OFFICE OF ADJUDICATIONS

IN THE MATTER OF : APPLICATION NO. DIV-200102396

AVON WATER COMPANY : MARCH 5, 2004

PROPOSED FINAL DECISION

I
SUMMARY

The Avon Water Company (AWC) has applied to the Department of Environmental Protection (DEP) for a permit to divert the waters of the state. General Statutes §22a-368. The applicant proposes to construct a public water supply well at the Fisher Meadows Wellfield in Avon to provide up to three million gallons of water per day to supplement its existing water delivery system and to meet projected future demands. Staff of the DEP Inland Water Resources Division (IWRD) has prepared a draft permit that would authorize the diversion (*Attachment A*).

The application is complete and complies with all relevant statutes and regulations. General Statutes §§22a-365 through 22a-380; Regs., Conn. State Agencies §§22a-372-1 through 22a-377(c)-2. The diversion is necessary to meet the existing and projected need for potable water within the AWC service area and, following consideration of alternatives, is the most feasible and prudent option for meeting these needs with no significant adverse environmental impacts. I recommend that the draft permit be issued, with one modification noted herein.

II

FINDINGS OF FACT

A
Procedural History

1. The applicant filed its permit application in June 2001.[1] Notice of this application was published in accordance with General Statutes §22a-6g. (Exs. APP- 13-16.)

2. Staff of the IWRD and the DEP Bureau of Water Management reviewed the application. In response to staff comments, as well as comments from the Farmington River Watershed Association and the public,[2] AWC submitted supplemental information and revisions to its application. (Exs. APP-13-16, 18-28, 30; exs. DEP-5-13, 16-22, 26, 27, 42-44.)

3. After concluding that the application was complete and had been submitted on the prescribed forms, and following its technical review of the application and all supplements and revisions, the DEP published notice of its tentative determination to approve the application and issued a draft permit that would authorize the requested diversion. (Exs. APP-13 –16, 31; exs. DEP-8, 20, 21, 27, 28, 33 – 38, 41; tr. 9/25/03, pp. 14, 54.)

4. Petitions were received and a hearing was held on September 23, 2003 at the Avon Senior Center. A site visit was also conducted on that day; representatives of the applicant, DEP staff, and the public were present. Public comments included a request for independent oversight of monitoring

[1] In 1999, the DEP approved the *Avon Water Company Fisher Meadow Wellfield Plan for Data Collection and Analysis: Level A Aquifer Mapping* in 1999. The DEP approved the aquifer test proposed in that *Plan* in 1997. (Exs. APP-1-7, 9-12; ex. DEP- 43; test. 9/23/03, R. Wesneski.)

[2] The DEP conducted public informational meetings in December 2001, July 2002 and January 2003; representatives of the applicant were present and participated in the sessions. (Exs. DEP-14, 15, 23 - 25, 28; test. 9/23/03, R. Wesneski.)

activities and for changes to conditions prompting corrective actions by the applicant. (Exs. DEP-29-31, 33, 34, 36, 38, 41; ex. HO-1; test. 9/23/03, public speakers.)[3]

5. The hearing continued on September 25, 2003, at which evidence was received from the applicant and DEP staff as to the completeness of the application and its compliance with applicable statutory and regulatory requirements. The record closed on October 24, 2003. On January 22, 2004, the parties stipulated to the revision of special permit condition No.6, infra. (Tr. 9/25/03, pp. 15-54; 55-171.)[4]

B
Project Description

6. The proposed well (Well 9, also known as the Fisher Meadows Well) would be used to supply up to three million gallons per day of groundwater from a stratified drift aquifer.[5] A pump house would be built on a raised mound directly over the well; a water supply line would run from the house to a treatment facility located approximately 4200 feet to the northwest. The well would be pumped between eighteen and twenty-four hours per day, depending on daily demands and system storage changes**.** After delivery to customers of AWC, the water would be returned as wastewater to individual septic systems in the service area and to the Simsbury and Farmington sewage treatment plants. Most of the wastewater would be returned as treated effluent to the Farmington River drainage basin within four miles of its point of withdrawal. (Ex. APP-15, Attach.A-2, B; ex. DEP-42; test. 9/23/03, B. Kargl, P. Marin, R. Wesneski.)

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[3] The September 23, 2003 hearing was recorded; tapes are on file in the Office of Adjudications. References to testimony from this hearing note the date and the *testimony (test.)* of a witness or sworn speaker.

[4] Testimony from the September 25, 2003 continuation of the hearing will be cited as *transcript (tr.)* of 9/25/03 with a page reference and, when relevant, the name of the speaker.

[5] A diversion permit is required because the proposal plans for pumping more than 50,000 gallons of water per day. General Statutes §22a-377. (Ex. APP-31; test. 9/23/03, D. Hoskins.)

7. The proposed diversion would provide potable water to the service area of the applicant, which is a major part of Avon, a small southern area of Simsbury, and a small northern area of Farmington. A consumptive diversion[6], the well would be drilled into unconsolidated sands and gravels of the Farmington River valley. The well would be drilled into an unconfined, stratified drift aquifer that underlies both the river and Spring Lake. Construction of the well would require the installation of 4200 feet of water main and underground electric and telephone wires. The project would also include the construction a 2100-foot gravel drive, the installation of a box culvert, and the building of an 800-square foot pumping station. (Exs. APP-15, Attach. A-2, B, 23; 23A, 42, 43; exs. DEP-10, 42; test. 9/23/03, A. Christian, B. Kargl, R. Wesneski.)

8. The diversion would be an interbasin transfer; it would draw water from the Farmington River watershed and deliver it to the Roaring Brook watershed. Water from the diversion processed through the Farmington sewage treatment plant would eventually be distributed to smaller watersheds in the area. (Exs. APP-15, Attach. B, N, 51; ex. HO-1; tr. 9/25/03, P. Marin, pp. 44-53.)

C
Site Description

9. Well 9 would be located 500 feet west of the Farmington River and in the southeastern portion of Avon, about 280 feet north of Spring Lake and south of a bend in the river west of Route 10. The site is defined as a wetland under state standards due to the presence of alluvial soils; however, these soils are well drained and do not provide typical wetland function values beyond flood storage and conveyance. There are two wetland areas that could be influenced by the well, approximately 1500 feet west and 2500 feet northwest. (Ex. APP-15, Attach. A-2, B, C, F, H, I, N, O; exs. DEP-37, 42; ex. HO-1; tr. 9/25/03, B. Kargl pp. 28-32, M. Klein, pp. 68- 70.)

[6] A consumptive diversion causes or results in the withdrawal of water. (Ex. APP-15, Attach. A-2.)

10. The well site is within Fisher Meadows Park, which is adjacent to the Farmington River. Spring Lake, a 30-acre man-made body of water, is approximately 250 feet south of the proposed well in the northern section of the park. The lake is among the same stratified drift that lies beneath the riverbed; the level of the surrounding groundwater table influences its surface water level. Mapped wetlands are located along the Farmington River and in other parts of the park. (Ex. APP-15, Attach. A-2, F, I, O; exs. DEP-11-13, 42; ex. HO-1; test. 9/23/03, D. Hoskins.)

11. The Farmington River drains a regional basin that is part of the Connecticut River major basin. The river originates in Massachusetts and flows south through Connecticut to Farmington, at which point it flows in a northerly direction through Avon and eventually to Windsor where it flows into the Connecticut River. (Ex. APP- 51; ex. DEP-42; ex. HO-1; test. 9/23/03, P. Marin; tr. 9/25/03, P. Marin, pp. 62-63.)

12. There are no surface water inflows to Spring Lake; when its water level is high, overflow from the lake drains to the north through a brook to the Farmington River. This brook also contains a tributary that drains in the same general direction. Another brook to the west also flows to the north into the river. South of the park, Thompson Brook flows from the west and joins the Farmington River. (Ex. APP- 15, Attach. A-2, C, F, H, N; ex. DEP-42; ex. HO-1; test. 9/23/03, P. Marin; tr. 9/25/03, B. Kargl, pp. 27-29, M. Klein, p. 69.)

13. The park is used for recreational activities and there are walking/biking trails around Spring Lake and along the Farmington River. Soccer fields are located west of the lake and wooded areas are located in many parts of the park. Avon Old Farms School is adjacent to the park to the west. Cornfields are located to the south and within the boundaries of the park, including an area north of Spring Lake between the lake and the river. (Ex. APP-15, Attach. A-2; ex. DEP-42; ex. HO-1; test. 9/23/03, public speakers.)

14. Approximately forty acres of corn and hay farming were reserved within Fisher Meadows when the property was transferred to the town of Avon. Farming activities were relocated pursuant to an agreement between AWC and the farm that reserved those rights. The only agricultural activities that remain in the area are cornfields in and around the site. (Exs. APP-15, Attach. N, 41.)

D
The Application
1
Need for the Diversion

15. As outlined in its current Water Supply Plan[7], AWC projects increased water demands over the next twenty-five years as a result of both planned and anticipated local development, both within its current service area as well as in adjacent communities. Water usage in the AWC system has grown over the past decade as residential and commercial development in the Avon area has continued to increase. The peak day demand of the system in 1990 was recorded at 2.16 million gallons per day (mgd); it had increased to 3.40 mgd by 1999. The demand is expected to increase to 5.19 mgd by the year 2020. The projected demand for 2050 is 6.36 mgd. (Exs. APP-15, Attach. A-2, B, N, 32-38, 50; exs. DEP- 2, 8, 9, 42; test. 9/23/03, R. Wesneski; tr. 9/25/03, C. Fitting, D. Hoskins, B. Kargl, pp. 15- 25.)

16. The applicant's projections indicate that existing capacity would be adequate to meet average daily demand (ADD) to the year 2050, however, the existing supply was shown to be deficient to meet maximum daily demand (MDD). Based on the industry-preferred 18 hours/day pumping regimen, the MDD supply deficiency would be approximately 2.26 mgd by the year 2020, increasing substantially for projections to the year 2050, based on the anticipated rate of local development and

[7] This Plan was approved by the Connecticut Department of Public Health in 1998. (Ex. DEP-9.)

water demand in the area. (Exs. APP-15, Attach. A-2, B, 32, 35, 45, 50; exs. DEP-8, 42; test. 9/23/03, R. Wesneski; tr. 9/25/03, B. Kargl, pp.18-19.)

17. AWC has no large water storage facilities such as reservoirs that would have adequate useable volumes to satisfy peak day demands. The current storage volume from four existing AWC standpipes is sufficient only to accommodate fluctuations in peak daily demand, not to supplement supply. Based on these limitations and the technical infeasibility of constructing a surface water reservoir, AWC intends to rely upon groundwater sources with adequate pumping capacity to meet MDD. DEP staff has reviewed the application and confirms it is consistent with the applicant's approved Water Supply Plan. (Exs. APP-15, Attach. A-2, B, N, P, 30, 32; ex. DEP-8; tr. 9/25/03, C. Fitting, D. Hoskins, B. Kargl, pp. 15-25.)

2
Reasons for the Diversion

18. The applicant's reasons for the diversion are based on the need for additional water supplies as set forth above. (Ex. APP-15, Attach. A-2, B; ex. DEP-8; test. 9/23/03, R. Wesneski; tr. 9/25/03, C. Fitting, B. Kargl, pp. 15 - 25.)

19. The addition of Well 9 is intended to meet current and projected demand requirements within the AWC system for ADD and MDD by the year 2050. (Ex. APP-15, Attach. A-2, N, P; exs. DEP-8, 42; tr. 9/25/03, C. Fitting, D. Hoskins, pp. 20-23.)

3
The Existing Water System

20. AWC currently obtains its water from ten groundwater wells located within the town of Avon; no surface water sources are presently used. Combined, these groundwater sources provide a permitted and registered safe yield of 2.93 mgd and a twenty-four hour yield of 3.76 mgd. AWC also maintains an emergency supply interconnection with the Metropolitan District Commission for raw

(untreated) water for emergency fire fighting use only. AWC provides water service to approximately 4300 customers, including public and private fire services and residents of the Farmington Woods condominiums. Water is distributed through about 86 miles of water mains to customers in Avon, Farmington and Simsbury. (Exs. APP-15, Attach. B, 45; ex. DEP-42.)

4
Locations of Withdrawals and Discharges

21. Well 9 is in the main stem of the Farmington River and in its floodplain. Diverted water would be withdrawn and eventually returned in the river's watershed, localizing the transfer of groundwater to and from this watershed. The diverted water would be returned to the river drainage basin within four miles of its point of withdrawal as treated effluent from the Simsbury and Farmington sewage treatment plants. (Ex. APP-15, Attach. A-2, B; tr. 9/25/03, B. Kargl, p.33.)

22. Water diverted from Well 9 to the AWC distribution system would transfer water from the Farmington River basin to three sub-basins and to the river's main stem through discharge to the Farmington and Simsbury sewage treatment plants. No interstate transfers would result from the diversion. (Ex. APP-15, Attach. B, N, 30; tr. 9/25/03, P. Marin, pp. 47-52.)

5
Quantity, Frequency and Rate of Water Diversion

23. Well 9 would be used to supply AWC with up to three million gallons per day of groundwater from the stratified drift aquifer. The well would be pumped between eighteen and twenty-four hours per day, depending on daily demands and system storage changes. Water from the well would be treated and delivered to the AWC distribution system for storage or immediate use by customers. (Ex. APP-15, Attach. A-2; exs. DEP- 5, 42; tr. 9/25/03, B. Kargl, p.33.)

24. The maximum daily withdrawal would be 3.00 mgd or 4.64 cubic feet per second (cfs). The maximum rate of withdrawal would be 2777 gallons per minute (gpm) or 6.19 cfs, based upon a

maximum pumping period of eighteen hours in one day; the average rate of withdrawal in a twenty-four hour period would be 2083 gpm. The maximum frequency of withdrawals would be 24 hours/day, 365 days/year. (Exs. APP-15, Attach. A-2, B, 53; ex. DEP-42; test. 9/23/03, P. Marin.)

6
Time Period for Permit

25. The permit would be in place for twenty-five years. (Ex. APP-15, Attach. A-2, B.)

7
Environmental Impact Report/
Effect of the Proposed Diversion

26. Because the proposed diversion would result in an interbasin transfer, the applicant completed and submitted an environmental impact report as part of its application. The applicant conducted various analyses in conjunction with this report to demonstrate that this consumptive diversion, tested at varying rates of withdrawal, would not result in any significant adverse environmental impacts to the groundwater table, wetlands, and surface waters near the wellfield. Based on these analyses, the applicant completed a qualitative evaluation of potential impacts to other water supplies, including private residential wells and groundwater recharge. The applicant also assessed possible impacts on wetlands, fish and wildlife, local water quality, flood management and certain economic factors. At the prescribed pumping rate of no more than three million gallons per day, testing showed no unacceptable impacts to the Farmington River watershed, the donor basin, or to the receptor basins in the applicant's customer service area. (Exs. APP-1-7, 9-12, 14, Attach. H, 15, Attach. A-2, B, F, H, I, L, N; 51; exs. DEP-1, 2, 32, 37, 42 - 44; test. 9/23/03, A. Christian, C. Fitting, D. Hoskins, B. Kargl, P. Marin; tr. 9/25/03, pp. 36- 41, 56-100.)

(a)
Water Supplies

27. Numerous public water companies draw water from the Farmington River basin to supply domestic, commercial and industrial water users. Within the basin, the MDC provides water for emergency purposes to portions of Avon through raw water interconnections. Several water utilities utilize wells or reservoirs along tributaries to the river; no public water supply wells of other utilities are located in Avon. (Ex. APP-15, Attach. N.)

28. The applicant performed an aquifer pump test to determine whether the withdrawal (draw down) of water from the proposed diversion would affect related needs of the public water supply, including existing and projected uses, safe yields, reservoir systems and groundwater.[8] Testing under a critical low flow condition, the impact of the diversion was shown to be less than three percent of the total flow of the Farmington River, which is the outlet for the entire watershed. Groundwater recharge and discharge to the Farmington River and to Spring Lake and its outlet stream was shown to be localized and limited to a four-mile radius of the wellfield; return flows, up to ninety percent of the water diverted, would come from the Farmington or the Simsbury wastewater treatment facilities, or through recharge of septic system effluent. Using Well 9 in lieu of water withdrawn from the Roaring Brook, Nod Brook, and Thompson Brook watersheds from existing AWC wells may result in increased base flows in these watersheds. (Exs. APP- 12, 14, 15, Attach. A-2, H, N, 35, 36, 51-53; exs. DEP-1, 2, 16, 20, 42, 43; ex. HO-1; test. 9/23/03, C. Fitting, D. Hoskins, B. Kargl; tr. 9/25/03, C. Fitting, B. Kargl, P. Marin, pp.56 – 67, 96.)

[8] The test, which measured potential impacts of the diversion on surface water flows, streams, wetlands and watercourses in the area, was designed around the requirements of the DEP Aquifer Protection Program. As required before the applicant could collect any data on the site, the DEP approved the aquifer test in 1997 as part of the applicant's *Plan for Data Collection and Analysis.* See fn. 1, supra. (Tr. 9/25/03, B. Kargl, C. Fitting, J. Saxton, pp. 56-60.)

29. Private wells are located north and east of Fisher Meadows Park and the Farmington River along at least seven streets in the area, including Waterville Road (Route 10), Valley View Road, and Reverknolls Lane. These wells are of three types: gravel wells located in the water table; intermediate wells, which are drilled to the top of the bedrock; and bedrock wells, the deepest, drilled into bedrock. Tests conducted by the applicant and reviewed by the DEP demonstrate that the maximum three-foot draw down that could result from the proposed diversion would have no impact on the yields of the bedrock wells and no significant impact on the yields of the gravel or intermediate wells. (Exs. APP-14, Attach. H, L, 15, Attach. D, N, 21, 28; exs. DEP-6, 7, 16, 17, 20, 21, 25 – 27, 43; test. 9/23/03, C. Fitting, B. Kargl, P. Marin; tr. 9/25/03, C. Fitting, P. Marin, pp.85-101.)

30. To ensure that actual draw down is consistent with what is expected, the applicant would monitor groundwater elevations at thirteen selected wells in eleven locations, including four new wells in the Reverknolls neighborhood. Data would be collected from these wells weekly during construction and the first year Well 9 is in operation; the wells would be monitored on a regular basis thereafter. The permit would provide that if data collected at one of the overburden monitoring wells shows that the water level has fallen more than three feet below an established baseline fluctuation, the applicant must notify the DEP within twenty-four hours and reduce pumping until the condition causing that problem abates. The Farmington River Watershed Association would facilitate independent third party observations by supplying volunteers to oversee well monitoring activities. (Exs. APP- 21, 29, 52, 53; exs. DEP-21, 43; ex. HO-2; test. 9/23/03, C. Fitting, B. Kargl, P. Marin, R. Wesneski; tr. 9/25/03, B. Kargl, P. Marin, pp. 99- 101, 111- 120.)

(b)
Water Quality

31. If the groundwater base flow that contributes to the flows of the Farmington River were significantly reduced, less water would be available for in-stream dilution and water quality could be affected. The proposed diversion would not significantly reduce this flow. Under worst-case conditions, base flows would be reduced by less than three percent of the total flow of the river. In addition, most of the diverted water would return to the river drainage basin within four miles of its point of withdrawal as treated effluent. (Exs. APP-14, 15, Attach. A-2, N; ex. DEP-11; test. 9/23/03, C. Fitting; tr. 9/25/03, B. Kargl, p.33, P. Marin, pp. 62-64.)

32. Groundwater quality in the vicinity of Fisher Meadows Park is classified GA, which is suitable for use as a drinking water supply. Groundwater modeling showed that no known potential contaminants would be drawn into the area of influence, recharge, or contribution of Well 9. Water quality evaluations taken at the end of aquifer pump tests conducted by the applicant demonstrated that water from Well 9 would meet current drinking water standards. (Exs. APP-15, Attach. H, N, 32; exs. DEP-9, 43; tr. 9/25/03, p. C. Fitting, p. 58, pp. 147-149.)

33. Some private wells in the area have had water quality issues that have included the presence of manganese and sodium contamination. Some homeowners are concerned that the proposed diversion would cause further problems or exacerbate existing issues with the wells. The DEP and the applicant have responded to these concerns, providing information and other assistance. There is no evidence that the proposed diversion would cause or worsen problems regarding the private wells in the area. In addition to monitoring water levels that could affect private wells, the applicant has installed a water main in the Reverknolls neighborhood to which homeowners can connect for their water supply. (Exs. APP- 15, Attach. N, 21, 29, 52, 53; exs. DEP-14, 15, 18, 21, 23 - 25, 27-31, 34,

38, 41, 42; test. 9/23/03, B. Kargl, P. Marin, R. Wesneski; tr. 9/25/03, C, Fitting, B. Kargl, P. Marin, R. Wesneski, pp. 85, 111-120, 177-185.)

(c)
Wastewater Treatment and Assimilation

34. The site is located downstream of the Farmington sewage treatment plant. Even with effective treatment, it is normal practice to also depend on stream flow in the receiving watercourses to dilute discharges and help assimilate wastes by natural processes. Dilution and assimilation would not be impacted by the diversion. The flow rates of the Farmington River are relatively high at the location of Well 9 and any impacts from the diversion would reduce river flows by less than three percent. Withdrawal of water from receptor basins would also decrease due to the operation of Well 9, improving their dilution capabilities. Of note, the closest septic system to the site of Well 9 is located 900 feet northeast and across the Farmington River. (Ex. APP-15, Attach. H, N; exs. DEP-9, 42; tr. 9/25/03, B. Kargl, p. 37.)

(d)
Flood Management

35. The well, the pump house and an access roadway would be located in the 100-year floodplain and the floodway of the Farmington River. A mound of fill would be placed around the wellhead to elevate it to a required height for the floodplain; the pump house would be constructed on this mound. The applicant's initial proposal exceeded required levels and would have involved more fill than necessary. The applicant subsequently revised its proposal in response to comments from DEP staff, reducing the size of the pump house by 25% and the amount of fill by 77%. The applicant's revised proposal, including its erosion and sedimentation plan, was reviewed by DEP staff and found to meet the engineering criteria for work in a floodplain. DEP staff concluded that the proposed fill would have a minimal impact on floodplain storage and flow within the floodway, resulting in

negligible net effects on flood conveyance capacity. (Exs. APP-13, 14, Attach. H, 15, Attach. L, N, 23, 23a, 27, 39, 40, 42, 44, 46-48; exs. DEP-10, 19, 22, 26, 32, 39, 44; ex. HO-1; test. 9/23/04 R. Wesneski, A. Christian; tr. 9/25/03, J. Saxton, pp. 122-129.)

(e)
Water-based Recreation/Navigation

36. The Farmington River and its basin support an extensive variety of recreational activities, including fishing and boating. There is no significant commercial navigation in the area. (Exs. APP-14, Attach. H, 15, Attach. N; test. 9/23/03, D. Hoskins, public speakers.)

(f)
Wetland Habitats, Fish and Wildlife

37. Although classified as wetlands, the alluvial soils at the site of Well 9 are well drained and do not support a wetland community or provide typical wetland function values beyond flood storage and conveyance. Well-drained and moderately well drained alluvial soils are already well adapted to conditions where the water table is already far below the ground and would not be impacted by any reductions in groundwater. The wetland areas that could be affected by any lowering of groundwater due to the proposed diversion are comprised of poorly drained or very poorly drained soils; these areas total less than 5000 square feet and are located along the Farmington River and in other parts of the park. (Ex. APP-15, Attach. F, I, N; ex. DEP- 42; ex. HO-1; tr. 9/25/03, M/ Klein, pp. 70-77.)

38. The water surface elevation of Spring Lake is predicted to lower by approximately 0.01 feet during normal water years. Under extreme drought conditions, the elevation level could drop 2.29 feet. (Ex. APP- 15, Attach. F, I; exs. DEP-13, 42; test. 9/23/03, D. Hoskins.)

39. The potential drop in surface water elevation resulting from the groundwater withdrawals from Well 9 are not anticipated to cause a notable reduction of the wetting perimeter, physical habitat, or vegetation composition of either Spring Lake or the Farmington River. Impacts to fringe

vegetation within Spring Lake would be insignificant under normal conditions. While some impacts are anticipated during worst case, drought scenarios, these conditions statistically occur so infrequently that the impacted wetland vegetative communities, which normally can tolerate wide hydrologic variations, would be expected to adapt and recover. For similar reasons, minimal impacts are expected for the two other wetland areas within the predicted area of groundwater draw down. (Exs. APP-15, Attach. F, I, 37; exs. DEP-1, 13, 42; test. 9/23/03, D. Hoskins; tr. 9/25/03, M. Klein, pp. 72 – 76.)

40. During periods of extreme drought, the proposed diversion would impact less than 3% of the flow of the Farmington River and less than 5% of the surface area of Spring Lake would be de-watered. DEP staff concluded that this potential drop in surface water elevation should not have an adverse impact on fisheries resources in either the lake or the river, including adverse thermal effects. No vernal pools in these areas provide any significant habitat for species; the diversion would not cause the loss of any species of wildlife. A culvert would be installed across an unnamed watercourse from the lake to the river to provide access to Well 9; a water main would also cross over the watercourse. This watercourse supports no viable fish communities. The stream channel does not have a significant water flow, and any fish population traversing the channel benefit from periodic high flows from the lake. (Ex. APP- 15, Attach. I, N; exs. DEP-3, 11, 12, 42, 43; test. 9/23/03, D. Hoskins; tr. 9/25/03, M. Klein, pp. 73, 78-79, 83.)

41. Because of the relatively high flow rates of the Farmington River at the site of Well 9 and the relatively low flow reduction that would be expected due to the proposed diversion, fish habitats would not be affected by any impacts to water velocities, wetted perimeter, and oxygen levels of the Farmington River. DEP fisheries experts visited the site and concluded that the upper reach of the Spring Lake discharge stream and Spring Lake itself are not considered suitable habitats for

migrating or native coldwater fisheries. (Ex. APP-15, Attach. I, N; exs. DEP-11, 12, 42; test. 9/23/03, D. Hoskins; tr. 9/25/03, M. Klein, pp. 73-73.)

42. A Natural Diversity Data Base request from the applicant revealed that Virginia water-leaf, a species of special concern, was present in the Farmington River floodplain. A subsequent wetland evaluation and botanical survey by the applicant identified the species near, but outside, the project area. A subsequent request sent to the DEP for an updated review of the Natural Diversity Data Base and files indicated that the Farmington River was stocked with Atlantic salmon, a species of special concern and part of the state and federal Atlantic salmon restoration effort. (Ex. APP-15, Attach. I, N; ex. DEP-42.)

43. DEP staff conducted a field check at the location of the proposed well site and determined that there are no endangered species issues. The DEP also concluded that the withdrawals of water and construction activities as a result of the proposed diversion would not have a direct or indirect adverse impact on either the Virginia water-leaf or the Atlantic salmon, or their respective habitats. (Exs. DEP-39, 40, 42; test. 9/23/03, D. Hoskins; tr. 9/25/03, D. Hoskins, pp. 143-145.)

(g)
Conservation Measures

44. The application includes the applicant's Water Conservation & Emergency Contingency Plan. This Plan promotes long - term water conservation and addresses issues of demand and supply management. The Plan also sets forth conservation measures instituted by the applicant that would be implemented and continued if the diversion permit is issued. (Exs. APP-15, Attach. M, N, Q, 31, 32; exs. DEP-8, 9; tr. 9/25/03, C. Fitting, D. Hoskins, R. Wesneski, pp. 21-23, 43-44.)

(h)
Alternatives

45. As part of its application, AWC considered the following options: (1) taking no action; (2) postponing action pending further study; (3) taking actions of a different nature; and (4) conducting the proposed activity at a different location. Ten alternatives were identified and evaluated. Alternative 1 is the construction of Well 9, the requested diversion. Alternatives 2 and 3 describe development of new groundwater resources (i.e., conducting the proposed diversion at a different location). Alternatives 4, 5, 6, and 7 describe interconnections with nearby water supply systems (i.e., taking actions of a different nature). Consideration of Alternatives 8, 9, and 10 (water conservation, taking no action and postponing action) was required by the diversion permit guidelines. (Exs. APP-15, Attach. N, 30, 49; ex. DEP-42; tr. 9/25/03, B. Kargl, D. Hoskins, pp. 41-42, 150-171.)

46. Each of the alternatives was assessed in terms of its feasibility and potential environmental impact. These alternatives included an assessment of the applicant's existing conservation plan, which is already being successfully implemented. Alternatives that appeared feasible were further evaluated for economic viability. While several alternatives were found to be feasible from an engineering viewpoint, the applicant's evaluation showed that the first alternative, the requested diversion, was both feasible and prudent with respect to environmental effects, economic viability, and other conditions. (Exs. APP-15, Attach. N, 30; ex. DEP-42; tr. 9/25/03, B. Kargl, D. Hoskins, pp. 41-42, 149-171.)

47. Development of Well 9 was selected by the applicant as the most viable alternative for providing potable water to its customer service area for the foreseeable future. The applicant considers this to be the preferred alternative because the environmental impacts are minimal, flood

conveyance capacity is unaffected, and Well 9 would be a high-quality source of water in ample supply to satisfy the applicant's projected needs to the year 2050. The applicant considers the proposed diversion on the Fisher Meadows Park site both feasible and prudent in that the project is consistent with sound engineering principles and is economically reasonable in light of the benefits the action would provide. DEP staff agrees that this is the preferred alternative of those presented. (Exs. APP-15, Attach. N, 30; ex. DEP-42; tr. 9/25/03, B. Kargl, p. 154, 166.)

8
State Policies and Programs Regarding
Long-Range Planning, Management, Allocation and Use of Water Resources

48. The proposal is consistent with the *Conservation and Development Policies Plan for Connecticut 1998-2003* (Plan), the goal of which is "[t]o effectively establish, protect, and manage sufficient high quality water supply sources, treatment facilities, and delivery systems to meet existing and future needs." The applicant proposes to develop a high quality water supply in an area that is designated as "Existing Preserved Open Space" and/or "Conservation Area" in the Plan. The proposed site use for long-term water supply is consistent with the Plan as applied to "Existing Preserved Open Space." The project would lead to the establishment of a Level "A" aquifer protection area consistent with the state's aquifer protection program. The applicant would also dedicate additional land it has purchased as open space to replace land used for the project. (Exs. APP-8, 22, 36, 41; ex. DEP- 42; test. 9/23/03, public comments; tr. 9/25/03, C. Fitting, D. Hoskins, R. Wesneski, pp. 58-60, 130- 135.)

9
Economic Development

49. Water usage in the AWC system has steadily increased over the past decade as residential and commercial development in the Avon area has continued to expand. Long-term growth is expected in Avon and the other towns in the service area of the applicant. Although the applicant's projections indicate that the existing capacity would be adequate to meet average daily demand projections for the year 2050, the existing water supply would not meet maximum daily demand at that time. (Exs. APP-15, Attach. A-2, B, N, 32, 35, 45, 50; ex. DEP-8; test. 9/23/03, R. Wesneski; tr. 9/25/03, B. Kargl, pp.15-19.)

50. In light of the anticipated long-term growth in the region, the failure of the applicant to provide adequate sources of potable water for its customers could result in reduced residential and commercial development and negatively impact economic growth in the region. This could impact employment and other economic conditions in Avon and other towns in the applicant's service area. In contrast, the provision of an adequate water supply would have a positive impact on housing development and the expansion of commercial areas to provide additional employment opportunities and the promotion of continuing growth. (Ex. APP-15, Attach. A-2, N; tr. 9/25/03, pp. 135-136.)

10
Interests of Affected Municipalities

51. AWC and the Town of Avon entered into an agreement would govern the applicant's use of the site of the proposed diversion. AWC has also obtained the necessary approval of the Inland Wetlands Commission of the Town of Avon. Support for the application has been received from the Chairpersons of the Avon Town Council and the Avon Planning and Zoning Commission, and the Chief of the Avon Volunteer Fire Department. The Farmington River Watershed Association also supports the application. (Exs. APP-17, 41; test. 9/23/03, public statements and written comments.)

11
Permit Conditions

52. The draft permit would authorize AWC to withdraw a maximum of three million gallons per day at a rate of 2083 gallons per minute from Well 9 at the Fisher Meadow Wellfield in accordance with plans and documentation submitted as a part of the application. (Ex. DEP-35.)

53. The draft permit includes special and general permit conditions. Proposed special condition number 6 would be amended to require AWC to respond when monitoring data shows that the water level in one (rather than two) of the overburden wells drops more than three feet. The Farmington River Watershed Association has agreed to coordinate oversight of this monitoring activity by independent third parties. (See *Attachment B*.) (Ex. APP-29; ex. DEP-35; tr. 9/25/03, pp. 101-107.)

III

CONCLUSIONS OF LAW

A
The Application

Section 22a-369 of the General Statutes requires that an application for a diversion permit include information the commissioner has deemed necessary to fulfill the purposes of the Connecticut Water Diversion Policy Act. §§22a-365 through 22a-378. This information includes the following: 1) The need for the diversion; 2) The reasons for the diversion and the use of the diverted water; 3) A description of the existing water system where the diversion is proposed; 4) The locations of withdrawals and discharges of water the applicant proposes to divert; 5) The quantity, frequency and rate of water the applicant proposes to divert; 6) The length of time for which the diversion permit is sought; 7) The effect of the proposed diversion on public water supplies, water quality, waste water

treatment needs and waste assimilation, flood management, water-based recreation, wetland habitats, agriculture, fish and wildlife, and low flow requirements; 8) The alternatives to the proposed diversion, including a study of cost factors, feasibility and environmental effects of the alternatives; 9) Conservation measures instituted by the applicant prior to the application and the applicant's long-range water conservation plan, including factors outlined in the statute; and 10) Because this diversion would be an interbasin transfer, an environmental report.

The applicant presented sufficient evidence on all this required information. The application therefore complies with §22a-369.

B

Statutory and Regulatory Standards for Permit Issuance

In deciding whether to issue a diversion permit, the commissioner must consider all relevant facts and circumstances that include, but are not limited to, those listed in General Statutes §22a-373 and those set out in §22a-377(c)-2(f) of the Regulations of Connecticut State Agencies. There is substantial evidence to support the issuance of this diversion permit, based on consideration of each of the substantive issues outlined below.

The proposed diversion would have no substantial adverse impact on related needs for public water supply, including existing and projected uses, safe yield of reservoir systems and reservoir and groundwater development. §22a-373(b)(1); §22a-377(c)-2(a)(2), (d)(1) and (2).

The applicant has fully evaluated the effect of the proposed withdrawal on all flow dependent resource needs within the donor basin. That evaluation shows that the proposed diversion would not have a significant adverse impact on flow dependent water resource needs.

Testing under critical, worst case conditions showed that the diversion would result in a draw down of less than three percent of the total flow of the Farmington River. Groundwater recharge and discharge would be limited to a four-mile radius of the wellfield; return flows, up to ninety percent of the water diverted, would come from the Farmington or the Simsbury wastewater treatment facilities, or through recharge of septic system effluent. The use of Well 9 in lieu of water withdrawn from other watersheds from existing AWC wells could result in increased base flows in these watersheds.

The diversion would not have an adverse impact on the yields of private wells in the area. The maximum three-foot draw down would not affect the deepest bedrock wells; the draw down could have some, but not a significant, impact on the yields of the more shallow gravel wells and the intermediate wells. In addition, to assure that actual impacts of the diversion are negligible as expected, the permit would require the applicant to perform regular monitoring of groundwater elevations. If data collected reveals that the water level has fallen more than three feet below an established baseline fluctuation, the applicant must notify the DEP and take corrective action.

The diversion would have no substantial impact on existing and planned water uses in the areas affected including flood management, water based recreation, wetland habitats or waste assimilation. There would be no adverse impacts, including thermal effects, on fish and wildlife as a result of flow reduction, alternation or augmentation from the diversion. §22a-373(b)(2), (b)(6) and (b)(7); §26-310; §22a-377(c)-2(a)(2), (d)(3), (f)(2) and (3).

The well, pump house and an access road would be located in the 100-year floodplain and the floodway of the Farmington River. The fill necessary for this mound, which will elevate the well and provide a base for the pump house, will not adversely impact the floodway flow or floodplain storage. As a result, net effects on flood conveyance capacity would be negligible.

There would be no significant, long-term impact on wetland vegetative structure or wetland functions in the area of Well 9 or other wetlands in the area. The site of Well 9 does not support any wetland habitats or provide typical wetland function values beyond flood storage and conveyance. A drop in surface water elevations would not cause a notable reduction of the wetting perimeter, physical habitat or vegetation composition of either the river or the lake. Impacts to fringe vegetation within the lake would be insignificant under normal conditions. Any impacts to wetland vegetative communities during drought conditions would be tolerated; the wetland would adapt and recover.

Any drop in surface water elevations would not impact fisheries resources in the river or the lake, and impacts on water flow from the diversion, including the installation of a culvert for an access road, would not be significant or cause any adverse impacts to any fish populations in the area, including thermal effects. There are no endangered species in the area; the Atlantic salmon, a species of special concern, would not be adversely impacted by the diversion. No vernal pools in the area support any significant habitat for any species. The relatively high flow rate in the area of Well 9 and the low flow reduction that could occur as a result of the diversion would prevent any adverse impacts to the ability of the river to assimilate waste from the wastewater discharges it receives from municipal sewage plants. Waste assimilation potential could in fact increase in receptor basins if the withdrawal of water from these basins decreases due to the operation of Well 9.

Boating, fishing and other water-based recreation would not be adversely impacted by the diversion, including the worst-case predictions as to the possible extent of reductions in river flow or water levels of the lake caused by the diversion. Because the diversion would not impact fisheries habitats, fishing in the area would not be impacted by the proposed diversion.

The proposed diversion is compatible with the policies and programs of the State of Connecticut dealing with long-range planning, management, allocation and use of the water resources of the state. §22a-373(b)(3); §22-377(c)-2(f)(5).

The proposed diversion is consistent with the *Conservation and Development Policies Plan for Connecticut 1998-2003.* The applicant proposes to develop a high quality water supply in an area designated as preserved open space and/or a conservation area in that Plan. This use would enhance the goals of the Plan regarding existing preserved open space; the applicant's dedication of new land for land used for the diversion project would contribute to the goals of open space preservation. The development of Well 9 would improve water allocations in the area. The establishment of a Level "A" aquifer protection area is consistent with the state's aquifer protection program. The proposal would result in better management of water resources in the Farmington River watershed.

The proposed diversion would have no significant adverse impacts on existing water conditions, including watershed characterization, groundwater availability potential, evapotranspiration conditions and water quality. §22a-373(b)(5); §22a-377(c)-2(d)(3) and (f)(1).

Total flow of the Farmington River would be reduced by less than three percent in drought conditions. Groundwater base flow would not be adversely impacted by this reduction. The transfer of groundwater to and from the river's watershed would be localized and the diversion would not impact the characterization of that watershed. The diversion would not affect the amount of groundwater available for in-stream dilution and no known contaminants would be drawn into the area of influence, recharge or contribution of Well 9. Water quality would meet current drinking water standards. There would be no adverse impacts on water quality in the river or Spring Lake. The proposed diversion would neither cause nor contribute to water quality issues impacting private wells in the area.

The water to be diverted is necessary and the diversion proposed by the applicant was the most prudent and feasible alternative selected of those reviewed, including conservation. §22a-373(b)(8); §2a-377(c)-2(d)(4).

Present and predicted water demands point to a need for a new source to supplement AWC's existing system. Although projections indicate the existing capacity would be adequate to meet average daily demands to the year 2050, this capacity would not meet maximum daily demands by that time. The applicant has no large water storage facilities that have adequate useable volumes to satisfy peak day demands. Existing storage volume is sufficient only to accommodate fluctuations in daily demand, not to supplement supply. Based on these limitations and the technical infeasibility of constructing a surface water reservoir, AWC must rely upon groundwater sources with adequate pumping capacity to meet maximum daily demands.

Development of Well 9 is the most viable alternative for the provision of potable water to the applicant's service area for the foreseeable future. The applicant assessed alternatives, including its current conservation plan, in terms of the feasibility and potential environmental impact of each. Only the requested diversion is both feasible and prudent with respect to environmental effects, economic viability, and other relevant conditions.

The proposed diversion would have a positive impact on economic development and the creation of jobs. §22a-373(b)(4); §22a-377(c)-2(d)(2).

Current and projected growth in the area requires the applicant to supplement its water supplies to continue to serve its customers. Adequate water supplies and the confidence that future supplies will be available would enhance development in the area; growth is likely to bring new economic opportunities that include new jobs. Conversely, inadequate sources of potable water could result slow or stop future development, both because of an actual water shortage or fear that one

could develop. Sluggish or stagnant growth would negatively impact economic development and employment opportunities in Avon and other towns in the applicant's service area.

The diversion is not inconsistent with any action taken by the Attorney General pursuant to §§3-126 and 3-127 and there is no evidence that it would be in substantial conflict with the interests of any municipalities affected by the diversion. §22a-373(b)(9), (10).

The proposed diversion would not affect interstate waters; therefore, the provisions of §§3-126 and 127 are not relevant to this application. The applicant has obtained the necessary approval of the Inland Wetlands Commission of the Town of Avon. Support for the application was received from the chairpersons of the Avon Town Council, the Avon Planning and Zoning Commission, the chief of the Avon Volunteer Fire Department, and the Farmington River Watershed Association.

IV

PERMIT CONDITION

SPECIAL CONDITION No. 6 is modified as follows:

"If the water levels in any ~~two~~ **one** of the overburden monitoring wells drops more than 3.0 feet (which is the target draw down elevation set forth in Table 1 referenced in Special Condition 4 above) below the "minimum water level" for any ~~two~~ **one** well~~s~~, the permittee will notify the CTDEP within 24 hours of such reading and will reduce the pumping at the wellhead within 48 hours thereafter, as described in Table 2 of the Groundwater Monitoring Program, until the condition giving rise to the need for the reduction abates."

V

CONCLUSION/RECOMMENDATION

The application for a water diversion permit complies with all applicable statutory and regulatory requirements. The diversion is necessary to meet the existing and projected needs for potable water within the applicant's service area and, following the applicant's consideration of alternatives, is the most feasible and prudent option for meeting those needs.

The diversion would have no substantial adverse impact on related needs for water supply, including existing and projected uses, safe yield of reservoir systems and reservoir and groundwater development. The diversion would have no substantial adverse impact on existing and planned uses in the areas affected including flood management, water-based recreation, wetland habitats and waste assimilation. The diversion is compatible with and would in fact promote the state's policies and programs for long-range planning, management, allocation and use of the state's water resources. The diversion would have no significant negative impact on existing water conditions, including watershed characterization, groundwater availability potential, evapotranspiration and water quality.

The diversion would provide a significant source of high-quality water to supplement the applicant's existing supply and meet future demand for an ample water supply without adverse environmental impacts. The draft permit allowing the applicant to construct and operate Well 9 should be issued as modified herein. (*Attachment A.*)

March 5, 2004
Date

/s/ Janice B. Deshais
Janice B. Deshais, Hearing Officer

ATTACHMENT A

DRAFT PERMIT

PERMITTEE:	Avon Water Company 14 West Main Street P.O. Box 424 Avon, Connecticut 06001
PERMIT NO.:	DIV-200102396
TOWN:	Avon
WATERS:	Farmington River, Spring Lake

Pursuant to Connecticut General Statutes section 22a-368, the Avon Water Company (the "permittee") is hereby authorized to divert the waters of the state at Fisher Meadow Wellfield located in Fisher Meadows Park, Avon (the "site") in accordance with permittee's application dated June 29, 2001 filed with this Department on June 29, 2001 and described herein. The purpose of the diversion is to provide potable water to residential, commercial, and industrial customers within the Avon Water Company service area.

AUTHORIZED ACTIVITY

The permittee is authorized to withdraw a maximum of 3.00 million gallons per day at a rate of 2,083 gallons per minute from Well No. 9 at the Fisher Meadow Wellfield in accordance with plans entitled "Fisher Meadow Park Well Sites / Old Farms Road / for Avon Water Company / Avon, Connecticut", dated 1 June 2001, revised through 13 January 2003, prepared by Buck & Buck, L.L.C., and documentation submitted as a part of the application.

PERMITTEE'S FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THIS PERMIT SHALL SUBJECT PERMITTEE AND PERMITTEE'S CONTRACTOR(S) TO ENFORCEMENT ACTIONS AND PENALTIES AS PROVIDED BY LAW.

SPECIAL CONDITIONS

1. **Metering of Withdrawals**. Prior to initiating the authorized withdrawal of water, the permittee shall install a totalizing flow meter to measure the total amount of water withdrawn from Well #9 at the Fisher Meadows Park Wellfield, and shall for the duration of this permit continuously operate and maintain such meter. In the event of meter malfunction or breakage, the permittee shall repair or replace such meter within 72 hours. The permittee shall secure such meter in a locked facility, with access controlled solely by the permittee or other designee.

2. **Record Keeping and Reporting**. The permittee shall maintain a daily record of the amount of water withdrawn as authorized herein. The permittee shall submit a copy of said withdrawal record for the preceding calendar year annually to the Commissioner no later than March 1 of each year.

3. **Meter Calibration and Reporting**. The permittee shall annually test and calibrate each source meter and calibrate to within two percent accuracy as shown through a post-calibration test, and shall submit the results of the accuracy test and calibration for the preceding year annually to the Commissioner no later than March 1 of each year.

4. **Groundwater Monitoring**. The permittee shall implement a ground water monitoring program as described in the document entitled "Ground Water Monitoring Program", submitted by ECS Marin, dated August 2003, using eleven observation well sites of which seven are in existence and four more are to be installed before pumping commences, all as listed in Table 1 and shown on Figure 1 of the said document. The permittee shall submit a report summarizing data collected under said groundwater monitoring program for the proceeding calendar year annually to the Department no later than March 1 of each year.

5. **Monitoring Well Construction Details.** Within 60 days of the commencement of withdrawal from the Fisher Meadows Well, the Avon Water Company shall submit to the Connecticut Department of Environmental Protection (CTDEP) for review and approval, a report setting forth the monitoring well construction details and water level readings and shall include a listing of the Minimum Observed Water levels and resulting Target Drawdown elevations for each monitoring well as identified in Special Condition 4 above.

6. **Withdrawal Reductions: Groundwater.** If water levels in any two of the overburden monitoring wells drops more than 3.0 feet (which is the target drawdown elevation as set forth in Table 1 referenced in Special Condition 4 above) below the "minimum water level" for any two wells, the permittee will notify the CTDEP within 24 hours of such reading and will reduce pumping at the wellhead within 48 hours, thereafter, as described in Table 2 of the Ground Water Monitoring Program, until the condition giving rise to the need for the reduction abates.

7. **Withdrawal Reductions: Surface Water.** In the event that, on any given day, the flow of the Farmington River drops below the 7Q10 flow of 156 cubic feet per second as measured at the United States Geologic Survey Farmington River gauge at Unionville, Connecticut, the permittee shall limit their maximum daily withdrawal to no more than 5% of that flow for the remainder of that day and the next day.

8. **Avon Old Farms School.** Should the drawdown in Observation Well 97-31B exceed 1.5 feet from the average summer/fall low water level reading of that well, to be determined immediately prior to the operational initiation of Fisher Meadow Well No. 9, and is subsequently verified by a drawdown exceeding a depth to water in the Avon Old Farms School's irrigation well of 13 feet, the permittee shall 1) reduce pumping at the Fisher Meadow Wellfield as to restore depth to water in said well to less than 13 feet, and/or 2)

improve the efficiency of said irrigation well, and/or 3) deepen or replace said irrigation well. The permittee shall not be responsible for any modifications to the said irrigation system that may cause an increase in pumping beyond the present needs of Avon Old Farms School which in turn results in a drop in water levels exceeding 13 feet in depth.

9. **U.S.G.S. Gage Funding.** The permittee shall fund the non-federal share of the operation, maintenance, and repair costs for U. S. Geological Service stream gage #01188090 located on the Farmington River in Unionville, CT until such time as the Commissioner determines the gage is no longer required for monitoring the impact of the Fisher Meadow Wellfield. The permittee's cost share shall not exceed one-half of the total operation, maintenance, and repair costs of the said gage. The permittee shall make payment within 60 days after a written request for payment, accompanied by an explanation of costs, is made by the Commissioner.

10. **Reduction of pumping rates at other Avon Water Company Wells located in those waters tributary to the Farmington River.** No later than 1 February 2007, the permittee shall submit to the Commissioner a proposal for long-term reductions of other permitted withdrawals of the Avon Water Company located within watersheds tributary to the Farmington River in order to more effectively promote a balance between consumptive water use and other uses of those water resources including fisheries, other aquatic life and recreation.

11. **Recording and Reporting Violations.** Within 48 hours after the permittee learns of a violation of this permit, the permittee shall report the violation in writing to the Commissioner. Such report shall include the following information:
    a. The provision(s) of this permit that has been violated;
    b. The date and time the violation(s) was first discovered and by whom;
    c. The cause of the violation(s), if known;
    d. If the violation(s) has ceased, the duration of the violation(s) and the exact date(s) and time(s) it was corrected;
    e. If the violation(s) has not ceased, the anticipated date when it will be corrected;
    f. Steps taken and steps planned to prevent a reoccurrence of the violation(s) and the date(s) such steps were implemented or will be implemented;
    g. The signatures of the permittee and of the individual(s) responsible for actually preparing such report, each of whom shall certify as follows:

> "I have personally examined and am familiar with the information submitted in this document, 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 this document or its attachments may be punishable as a criminal offense, in

accordance with Section 22a-6 of the General Statutes, pursuant to Section 53a-157b of the General Statutes, and in accordance with any other applicable statute."

GENERAL CONDITIONS

1. The permittee shall notify the Commissioner in writing two weeks prior to: (A) commencing construction or modification of structures or facilities authorized herein; and (B) initiating the diversion authorized herein.

2. The permittee may not make any alterations, except de minimis alterations, to any structure, facility, or activity authorized by this permit unless the permittee applies for and receives a modification of this permit in accordance with the provisions of section 22a-377(c)-2 of the Regulations of Connecticut State Agencies. Except as authorized by subdivision (5) of section 22a-377(b)-1(a) of the Regulations of Connecticut State Agencies, the permittee may not make any de minimis alterations to any structure, facility, or activity authorized by this permit without written permission from the Commissioner. A de minimis alteration means an alteration which does not significantly increase the quantity of water diverted or significantly change the capacity to divert water.

3. All structures, facilities, or activities constructed, maintained, or conducted pursuant hereto shall be consistent with the terms and conditions of this permit, and any structure, facility or activity not specifically authorized by this permit, or exempted pursuant to section 22a-377 of the General Statutes or section 22a-377(b)-1 of the Regulations of Connecticut State Agencies, shall constitute a violation hereof which may result in modification, revocation or suspension of this permit or in the institution of other legal proceedings to enforce its terms and conditions.

4. Unless the permittee maintains in optimal condition any structures or facilities authorized by this permit, the permittee shall remove such structures and facilities and restore the affected waters to their condition prior to construction of such structures or facilities.

5. In issuing this permit, the Commissioner has relied on information provided by the permittee. If such information was false, incomplete, or misleading, this permit may be modified, suspended or revoked and the permittee may be subject to any other remedies or penalties provided by law.

6. If construction of any structures or facilities authorized herein is not completed within three years of issuance of this permit or within such other time as may be provided by this permit, or if any activity authorized herein is not commenced within three years of issuance of this permit or within such other time as may be provided by this permit, this permit shall expire three years after issuance or at the end of such other time.

7. This permit is subject to and does not derogate any rights or powers of the State of Connecticut, conveys no property rights or exclusive privileges, and is subject to all public and private rights and to all applicable federal, state, and local law. In constructing or maintaining any structure or facility or conducting any activity authorized herein, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this State. The issuance of this permit shall not create any presumption that this permit should be renewed.

8. In constructing or maintaining any structure or facility or conducting any activity authorized herein, or in removing any such structure or facility under paragraph 4 hereof, the permittee shall employ best management practices to control storm water discharges, to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and other waters of the State. The permittee shall immediately inform the Commissioner of any adverse impact or hazard to the environment which occurs or is likely to occur as the direct result of the construction, maintenance, or conduct of structures, facilities, or activities authorized herein.

9. This permit is not transferable without the prior written consent of the Commissioner.

10. This permit shall expire on [25 years].

11. **Certification of Documents**. Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this permit shall be signed by the permittee or a responsible corporate officer of the permittee, a general partner of 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 and 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, and I understand that any false statement made in this document or its attachment may be punishable as a criminal offense in accordance with Section 22a-376 under 53a-157 of the Connecticut General Statutes."

12. **Submission of Documents**. Any document or notice required to be submitted to the Commissioner under this permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

Director
DEP/Inland Water Resources Division

79 Elm Street
Hartford, CT 06106-5127

The date of submission to the Commissioner of any document required by this permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this permit, including but not limited to notice of approval or disapproval on any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" as used in this permit means any calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the nest business day thereafter.

This authorization constitutes the permit required by section 22a-368(b) of the Connecticut General Statutes.

Issued as a permit of the Commissioner of Environmental Protection on

_____
Arthur J. Rocque, Jr.
Commissioner