NPDES PERMIT

issued to

New Albertsons, Inc.
250 Parkcenter Boulevard
Box 20, Mail Drop 72405
Boise, ID 83726

Location Address:
Shaw's Supermarkets, Inc.
Routes 37 and 39
New Fairfield, Connecticut 06812

Facility ID: 091-016

Permit ID: CT0030406

Receiving Stream: Ball Pond Brook

Permit Expires: April 23, 2014

SECTION 1: GENERAL PROVISIONS

(A) This permit is issued in accordance with section 22a-430 of Chapter 446k, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and section 402(b) of the Clean Water Act, as amended, 33 USC 1251, et. seq., and pursuant to an approval dated September 26, 1973, by the Administrator of the United States Environmental Protection Agency for the State of Connecticut to administer an N.P.D.E.S. permit program.

(B) New Albertsons, Inc., ("Permittee"), shall comply with all conditions of this permit including the following sections of the RCSA which have been adopted pursuant to section 22a-430 of the CGS and are hereby incorporated into this permit. Your attention is especially drawn to the notification requirements of subsection (i)(2), (i)(3), (j)(1), (j)(6), (j)(8), (j)(9)(C), (j)(10)(C), (j)(11)(C), (D), (E), and (F), (k)(3) and (4) and (l)(2) of section 22a-430-3.

Section 22a-430-3 General Conditions

(a) Definitions
(b) General
(c) Inspection and Entry
(d) Effect of a Permit
(e) Duty
(f) Proper Operation and Maintenance
(g) Sludge Disposal
(h) Duty to Mitigate
(i) Facility Modifications; Notification
(j) Monitoring, Records and Reporting Requirements
(k) Bypass
(l) Conditions Applicable to POTWs
(m) Effluent Limitation Violations (Upsets)
(n) Enforcement
(o) Resource Conservation
(p) Spill Prevention and Control
(q) Instrumentation, Alarms, Flow Recorders
(r) Equalization

Section 22a-430-4 Procedures and Criteria

(a) Duty to Apply
(b) Duty to Reapply
(c) Application Requirements
(d) Preliminary Review
(e) Tentative Determination
(f) Draft Permits, Fact Sheets
(g) Public Notice, Notice of Hearing
(h) Public Comments
(i) Final Determination
(j) Public Hearings
(k) Submission of Plans and Specifications. Approval.
(l) Establishing Effluent Limitations and Conditions
(m) Case by Case Determinations
(n) Permit issuance or renewal
(o) Permit Transfer
(p) Permit revocation, denial or modification
(q) Variances
(r) Secondary Treatment Requirements
(s) Treatment Requirements for Metals and Cyanide
(t) Discharges to POTWs - Prohibitions

(C) Violations of any of the terms, conditions, or limitations contained in this permit may subject the Permittee to enforcement action including, but not limited to, seeking penalties, injunctions and/or forfeitures pursuant to applicable sections of the CGS and RCSA.

(D) Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense under section 22a-438 or 22a-131a of the CGS or in accordance with section 22a-6, under section 53a-157b of the CGS.

(E) The authorization to discharge under this permit may not be transferred without prior written approval of the Commissioner of Environmental Protection ("Commissioner"). To request such approval, the Permittee and proposed transferee shall register such proposed transfer with the Commissioner, at least 30 days prior to the transferee becoming legally responsible for creating or maintaining any discharge which is the subject of the permit transfer. Failure, by the transferee, to obtain the Commissioner's approval prior to commencing such discharge(s) may subject the transferee to enforcement action for discharging without a permit pursuant to applicable sections of the CGS and RCSA.

(F) No provision of this permit and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by the Permittee pursuant to this permit will result in compliance or prevent or abate pollution.

(G) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.

(H) An annual fee shall be paid for each year this permit is in effect as set forth in section 22a-430-7 of the Regulations of Connecticut State Agencies.

SECTION 2: DEFINITIONS

(A) The definitions of the terms used in this permit shall be the same as the definitions contained in section 22a-423 of the CGS and section 22a-430-3(a) and 22a-430-6 of the RCSA, except for "No Observable Acute Effect Level (NOAEL)" which is redefined below.

(B) In addition to the above, the following definitions shall apply to this permit:

"-----" in the limits column on the monitoring table means a limit is not specified but a value must be reported on the DMR

"Average Monthly Limit"; means the maximum allowable "Average Monthly Concentration" as defined in section 22a-430-3(a) of the RCSA when expressed as a concentration (e.g. mg/l); otherwise, it means "Average Monthly Discharge Limitation" as defined in section 22a-430-3(a) of the RCSA.

"Critical Test Concentration (CTC)" means the specified effluent dilution at which the Permittee is to conduct a single-concentration Aquatic Toxicity test.

"Daily Concentration" means the concentration of a substance as measured in a daily composite sample, or, the arithmetic average of all grab sample results defining a grab sample average.

"Daily Quantity" means the quantity of waste discharged during an operating day.

"Instantaneous Limit" means the highest allowable concentration of a substance as measured by a grab sample, or the highest allowable measurement of a parameter as obtained through instantaneous monitoring.

"In stream Waste Concentration (IWC)" means the concentration of a discharge in the receiving water after mixing has occurred in the allocated zone of influence.

"Maximum Daily Limit", means the maximum allowable "Daily Concentration" (defined above) when expressed as a concentration (e.g. mg/l); otherwise, it means the maximum allowable "Daily Quantity" as defined above, unless it is expressed as a flow quantity. If expressed as a flow quantity it means “Maximum Daily Flow” as defined in section 22a-430-3(a) of the RCSA.

"NA" as a Monitoring Table abbreviation means “not applicable”.

"NR" as a Monitoring Table abbreviation means “not required”.

"No Observable Acute Effect Level (NOAEL)" means any concentration equal to or less than the critical test concentration in a single concentration (pass/fail) toxicity test conducted pursuant to section 22a-430-3(j)(7)(A)(i) RCSA demonstrating 90% or greater survival of test organisms at the CTC.

"Quarterly", in the context of a sampling frequency, means sampling is required in the months of March, June, September, and December.

"Range During Month" ("RDM"), as a sample type, means the lowest and the highest values of all of the monitoring data for the reporting month.

"Range During Sampling" ("RDS"), as a sample type, means the maximum and minimum of all values recorded as a result of analyzing each grab sample of; 1) a Composite Sample, or, 2) a Grab Sample Average. For those Permittees with continuous monitoring and recording pH meters, Range During Sampling means the maximum and minimum readings recorded with the

continuous monitoring device during the Composite or Grab Sample Average sample collection.

"Total Volatile Organics" as used in this permit, shall refer to the compounds analyzed for when using EPA Method 624 as described in 40 CFR 136.

"ug/l" means micrograms per liter.

SECTION 3: COMMISSIONER'S DECISION

(A) The Commissioner has issued a final determination and found that modification of the existing system or installation of a new system would protect the waters of the state from pollution. The Commissioner's decision is based on **Application No. 200801826** for permit reissuance received on July 2, 2008 and the administrative record established in the processing of that application.

(B) The Commissioner hereby authorizes the Permittee to discharge in accordance with the provisions of this permit, the above referenced application, and all approvals issued by the Commissioner or the Commissioner's authorized agent for the discharges and/or activities authorized by, or associated with, this permit.

(C) The Commissioner reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or CGS or regulations adopted thereunder which are then applicable.

SECTION 4: GENERAL EFFLUENT LIMITATIONS

(A) No discharge shall contain, or cause in the receiving stream, a visible oil sheen or floating solids; or, cause visible discoloration or foaming in the receiving stream.

(B) No discharge shall cause acute or chronic toxicity in the receiving water body beyond any zone of influence specifically allocated to that discharge in this permit.

(C) The temperature of any discharge shall not increase the temperature of the receiving stream above 85^{o}F, or, in any case, raise the normal temperature of the receiving stream more than 4^{o}F.

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

(A) The discharge shall not exceed and shall otherwise conform to the specific terms and conditions listed below. The discharge is restricted by, and shall be monitored in accordance with, the table below:

Table A

Discharge Serial Number: 001-1 | **Monitoring Location:** 1

Wastewater Description: Groundwater Remediation

Monitoring Location Description: Water Sample Port 3, following all treatment

Allocated Zone of Influence (ZOI): 5,656 gph | **In stream Waste Concentration (IWC):** 30.3%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency [1]	Sample Type or Measurement to be Reported
Aquatic Toxicity, Daphnia pulex[2] NOAEL = 100	%	NA	NA	NR	NA	NOAEL = 100	Quarterly	Grab
Aquatic Toxicity, Pimephales promelas[2] NOAEL = 100	%	NA	NA	NR	NA	NOAEL = 100	Quarterly	Grab
Acetone	ug/l	NA	NA	NR	NA	700	Monthly	Grab
cis-1,2 Dichloroethene	ug/l	NA	NA	NR	NA	----	Monthly	Grab
Flow, Daily Average [3]	gpd	59,040	NA	Monthly	Calculated	NA	NR	NA
Flow, Instantaneous	gpm	NA	NA	NR	NA	50	NR	Instantaneous
Oil & Grease, Total	mg/l	NA	NA	NR	NA	10.0	Monthly	Grab
Organics, Total Volatile (EPA Method 624)	ug/l	NA	NA	NR	NA	10.0	Monthly	Grab
pH	S.U.	NA	NA	NR	NA	6.0 to 9.0	Monthly	Range During Sample
Tetrachloroethene (Perchloroethylene)	ug/l	NA	NA	NR	NA	----	Monthly	Grab
Trichloroethylene	ug/l	NA	NA	NR	NA	----	Monthly	Grab
Vinyl Chloride	ug/l	NA	NA	NR	NA	----	Monthly	Grab

Table Footnotes and Remarks:

1 The first entry in this column is the 'Sample Frequency'. If a 'Reporting Frequency' does not follow this entry and the 'Sample Frequency' is more frequent than monthly then the 'Reporting Frequency' is monthly. If the 'Sample frequency' is specified as monthly, or less frequent, then the 'Reporting Frequency' is the same as the 'Sample Frequency'.

2 The results of the Toxicity Tests are recorded in % survival on the DMR.

3 Average daily flow shall be calculated by dividing the gallons discharged by the days of discharge between monthly sampling events.

Remarks:

The discharge consists of treated groundwater from remediation being performed in accordance with a Remedial Action Plan approved by the Commissioner on June 10, 2002 in compliance with Section 22a-134a of the CGS.

(1) All samples shall be comprised of only the wastewater described in this table. Samples shall be collected prior to combination with receiving waters or wastewater of any other type, and after all approved treatment units, if applicable. All samples collected shall be representative of the discharge during standard operating conditions.

(2) In cases where limits and sample type are specified but sampling is not required by this permit, the limits specified shall apply to all samples which may be collected and analyzed by the Department of Environmental Protection personnel, the Permittee, or other parties.

(3) The limits imposed on the discharges listed in this permit take effect on the issuance date of this permit, hence any sample taken after this date which, upon analysis, shows an exceedance of permit limits will be considered non-compliance.

The monitoring requirements begin on the date of issuance of this permit if the issuance date is on or before the 12th day of a month. For permits issued on or after the 13th day of a month, monitoring requirements begin the 1st day of the following month.

SECTION 6: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES

(A) Chemical Analysis

(1) Chemical analyses to determine compliance with effluent limits and conditions established in this permit shall be performed using the methods approved pursuant to the 40 CFR 136 unless an alternative method has been approved in writing pursuant to 40 CFR 136.4 or as provided in section 22a-430-3(j)(7) of the RCSA. Chemicals which do not have methods of analysis defined in 40 CFR 136 shall be analyzed in accordance with methods specified in this permit.

(2) All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal as defined in 40 CFR 136 unless otherwise specified.

(3) The value of each parameter for which monitoring is required under this permit shall be reported to the maximum level of accuracy and precision possible consistent with the requirements of this section of the permit.

(4) Effluent analyses for which quantification was verified during the analysis at or below the minimum levels specified in this section and which indicate that a parameter was not detected shall be reported as "less than x" where 'x' is the numerical value equivalent to the analytical method detection limit for that analysis.

(5) Results of effluent analyses which indicate that a parameter was not present at a concentration greater than or equal to the Minimum Level specified for that analysis shall be considered equivalent to zero (0.0) for purposes of determining compliance with effluent limitations or conditions specified in this permit.

(B) Acute Aquatic Toxicity Test

(1) Samples for monitoring of Aquatic Toxicity shall be collected and handled as prescribed in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012).

(a) Composite samples shall be chilled as they are collected. Grab samples shall be chilled immediately following collection. Samples shall be held at 4 degrees Centigrade until Aquatic Toxicity testing is initiated.

(b) Effluent samples shall not be dechlorinated, filtered, or, modified in any way, prior to testing for Aquatic Toxicity unless specifically approved in writing by the Commissioner for monitoring at this facility.

(c) Chemical analyses of the parameters identified in Section 5 Table A shall be conducted on an aliquot of the same sample tested for Aquatic Toxicity.

(i) At a minimum, pH, specific conductance, total alkalinity, total hardness, and total residual chlorine shall be measured in the effluent sample and, during Aquatic Toxicity tests, in the highest concentration of test solution and in the dilution (control) water at the beginning of the test and at test termination. If Total Residual Chlorine is not detected at test initiation, it does not need to be measured at test termination. Dissolved oxygen, pH, and temperature shall be measured in the control and all test concentrations at the beginning of the test, daily thereafter, and at test termination.

(d) Tests for Aquatic Toxicity shall be initiated within 24 hours of sample collection.

(2) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (invertebrate) above shall be conducted for 48-hours utilizing neonatal Daphnia pulex (less than 24-hours old).

(3) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (vertebrate) above shall be conducted for 48-hours utilizing larval Pimephales promelas (1-14 days old with no more than 24-hours range in age).

(4) Tests for Aquatic Toxicity shall be conducted as prescribed for static non-renewal acute tests in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012), except as specified below.

(a) For Aquatic Toxicity Limits and for monitoring only conditions, expressed as an NOAEL value, Pass/Fail (single-concentration) tests shall be conducted at a specified Critical Test Concentration (CTC) equal to the Aquatic Toxicity Limit, or 100% in the case of monitoring only conditions, as prescribed in section 22a-430-3(j)(7)(A)(i) of the Regulations of Connecticut State Agencies, except that five replicates of undiluted effluent and five replicates of effluent diluted to the CTC shall be included.

(b) Organisms shall not be fed during the tests.

(c) Copper nitrate shall be used as the reference toxicant in tests with freshwater organisms.

(d) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (plus or minus 5 mg/L) as CaCO3 shall be used as dilution water in tests with freshwater organisms.

(5) Compliance with limits on Aquatic Toxicity shall be determined as follows:

(a) For limits expressed as an NOAEL value, compliance shall be demonstrated when the

results of a valid pass/fail Aquatic Toxicity test indicates there is greater than 50% survival in the undiluted effluent and 90% or greater survival in the effluent at the specified CTC.

(C) The Permittee shall annually monitor the chronic toxicity of the DSN 001-1 in accordance with the following specifications.

(1) Chronic toxicity testing of the discharge shall be conducted annually during July, August, or September of each year.

(2) Chronic toxicity testing shall be performed on the discharge in accordance with the test methodology established in "Short term Methods For Estimating The Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms" (EPA-821-R-02-012) as referenced in 40 CFR 136 for Cerio daphnia survival and reproduction and Fathead Minnow larval survival and growth.

(3) Chronic toxicity tests shall utilize a minimum of five effluent dilutions prepared using a dilution factor of 0.5 (100% effluent, 50% effluent, 25 % effluent, 12.5 % effluent, 6.25 % effluent, 0 % effluent).

(4) Ball Pond Brook water collected immediately upstream of the area influenced by the discharge shall be used as site water control (0% effluent) and dilution water in the toxicity tests.

(5) A laboratory water control consisting of synthetic freshwater prepared in accordance with EPA-821-R-02-012 at a hardness of 50±5 mg/l shall be included in the test protocol in addition to the site-water control.

(6) Daily composite samples of the discharge and grab samples of the Ball Pond Brook for use as site water control and dilution water shall be collected on: day 0, for test solution renewal on day 1 and day 2 of the test; day 2, for test solution renewal on day 3 and day 4 of the test; and day 4, for test solution renewal on day 5, 6, and 7 of the test. Samples shall not be dechlorinated, pH or hardness adjusted, or chemically altered in any way.

(7) All samples of the discharge and the Ball Pond Brook water used in the chronic toxicity test shall, at a minimum, be analyzed and results reported in accordance with the provisions listed in Section 6(A) of this permit for the following parameters:

pH	Copper (Total recoverable and dissolved)
Hardness	Nickel (Total recoverable and dissolved)
Alkalinity	Nitrogen, Ammonia (total as N)
Conductivity	Nitrogen, Nitrate (Total as N)
Chlorine, (Total residual)	Solids, Total Suspended
Acetone	cis-1, 2 Dichloroethene
Trichloroethylene	Vinyl Chloride
Iron (Total)	Lead (Total recoverable and dissolved)
Zinc, (Total recoverable and dissolved)	
Organics, Total Volatile (EPA Method 624)	
Tetrachloroethene (Perchloroethylene)	

SECTION 7: REPORTING REQUIREMENTS

(A) The results of chemical analyses and any aquatic toxicity test required above shall be entered on the Discharge Monitoring Report (DMR), provided by this office, and reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing) at the following address. The report shall also include a detailed explanation of any violations of the limitations specified. The DMR shall be received at this address by the last day of the month following the month in which samples are collected.

Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division (Attn: DMR Processing)
Connecticut Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

(B) Complete and accurate aquatic toxicity test data, including percent survival of test organisms in each replicate test chamber, LC50 values and 95% confidence intervals for definitive test protocols, and all supporting chemical/physical measurements performed in association with any aquatic toxicity test, including measured daily flow and hours of operation for the 30 consecutive operating days prior to sample collection if compliance with a limit on Aquatic Toxicity is based on toxicity limits based on actual flows described in Section 7, shall be entered on the Aquatic Toxicity Monitoring Report form (ATMR) and sent to the Bureau of Water Protection and Land Reuse at the following address. The ATMR shall be received at this address by the last day of the month following the month in which samples are collected.

Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity)
Connecticut Department of Environmental Protection
79 Elm St.
Hartford, CT 06106-5127

(C) If this permit requires monitoring of a discharge on a calendar basis (e.g. Monthly, quarterly, etc.), but a discharge has not occurred within the frequency of sampling specified in the permit, the Permittee must submit the DMR and ATMR, as scheduled, indicating "NO DISCHARGE". For those Permittees whose required monitoring is discharge dependent (e.g. per batch), the minimum reporting frequency is monthly. Therefore, if there is no discharge during a calendar month for a batch discharge, a DMR must be submitted indicating such by the end of the following month.

SECTION 9: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS

(A) If any sample analysis indicates that an Aquatic Toxicity effluent limitation in Section 5 of this permit has been exceeded, or that the test was invalid, another sample of the effluent shall be collected and tested for Aquatic Toxicity and associated chemical parameters, as described above in Section 5 and Section 6, and the results reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing), at the address listed above, within 30 days of the exceedance or invalid test. Results of all tests, whether valid or invalid, shall be reported.

(B) If any two consecutive test results or any three test results in a twelve month period indicates that an Aquatic Toxicity Limit has been exceeded, the Permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report to Bureau of Materials Management and Compliance Assurance (Attn: Aquatic Toxicity) for the review and approval of the Commissioner in accordance with section 22a-430-3(j)(10)(c) of the RCSA describing proposed steps to eliminate the toxic impact of the discharge on the receiving water body. Such a report shall include a proposed time schedule to accomplish toxicity reduction and the Permittee shall comply with any schedule approved by the

Commissioner.

(C) The Permittee shall notify the Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division, within 72 hours and in writing within thirty days of the discharge of any substance listed in the application but not listed in the permit if the concentration or quantity of that substance exceeds two times the level listed in the application.

This permit is hereby issued on April 24, 2009.

/s/ GINA MCCARTHY
Gina McCarthy
Commissioner

GM/SCE

DATA TRACKING AND TECHNICAL FACT SHEET

Permittee: New Albertsons, Inc. PAMS Company ID: 125691

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: CT0030406 APPLICATION #: 200801826 FACILITY ID. 091-016

Mailing Address:						**Location Address:**					
Street:	250 Parkcenter Boulevard Box 20, Mail Drop 72405					**Street:**	Route 37 and 39				
City:	Boise	**ST:**	ID	**Zip:**	83726	**City:**	New Fairfield	**ST:**	CT	**Zip:**	06812
Contact Name:	Doug L. Kasefang					**DMR Contact:**	Sydney Neer				
Phone No.:	208-395-4794					**Phone No.:**	860-529-8882 x318				

PERMIT INFORMATION

DURATION 5 YEAR X 10 YEAR ___ 30 YEAR ____

TYPE New _ Reissuance X Modification ___

CATEGORIZATION POINT (X) NON-POINT ( ) GIS # 11226

NPDES (X) PRETREAT () GROUND WATER(UIC) ( ) GROUND WATER (OTHER) ( )

NPDES MAJOR (MA) _____
NPDES SIGNIFICANT MINOR or PRETREAT SIU (SI) _____
NPDES or PRETREATMENT MINOR (MI) X

PRETREAT SIGNIFICANT INDUS USER (SIU) _____
PRETREAT CATEGORICAL (CIU) _____

POLLUTION PREVENTION MANDATE _ ENVIRONMENTAL EQUITY ISSUE ____

COMPLIANCE ISSUES

COMPLIANCE SCHEDULE YES ___ NO X

POLLUTION PREVENTION___ TREATMENT REQUIREMENT____ WATER CONSERVATION_____

WATER QUALITY REQUIREMENT ____ REMEDIATION _____ OTHER _____

IS THE PERMITTEE SUBJECT TO A PENDING ENFORCEMENT ACTION? NO X YES __

OWNERSHIP CODE

Private X Federal __ State __ Municipal (town only) __ Other public ____

DEP STAFF ENGINEER: Stephen Edwards

PERMIT FEES

Discharge Code	DSN	Annual Fee
0011060000	001	$4,087.50

DISCHARGE LOCATION

Receiving Stream: Ball Pond Brook Allocated Zone of Influence: 5,656 gph

Drainage basin Code: 6402 Present/Future Water Quality Standard: B/AA

NATURE OF BUSINESS GENERATING DISCHARGE

The Shaw's Supermarket in New Fairfield was constructed on a 9.04 acre site at the intersection of Routes 37 and 39, formally the Fairwood Shopping Plaza and Candlewood Theater. A survey of the site found that a dry cleaning facility at the former Fairwood Shopping Plaza had contaminated two ground water aquifers under the site with tetrachloroethylene (aka perchloroethene). Additionally, some petroleum related contamination was found in the shallow ground water on site. The VOCs and petroleum related compounds are in part from up gradient sources, specifically gas stations and the former dry cleaner.

A Form III was filed pursuant to Sections 22a-134 through 22a-134e of the Connecticut General Statutes ("CGS") on March 8, 2001. A Remediation Investigation Work Plan, dated August 14, 2001, was submitted to the Department and approved by the Commissioner on October 2, 2001.

A Remedial Action Plan was submitted on April 10, 2002 proposing (1) the removal of an estimated 22 cubic yards of contaminated soil and (2) the remediation of the bedrock and intermediate aquifers utilizing a groundwater withdrawal and treatment system. The Commissioner approved the Remedial Action Plan on June 10, 2002 in accordance with Section 22a-134a of the CGS.

On July 16, 2004, the Commissioner issued NPDES Permit No. CT0030406 for the discharge of water from remedial operations at the New Fairfield Shaw's. In 2007, based on better delineation of the plume, New Albertsons, Inc. determined that by relocating the extraction wells to the area of the plume with the highest tetrachloroethylene concentrations, they could improve the efficiency of the remedial project by treating the source area. Relocation of the wells would result in a higher concentration of VOCs in the extracted groundwater and would allow an increase in the average daily flow from 40,320 gallons per day to 59,040 gallons per day, reducing the time needed to remediate the site. In Application No. 200801826, submitted for the renewal of NPDES Permit No. CT0030406, New Albertsons, Inc. proposed to install a new groundwater treatment system in order to accommodate the higher flow rate and higher concentrations of VOCs associated with the new extraction wells.

PROCESS AND TREATMENT DESCRIPTION (by DSN)

All groundwater will pass through bag filters, an oil/water separator, an air stripping system and carbon filters before being discharged to Ball Pond Brook.

RESOURCES USED TO DRAFT PERMIT

__ Federal Effluent Limitation Guideline 40 CFR _____
name of category

_X_ Performance Standards

_ Federal Development Document _____
name of category

_X_ Treatability Manual

_X_ Department File Information

_X_ Connecticut Water Quality Standards

_X_ Anti-degradation Policy

_ Coastal Management Consistency Review Form

_X_ Other – (see Other Comments)

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

Best Available Technology on Case-by-Case Determination using Best Professional Judgment (see Other Comments)
DSN 001 – Aquatic Toxicity, Acetone, Oil & Grease, Organics (total volatile, EPA method 624), and pH

GENERAL COMMENTS

It was determined by Department staff that the discharge from the New Fairfield Shaw's groundwater withdrawal and treatment system does not qualify for coverage under the General Permit for the Discharge of Groundwater Remediation Wastewater since the receiving stream for the remedial discharge has a B/AA Water Quality Criteria and the Instream Waste Concentration ("IWC") is over 10% (IWC = 30.3%).

It was further concluded that the discharge from the New Fairfield Shaw's may be authorized to a class B/AA stream given that the discharge will be of short duration and is necessary for the remediation of a contaminated site within a GAA Groundwater Criteria area that is adjacent to a Drinking Water Supply Watershed. The main pollutant of concern, tetrachloroethylene, is not known to bioaccumulate in aquatic and animal species and the discharge has always met an aquatic toxicity limit of NOAEL = 100%. Therefore, Department staff determined that the treated discharge is consistent with the Connecticut Water Quality Standards and Criteria.

OTHER COMMENTS

Given that the receiving stream for this discharge has a Class AA Water Quality Criteria, it was determined that aquatic toxicity limits of NOAEL at 100% for both Daphnia pulex and Pimephales promelas are necessary to protect the waters of the state. Also, an annually requirement to analyze the discharge for chronic aquatic toxicity to verify the acute to chromic ratio was added.

Though not present in the ground water, samples of the discharge have contained acetone. It is believed that the acetone is present in the discharge as a result of bacteria anaerobically breaking down the organic based de-scaler used to prevent lime scaling in the wastewater treatment system. The applicant's consultant, URS Corporation, researched and proposed an acetone limit of 700 ug/l (see Application No. 200801826, Attachment O, Part B memo entitled *Proposed Acetone Permit Discharge Limit*, Dr. Weldon Bosworth). Staff with the DEP, Bureau of Water Protection and Land Reuse, Planning and Standards Division reviewed the proposed limit and concur that it would protective of the waters of the state.

Analysis of the ground water indicates it contains up to 6.7 mg/l of oil and grease. Using best professional judgment, it was determined that a limit of 10 mg/l would be protective of the waters of the state. This limit is the limit for oil and grease contained the General Permit for the Discharge of Groundwater Remediation Wastewater which assumes a 10% IWC and is a third of the limit contained in Section 22a-430-4(s) of the RCSA. Note, though oil and grease has been detected in the ground water, it has never been detected in the discharge to the brook.

The main pollutant of concern in the contaminated ground water is Perchloroethylene (aka tetrachloroethene, Perc, or PCE). Samples of the ground water have contained up to 110 mg/l of Perchloroethylene. Analysis of the ground water also confirmed that it contains concentrations of the following Perchloroethylene break down compounds: cis-1,2-Dichloroehtene (29 mg/l, aka cis-1,2-DCE), Vinyl Chloride (3.3 mg/l), and Trichloroethylene (2.3 mg/l, aka TCE). The need for inclusion of water quality based discharge limitations for these compounds was evaluated consistent with Connecticut Water Quality Standards and Criteria, pursuant to 40 CFR 122.44(d). Each parameter was evaluated for consistency with the available aquatic life criteria (acute and chronic) and human health (fish consumption only) criteria, considering the zone of influence allocated to the New Fairfield Shaw's where appropriate. The most restrictive of the water quality limitations, aquatic life acute, aquatic life chronic, and human health, were compared with limitations developed according to the expected performance of the wastewater treatment system. The wastewater treatment system was designed to remove greater than 99.9% of the volatile organic compounds ("VOC") present in the ground water when properly maintained, yielding an effluent concentration of less than 10 ug/l of VOCs. The performance based limits were found to be the more restrictive and hence were incorporated into the permit.