

STATE OF CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION



OFFICE OF ADJUDICATIONS

IN THE MATTER OF

APPLICATION NOs.: DIV-200900712 (Diversion) DS -200900714 (Dam Safety)

TOWN OF DARIEN FLOOD CONTROL PROJECT

JANUARY 4, 2010

PROPOSED FINAL DECISION

I SUMMARY

The Town of Darien (the Town/Applicant) has filed an application with the Department of Environmental Protection (DEP) Inland Water Resources Division for permits to divert waters of the state and to construct a dam in support of its proposed Stony Brook Tributary Flood Control Project. The proposed project is intended to alleviate a flooding problem in the Heights Road area through the construction of larger culverts to carry stormwater away from Heights Road and the creation of a stormwater detention basin within the Town-owned Baker Park to store and slowly release the excess water during heavier storm events.

The DEP issued a Notice of Tentative Determination on May 11, 2009 indicating its intent to issue the requested permits for the proposed activity and waive any public hearing. A timely petition for a hearing was submitted to the DEP and a hearing schedule was established. The parties are the Town, DEP, and the Coalition to Save Baker Woods (the Coalition). The Coalition was granted status as an intervening party after it submitted a request for party status. The hearing was held over three days, including an evening session in Darien on September 10 for the collection of public comment and two sessions in Hartford for the presentation of evidence by the parties. The hearing record closed on September 17, 2009, except for post-hearing briefs filed by the parties on November 2, 2009 and reply briefs filed on November 23, 2009.

Through the presentation of substantial evidence, the Town has demonstrated that the proposed activity, if conducted in accordance with the proposed draft permits and the additional permit condition recommended within this decision, complies with the relevant statutory and regulatory requirements articulated at General Statutes §\$22a-366 through 22a-379; General Statutes §22a-403; and Regs., Conn. State Agencies §22a-377(c) et seq. The intervening party has failed to demonstrate that the proposed project is inconsistent with these statutes and regulations. Therefore, I recommend that the water diversion and dam construction permits be issued to the Town of Darien.

II DECISION

A FINDINGS OF FACT

The following findings of fact are based on a review of the entire record of this proceeding, a determination of the credibility and the weight to be given to competing evidence, and on reasonable inferences drawn from the evidence.

1 Procedural Background

1. The Town of Darien (Town/Applicant) filed an application with the DEP on March 9, 2009 for permits to conduct regulated activities related to the Stony Brook Tributary Flood Control Project (the Project). In its application the Town sought a non-consumptive water diversion permit, a dam safety construction permit, and a water quality certificate pursuant to section 401 of the Federal Clean Water Act. The Town published notice of this application in the Darien Times on April 2, 2009. On May 11, 2009, the DEP issued a Notice of Tentative Determination (NTD) indicating its intent to issue the requested permits and waive the public hearing. The NTD was also published in the Norwalk Hour on May 11, 2009. (Exs. APP-5, 8, DEP-1, 9.)

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¹ The decision to grant the Town's §401 water quality certificate was not subject to review in this hearing and consequently is not mentioned further in this decision.

- 2. The Town had filed an earlier application for the same project in 2008 that was withdrawn because the application lacked key components, including an adequate alternatives analysis and an application for a dam safety construction permit as required by General Statutes §22a-403. The 2008 application also planned to use a portion of the wooded area of Baker Park as a detention basin to handle increased flow from Heights Road and prevent flooding downstream. (Test. 9/15/09, E. Klein pps. 21-23, R. Steeger, pps. 62-63, W. Kenny, pps. 97-98.)
- 3. On June 5, 2009, a petition for a hearing signed by 25 members of the public was submitted to DEP.² The petition was filed in a timely fashion and a hearing schedule was established to provide an opportunity for public comment on the record and for the collection of evidence from the parties.
- 4. On June 11, 2009, the Darien Environmental Protection Commission (EPC) requested clarification from DEP Inland Water Resources Division regarding DEP's jurisdiction over the construction of the dam and detention basin. DEP responded to this request in writing on July 8, 2009 and informed the EPC that pursuant to General Statutes §22a-403(b), the DEP has exclusive jurisdiction over the portion of the project related to the dam and basin construction and that the Applicant is not required to seek local approval under the Inland Wetlands and Watercourses Act for this portion of the project. The EPC may regulate those project areas within its jurisdiction and outside the scope of the dam safety construction permit as detailed in the July 8, 2009 letter, including the proposed mitigation project areas, culvert construction from Heights Road to I-95, and the closing of the open watercourse and culvert construction from I-95 through Maple Street/Relihan Road. (Exs. APP-10, 12; test. E. Klein, 9/15/09, pps. 32-34.)
- 5. After the hearing schedule was established, James Tatum submitted a timely request for intervening party status on behalf of the Coalition to Save Baker Woods (the Coalition) on August 18, 2009. After an amended request was submitted on August 24, 2009, the Coalition was granted intervening party status.

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² All documents pertaining to the procedural history that are not specifically cited as exhibits are contained in the docket file maintained by the Office of Adjudications and are part of the administrative record in this matter. General Statutes §4-177(d).

6. Notice of the hearing was published on August 3, 2009 in the Norwalk Hour. The hearing began on September 10, 2009 in Darien for the collection of public comment and continued in Hartford on September 15 and 17 for the presentation of evidence by the parties. (Ex. DEP-12.)

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Project Background/Description

- 7. The Heights Road area in southwestern Darien is one of several small business districts in Darien and important to the town's business development goals and economic vitality. The area has experienced severe flooding during recent 100-year storm events. The businesses that front Heights Road experienced severe flooding during storm events in 2002 and 2007. On October 11, 2007, the floodwaters reached heights up to five feet within the businesses, including a retail liquor store, a dry cleaner, a delicatessen, and a stationery store. Business owners and employees had to be evacuated by emergency personnel due to the extreme height of the water. In addition to the extreme flooding events affecting local businesses, the roadway itself frequently floods during smaller storms and has to be closed to traffic due to safety concerns. After the 2002 flood event, residents and business owners asked the Darien Board of Selectmen and the Town Department of Public Works to find an appropriate solution to the flooding problem. An engineering study was completed and determined the flooding is caused by an undersized culvert that runs from Heights Road under the railroad tracks. This undersized culvert impedes flow and causes the water that naturally drains to Heights Road to backup and cause the flooding. Flooding in the area is a significant economic and public safety concern for the Town of Darien and its residents. (Exs. APP-5, 16; test. 9/15/09, E. Klein, pps. 8-16, R. Steeger, pps. 64-72, L. Jackson, pps. 189-193.)
- 8. The Town is prepared to exercise the proposed plan to meet its goals in accordance with the applicable permits. These goals are: (1) to mitigate flooding on Heights Road, (2) to prevent adverse impacts downstream, (3) to provide flood relief for properties on Maple Street and Relihan Road, (4) to avoid and minimize wetland impacts, (5) to mitigate unavoidable wetland impacts, and (6) to maintain the recreational use of Baker Park. The Project area encompasses 20 acres within five locations in southwestern Darien and includes in-stream work and the

alteration of stormwater flow within a watershed with a drainage area over 100 acres. The flood mitigation project extends from Heights Road at the northern end of the project to Baker Park at the southern end and includes three distinct parts: a new 60-inch culvert placed adjacent to the undersized 3ft. x 4ft. culvert from Heights Road to the elliptical pipe that runs under I-95; the construction of a new culvert system to replace the open watercourse running from I-95 under public and private property on Maple Street and Relihan Road; and the construction of a 3.5 acre detention basin in the western and southern portion of Baker Park. The other two project locations include the two wetland and watercourse mitigation areas, one at Darien High School and the other on Renshaw Road adjacent to Darien Town Hall. At Heights Road, a 60-inch culvert will be placed adjacent to the undersized 3 ft. x 4 ft. box culvert to increase the capacity to drain water away from Heights Road to the elliptical pipe that runs under I-95. The increased volume from the new culvert at Heights Road necessitates additional capacity or flood storage downstream of the new culvert and the elliptical pipe. The current open watercourse in the area of Maple Street and Relihan Road will be unable to handle this volume of water. To provide adequate capacity in this area a 5 ft. x 12 ft. box culvert and two 4 ft x 7 ft. box culverts will replace the open watercourse until it reaches Baker Park. The detention basin will be constructed in the western and southern forested upland areas of Baker Park, a public park surrounded by residential neighborhoods. (Exs. APP-5, 16; test. 9/15/09, R. Steeger, pps. 69-74, W. Kenny, pps.115-16, L. Jackson, pps. 193-98.)

9. The detention basin will be constructed by excavating the wooded area within Baker Park to elevation 41 feet. The side slopes of the basin will rise one foot vertically for every three feet horizontally. This is a gentle slope to promote accessibility from the top of the basin to its bottom elevation. The top portion will be ten feet wide to allow the public to walk the perimeter of the basin. There will be no fence preventing access to the basin except for a safety barrier across the top of the spillway to reduce any falling risk. All trees and vegetation in the 3.5-acre area will be removed to ensure the basin has the designed capacity for a 100-year storm event. Inflow to the basin will be controlled by a concrete diversion structure with a 28-foot opening width. Low flows will remain directed to the open stream that abuts residences on Dubois Street through a second and lower opening in the diversion structure. After entering the basin, the water is directed to an outfall structure at the southern end of the basin consisting of a group of

concrete box culverts stacked to handle various levels of flow. The outflow occurs at a controlled rate. Lower flows will be directed to a rip-rap channel that will connect directly to the tributary while heavier flow will run over the rip pad and the land into the stream. The basin will be planted and maintained as a wetland meadow habitat. It will remain open to the public as part of Baker Park. (Exs. APP-5, 15, 17; test. 9/15/09, R. Steeger, pps. 81-82, W. Kenny, pps. 162-63, 9/17/09, M. Witek, pps. 266, 282-85.)

3 Affected Resources, Impacts, and Mitigation

- 10. The Town presented a qualified expert in wetlands and soils science with over twenty years of experience. This expert evaluated and provided credible testimony on: the environmental resources in the vicinity of the proposed project, including the functions and values of wetlands and watercourses; the potential impacts to those resources; the efforts to avoid and minimize any impacts; the mitigation for any unavoidable impacts; and the analysis of alternatives to the proposed design. (Ex. APP-1; test. W. Kenny, 9/15/09, pps. 91-94.)
- 11. The construction of the 60-inch culvert from Heights Road to the elliptical pipe that runs under I-95 has no impact on any regulated resources. At Maple Street and Relihan Road, the project will directly impact the open watercourse segments by piping them into a closed system consisting of the 5 ft. x 12 ft. and twin 4 ft x 7 ft. culverts. The open portion of the existing watercourse provides limited functions and values, including groundwater discharge, production export, and wildlife habitat. Impact to this area is unavoidable and necessary because the capacity of the current watercourse is inadequate to handle the increased discharge from the proposed 60-inch pipe from Heights Road. The proposed new culverts cannot be constructed as open watercourses due to their size and close proximity to residential structures. (Exs. APP-5, [Tab 12], DEP-8; test. W. Kenny, 9/15/09, pps. 149-50, M. Witek, 9/17/09, pps. 259-60.)

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³ "'The determination of the credibility of expert witnesses and the weight to be accorded their testimony is within the province of the trier of facts, who is privileged to adopt whatever testimony he reasonably believes to be credible.' (Internal quotation marks omitted.) *Melillo v. New Haven*, 249 Conn. 138, 151, 732 A.2d 133 (1999)." *Windels v. Environmental Protection Commission*, 284 Conn. 268, 291 (2007).

- 12. In the area of Baker Park, there are two forested wetland and watercourse areas that would be affected by the construction of the detention basin. The northern and southern ends both consist of watercourses and forested wetland areas in a degraded state with limited functions and values. The northern wetland portion is effectively drained by the lower stream The southern area is inundated seasonally with water that flows into it after it channel. accumulates in the healthier central portion of the wetland system. There is limited wetland vegetation due to a lack of proper hydrologic conditions. These forested wetland and watercourse areas function as flood storage, limited habitat for mammalian and avian species, sediment/toxicant retention, nutrient removal/retention, and groundwater discharge/recharge. The areas have limited value for education and visual aesthetics. The northern wetland area will be impacted by the construction of the inlet/diversion structure that will direct flow from the new culverts to the detention basin during higher flows. The wetland in the southern portion will be impacted by the construction of the basin itself and the earthen embankment. The impacts to these areas are unavoidable and are appropriate given the limited wetland functions and values they support. The diversion structure is necessary to ensure that regular flows continue into the existing watercourse behind the homes on Dubois Street and that flood flows enter the detention basin to accommodate higher flows from Heights Road and the new culverts and avoid any downstream flooding. The placement of the detention basin in the southern end would avoid impact to the higher functioning central wetland area. (Exs. APP-5, tab 12, DEP-8; test. W. Kenny, 9/15/09, pps. 125-28, 139-41, 174.)
- 13. The permanent and temporary impacts to wetlands and watercourses total 0.38 acres. The Town will implement mitigation plans at Darien High School and Darien Town Hall to address these impacts that will create and enhance resource areas. At Darien High School, a low-functioning watercourse will be replaced by a floodplain wetland area to encourage ecological diversity in this area. At Darien Town Hall, a stone lined stream bank will be replaced by a vegetated bank. Two small riverine wetland areas will be created to foster development of a floodplain wetland and rock vanes will be constructed to enhance fish habitat. The mitigation efforts represent a positive influence on these existing resource areas by enhancing habitat and creating new areas that supplement existing functions and values. These mitigation efforts would represent a net increase in resource area and an overall improvement in

functions and values within the watershed. In total the mitigation efforts will create 0.44-acres of wetland and enhance 0.29-acres of wetland, watercourse, and stream bank. Areas within Baker Park and Maple Street/Relihan Road that will be temporarily impacted will be replaced by resource areas after construction. (Exs. APP-5 [Tabs 12, 13, and 17, Plan sheets (revised) 6.1 and 6.2], APP-16, DEP-5, 8; test. W. Kenny, 9/15/09, pps. 141-45.)

- 14. The Town investigated soil and groundwater conditions at the location of the proposed detention basin to determine any impacts of the plan to excavate to elevation 41 feet on the adjacent wetlands. Groundwater was encountered in two borings in the north and western portion of the proposed basin at elevation 42 and 43 which is above the elevation of the bottom of the proposed basin. Any small seepage of groundwater into the basin at these points will flow through and out of the basin. This seepage will not impact neighboring wetlands or the functioning of the basin. The neighboring wetlands do not rely on groundwater coming to the surface. Any flow from adjacent wetlands into the basin will occur seasonally over land as it does now and not through the interface with the eastern slope of the basin. The proposed basin, although lower, will not drain water from the wetland because over time, the edge of the wetlands area has been effectively sealed by the buildup of organic material and fines in the soils that keep water in the wetland and will continue to keep water in this wetland independent of the proposed excavation and grading activities except for any seasonal flow over land that presently occurs. In the southern portion of the proposed basin, the three borings did not encounter groundwater as low as elevation 32. The basin's construction will not impact groundwater in this area. (Ex. APP-5 [Geotechnical Report]; test., W. Kenny, 9/15/09, pps. 154-60.)
- 15. The proposed project will have a positive influence on water quality. The construction of the basin will provide a vegetated meadow that will increase the opportunity for stormwater renovation as it progresses through the system. Contaminants in runoff will settle into the basin and be taken up and renovated by vegetation and soils. The basin will not foster airborne transport of these stormwater contaminants. The current open, walled stream presents little opportunity for any filtering or uptake of stormwater contaminants. Although lower flows will still proceed through the walled channel, the presence of open meadow in the detention basin will provide some water quality benefit when compared to current conditions, especially during higher flows. The piping of the open watercourse at Maple Street and Relihan Road will protect

stormwater flow from additional contamination, including pesticides and fertilizers used on residential lawns. The proposed draft permits have special and standard conditions requiring the use of best management practices to prevent impacts on wetlands and watercourses, including sedimentation and erosion controls, stormwater control, and equipment fueling practices. The proposed project is outside the coastal boundary defined in General Statutes §22a-94. It does not impact coastal resources. (Ex. APP-5; test. W. Kenny, 9/15/09, pps. 133-36, 164. M. Salter, 9/17/09 p. 409.)

- The proposed basin will not impact wildlife or any endangered or threatened species. The loss of trees and mature woodland habitat in the area of the proposed detention basin will not impact the wildlife species that use the wooded area. Almost four acres of wooded area will remain in Baker Park after construction. Those species currently using the wooded area will also utilize the proposed meadow habitat within the basin. The meadow will increase the diversity of species in the area as birds and insects unsuited to the mature woodland habitat will be able to inhabit and thrive in a wet meadow habitat. While the mature woodland habitat is common in Darien and throughout suburban Connecticut, meadow habitat is in decline in Connecticut and its maintenance and expansion is desirable to promote diversity of animal species and vegetation that cannot be achieved in a mature woodland habitat. The proposed draft permit condition requiring any in-stream work to be conducted from June 1 to September 30 will protect fish species and their habitat. (Ex. APP-5 [Tab 17], APP-7, DEP-5, 8; test. W. Kenny, 9/15/09, 136-38.)
- 17. The construction of the proposed detention basin will not significantly increase the presence of mosquitoes in the area. Mosquitoes are already prevalent in the wooded area. The wet meadow habitat in the basin will continue to support a mosquito population. The wet meadow habitat will also support birds and insects that are natural predators of mosquitoes that currently do not inhabit the wooded habitat. The town can enhance the mosquito control provided by the natural predators by providing nesting boxes to support bird species and by controlling any growth of phragmites in the wet meadow area of the detention basin. Phragmites can grow in stormwater detention basins and can prevent effective natural mosquito control by serving as a barrier to natural mosquito predators. Dense phragmites growth in the basin must be prevented and controlled. Although the proposed draft permits do not require the

town to implement a specific phragmites control plan as part of the operation and maintenance of the detention basin, inclusion of such a condition would foster natural anticipated mosquito control provided by natural predators. (Exs. APP-5, DEP-2, 3; test. W. Kenny, 9/15/09, pps. 163-64, J. Tatum, 9/17/09, p. 405.)

5 Hydrology/Hydraulic Analysis

- 18. The Town presented as a witness a professional engineer and qualified expert in rivers analysis and hydraulics and hydrology with over forty years of experience. This expert analyzed and provided credible testimony on the existing hydraulic and hydrologic conditions for the area upstream and downstream of Heights Road and detailed how that analysis influenced the project design and alternatives analysis. (Ex. APP-4; test. L. Jackson, 9/15/09, pps. 184-93.)
- 19. The Town and its consultant used this expert analysis to design the conveyances needed to relieve flooding at Heights Road and the storage needed to avoid causing flooding downstream of this area. The project design incorporates calculations that were made for discharge rates up to and including the 100-year storm flow. The 60-inch culvert from Heights Road to the elliptical pipe running under I-95 is necessary to carry the amount of water that collects at Heights Road during flood events. During a 100-year discharge, the 60-inch culvert will increase the amount of water in the system from 222 cubic feet per second (cfs) to 345 cfs. The new culvert system at Maple Street and Relihan road will cause the discharge to increase from 305 cfs to 425 cfs. The discharge at the confluence with the Stony Brook Tributary will decrease from 307 cfs to 269 cfs as a result of higher flows being routed through the proposed detention basin. Discharge rates below Baker Park at Noroton Avenue, Fitch Avenue, and the confluence with the Stony Brook will also see minor decreases as a result of the detention provided by the proposed basin. It is necessary to build the detention basin to handle the increased flows from Heights Road that are carried through the new 60-inch pipe and through the new box culverts in the area of Maple Street and Relihan Road. DEP performed its required review to ensure that the proposal will not cause adverse increase in flood flows, flood heights, or obstruct or cause obstruction to flood flows. The proposed project does not increase flood flows downstream of the project location. (Exs. APP-5, Tab 10, DEP-6, 14; test. 9/15/09, R.

Steeger, p. 90, L. Jackson, pps. 190-94, 9/17/09, L. Jackson, pps. 218-19, M. Witek, pps. 257, 286, J. Caiola, pps. 413-14.)

20. The Town's drainage rate calculations are based on the more conservative SCS Methodology required by the Connecticut Department of Transportation (CT DOT) and incorporated into DEP's regulatory review, including the use of peak discharge rates from the 100-year storm. CT DOT's required methodology must be employed because the new 60-inch culvert will go under the railroad tracks and connect to the elliptical pipe running from I-95 to the Maple Street/Relihan Road watercourse. DEP regulations also require adherence to DOT's standards. The intervening party noted that use of a less conservative model may have resulted in lower volumes of required flood storage in Baker Park and therefore a smaller detention basin. The use of a less conservative approach was not an option for the Town or for DEP in the course of its review. The basin will provide the storage capacity determined to be necessary by calculations using the required SCS methodology. (Exs. APP-5, Tab 10, INT-5; test. 9/15/09, L. Jackson. pps. 202-04, 9/17/09, M. Witek, p. 254, B. Hammons, pps. 328-29, 373, J. Caiola, p.413.)

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Dam Construction and Maintenance

21. The basin at its southern end will be enclosed by an earthen embankment dam to impound stormwater during high flows and direct it to a concrete spillway. The earthen embankment will be 7 feet high with a top elevation of 48 feet and run along the eastern and southern course of the detention basin for 1100 feet. The concrete spillway will consist of a multi-tiered arrangement of 3 concrete box culverts with one 7 ft. x 7 ft. box culvert set at elevation 41 flanked on both sides by two 2.5 ft x 5 ft. box culverts set at elevation 45.5 feet. The maximum elevation of water in the basin during a 100-year storm event is elevation 46.9 feet. The Town and DEP analyzed the proposed embankment in consideration of the anticipated volume for a 100-year storm. The embankment will be constructed of materials excavated onsite. The proposed draft permit requires these materials to be tested for suitability for dam construction. The Town included an Operations and Maintenance Manual and an Emergency Operations Plan with its application. The provisions of those documents were reviewed by DEP

and are incorporated into the proposed draft permit. DEP also reviewed the construction of the dam itself, including the materials to be used and the design of the proposed spillway. The dam as constructed will meet dam safety guidelines. It will function as a dam only during periods of higher stormwater flows. (Exs. APP-5, Tab 8, DEP-3, 9, 14; test. 9/17/09, M. Witek, pps. 285-86, P. Spangenberg, pps. 418-422.)

- 22. The Town conducted a dam breach analysis to determine if the dam poses any substantial threat downstream to people and property. Using conservative factors for the analysis, including maximum depth of water from a 100-year storm and a time of failure of 10-minutes, the maximum rise in flood elevation as a result of a breach during a 100-year storm event compared to non-breach conditions is 1.2 feet. No roads or structures lie in this initial area of increased inundation. In areas with roads and structures subject to increased inundation as a result of a dam breach, the maximum increase in flood elevation will be six inches. The effect of a breach on roads and structures will be insignificant. Based on the results of the dam breach analysis, the Town recommends that the dam be classified as AA. DEP cannot commit to giving the dam a final safety rating until it is actually constructed and inspected. Public access to the basin and along the embankment will not compromise the effectiveness and safety of the dam. (Ex. APP-5, Tab 8; test. 9/17/09, L. Jackson, 219-21, M. Sears, pps. 297-99, P. Spangenberg, pps. 419-20.)
- 23. The proper functioning of the basin and the dam are interrelated. An operations and management (O&M) plan provides a specific protocol that the town will follow to ensure the integrity of the dam and the basin. Trees and woody vegetation can compromise an earthen dam and cannot be on or within twenty five feet of the embankment. The O&M plan provides a checklist for the inspection and maintenance of the dam and basin so the town can recognize conditions in the field and implement appropriate corrective action as necessary. (Ex. APP-5, Tab 8; test. 9/15/09, R. Steeger, p. 74, 9/17/09, M. Sears, pps. 296, 300, P. Spangenberg, pps. 423-24.)
- 24. The concrete spillway/outlet structure will be relocated to the west of its location as originally designed in response to comment from an abutting landowner. It will now include a riprap channel that will direct low flows directly to Stony Brook and gabions on both sides under the 2.5 ft x 5 ft. box culverts to accommodate higher flows and protect against erosion from

storms exceeding a 25 year frequency. The change in location will not impact the spillway's function and does not alter the assessment of the dam's safety. There are additional temporary wetland impacts from this proposal associated with the construction of the rip-rap channel. These temporary impacts will be addressed by the Town's mitigation package and the overall improvement in water quality that the project will foster. (Exs. APP-5, 9, 15 w/revised plans, 17 w/revised plans, DEP-8, 14; test. 9/15/09, W. Kenny, pps. 100-03, 128, 9/17/09, L. Jackson, pps. 246-47, M. Sears, p. 293.)

7 Alternatives

25. The Town considered several project alternatives to meet the goal of eliminating flooding on Heights Road. These alternatives were eliminated from consideration because they did not address the immediacy of the flooding problem and did not provide sufficient flood storage to handle the build up at Heights Road that would be conveyed downstream by the proposed new culverts. Additional storage upstream of Heights Road is not a viable option because the area is heavily developed and lacks available open space suitable for flood storage. Alternatives downstream of Heights Road do not provide sufficient storage on their own to address the flooding problem and would still require a portion of Baker Park to be used for flood storage. The alternatives to use the railroad station parking area or the parking area of the Stop & Shop grocery store for flood storage do not provide enough storage on their own for the 100-year storm and involve the use of property that the town does not control. The use of railroad property presents potential difficulty due to substantial electrical infrastructure buried under and running over the railroad tracks. The alternative to use a portion of the playing fields for flood storage would eliminate the use of the playing fields and still require use of a portion of the Baker Park Woods. Any use of the fields as a detention basin would cutoff flow to the existing The option of placing piping under the fields for flood storage would require wetlands. significant maintenance and would not eliminate the need for storage in the wooded portion of Baker Park. The proposed project meets the project goals entirely and in a manner that avoids and minimizes impacts to regulated resources without the need for significant infrastructure, maintenance, or mechanical conveyances. It is the most prudent and feasible alternative. (Exs.

APP-5, Tab 14, APP-16, DEP-8; test. 9/15/09, R. Steeger, pps. 74-80, W. Kenny, pps. 146-53, 9/17/09, L. Jackson, pps. 223-24, M. Witek, pps. 254-55, 269-74, M. Salter, pps. 409-10.)

26. In addition to the examination of design alternatives for a flood storage/detention project, the Town also examined alternatives to implement at the business center itself. These included physically raising the structures above flood stage, purchasing and razing the structures, and employing flood protection structures and barriers to keep flood waters out of the businesses. These alternatives are not feasible for the town from a cost, reliability, and or constructability standpoint. They would also not address the primary goals of the project, including the problem of the flooding on Heights Road. (Exs. APP-5, 16, DEP-8; test. R. Steeger, 9/15/09, pps. 75-77.)

8 Intervening Party Issues

- 27. The Coalition to Save Baker Woods (Coalition) is a group of residents formed to challenge the Town's proposed plan to relieve flooding at Heights Road. The Coalition is led by James Tatum, a residential abutter to the proposed project and consists mainly of members from the neighborhoods adjacent to Baker Park. (Test. J. Tatum, 9/17/09, pps. 386-87, 397.)
- 28. The Coalition presented a witness with expertise in water resources, but not wetlands or soils science. This witness conducted a limited, ten-hour review of certain portions of the project application, including the hydrological and hydraulic analysis. The intervening party contends that the Town can reduce the size of the detention basin by using several of the identified alternatives in combination, but its expert provided no data or calculations to support this theory. The Coalition's expert did not perform a comprehensive numerical analysis of the alternatives and did not determine that there was another more prudent and feasible alternative to the selected design. (Ex. PET-1, 5; test. B. Hammons, 9/17/09, pps. 329-33, 339, 353-54, 356-57, 359, 367-68, 376.)

B CONCLUSIONS OF LAW

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DIVERSION PERMIT:

The Application and Draft Permit Comply with General Statutes §§ 22a-365 through 22a-377 and Implementing Regulations

The Town requires a diversion permit for the proposed flood management project because it involves the alteration and detention of stormwater flow in a drainage area over 100 acres. The diverted stormwater will not be consumed in any manner and will remain in the watershed and will return to its natural course. The intervening party contends that General Statutes § 22a-366 requires that a project meet all three stated legislative priorities to be permitted under the diversion act. 4 Contrary to this contention, I conclude that an application does not have to address all the priorities stated in the introductory findings of the statute.⁵ To require so would ignore the fact that the reference to interstate diversions, while an important priority for the protection of the state's water resources, does not apply to this project or many water diversion activities that are the subject of current permits. It is important to read the statute in its entirety with a view toward reconciling its separate parts in order to render a reasonable overall interpretation. Connecticut Resources Recovery Authority v. Planning & Zoning Commission, 46 Conn. App. 566, 571 (1997). In addition to stating the goals and priorities of the statute in §22a-366, the legislature also provided the Commissioner with language detailing requirements for diversion permit applications, criteria by which to review and approve applications, and the authority to enact regulations dealing with the registration and permitting of water diversions. General Statutes §§ 22a-369, 22a-373, and 22a-377(c). Within those regulations, the Commissioner clearly recognizes that diversions requiring a permit can involve more than the extraction and consumption of water from natural watercourses.

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⁴ This contention is based on the following language: "...it is found and declared that diversion of the waters of the state shall be permitted only when such diversion is found to be necessary, is compatible with long-range water resource planning, proper management and use of the water resources of Connecticut and is consistent with Connecticut's policy of protecting its citizens against harmful interstate diversions...."

⁵ This discussion is necessary to show how the Coalition mistakenly relies on a fragment of the statute while ignoring the entire statutory and regulatory framework that developed from the statement of priorities in §22a-366. I do not agree that the proposed project is inconsistent with these priorities and in fact conclude below, in greater detail, that they are consistent.

For larger drainage areas over 100 acres, any alteration of flow or detention (by definition, a diversion) of stormwater (included in the definition of waters of the state) requires a diversion permit. General Statutes §22a-367, Regs., Conn. State Agencies §22a-377(c)-1(a)(3). In order to issue a permit the Commissioner must determine that the application is complete and the proposed project is consistent with the applicable statutes and regulations. In the diversion act, these considerations go beyond the priorities of the legislature stated in §22a-366 and clearly contemplate permitting activities to which all three priorities may not apply. The intervening party's argument is creative, but clearly ignores the entirety of the statute and the regulatory framework promulgated by the Commissioner under authority delegated by the legislature.

In construing a statute, common sense must be used and courts will assume that the legislature intended to accomplish a reasonable and rational result. The unreasonableness of the result obtained by the acceptance of one possible alternative interpretation of an act is a reason for rejecting that interpretation in favor of another which would provide a result that is reasonable. When two constructions are possible, courts will adopt the one which makes the statute effective and workable, and not one that leads to difficult and possibly bizarre results. [Internal quotation marks and citations omitted]

Red Hill Coalition, Inc. v. Town Planning and Zoning Commission, 212 Conn. 727, 737-38 (1989).

The intervening party's reading would require all diversions to protect against interstate diversions because it is one of the priorities in §22a-366. The legislature did not intend the unreasonable result that the Coalition's argument supports. Therefore, I do not accept it.

a Compliance with General Statutes § 22a-369

General Statutes § 22a-369 specifies the minimum information required by the Commissioner in an application to divert waters of the state. The application presented by the Town provided the required information to the DEP for its review. In instances where DEP required additional information, the Town complied as part of its response to comments on its permit application after the publication of the Notice of Tentative Determination.

The intervening party argues that the Town failed to present all alternatives and therefore failed to comply with General Statutes §22a-369(8)⁶. The Coalition bases this argument on Mr. Steeger's testimony that other alternatives were considered but eliminated due to "obvious, major problems." I decline to accept this argument and conclude that the alternatives analysis was adequate. The Town presented a lengthy review of the project alternatives that warranted consideration by the DEP. Any reference to alternatives that the Town rejected because they determined the alternatives had "obvious, major problems" does not require the Town to explain these alternatives. The rejection of those alternatives because they were clearly not feasible or prudent is the Town's prerogative. If DEP felt the alternatives analysis was inadequate, then they could have asked the Town to submit more information. In fact, this occurred during the review of the previous project application in 2008. The requirement to submit alternatives does not require an applicant to consider and present every possible alternative. The statute itself contemplates an evaluation of any alternative's feasibility thus requiring the alternative to meet some level of practicality before it is presented for DEP's consideration. If the intervening party wanted an explanation of the rejected alternatives referenced by Mr. Steeger, then they could have asked for the explanation during cross-examination. The lack of an explanation alone does not lead me to conclude that the Town's alternatives analysis was inadequate or failed to comply with §22a-369(8).

Furthermore, if the intervening party wanted to present a prudent and feasible alternative, they had full opportunity to do so during the presentation of its case. During his testimony, the Coalition's expert offered that the use of multiple alternatives in combination could reduce the size of the detention basin. Under cross-examination, however, this expert acknowledged that he had not completed an in-depth analysis of these alternatives, nor had he determined whether they were feasible or prudent. This testimony does not refute the overwhelming evidence, including the credible testimony of three expert witnesses, that the Town selected and DEP approved the most prudent and feasible alternative to meet the project's goals. The intervening party may disagree with the project goals, but that alone is not evidence that refutes the selected alternative.

⁶ The applicant shall submit an application on such form as the commissioner may prescribe and with such information as the commissioner deems necessary to fulfill the purposes of sections 22a-365 to 22a-378, inclusive, including but not limited to: ... (8) The alternatives, if any, to the proposed diversion including a study of cost factors, feasibility and environmental effects of such alternatives.... General Statutes §22a-369(8).

h

Compliance with General Statutes §22a-373(b) and Regulation of Connecticut State Agencies §22a-377(c)-2

The statute and regulations require the Commissioner, in making her decision, to consider the factors listed below. The Town, in its study of the impacts of the proposed diversion and the potential alternatives to the diversion, adequately addressed these issues in its initial applications and in subsequent submittals responding to DEP staff.

(1) The effect of the proposed diversion on related needs for public water supply including existing and projected uses, safe yield of reservoir systems and reservoir and groundwater development;

The proposed diversion will have no impact on these resources or any planned uses of them as drinking water supplies.

(2) The effect of the proposed diversion on existing and planned water uses in the area affected such as public water supplies, relative density of private wells, hydropower, flood management, water-based recreation, wetland habitats, waste assimilation and agriculture;

The proposed diversion will have a positive impact on flood management by relieving flooding concerns on Heights Road through the combination of increased conveyance capacity at Heights Road and the downstream detention basin that will control and reduce flood flows while increasing opportunities for stormwater renovation to improve water quality. Wetlands impacts have been sufficiently avoided and minimized and where unavoidable, properly mitigated with offsite wetlands creation and enhancement that result in a net gain of resource area for the watershed.

(3) Compatibility of the proposed diversion with the policies and programs of the state of Connecticut, as adopted or amended, dealing with long-range planning, management, allocation and use of the water resources of the state;

The proposed project meets the state's goals of proper flood management. It increases total wetland acreage and enhances water quality of downstream resources. There are no

downstream flooding impacts and the use of the detention basin results in a small decrease in downstream flows.

(4) The relationship of the proposed diversion to economic development and the creation of jobs;

The Heights Road area is of significant interest to the town's business development goals. The proposed project solves the flooding problem to ensure the continued existence of this area and to encourage continued investment in its success as part of Darien's business community.

(5) The effect of the proposed diversion on the existing water conditions, with due regard to watershed characterization, groundwater availability potential, evapotranspiration conditions and water quality;

The proposed project will have an overall positive impact on water quality. The enhanced water renovation that will occur in the detention basin during higher flows and the increased functions from the wetlands mitigation projects will benefit the watershed overall and represent an improvement over the existing conditions.

(6) The effect, including thermal effect, on fish and wildlife as a result of flow reduction, alteration or augmentation caused by the proposed diversion;

Based on the Town's comprehensive review of environmental resources and the functions and values they provide, including wildlife habitat, I find that the alteration of stormwater flow and creation of the detention basin will not have any impact on fish or wildlife. The creation of wet meadow habitat in the basin will support existing wildlife and attract additional bird and insect species. Mitigation efforts at Darien High School and at Darien Town Hall provide increased opportunities for fish and wildlife to utilize these resource areas

(7) The effect of the proposed diversion on navigation;

There is no impact to navigation.

(8) Whether the water to be diverted is necessary and to the extent that it is, whether such water can be derived from other alternatives including but not limited to conservation;

The Town has demonstrated the necessity of relieving flooding on Heights Road from a public safety and economic standpoint. The relief of flooding on Heights Road cannot come at the expense of downstream areas. In order to avoid moving the flooding downstream, the Town effectively analyzed the alternatives and, with DEP's concurrence after its own analysis, elected to mitigate the flooding by constructing the proposed detention basin in a portion of the currently wooded area of Baker Park. The water must be diverted and detained in the basin to achieve this result. Given the goals of the proposed project to comprehensively address the flooding problem at Heights Road, I find the proposed design to be the most prudent and feasible alternative. The intervening party's request to further examine a piecemeal approach to resolving this problem would unduly delay further progress with little environmental benefit.

In its posthearing briefs, the Coalition attempts to present rebuttal evidence regarding the severity of flooding events and the impact at Heights Road to dispute the necessity of the project and the results of the alternatives analysis. The Coalition's attempt to dispute the factual basis for the project's initiation could have been pursued within the presentation of its case or during the course of cross-examining the Town's witnesses. I have no basis in the hearing record to reject the testimony of Ms. Klein or Mr. Steeger regarding the flooding history at Heights Road and I cannot take notice of alleged facts not in the hearing record especially because they are disputed by evidence that was admitted without challenge in the course of the hearing.

(9) Consistency of the proposed diversion with action taken by the Attorney General, pursuant to sections 3-126 and 3-127;

This section is inapplicable.

(10) The interests of all municipalities which would be affected by the proposed diversion.

The impacts of the proposed project are limited to Darien. Relief of the flooding at Heights Road is of significant interest to the Town of Darien from a safety and economic standpoint.

c Conclusion

The Town provided the required information and analysis of the proposed diversion to support it application. DEP's review of the materials considered all relevant factors and the evidence supports the conclusions it reached. I recommend issuance of the proposed draft water diversion permit.

DAM SAFETY PERMIT: The Application and Proposed Draft Permit Comply with General Statutes §22a-403

The proposed project includes the construction of a dam consisting of an earthen embankment and spillway to temporarily impound water and release it in a controlled fashion. The Commissioner is authorized to issue permits for the construction and maintenance of a dam. The Town submitted sufficient information, including plans, drawing, specifications, and other data for DEP to review the proposed construction of the dam as required by §22a-403(a). Using this information, the Commissioner must determine the impact of the proposed dam on the environment, on the safety of persons and property, and on wetlands and watercourses.

a Safety of People and Property

The application materials show that the proposed dam meets recognized safety standards as they apply to the impoundment and controlled release of stormwater. Under worst case scenarios and given the present state of development, the dam's breach would have negligible downstream effect. The design of the dam is acceptable and a special permit condition will ensure that the on-site materials are acceptable for dam construction. The proposed draft permit incorporates, the Operations and Maintenance (O&M) Manual and the Emergency Operations Plan that detail the Town's responsibility to ensure the structure's integrity and operate the structure in a safe and responsible manner. Because the dam and its appurtenances are in a public recreational area and abut a residential neighborhood, the concern over safety goes beyond their ability to impound water as evidenced by the concern that the basin itself will

enable a proliferation of mosquitoes that will unduly place neighboring residents and park users at an increased risk for mosquito-borne illnesses.

The Town addressed this concern in the course of direct testimony and I find that the basin itself, if maintained properly, will not cause an increase in the population of mosquitoes already present on-site. However, I also find that the intrusion of common reed grass (phragmites) in the proposed detention basin could provide protection to breeding mosquitoes that does not currently exist by sheltering mosquitoes from natural predators. Any proliferation of mosquitoes occasioned by phragmites could present a public safety issue. It is clear that the Town anticipates this potential problem; however, I can find no reference to phragmites control in the documentary evidence, including the project application and supporting material or in the proposed draft permits.

The Commissioner is authorized to place conditions on the dam construction permit relevant to the dam's maintenance and inspection after its construction. The Town included an Operations and Maintenance Manual with its application and the provisions of that application, including the O&M Manual, are incorporated into the proposed draft permit. There are numerous public comments within the record that outline the safety concern that an increase in mosquito population poses. The Town's expert has testified that the proposed project will not increase and may in fact decrease mosquito populations provided phragmites are controlled. I, therefore, recommend that the Commissioner consider the following additional Special Condition, or an equivalent condition requiring the Town to monitor the detention basin for phragmites growth and employ recognized best management practices to control any observed growth for inclusion in the revised draft permit:

The permittee shall monitor the basin for growth or presence of common reed grass (*phragmites australis*) during maintenance inspections or during the course of regular maintenance. If any growth or presence of common reed grass is detected, then the permittee shall use best management practices, including hand cutting/removal and hand spraying to remove and control any growth.

This condition will recognize the public's valid concern about mosquitoes while acknowledging the evidence that, with an effective phragmites control program, construction of the basin itself will not increase the mosquito population in the area.

b

Impact to the Environment and Wetlands and Watercourses

The environmental review of the entire project (of which this dam is a part) conducted for the diversion permit application shows that the Town adequately considered and addressed environmental concerns, including those related to impacted wetlands and watercourses. Environmental impacts were avoided and minimized. Mitigation efforts adequately address those temporary and permanent impacts to regulated areas that were unavoidable. Special permit conditions address concerns regarding on-site construction activities, including erosion and sedimentation controls and a requirement for off-site fueling whenever possible. The overall project will provide a net environmental benefit to the area based on enhanced water quality, increased resource area, and improved flood management.

C

Conclusion

The Town provided the required information and analysis of the proposed dam construction to support it application. DEP's review of the materials considered all relevant factors and the evidence supports the conclusions it reached. I recommend issuance of the proposed draft dam safety construction permit as modified by the recommended permit condition.

THE INTERVENING PARTY DID NOT MEET ITS BURDEN

The Coalition to Save Baker Woods (Coalition) was granted party status as a result of its allegation that its specific legal rights, duties, and privileges will or are reasonably likely to be affected by the proposed project. Regs., Conn. State Agencies §22a-3a-6(k)(1)(b). Assuming the Coalition's specific legal interests are affected⁷, the proof of that is not enough to overturn the tentative determination to issue the permits for the proposed activity absent a demonstration,

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⁷ This may be the case; however, the Town raises a credible argument that the Coalition's issues of concern are not specific to the Coalition but of general concern to Darien's residents. The Town has argued that the intervening party must be aggrieved and therefore must show a specific, personal, and legal interest in the subject matter of a determination rather than an interest that all members of the general public share. *ABC, LLC v. State Ethics Commission*, 264 Conn. 812, 823-24 (2003). When I granted the Coalition status as a party, I ruled that the Coalition will be required to demonstrate aggrievement should it attempt to appeal, but such a showing is not required to be granted intervening party status.

through the presentation of evidence, that the applicable statutory or regulatory standards have not been met. The Coalition's expert testimony was clear that there were questions about the application but did not provide evidence that the Town's or DEP's conclusions were incorrect. I cannot use the questions this expert expressed based on a 10-hour review of portions of the application to overturn the tentative determination. The facts and the law do not support such a result.

I appreciate the Coalition's concern that this project will substantially alter a familiar landscape. It has raised several concerns about the impact of this alteration and its proposed removal of all the trees within the footprint of the proposed basin. However, many of the concerns stated in the Coalition's amended intervention request are irrelevant to the DEP permits that are the subject of this hearing and are perhaps more appropriate for local proceedings. The concerns about property values, noise, and increases in cooling costs are not a factor in this decision. The issue about loss of a play area for children is not clearly relevant and also not supported by the consistent evidence that this area will remain open for recreational use. I do consider as relevant the safety concerns expressed by the Coalition and the public about mosquitoes and, as expressed above, recommend that the Commissioner address them with a permit condition requiring the Town to monitor and control phragmites growth in the proposed detention basin. I have already addressed the Coalition's concerns about loss of wildlife habitat and polluted runoff. The evidence does not support their allegations.

The Coalition also raised new issues in its post hearing brief and in its reply brief that were not originally part of the Coalition's intervention request. I am under no obligation to consider these issues but I will address them briefly because they attempt to rebut record

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⁸ This is especially so given that the Town and DEP addressed his issues with testimony and reference to documents in evidence that the Coalition did not rebut or that the Coalition's expert, in some cases, agreed to on cross-examination.

⁹ The Coalition raises questions about the number of trees to be eliminated. While an exact number was never stated in testimony, Drawing 3.8, as referenced in the Coalition's reply brief, does show those trees to be eliminated. Unfortunately, the Coalition's brief misstates what that figure depicts. Although in the map legend a gray dot depicts a tree to be removed, the reference to a diameter of 12 inches in the legend does not mean that only trees 12 inches in diameter or more were counted. A quick view of the map on the drawing shows trees 6 inches, 8 inches and 10 inches in diameter to be removed (gray dots) or to remain (green dots). The Coalition never offered evidence through testimony or otherwise regarding the number of trees to be removed. Instead, in its haste, it relies on a clear misinterpretation of record evidence to support its claim that the Town has provided a misleading estimate of the trees to be removed. I must disregard this allegation.

evidence after the fact without reference to any support in the record. First, the Coalition claims that the Town failed to provide adequate notice. Even if I could consider these allegations, the evidence shows that the application, Notice of Tentative Determination, and the hearing were all properly noticed. (See Finding of Fact Nos. 1 and 6 above). Next the Coalition disputes the severity of storms and flooding referenced in the Town's testimony and application materials. As discussed above, this rebuttal could have been attempted during the hearing and I will not take notice of facts that are disputed by the evidence. Finally, the fact that General Statutes §22a-403 does not require the Applicant to seek approval of this project from the Darien Environmental Protection Commission (EPC) is completely irrelevant to the tentative determination by DEP staff and to the determination made as a result of this hearing. The Coalition's analysis of the EPC's jurisdiction does not take into account the specific statement in §22a-403 that a project that receives a permit under that statute does not need to receive local approval for its wetlands impacts. It also ignores the fact that the EPC does retain jurisdiction over certain aspects of the project unrelated to the dam and basin construction. 10

The Town, faced with a challenging problem, has proposed the identified project and DEP has determined that it meets the applicable standards for the required permits. The intervening party's disagreement with that determination is not supported by the evidence when considered in light of the statutory and regulatory standards relevant to this application. The substantial evidence supports the findings of DEP staff that the proposed project has sufficiently avoided and minimized impacts to the environment and will effectively and safely operate without undue jeopardy to the safety of people and property. The Coalition's opposition is based on sincerely held beliefs and values shared by many fellow residents. However, I am bound to follow the statutory guidelines and the intervening party presented no convincing evidence to waiver from these findings.

¹⁰ Mr. Tatum's offer to have the EPC chair, Mr. Hillman, testify unannounced at the hearing about what transpired re: jurisdiction between DEP and the EPC was unnecessary. Exhibits APP-10 and APP-12 provide the written record and establish the extent of the EPC's jurisdiction over this project. It remains irrelevant to my determination on the consistency of the application and the proposed draft permits with the applicable statutes and regulations.

III RECOMMENDATION

The Town has met its burden through the presentation of substantial evidence that the proposed activity, if conducted in accordance with the terms and conditions and recommended modification of the proposed draft permits, complies with the applicable statutes and regulations. I recommend that the Commissioner issue the proposed water diversion permit (Attachment 1) without delay and the proposed dam safety permit (Attachment 2) with the special condition recommended above or with a substantially equivalent condition.

Kenneth M. Collette, Hearing Officer

SERVICE LIST

Proposed Final Decision

In the matter of Town of Darien, Flood Control Project

Application Nos. DIV-200900712, DS-200900714

<u>PARTY</u> <u>REPRESENTED BY</u>

Applicant

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PETITIONER

Coalition to Save Baker Woods James H. Tatum, Jr.

65 Noroton Road Darien, CT 06820 (212) 826-9314

reelonefilms@earthlink.net

WATER DIVERSION PERMIT

Permittee:

Town of Darien

Attn:

Mr. Robert Steeger, Jr. PE

Permit No.: DIV-200900712 Permit Type: Water Diversion

Town: Darien, CT

Project: Stony Brook Tributary Flood Control Project

Pursuant to Connecticut General Statutes Section 22a-368 the Commissioner of Environmental Protection hereby grants a permit to the Town of Darien (the "permittee") to divert waters of the state in the Town of Darien in accordance with its application and plans which are part thereof filed with this Department on March 9, 2009 signed by George L. Jacobs, William Lawrence Kenny, and Michael Sears dated February 10, 2009, revised through September 2, 2009. The purpose of said activities is to alleviate the persistent flooding in the Noroton Heights area of Darien (the "site").

AUTHORIZED ACTIVITY

Specifically, the permittee is authorized to discharge material(s) incidental to the construction of a 60" culvert under the Metro-North rail line, a 5" by 12" and two 4" by 7" box culverts enclosing the Stony Brook Tributary, a diversion structure and detention basin in Baker Park, and creation/enhancement of wetlands at Darien High School and adjacent to Darien Town Hall in accordance with said application and plans which are part thereof entitled: "Stony Brook Tributary Flood Control Project", dated February 10, 2009, revised through September 2, 2009, prepared by Dewberry-Goodkind, Inc. (the "site"). Approximately 0.31 acres of wetlands/watercourse/waterbody will be affected by the discharge(s).

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.

This authorization is subject to the following conditions:

SPECIAL CONDITIONS

1. All unconfined instream activity shall be restricted to the time period of June 1 through September 30, and,

2. The Mitigation Plan dated February 10, 2009 and associated plans entitled "Stony Brook Tributary Flood Control Project," dated February 10, 2009 showing creation of 0.48 acres of wetland and 0.04 acres of watercourse, and the enhancement of 0.10 acres

of wetland and 0.10 acres of watercourse, and 0.09 acres of streambank enhancement within Stony Brook proper and its tributary shall be implemented

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 apply for and receive 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. **Expiration of Permit**. The Connecticut Water Diversion Policy Act permit DIV-200900712 shall expire (three years from the date of issuance of this permit).
- 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, a responsible corporate officer of the permittee, a general partner of the permittee, or 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:

Denise Ruzicka
Director
Department of Environmental Protection
Bureau of Water Management
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

Commissioner

DRAFT PERMIT

Permittee:

Town of Darien

Permit No.:

DS-200900714

CT Dam Inv. No.:

(To be assigned) Baker Park Detention Dam

Town:

Darien

Pursuant to Section 22a-403 of the Connecticut General Statutes, the Town of Darien ("permittee") is hereby permitted to conduct activities to construct a detention basin dam ("the dam") at Baker Park located in the Town of Darien between Dubois Street and Noroton Ave and south of Relihan Road, adjacent to a tributary to Stony Brook in Darien, Connecticut as set forth in application #DS-200900714 prepared by William Kenny Associates LLC, received on March 9, 2009, which includes attachments and plans entitled "Stony Brook Tributary Flood Control Project, Baker Park Flood Control Improvements" dated February 10, 2009 and related documents which were prepared by Dewberry-Goodkind, Inc. including the following: "Geotechnical Report dated January 2009, Operations and Maintenance Manual dated March 2009, Emergency Operations Plan dated March 2009.

Authorized Activity

Specifically, the permittee is authorized to construct the earthen embankment detention basin dam and concrete inlet and outlet works as depicted in the above referenced plans and specifications, except as modified by special conditions below.

This permit is subject to and does not derogate any present or future property rights or other rights and all public and private rights and to any federal, state, or local laws or regulations pertinent to the property or activity hereby. This authorization is subject to the following conditions:

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

Special Conditions

- A. Embankment Construction Material Testing and Compaction. The permittee shall test the material proposed for the embankment fill and the compaction thereof to ensure it meets standard engineering requirements for impermeable embankment fill. Copies of the test results shall be maintained on site during construction and be made available upon request.
- B. Staging areas should not be completely cleared and should maintain a vegetated buffer along any riparian corridor they may be constructed adjacent to. Any soil that is stockpiled should

Draft Permit DS-200900714 Baker Park Detention Dam Page 2 of 2

- C. Refueling of equipment should be conducted at as far away from wetlands and watercourses as is practicable. The fueling station shall have spill cleanup materials nearby and incorporate an impermeable barrier containment pan / mat system to capture any spills for cleanup.
- D. All dewatering basins and/or sediment containment / capture systems should be located on relatively flat grade as far away from wetlands and watercourses as is practicable.

General Conditions

1. **Initiation and Completion of Construction**

A. The permittee shall notify the Commissioner in writing no less than seven (7) days prior to commencement of permitted activities and no less than seven (7) days following completion of permitted activities.

2. **Expiration of Permit**

- A. The activities authorized herein shall be completed on or before three years following the date of issue unless this permit is specifically renewed.
- B. This permit may be revoked, suspended, or modified in accordance with law, including but not limited to the Regulations of Connecticut State Agencies Section 22a-3a-5(d).

3. **Permit Compliance**

- A. This permit and a copy of the approved plans and specifications shall be kept at the project site and made available to the Commissioner at any time during the construction of permitted activities.
- B. Permitted activities shall be performed under the supervision of an engineer who is licensed to practice in the State of Connecticut and who is familiar with dam construction. Said engineer shall, upon completion of the permitted activities, certify to the Commissioner in writing that the permitted activities have been completed according to the approved plans and specifications.
- C. The permittee may not modify the permitted plans and specifications without the prior written approval of the Commissioner.
- D. Within thirty (30) days of completion of the permitted activities, permittee shall submit to the Commissioner one complete plan set of record drawings depicting the dam

Draft Permit DS-200900714 Baker Park Detention Dam Page 3 of 3

construction as completed, including any deviations from the approved plans and specifications. Said drawings shall be prepared and sealed by the engineer who oversaw the construction. In addition, the permittee shall arrange for submission of an electronic copy of the final record drawings in Adobe Acrobat "pdf" format.

4. Fishway Requirements

The Commissioner has determined in accordance with Section 26-136 of the Connecticut General Statutes that, as of the date this permit is issued, a fishway is not required at this dam.

5. Reliance on Application

In evaluating the permittee's application, the Commissioner has relied on information provided by the permittee. If such information subsequently proves to have been false, deceptive, incomplete or inaccurate, this permit may be modified, suspended or revoked.

6. **Best Management Practices**

In constructing the activities authorized herein, the permittee shall use construction methods that minimize sedimentation and erosion and prevent pollution. Such practices include, but are not necessarily limited to the following:

- A. All authorized activities shall be performed in such a manner as to minimize resuspension of sediments and subsequent siltation and to prevent construction materials and debris from entering wetlands or watercourses.
- B. No construction vehicles shall be stored, serviced, washed or flushed out in a location where leaks, spillage, waste materials, cleaners or waters will be introduced or flow into wetlands or watercourses.
- C. Haybales, mulch, sedimentation basins or other temporary sedimentation controls, including silt fences, shall be used as necessary to control erosion and sedimentation.
- D. Except as provided in this permit, no material storage or stockpiling of construction materials shall occur in any wetlands or watercourses.
- E. Fill, without limitation, or construction debris, shall not be placed in wetlands or watercourses unless authorized by this permit.

7. <u>Certification of Documents</u>

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Any document, including but not limited to any notice which is required to be submitted to the Commissioner pursuant to this permit shall be signed by: the permittee, a responsible corporate officer of the permittee or a duly authorized representative of such person, as those terms are defined in Section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies, 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 attachments may be punishable as a criminal offense".

8. **Submission of Documents**

Any document required to be submitted to the Commissioner pursuant to this permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

Mr. Art Christian, Supervising Civil Engineer DEP/Bureau of Water Protection and Land Reuse 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 one 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 a Connecticut or federal holiday shall be submitted or performed before the next day which is not a Saturday, Sunday or a Connecticut or federal holiday.

Dam Owner/Operator Liability

Your attention is further directed to Section 22a-406 of the General Statutes: "Nothing in this chapter and no order, approval or advice of the Commissioner, shall relieve any owner or operator of {a dam} from his legal duties, obligations and liabilities resulting from such ownership or operation. No action for damages sustained through the partial failure of any structure or its maintenance shall be brought or maintained against the state, the Commissioner of Environmental Protection, or her

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employees or agents."	
This authorization constitutes the permit requ Statutes.	ired by Section 22a-403 of the Connecticut General
Date	Amey Marrella, Commissioner