exchange regeneration wastewaters;
- (l) reverse osmosis brine; and
- (m) laboratory wastewaters.

WTW does not include wastewaters generated by any residential or commercial point of entry treatment device.

Section 3. Authorization Under This General Permit

(a) Activities Authorized

This general permit authorizes discharges comprised solely of WTW, as defined above, provided:

- (1) The discharge is *not* authorized by a valid individual permit issued under Section 22a-430 of the General Statutes.
- (2) For any discharge to a Publicly Owned Treatment Works (POTW) initiated after the effective date of this general permit, the information specified in Section 4(c)(2)(H) of this general permit has been submitted to the POTW authority and the POTW authority has approved the discharge.
- (3) The discharge of WTW within a coastal boundary as defined in Section 22a-94 of the General Statutes is consistent with all applicable goals and policies of the Coastal Management Act specified in Section 22a-92 of the General Statutes.
- (4) The discharge of WTW does not threaten the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat designated as essential to such species in accordance with Section 26-310 of the General Statutes.
- (5) No categorical effluent limitation standard or guideline adopted by the U.S. Environmental Protection Agency under the federal Clean Water Act is applicable to the discharge. Any discharge of water, substance or material into the waters of the state other than those specified in this subsection is not authorized by this general permit. Any person who or municipality which wishes to initiate, create, originate or maintain such other discharge shall first apply for and obtain an individual permit under Section 22a-430 of the General Statutes.

(b) Geographic Area

This general permit applies throughout the State of Connecticut.

(c) Effective Date and Expiration Date

This general permit is effective on the date it is issued by the commissioner and expires five (5) years from such date of issuance.

(d) Effective Date of Authorization

The effective date of authorization under this general permit is the effective date of this general permit listed in subsection (c) of this section or the date the discharge is initiated in accordance with the requirements of Section 3 (a) of this General Permit, whichever is later.

(e) Issuance of an Individual Permit

When the Commissioner issues an individual permit under Section 22a-430 of the General Statutes authorizing a discharge previously authorized by this general permit, the applicability of this general permit as it applies to the individual permittee is automatically terminated on the effective date of the individual permit.

Section 4. Registration Requirements

(a) Who Must Submit a Registration

Any person who or municipality which initiates, creates, originates or maintains a WTW discharge as defined in this general permit and in accordance with Section 3 of this general permit, with the exception of those discharges specified below, shall submit a completed registration form and fee. For any discharge of WTW which was initiated on or before the effective date of this general permit, such registration shall be submitted no later than 365 days after the effective date of this permit, unless the discharge is covered by an individual permit. Discharges which are authorized by an individual permit, and which otherwise would qualify for this general permit, shall register for coverage under this general permit at least 180 days prior to expiration of the individual permit. For any other discharge of WTW, the registration shall be submitted before such discharge is initiated. If the source or activity generating the discharge for which a registration is submitted under this general permit is owned by one person or municipality but is leased or in some other way the legal responsibility of another person or municipality (the operator), it is the operator's responsibility to submit the registration required by this general permit.

Any person initiating, creating, originating or maintaining any of the following discharges pursuant to this general permit need not submit a registration or fee:

- A discharge consisting only of raw water;
- Any discharge from pump leakage, sampling taps, or on-line analytical instrumentation which are not discharged directly to a surface water body;
- Any discharge generated from the backwash of filtration, oxidation/filtration, or ion exchange units designed to remove iron, manganese, sand, grit, or turbidity from wells used as a source of potable water supply provided the discharge is less

than 500 gallons per day and directed to either a sanitary sewer or the groundwaters of the state.

(b) *Scope of Registration*

A registration shall only include discharges of WTW from a single site. All discharges of WTW occurring at a particular time for a single site shall be included in the same registration.

(c) *Contents of Registration*

(1) Fees

- (A) A registration fee of \$625 for any person or \$312.50 for any municipality shall be submitted with a completed registration form. A registration shall not be deemed complete and no activity shall be authorized by this general permit unless the registration fee has been paid in full.
- (B) The registration fee shall be paid by certified check or money order payable to the **Department of Environmental Protection**. The check shall state on its face, "Water Management Permit Fee".
- (C) The registration fee is nonrefundable.

(2) Registration Form

A registration shall be submitted on a form prescribed by the Commissioner and shall include, without limitation, the following:

- (A) Legal name, address, and telephone number of the person or municipality proposing to initiate, create, originate or maintain the discharge and of the person who or municipality which owns the activity or source generating the discharge. If any such person(s) is a corporation transacting business in Connecticut, include the exact name as registered with the Connecticut Secretary of the State.
- (B) Legal name, address, and telephone number of the owner of the property on which the discharge is proposed to be located.
- (C) Legal name, address, and telephone number of the registrant's attorney or other representative, if any.
- (D) Location address of the site of the discharge(s) for which the registration is submitted.
- (E) The maximum daily flow of all WTW discharges, in gallons per day, to be discharged at the site.
- (F) An estimate of when the discharge began or will begin and the estimated duration of the discharge.

- (G) For discharge(s) to surface water or to ground water, an 8 1/2" by 11" copy of applicable sections of a United States Geological Survey (USGS) quadrangle map, with a scale of 1:24,000, showing the exact location of the discharge, specifying the longitude and latitude of the discharge to within the closest 15 seconds, and including the name of the USGS map.
- (H) For discharges to a POTW initiated after the effective date of this general permit, the information listed below and a written certification from the registrant stating that 1) the information outlined below has been submitted to the appropriate POTW authority, and 2) the registrant has received written certification signed by the appropriate POTW authority that it has received and reviewed the information outlined below and has authorized the discharge to the POTW:
- (i) an analysis of the impact of the discharge on the hydraulic capacity of the receiving POTW, including but not limited to the receiving sewerage system, force mains, pumping stations;
 - (ii) the rate, frequency, and time period that the WTW will be discharged to the POTW;
 - (iii) a detailed description of the characteristics of the WTW;
 - (iv) provisions for the controlled discharge of WTW to the receiving POTW, including but not limited to equalization, limiting hydraulic loading, or limiting the total suspended solids loading;
 - (v) an evaluation of the impact of the discharge of WTW on POTW sludge generation and handling, and any potential alteration of the character of the sludge which may render it unsuitable for further treatment by anaerobic/aerobic digestion, high temperature/pressure and chemical oxidation, sludge dewatering, and composting; or unsuitable for ultimate disposal by incineration, landfilling, or land application;
 - (vi) the ratio of flow of WTW in relation to total influent to the POTW; and
 - (vii) any other information necessary to determine whether such discharge will adversely impact the performance of the POTW and cause any violation of their discharge permit, or render the sludge generated at the POTW unsuitable for landfilling, land application, or incineration.
- (I) For any discharge initiated on or before the effective date of this general permit, which does not comply with the treatment and control requirements contained in Section 5(a)(5) as of the effective date of this general permit, a report detailing all such conditions or terms which are not being complied with, and a schedule of modifications or facility upgrades required to meet any such term or condition.
- (J) A plan for minimizing the use of copper if the registrant utilizes a water

supply reservoir and copper compounds are used, or intended to be used in the water supply reservoir. Such plan shall take into account, at a minimum, an assessment of nutrient loadings in the watershed, the amount of copper needed to control algae, intake levels, and opportunities for recycling the wastewater stream and shall include a plan for monitoring algae and using copper sulfate only when needed to control algae.

(K) The following certification, signed by a professional engineer licensed to practice in Connecticut:

- (i) For any WTW discharge which is required to be registered and which has not been initiated, created, originated or maintained as of the date the registration is submitted:

"I certify that in my professional judgement proper operation and maintenance of any systems installed to treat the discharge(s) which are the subject of this registration will ensure that all effluent limitations and other conditions in the General Permit for the Discharge of WTW are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent limitations and conditions of such general permit without treatment. This certification is based on my review of engineering reports and plans and specifications describing (1) the proposed discharges and (2) any proposed treatment system for the wastewaters to be discharged. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

- (ii) For any WTW discharge which exists on the date of issuance of this general permit and which is required to be registered:

"I certify that in my professional judgement all discharge(s) which are the subject of this registration comply with all conditions of the General Permit for the Discharge of WTW, including but not limited to all effluent limitations in Section 5(b) of such general permit, and proper operation and maintenance of any systems installed to treat such discharge(s) will ensure that all effluent limitations and other conditions in such general permit are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent limitations and conditions of such general permit without treatment. This certification is based in part on my review of analyses of a minimum of three effluent samples collected, preserved, handled and analyzed in accordance with 40 CFR Part 136, which samples were representative of the discharge(s) during standard operating conditions, were taken within the previous 12 months, at least one week apart, and were of the type(s) specified in Section 5(c)(5) of the General Permit for the Discharge of WTW, and were analyzed for the parameters specified in Section 5(b) of such general permit. In the case of discharges of WTW less than 5000 gallons per day maximum daily flow, this certification may be based on review of analyses from one effluent sample collected, preserved, handled, and

analyzed as specified in the previous sentence. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

(iii) In addition, for a discharge to a POTW:

"I certify that in my professional judgement all the requirements for discharges to a POTW in Sections 4 and 5 of this general permit have been met and the registrant is authorized to discharge to the POTW."

(L) Any person who or municipality which submits a registration under this general permit shall sign the registration and shall make the following certification:

"I certify under penalty of law that I have read and understand all conditions of the General Permit for the Discharge of WTW, that all requirements for authorization under this general permit are met for all discharges which are the subject of this registration, and all terms and conditions of this general permit are being met for all discharges which have been initiated and are the subject of this registration. This document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained in this registration is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowingly making false statements."

(d) Where to Submit a Registration

A registration shall be submitted to the following address:

CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD CT 06106-5127

For any discharge to a POTW, a certified copy of the registration shall also be sent to the POTW authority which will receive the discharge.

For any discharge to a surface water body within a coastal boundary, as defined in Section 22a-94 of the General Statutes of Connecticut, a certified copy of the registration shall also be sent to the Department of Agriculture, Aquaculture Division, P.O. Box 97, Milford, CT 06460.

(e) Correction of Inaccuracies

Within fifteen days after the date the registrant or permittee becomes aware of a change in any information in the registration or in any material provided in support

thereof, or becomes aware that any such information is inaccurate or misleading, or that any relevant information has been omitted, such registrant or permittee shall correct the inaccurate or misleading information, or supply the omitted information in writing to the Commissioner.

(f) False Statements

Any false statement in any information submitted in a registration or in support of a registration may be punishable as a criminal offense, under Section 22a-438 of the General Statutes or, in accordance with Section 22a-6, under Section 53a-157 of the General Statutes.

(g) Additional Information

The Commissioner may require a registrant to submit additional information which the Commissioner deems necessary to evaluate the consistency of the discharge of WTW with the criteria for authorization under this general permit.

(h) Disapproval of Registration

- (1) The Commissioner may disapprove a registration for the same reasons for which he may, under Section 22a-430, require an individual permit. Disapproval of a registration under this subdivision shall constitute notice that an individual permit must be obtained under Section 22a-430 and, as applicable, under Section 22a-32 of the General Statutes, before conducting any activity proposed in such registration.
- (2) The Commissioner may disapprove a registration if he determines that (a) said registration is insufficient, (b) more than thirty (30) days have elapsed since the Commissioner requested that the registrant submit additional information or the required registration fee, and (c) the registrant has not submitted such information or fee. A registration resubmitted after disapproval pursuant to this subdivision shall be accompanied by the registration fee required under Section 4(c)(1) of this general permit.

(i) Transfer of Authorization

Any authorization under this general permit shall be non-transferable.

Section 5. Permit Terms and Conditions

(a) *Treatment and Control Requirements; BMPs; Other Special Conditions*

- (1) WTW shall not be discharged to any open floor drain, floor trench, sump or drainage system which is designed or constructed to receive or which may receive chemical spillage or wastewaters not authorized by this general permit.
- (2) Lagoons used to treat or convey WTW shall be inspected weekly during operation of the treatment system for visible oil sheen, hydrocarbon odor, and chemical spills due to discharges other than WTW.
- (3) For any lagoon used to treat or convey WTW that is constructed after the effective date of this general permit, the minimum elevation of the top of the berm of the lagoon shall be constructed and maintained above the 100 year base flood elevation.
- (4) The following types of WTW shall *not* be discharged to a surface water:
 - (A) Facility and equipment cleaning rinsewaters containing detergents or surfactants;
 - (B) Laboratory wastewaters;
 - (C) Start-up wastewaters for WTW facilities or equipment containing detergents or surfactants initiated after the effective date of this General Permit.
- (5) WTW generated by the treatment of water supplies for industrial use shall not be discharged to the groundwaters of the state, unless such WTW is generated by the treatment of water from a public water supply.
- (6) For any discharge of WTW which has been initiated on or before the effective date of this general permit, the permittee shall comply with the following conditions as soon as possible, but in no event later than three years after the effective date of this general permit. For all other discharges of WTW, the permittee shall comply with the following conditions no later than the date the discharge is initiated.
 - (A) The following types of WTW shall be discharged *only* to a POTW and shall not be discharged to any surface water or to the ground water:
 - (i) Regeneration and backwash wastewaters from sodium chloride ion exchange units.
 - (ii) Activated carbon backwash and regeneration wastewaters for filters which treat for volatile organic compounds, except that initial start-up backwash conducted for the removal of loose carbon fines may be discharged to any surface water or groundwater provided such initial start-up backwash has been pretreated to remove solids in accordance with Section 5(b) of this general permit.

- (iii) Other WTW's containing chemical additives which contain any substances identified in Appendix B, Tables II, and V, and Appendix D of Section 22a-430-4 of the Regulations of Connecticut State Agencies, except those WTW discharges which do not exceed: (a) all effluent limits specified in Sections 5(b)(1) and 5(b)(2) of this general permit; or (b) if no such limit is specified in said Sections 5(b)(1) or 5(b)(2), the most restrictive aquatic life or human health criteria listed in Appendix D of the Water Quality Standards.
- (B) The following types of WTW shall not be discharged to a surface water without treatment or best management practices to ensure compliance with effluent limitations specified in Section 5(b)(1) and numerical water quality criteria for chemical substances listed in Appendix D of the Water Quality Standards:
- (i) Facility and equipment cleaning rinsewaters containing *no* detergents or surfactants;
 - (ii) Water discharged from on-line analytical instruments;
 - (iii) Start-up wastewaters for new facilities or equipment containing *no* detergents or surfactants;
 - (iv) Designed emergency overflows of water, other than raw water, from any water treatment plant, unless best management practices have been implemented to minimize this type of discharge such as high level alarms, solenoid shut-off valves, or containment. For any existing water treatment plant with a designed emergency overflow to a surface water, the permittee shall submit a report to the Commissioner within one year of permit issuance detailing existing or proposed best management practices. Such report shall be submitted to the following address:
INDUSTRIAL PERMIT SECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE/PED
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD CT 06106-5127
- (C) The following types of WTW may be discharged directly to a POTW without treatment; and shall be discharged to the surface water or ground water *only* after treatment for solids removal to meet the effluent limitations specified in Section 5(b)(1)(F) for total suspended solids:
- (i) Clarifier tank sludge blowdown;
 - (ii) Green sand filter ion exchange regeneration wastewaters;
 - (iii) filter media backwash and regeneration wastewaters.

- (D) Clarifier tank sludge blowdown shall not be discharged to subsurface disposal systems.
- (E) For discharges to a surface water or to the ground water for which a registration is required to be submitted by Section 4(a) of this general permit except discharges which contain no chemicals, including but not limited to treatment chemicals used for taste/odor control, coagulants, corrosion control or disinfection, and except discharges from emergency overflows, the maximum daily flow of all discharges of WTW generated by a registrant on one site shall not exceed 1,000,000 gallons per day.
- (F) For discharges to a subsurface disposal system, the maximum daily flow of all discharges of WTW generated by a registrant on one site shall not exceed 50,000 gallons per day.
- (G) All lagoons used to treat or convey WTW and inlet and outlet structures, gates, valves, motors, pumps, and controls associated with such lagoons shall be designed and constructed to minimize short-circuiting of flow, vandalism and tampering.
- (H) Stormwater runoff shall not be discharged to any lagoons and beds which are used for the treatment of WTW, but may be discharged to lagoons or beds used to treat stormwater run-off and which are also used to hold emergency overflows of WTW.
- (I) Lagoon and beds used to treat WTW, and areas adjacent to such lagoons and beds, shall be graded to prevent stormwater runoff from discharging into them.
- (J) For all discharges of WTW to groundwater except those for which no registration is required to be submitted pursuant to Section 4(a) of this general permit, those WTW discharges to the groundwater which require submission of a registration, the following minimum separating distances shall be maintained between any point of a disposal system and any potable water supply well which is not downgradient and also not associated with this discharge:
 - (i) for potable water supply wells yielding less than 10 gallons per minute - 75 feet;
 - (ii) for potable water supply wells yielding 10 or more gallons per minute but less than 50 gallons per minute - 150 feet;
 - (iii) for potable water supply wells yielding more than 50 gallons per minute - 200 feet.

- (K) For discharges of WTW to the ground water which require submission of a registration, the minimum separating distance between any point of the disposal system and any *downgradient* potable water supply well shall be 1,000 feet, unless a ground water monitoring program has been approved in writing by the Commissioner. The minimum separating distance between a disposal system and downgradient potable water supply well, if a ground water monitoring program has been approved in writing by the Commissioner, shall be 200 feet. For the purpose of this subparagraph, downgradient refers to groundwater gradient if it is known, or if no data indicating groundwater gradient is known, topographic gradient.
- (L) For discharges of WTW to the ground water, there shall be a minimum depth of 2 feet between the bottom of any lagoon or bed used to treat or convey WTW and any underlying bedrock surface, and for any lagoon constructed after the effective date of this general permit, at least 2 feet separation between the bottom of any such lagoon or bed and the seasonal high ground water table.
- (M) Discharges of WTW to the ground water shall not interfere with another subsurface disposal system and its treatment of wastewater, or render a drainfield or subsurface disposal system incapable of infiltration, or cause such drainfield or subsurface system to exceed its hydraulic capacity.

(b) Effluent Limitations

- (1) For discharges to a surface water:

- (A) Temperature

The temperature of the discharge shall not increase the temperature of the receiving water above 85°F for freshwaters, and 83°F for marine waters, nor shall the discharge raise the temperature of the receiving stream more than 4°F at any time, except for marine waters during the months of July, August, and September, during which time the discharge shall not raise the temperature of the receiving waters more than 1.5°F.

- (B) Salinity

Discharges of WTW to coastal waters shall not lower the salinity of the receiving water by more than 5 percent.

- (C) pH

The pH of the discharge shall not be less than 5.0 nor greater than 9.0 standard units at any time.

- (D) Appearance

Discharges of WTW shall not contain a visible oil sheen, visible discoloration, or foaming, or cause any such condition in the receiving water body.

(E) Chemical Limitations

Discharges of WTW to any surface water shall be analyzed for Total Copper, Total Zinc, Total Residual Chlorine and any additional substances, including but not limited to *inorganic chemicals, pesticides, organic chemicals* which have been detected within the previous twelve months in any sample analyzed in accordance with Section 19-13-B102 of the Regulations of Connecticut State Agencies, except any substance added to the finished water which substance is not used in treating the raw water or otherwise introduced directly or indirectly into the WTW, including but not limited to disinfectant, fluoride, and corrosion control chemicals. Discharges of WTW to any surface water shall also be analyzed for any substance the permittee has reason to believe could be present within the raw water supply at a concentration exceeding a Maximum Contaminant Level (MCL) as defined in Section 19-13-B102 of the Regulations of Connecticut State Agencies. No discharge of WTW to any surface water shall contain such substance in excess of any MCL. Samples shall be collected in accordance with the sample requirements set forth in Section 5(c)(5) of this general permit.

- (F) In addition, for all discharges to a surface water, the following parameters shall also be monitored and the concentration of such substances in the discharge shall not exceed the maximum concentrations listed in Table I:

Table I

Pollutant Parameter	Maximum Concentration
Total Aluminum	1.5 mg/l
Total Manganese	3.0 mg/l
Total Iron	3.0 mg/l
Total Dissolved Solids	1500.0 mg/l
Total Suspended Solids	20.0 mg/l
Total Settleable Solids	---- mg/l (no limit)

All discharges of WTW to surface water initiated after the effective date of this general permit shall not exceed the limits specified in Table II. Any WTW discharge initiated on or before the effective date of this general permit, the limits specified in Table II shall be met no later than three years after the issuance date of this permit.

Table II

Parameter	Instream Waste Concentration ⁽¹⁾			
	Reservoir	<1%	1% - 10%	>10%
Copper	0.217 mg/l	1.09 mg/l	0.11 mg/l	10.9 µg/l
Total Chlorine Residual	0.262 mg/l	0.90 mg/l	0.09 mg/l	9.0 µg/l
Zinc	0.557 mg/l	2.0 mg/l	0.28 mg/l	27.8 µg/l
Toxicity	LC ₅₀ >100%	LC ₅₀ >100%	LC ₅₀ >100%	NOAEL=100%

⁽¹⁾ The Instream Waste Concentration shall be calculated by dividing the maximum daily flow of the discharge by the sum of the maximum daily flow of the discharge and the seven day ten year low flow of the receiving stream and multiplying the result by 100.

(2) For discharges to ground water:

(A) Temperature

No temperature limitation.

(B) pH

The pH of the discharge shall not be less than 5.0 nor greater than 9.0 standard units at any time.

(C) Chemical Limitations

Discharges of WTW to any ground water shall be analyzed for those substances including, but not limited to: *inorganic chemicals, pesticides, organic chemicals* which have been detected within the last twelve month period as a result of sampling required under Section 19-13-B102 of the Public Health Code of the State of Connecticut as amended. Discharges of WTW to any ground water shall also be analyzed for any substance which can reasonably be expected to be present within the raw water supply at concentrations above any MCL. No discharge of WTW to ground water shall contain such inorganic chemicals, pesticides, organic chemicals in concentrations in excess of any MCL and such discharge of WTW shall conform to the ground water standards set forth in the Water Quality Standards and Classifications of the Connecticut Department of Environmental Protection. Pollutants shall be sampled in accordance with the sample requirements set forth in Section 5(c)(5) of this general permit.

- (D) In addition, for all discharges to any ground water, the following parameters shall also be monitored and shall not exceed the maximum concentrations listed below:

Pollutant Parameter	Maximum Concentration
Total Residual Chlorine	3.0 mg/l
Total Dissolved Solids	1500.0 mg/l
Total Aluminum	1.5 mg/l
Total Manganese	3.0 mg/l
Total Iron	3.0 mg/l

- (3) For discharges to a POTW:

(A) Temperature

The temperature of the discharge shall not exceed 150°F at any time, or cause temperatures in excess of 104°F at the POTW.

(B) pH

The pH of discharges of WTW shall not be less than 5.0 nor greater than 10.0 standard units at any time.

(C) Chemical Limitations

Discharges of WTW to a POTW shall be analyzed for the following parameters, and shall not exceed the maximum concentrations listed below at any time:

Pollutant Parameter	Maximum Concentration
Total Settleable Solids	---- mg/l
Total Suspended Solids	---- mg/l
Total Residual Chlorine	---- mg/l
Total Aluminum	---- mg/l
Total Copper	---- mg/l
Total Manganese	---- mg/l
Total Zinc	---- mg/l
Total Iron	---- mg/l
*Total Volatile Organics	1.0 mg/l

- * Testing for total volatile organics shall be required for only those discharges for which there is reason to suspect their presence, such as activated carbon backwash and regeneration wastewaters for those filters which treat for volatile organic compounds.

(c) **Monitoring Requirements**

- (1) Aquatic toxicity: Samples collected for determination of aquatic toxicity shall be tested using the NOAEL protocol specified in Section 22a-430-3(j)(7)(a) of the Regulations of Connecticut State Agencies. The following additional specifications apply:

- (A) Toxicity tests shall be initiated within 36 hours of sample collection.
- (B) Toxicity tests shall employ neonatal (less than 24 hours old) *Daphnia pulex* and juvenile (30 +/- 5 days old) *Pimephales promelas* as test species.
- (C) Toxicity tests shall be 48 hours in duration.
- (D) The permittee shall retain, for the period of time required by Section 22a-430-3(j)(9)(B) of the Regulations of Connecticut State Agencies, records of information necessary to verify the validity of aquatic toxicity test procedures, including but not limited to all records of organism mortality and environmental conditions noted during these tests.
- (E) Samples collected for determination of aquatic toxicity analysis shall also be analyzed for the chemical parameters listed in Section 5(b)(1), the results of which may be used to fulfill the requirement for chemical monitoring of effluent quality under this general permit.

(2) **Chemical Analysis**

- (A) Chemical analysis to determine compliance with surface water effluent limits and conditions established in this general permit shall be performed using methods which have been approved by the U.S. Environmental Protection Agency in accordance with 40 CFR 136 and are capable of quantification of the parameter at the concentration present in the sample without sample concentration. Failure to use an analytical method capable of achieving the minimum analytical quantification levels specified during analysis of effluent samples shall constitute a permit violation.

Pollutant Parameter	Minimum Analytical Quantification Level
Total Copper	5.0 µg/l
Total Lead	5.0 µg/l
Total Nickel	5.0 µg/l
Total Zinc	5.0 µg/l
Total Aluminum	100.0 µg/l

- (B) Chemical analysis to determine compliance with effluent limits and conditions for discharges to the groundwater or to a POTW shall be performed using the methods approved in accordance with 40 CFR 136

which are capable of achieving a limit of detection below the level established as an effluent limitation in Section 5(b) of this general permit.

(C) For those discharges required to be tested for total volatile organics, the analysis required by this subsection shall be performed using EPA methods 8010 and 8020.

(D) For discharges to ground water only, samples collected shall be prepared by settling of solids and filtration through a 0.45 uM filter prior to analysis.

(3) Monitoring Location

All wastewater samples shall be composed solely of WTW, prior to combination with wastewaters of any other type or with the receiving waters. For discharges to ground waters, samples shall be collected at the influent to the treatment system which directs the WTW into the ground waters, including but not limited to a lagoon or a subsurface drainfield.

(4) Monitoring Frequency

Monitoring to verify compliance with effluent limitations in Section 5(b) of this general permit shall be performed according to the following schedule:

(A) For discharges to a surface water:

Monitoring Frequency			
Maximum Daily Flow (gallons per day)	Total Daily Flow	Aquatic Toxicity	Chemical Parameters
Less than 5,000	monthly	none	annually
5,000 - 49,999	monthly	annually	quarterly
≥50,000	twice per month	twice per year	monthly

(i) In addition, except as provided in subdivision (ii) of this subparagraph, all surface water discharges, regardless of flow volume, shall on a weekly basis be monitored for pH, and total residual chlorine if chlorine is added prior to WTW generation or can be expected to be found in the discharge. If the discharge occurs less frequent than weekly, each discharge shall be monitored for pH and total residual chlorine.

(ii) Monitoring shall only be for those parameters listed in Table I in Section 5(b)(1)(F), except that required to prepare the registration required by Section 4 of this general permit, pursuant to this subparagraph for any discharge to a surface water if the permittee certifies to the Commissioner in writing that the discharge does not contain any added

chemicals or byproducts thereof, including but not limited to chemicals used for algae control within a reservoir, coagulants used to aid in solids removal and disinfectants, corrosion control chemicals, or fluoride.

(B) For all discharges to ground water:

Monitoring Frequency		
Total Daily Flow	Aquatic Toxicity	Chemical Parameters
monthly	none	*twice per year

* The frequency of monitoring for chemical parameters may be reduced to annually, if the results of 3 consecutive tests document that all chemical parameters do not exceed the limitations specified in Section 5(b)(2) of this general permit.

(C) For discharges to a POTW:

Monitoring Frequency		
Maximum Daily Flow (gallons per day)	Total Daily Flow	Chemical Parameters
Less than 5,000	monthly	annually
5,000 - 49,999	monthly	quarterly
≥50,000	twice per month	monthly

(5) Sampling

(A) Samples collected for purposes of monitoring aquatic toxicity and chemical parameters shall be grab samples.

(B) For batch discharges of WTW to surface waters, ground waters, or to a POTW, at least two samples shall be taken at the frequency specified in Section 5(c)(4) of this general permit. One sample shall be taken during the first 10 percent of the time the discharge is expected to continue, and one sample shall be taken during the last 10 percent of the time the discharge is expected to continue.

(6) Representative Samples

All samples shall be representative of the discharge to assure compliance with effluent limitations. Any permittee who applies copper sulfate to reservoirs shall sample any surface water or POTW discharge authorized by this general permit when the discharge would be expected to have its highest concentration of copper.

(d) Reporting and Record Keeping Requirements

- (1) Except as provided below, or as otherwise specified by the Commissioner, all analytical results and other information required under this general permit shall not be required to be submitted to the Commissioner but instead shall be retained on-site or at the permittee's principal place of business in Connecticut, as required by Regulations of Connecticut State Agencies Section 22a-430-3(j)(9)(B), and shall be made available to the Commissioner, or the local POTW authority immediately upon request.
- (2) For all discharges of WTW, the permittee shall maintain records for review and inspection by the Department of Environmental Protection. Such records shall include, at a minimum, the information below:
 - (A) frequency of discharge, per day, per month, and per year;
 - (B) duration of discharge;
 - (C) daily solids discharged, in pounds per day in dry weight for each day in which solids monitoring is required for discharges to a POTW only;
 - (D) description of type of discharge, such as filter backwash, settling wastes, continuous, infrequent batch processing, or combined;
 - (E) for discharges to ground water, the name of the nearest watercourse downgradient from the site;
 - (F) a list of materials/chemicals used in treatment process (e.g. alum, polymer, etc.);
 - (G) a site plan at scale of 1"=100' or less showing location of all discharge points, topography, north arrow, bar scale, buildings, lagoons, watercourses, and wetlands.
 - (H) For each discharge, a detailed 8 1/2 X 11 inch flow diagram and plan showing all major treatment and discharge components. Identify and label each discharge by assigning consecutive numbers to each discharge beginning with 001.
 - (I) indicate whether discharge is on a public water supply watershed or aquifer as mapped to Level A standards (use level B aquifer maps if Level A aquifer maps are unavailable), as specified in Section 22a-354c of the General Statutes. If yes, indicate name of supply and approximate distance from discharge. If on an aquifer, indicate whether the site is on a direct or indirect recharge area;
- (3) For discharges to ground water the permittee shall maintain on site, plans and specifications of any lagoons or other subsurface drainage system. At a minimum, such plans and specifications shall include:

- (A) plan view and cross sections;
- (B) influent and effluent locations;
- (C) location of seasonal high ground-water elevation;
- (D) elevation of bedrock, if less than 10 feet from the bottom of the drainage system or other discharge point, otherwise indicate "greater than 10 feet".

(e) Recording and Reporting of Violations

- (1) If any analytical results or monitoring data collected under this general permit, or any other information, indicate that a violation of an effluent limitation or another condition of this general permit has occurred, such violation shall be recorded within twenty-four hours of receipt of such information in a log which contains at least the following information:
 - (A) the condition(s) or effluent limitation(s) violated;
 - (B) the analytical results and information demonstrating such violation(s);
 - (C) the cause of the violation(s), if known;
 - (D) period of noncompliance including exact dates and times;
 - (E) if the noncompliance has not been corrected, the anticipated time it is expected to continue, and, upon correction, the date and time of correction;
 - (F) steps taken and planned to reduce, eliminate and prevent a recurrence of the noncompliance, and the dates such steps are executed; and
 - (G) the name and title of the person recording the information and the date and time of such recording.
- (2) The permittee shall comply with the following requirements within the time frame specified, unless an alternative time frame is approved in writing by the Commissioner, if analytical results, monitoring data or other information indicate
 - (a) three simultaneous or consecutive violations of the same or different conditions applicable to any single discharge covered by this general permit (e.g. three effluent limitation violations involving the same effluent limitation, or one effluent limitation violation, one flow violation, and one recording violation of the same discharge), (b) four violations of the same or different conditions of this general permit in any consecutive twelve month period, or (c) the exceedance of any effluent limitation, other than that for pH, by more than two hundred percent, and for pH, by more than one standard unit:
 - (A) Within twenty days after the third simultaneous or consecutive violation of a specific discharge effluent limitation, or fourth annual violation, as applicable, or within ten days after the exceedance of any effluent limitation, other than that for pH, by more than two hundred percent, and for pH by

more than one standard unit, the permittee shall submit to the Commissioner a report prepared by a professional engineer licensed to practice in Connecticut. Such report shall contain at least the information required to be recorded under paragraph (1) of this subsection for each of the violations which led to the requirement for such report, and for each subsequent violation which occurred prior to the date the report was completed. Such report shall be submitted to the following address:

ENFORCEMENT SECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE/PED
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD CT 06106-5127

- (B) Within sixty days after the deadline for submitting the report specified in the preceding paragraph, the permittee shall submit to the Commissioner the following certification signed by a professional engineer licensed to practice in Connecticut:

"I certify that in my professional judgement all discharge(s) which are maintained at the facility referenced herein, and which are authorized by the General Permit for the Discharge of WTW comply with all conditions of said permit, including but not limited to all effluent limitations in Section 5(b) of such general permit, and proper operation and maintenance of any systems installed to treat such discharge(s) will insure that all effluent limitations and other conditions in such general permit are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent limitations and conditions of such general permit without treatment. This certification is based in part on my review of analyses of a minimum of three effluent samples collected, preserved, handled and analyzed in accordance with 40 CFR 136, which samples were representative of the discharge(s) during standard operating conditions, were taken within the previous 12 months, at least one week apart, and were of the type(s) specified in Section 5(c)(5) of said general permit, and were analyzed for the parameters specified in Section 5(c)(1) and (2) of said general permit. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

- (C) For any discharge to a POTW, the Permittee shall notify the POTW authority of each violation and a copy of any report required to be submitted under this subsection shall also be sent to the POTW which receives the discharge.

Section 6. General Conditions

- (a) *The permittee shall comply with the following Regulations of Connecticut State Agencies which are hereby incorporated into this general permit, as if fully set forth herein:*

(1) Section 22a-430-3:

Subsection (b) General - subparagraph (1)(D) and subdivisions (2), (3),(4) and (5)

Subsection (c) Inspection and Entry

Subsection (d) Effect of a Permit - subdivisions (1) and (4)

Subsection (e) Duty to Comply

Subsection (f) Proper Operation and Maintenance

Subsection (g) Sludge Disposal

Subsection (h) Duty to Mitigate

Subsection (i) Facility Modifications, Notification - subdivisions (1) and (4)

Subsection (j) Monitoring, Records and Reporting Requirements - subdivisions (1), (6),

(7), (8), (9) and (11) (except subparagraphs (9)(A)(2), and (9)(C))

Subsection (k) Bypass

Subsection (m) Effluent Limitation Violations

Subsection (n) Enforcement

Subsection (o) Resource Conservation

Subsection (p) Spill Prevention and Control

Subsection (q) Instrumentation, Alarms, Flow Recorders

Subsection (r) Equalization

(2) Section 22a-430-4:

Subsection (t) - Prohibitions

Subsection (p) - Revocation, Denial, Modification

Appendices

- (b) *The permittee shall comply with the following additional terms and conditions:*

- (1) The permittee is authorized to discharge (a) pollutants in quantities and concentrations as specified in this general permit; and (b) any substances resulting from the processes or activities described in this general permit in concentrations and quantities which the Commissioner determines cannot reasonably be expected to cause pollution and will not adversely affect surface waters, ground waters, or the operation of a POTW. The Commissioner may seek an injunction or issue an order to prevent or abate pollution, and may seek criminal penalties against a permittee who willfully or with criminal negligence causes or threatens pollution.
- (2) Discharge of any substance which does not result from the processes or activities authorized by this general permit shall be considered a violation of this general permit unless it is authorized by an individual permit issued under Section 22a-430 of the General Statutes or another General Permit issued under Section 22a-430b of the General Statutes.
- (3) The permittee shall at all times continue to comply with the conditions for

authorization set forth in Section 3 of this general permit.

- (4) Nothing in this general permit shall relieve the registrant of other obligations under applicable federal, state and local law.
- (5) Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this general permit by the permittee shall be signed by the permittee and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance with Section 22a-6 of the General Statutes, pursuant to Section 53a-157 of the General Statutes, and in accordance with any other applicable statute."
- (6) The Commissioner reserves the right to make appropriate revisions to this general permit, in accordance with applicable law, in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be necessary to adequately protect human health and the environment.
- (7) The Commissioner may order summary suspension of this general permit in accordance with Section 4-182 of the General Statutes.

Section 7. Unauthorized Activities

Any person who or municipality which initiates, creates, originates or maintains a discharge of WTW into the waters of the state without authorization under this general permit, except those authorized by an individual permit issued under Section 22a-430 of the General Statutes, or an authorization as authorized by Public Act No. 93-428 of the General Statutes, is in violation of the General Statutes and is subject to injunction and penalties of up to \$25,000 per day per violation under Chapter 446k of the General Statutes.

Issued Date: March 30, 2010

AMEY W. MARRELLA

Commissioner

This is a true and accurate copy of the general permit executed on March 30, 2010 by the Commissioner of the Department of Environmental Protection.

ATTACHMENT D
CONSENT ORDER DIV-2008-1011V

RESOLUTION OF THE TOWN OF PUTNAM'S
BOARD OF SELECTMEN

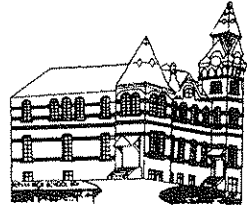
Concerning
Town of Putnam
And
Putnam Water Pollution Control Authority

Peake Brook Road Surface Water Diversion
Little River
Woodstock, Connecticut



TOWN OF PUTNAM

TOWN HALL
126 CHURCH STREET
PUTNAM, CONNECTICUT 06260



RESOLUTION

Selectmen's Meeting Date: November 1, 2010

Agenda Item: 9C

Resolution Purpose: Authorizing Acting Mayor to sign Little River Diversion Consent Order

IT IS HEREBY RESOLVED BY THE PUTNAM BOARD OF SELECTMEN AS FOLLOWS:

RESOLVED, that the Acting Mayor, Town of Putnam is authorized to enter into Consent Order DIV-2008-1011V between the Town of Putnam, Putnam Water Pollution Control Authority and the State of Connecticut, Department of Environmental Protection, concerning the Little River Diversion

Motion made by: Selectman Alma Morey and seconded by Selectman Fred Hedenberg

Disposition of Motion: Motion Carried Unanimously

Town of Putnam is an Affirmative Action/Equal Opportunity Employer

Mayor's Office 963-6800	Economic Development..... 963-6834	Planning Commission..... 963-6803	Town Clerk963-6807
Animal Control 963-6804	Fire Marshall..... 963-6805	Public Works..... 963-6813	Town Hall Fax963-6814
Assessor 963-6802	Inland-Wetlands 963-6803	Revenue Collector 963-6806	Treasurer963-6809
Building/Zoning..... 963-6803	Parks & Recreation..... 963-6811	Refuse & Recycling..... 963-6818	ZBA Commission963-6803

ATTACHMENT E
CONSENT ORDER DIV-2008-1011V

**RESOLUTION OF THE PUTNAM WATER
POLLUTION AUTHORITY**

Concerning
Town of Putnam
And
Putnam Water Pollution Control Authority

Peake Brook Road Surface Water Diversion
Little River
Woodstock, Connecticut

Water Pollution Control Authority
126 Church Street
Putnam CT 06260
Phone: (860) 963-6819
Fax: (860) 963-2001

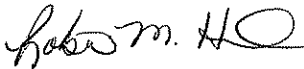
SPECIAL MEETING

7:00 P.M. October 28, 2010

SECOND FLOOR / BOARD OF EDUCATION MEETING ROOM

- PRESENT:** Commissioners: Vice Chairman John Dignam, Norman Perron, Michael Duffy, Robert Garceau
Absent: Mark Bouthillier
Director: William Trayner
Recording Secretary: Robin Hart
In Attendance: Acting Mayor Robert Place, Administrator Doug Cutler, Dan Meaney-CT Water, Matt Stosse-CT Water, Peter Pezanko-CT Water, Jeff Burkle-Pristine, Bob Bozikowski-Atlantic States Rural Water
- ITEM 1: CALL TO ORDER**
The Vice Chairman John Dignam called the meeting to order at 7:05 PM.
- ITEM 2: DISCUSSION RE: BLACK WATER ON PARK STREET**
All parties discussed the chemical balance of the water coming into Park Street.
- ITEM 3: DISCUSSION / APPROVAL OF AGREEMENT BETWEEN, TOWN & WPCA RE: DEP CONSENT ORDER**
MOTION: (Garceau/Perron) Resolve that the WPCA authorize that the acting Chairman John Dignam to sign the Consent Order and the memorandum.
Motion carried.
- ITEM 4: ADJOURNMENT**
MOTION: (Garceau/Perron) to adjourn at 8:25
Motion Carried.

Respectfully Submitted,



Robin M. Hart
Recording Secretary

ATTACHMENT F
CONSENT ORDER DIV-2008-1011V

**EXCEPTIONS FROM TEMPORARY SUSPENSION
OF WATER MAIN EXTENSIONS AND NEW
SERVICE CONNECTIONS**

Concerning
Town of Putnam
And
Putnam Water Pollution Control Authority

Peake Brook Road Surface Water Diversion
Little River
Woodstock, Connecticut

**REASONABLY ANTICIPATED NEW WATER USERS
TOWN OF PUTNAM, 2010-2013**

- A. 2011-13. Clover Brook Estates (Active Adult): 24,750 GPD*
- i. 2011. Phase 1: 25 units @330GPD= 8,250 GPD
 - ii. 2012. Phase 2: 40 units @330GPD= 13,200 GPD
 - iii. 2013. Phase 3: 10 Units@330 GPD= 3,300 GPD

These values are from Fuss & O'Neill Wastewater study, and represent maximum expected water flows for the Clover Brook Estates Community. Note that per unit water consumption values represent water consumption in each residential unit, plus an apportionment of water used at the facility's recreation center.

**Note: This project has received its land use permits, but has not received its building permits. It will be built in three phases, so, while construction of the first phase is planned to begin in 2011, it is clear that the entire project will not have Certificates of Occupancy within the three year Consent Order window.*

- B. 2010-12. Addition of Various Commercial Uses: 2,750 GPD
- i. Pharmacy: 740 GPD
 - ii. Restaurant: 1430 GPD
 - iii. Small Retail Outlets (5): 580 GPD

These values are from actual water consumption figures for a pharmacy, restaurant and retail outlets in the Town of Putnam during 2008-2009. Water consumption rates are equivalent to the mean daily use as measured by the customer's meter, multiplied by 1.75, in accordance with CTDPH recommendations to convert to maximum month, average daily demand (MMADD) for Water Supply Planning purposes.

- C. 2012. Cargill Falls Mill Residential Development: 25,000 GPD

This value represents a conservative estimate of water use for residential housing units, assuming water use of 75 gpd per resident, and a total of 330 residents (approximately 165 bedrooms).

D. 2012. Putnam Technology Park.	2,510 GPD
i. Company A:	1700 GPD
ii. Company B:	720 GPD
iii. Company C:	90 GPD

These values are actual water consumption figures for three industrial facilities in the Town of Putnam during 2008-2009; the existing facilities roughly match the size and type of the three companies expected for the Technology Park. Water consumption rates are equivalent to the mean daily use of each industry, multiplied by 1.75, in accordance with CTDPH recommendations to convert to maximum month, average daily demand (MMADD) for Water Supply Planning purposes.

E. 2012. Regional YMCA	1,200 GPD
------------------------	-----------

This estimated rate of water consumption was obtained from the water usage for the Mansfield Community Center in Mansfield, CT. The Town of Putnam anticipates that its YMCA will be approximately the same size as the Mansfield Community Center, and contain similar facilities. The Mansfield Community Center used an average of approximately 660 gallons per day in 2009. The water consumption rate is equivalent to the estimated mean daily use, multiplied by 1.75, in accordance with CTDPH recommendations to convert to maximum month, average daily demand (MMADD) for Water Supply Planning purposes.

SUB-TOTAL:

56,210 GPD

MINUS 2013 CONNECTIONS:

3,330 GPD

**TOTAL AMOUNT EXEMPT FROM CONSENT ORDER
PROVISION SUSPENDING NEW WATER CONNECTIONS
[NEW CONNECTIONS BY END OF 2012]:**

TOTAL 52,880 GPD

ATTACHMENT G
CONSENT ORDER DIV-2008-1011V
TOWN OF PUTNAM
WATER USE RESTRICTION ORDINANCE

Concerning
Town of Putnam
And
Putnam Water Pollution Control Authority
Peake Brook Road Surface Water Diversion
Little River
Woodstock, Connecticut

LEGAL NOTICE

TOWN OF PUTNAM

The following ORDINANCE was approved at the Special Town Meeting held on September 20, 2010 and shall become effective twenty-one (21) days after date of publication.

Dated at Putnam, Connecticut this 23rd, day of September, 2010.

Sara J. Seney
Town Clerk

ORDINANCE

WATER USE RESTRICTION ORDINANCE

Published in the Putnam Town Crier 9/30/10
Effective Date: 10/21/2010

TOWN OF PUTNAM

WATER USE RESTRICTION ORDINANCE

1.0 Authority

The TOWN OF PUTNAM, under its powers pursuant to state law, has adopted this ordinance to protect public health and welfare. This ordinance implements the Town of Putnam's authority to impose water use restrictions, either conditioned upon a state of water use restrictions or a declaration of public drinking water supply emergency issued by the Department of Public Health pursuant to C.G.S. 25-32b, as well as general non-emergency restrictions designed to preserve and maintain the public water supply.

2.0 Purpose

The purpose of this ordinance is to protect, preserve and maintain the public health, safety and welfare whenever there is in force a State of Water Use Restriction or State of Public Drinking Water Supply Emergency by providing for enforcement of any duly imposed restrictions, requirements, provisions or conditions imposed by the municipality or by the State of Connecticut.

3.0 Definitions

Agriculture shall mean farming in all its branches as defined in C.G.S. Section 1-1(q).

Municipality means any town, consolidated town and city, consolidated town and borough, city, borough, and village.

Outdoor Watering shall mean any watering of decorative lawns, trees or shrubbery by water users.

Person means any individual, partnership, association, firm, limited liability company, corporation or other entity, except a municipality, and includes the federal government, the state or any instrumentality of the state, and any officer or governing

or managing body of any partnership, association, firm or corporation or any member or manager of a limited liability company.

State of Public Drinking Water Supply Emergency shall mean a State of Public Drinking Water Supply Emergency declared by the Department of Public Health in consultation with the Department of Environmental Protection, and the Department of Public Utility Control under C.G.S. 25-32b.

State of Water Use Restriction shall mean a State of Water Use Restriction declared by the Town of Putnam pursuant to Section 4 of this ordinance.

Water Company means the Water Division of the Putnam Water Pollution Control Authority, (WPCA), together with any party obligated to supply water to the Putnam Water Pollution Control Authority by contract or otherwise.

Water Users shall mean all persons or municipalities using water from any public water source irrespective of that person's responsibility for billing purposes for use of the water.

4.0 Declaration of a State of Water Use Restriction

The Mayor of the Town of Putnam, upon the recommendation of the water company or water companies, as may be appropriate, may declare a State of Water Use Restriction. Such a declaration should be, where appropriate, conditioned on the identification of a water shortage or threatened water shortage by the water company, the local health department, a state agency or the governor which could also include or be limited to the restrictions listed in Section 5. Public notice of a State of Water Use Restriction shall be given under Section 6 of this ordinance before it may be enforced. After implementation of any state of water use restrictions, the Department of Public Health and the Department of Environmental Protection should be notified in writing within 14 days of the implementation of restrictions. These restrictions can be phased-in to tailor them according to the severity and nature of the water supply shortage.

5.0 Restricted Water Uses

A declaration of a State of Water Use Restriction shall include restrictions consistent with the response measures indicated in the individual water supply plans of the water company and the Connecticut Drought Preparedness and Response Plan, as appropriate. These may include one or more of the following restrictions, conditions, or requirements limiting the use of water as necessary to protect the water supply except as provided in Section 11. The applicable restrictions, conditions or requirements shall be included in the public notice required under Section 6. Please note, the following restrictions are listed to serve as examples of the types of water use restrictions that may be implemented:

- a) Automatic Sprinkler Use: The use of automatic sprinkler systems is prohibited, except lawn watering is permitted in order to establish and maintain newly laid sod or newly seeded grass associated with new construction, and the testing of a customer's newly installed or newly repaired sprinkler system by a commercial enterprise engaged in the installation or repair of lawn irrigation systems is permitted.
- b) Car washing: Car or vehicle washing is prohibited, except for the washing of vehicles performed by a commercial enterprise engaged in car washing.
- c) Loss of water from customer's service line: The loss of water through breaks or leaks within the customer's service line, private distribution system or plumbing for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It shall be presumed that a period of seventy-two (72) hours after the customer discovers such a break or leak or receives notice from the water company of a break or leak is a reasonable time within which to correct such break or leak or, as a minimum, to stop the flow of water from such break or leak.
- d) Off-Peak Outdoor Watering: Outdoor watering is permitted only during daily periods of low demand, to be specified in the declaration of a State of Water Use Restriction and public notice thereof. For example, limit outdoor watering to between 8:00 p.m. and 8:00 a.m. on not more than three days per week. Houses with house numbers ending in an odd number shall water on Monday, Wednesday and Friday; houses with a house number ending in an even number shall water on Tuesday, Thursday and Saturday. (In general, restricting outdoor water use to between sunset

and early morning is best for turf needs and coincides with off peak hours. Municipalities may choose to restrict water use to one or two days per week during specified hours.) During a declared water supply emergency, outdoor watering may be entirely prohibited.

- e) Other outdoor uses. The use of private wells or other outdoor uses not addressed in this ordinance that are, in the determination of the Director of Health, wasteful, are prohibited.
- f) Outdoor Watering Ban: Outdoor watering is prohibited, except the watering of agricultural products, sod at commercial sod farms, and the watering of nursery stock at nurseries or retail outlets is permitted.
- g) Outdoor Watering Method Restriction: Outdoor watering is restricted to bucket, can or hand held hose, or soaker hose watering with automatic shutoff nozzle.
- h) Swimming Pools, Wading Pools, Hot Tubs, Spas, and Jacuzzis: Filling and topping off of swimming pools, wading pools, hot tubs, spas, and jacuzzis are prohibited, unless newly constructed or installed swimming pools, wading pools, hot tubs, spas, and jacuzzis that may be filled once upon completion of construction or installation
- i) Use of water for firefighting, health, sanitation, & medical purposes. The use of water for firefighting, health, sanitation, or medical purposes shall not be restricted. However, domestic water use conservation practices should be implemented wherever possible.
- j) Washing impervious surfaces. The washing or cleaning of streets, driveways, sidewalks or other impervious areas is prohibited.
- k) In any month that the WPCA is purchasing water from a public water system pursuant to the Connecticut General Statutes Section 22a-348, or otherwise, the WPCA will enforce water restrictions in the same manner as the public water system when necessary in accordance with the emergency contingency provisions of the public water system.

6.0 Notification

6.1 State of Water Use Restriction..

The Putnam Water Pollution Control Authority shall provide notification of any provision, including any restriction, requirement or condition imposed by the municipality as part of a State of Water Use Restriction, which shall be published by the municipality in a newspaper of general circulation within the municipality, or by such other means reasonably calculated to reach and inform all users of water of the State of Water Use Restriction. Notification of the State of Water Use Restriction shall also be provided to the Connecticut Department of Public Health, Department of Public Utility Control, and Department of Environmental Protection at the same time that notification is given.

6.2 State of Public Drinking Water Supply Emergency

When a State of Public Drinking Water Supply Emergency is declared by the Department of Public Health, the water company shall follow those procedures outlined in its approved Emergency Contingency Plan. In the event water use restrictions are necessary, the water company shall contact and consult with the affected municipality(s), in accordance with the approved Emergency Contingency Plan. The municipality(s) would then declare a State of Water Use Restriction in accordance with Section 4.0 of this document. Appropriate notice to the public shall be provided in accordance with Section 6.0 of this document.

7.0 Termination of a State of Water Use Restriction; Notice

A State of Water Use Restriction may be terminated upon a determination by the Water Pollution Control Authority that the water supply shortage no longer exists. Public notification of the termination of a State of Water Use Restriction shall be given in the same manner as is required for notice of the municipality's declaration of its State of Water Use Restriction pursuant to Section 6.

8.0 State of Public Drinking Water Supply Emergency; Compliance with DPH or DEP Orders

Upon notification to the public that a declaration of a State of Public Drinking Water Supply Emergency has been declared by the Department of Public Health in consultation with the Department of Environmental Protection and the Department of Public Utility Control, no person shall violate any provision, restriction, requirement, condition of any order approved or issued by the DPH for the purpose of bringing about an end to the State of Public Drinking Water Supply Emergency.

9.0 Enforcement and Penalties

The Town of Putnam through the Director of the Water Pollution Control Authority, Building Inspector, and the Police Department of the Putnam Special Services District, or, outside of the Putnam Special Services District, the Connecticut State Police may enforce all the provisions of this ordinance. Any person violating this ordinance shall be liable to the Town of Putnam in the amount of \$100.00 for the first violation and \$200.00 for the second violation. In extreme cases, the Water Pollution Control Authority may curtail water service to a violator. If water curtailment is found to be necessary, consideration shall be given to customers that have multiple tenants or medical risk individuals.

10.0 Severability

The invalidity of any portion or provision of this ordinance shall not invalidate any other portion or provision thereof.

11.0 Exemptions; Application for a waiver

Any such water users that consider the restrictions, as imposed, to adversely affect their livelihood, health or sanitation, may make written application for a waiver. Any such application should be directed to the attention of the WPCA. The WPCA will verify that the applicant is a user within the system and then forward the application, within three days, to the Director of Public Health who then makes the determination whether a waiver should be granted. This decision shall be made within three days of receipt of the application by the Director of Public Health. For the purposes of this

ordinance, the Director of Public Health shall be the Executive Director of the Northeast District Department of Health or that individual's designee. If the Executive Director of the Northeast District Department of Health neglects or refuses to act, then the application for exemption shall be referred to the WPCA Board for formal action by the Board.

12.0 The Following Water Restrictions are Applicable from June 30th until November 1st, Regardless of Water Restrictions:

Hand watering or using soaker hoses is permitted at any time, except during water restriction or emergency.

No sprinklers to water driveways, sidewalks or streets.

No allowing runoff into a street or other drainage area.

No use of sprinklers during periods of precipitation.

Automatic shutoff nozzles must be used on outside hoses.

13.0 It is the public policy of the Town of Putnam to encourage conservation through educational materials and the Water Pollution Control Authority shall make available through newspaper articles, mail materials and website information the best methods for water conservation.

The Town of Putnam and the Water Pollution Control Authority (WPCA) shall use its best efforts to provide all appropriate conservation materials to the local media, encourage municipal and WPCA employees to submit ideas of water conservation relative to their work as well as encouraging the general public to conserve water.

The WPCA shall make available water savings kits, upon request, to interested customers and shall work with the Building Department to coordinate the installation of water saving fixtures in compliance with The American Society of Mechanical Engineers or Underwriters Laboratories for new and renovated construction.

14.0 The WPCA, acting by and through its Director, shall declare a water supply emergency exists if during a 24 hour period the water demand exceeds the legally authorized water withdrawal supply. This shall be referred to as a Phase I water supply emergency.

During a Phase I water supply emergency:

- a.) all unnecessary water usage shall be banned;
- b.) the WPCA Director shall contact all state and local agencies concerning initiation of a Phase I water emergency;
- c.) a fifteen (15%) percent reduction in usage for the average water usage from the month in question averaged over the previous five (5) years;
- d.) the Director of the WPCA shall confer with the Connecticut Department of Health in accordance with the Connecticut General Statute Section 25-32b as to whether or not a public drinking water supply emergency exists;
- e.) the WPCA acting by and through its Director shall prepare weekly water supply status reports for in-house evaluation and distribution to all state and local officials;
- f.) the Director shall notify the media, set up hotline and post notices in prominent locations in an effort to notify all customers.
- g.) the Director shall notify the Putnam Police Department and Troop D, the State of Connecticut Police in Danielson, Connecticut of the existence of the water supply use restrictions.

15.0 Should the water supply emergency continue for a period of seven (7) days, a Phase II water supply emergency shall be declared and the following additional restrictions shall be implemented:

- a.) the targeted reduction for the average water usage from the month in question averaged over the previous five (5) years;

b.) the water supply status report for in-house evaluation and distribution to all state and local officials shall be prepared twice weekly;

c.) notification to all customers through a press release and other appropriate media and website information providers shall be implemented;

d.) to the extent practical, all large commercial and industrial account holders shall be contacted personally or by email;

e.) a drought hazard rationing plan shall be prepared in concert with all relevant state and local agencies and the Connecticut Water Company;

f.) an investigation of alternate means of obtaining additional emergency water supplies shall be implemented as well.

16.0 Should the WPCA water supply emergency continue for an interrupted period of fourteen (14) days, a Phase III water supply emergency shall be declared. Under those circumstances, the following steps shall be taken:

a.) the WPCA Director shall in conjunction with all state and local officials implement a water rationing plan, if necessary. The plan shall provide for the bare essentials for life sustenance as long as possible, as well as consideration of medical needs and fire protection. A pre-determined amount of water shall be held in reserve for fire protection;

b.) the Putnam Special Services District and State and local police shall be notified of the existence of a Phase III water emergency and their cooperation shall be solicited in the strict enforcement of the mandatory water rationing.

Dated at Putnam Connecticut this 20th day of September , 2010.