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RIVER BEND ASSOCIATES, INC., ET AL. v.
CONSERVATION AND INLAND WETLANDS
COMMISSION OF THE TOWN OF
SIMSBURY ET AL.
(SC 16867)

Sullivan, C. J., and Borden, Katz, Palmer and Vertefeuille, Js.

Argued September 23, 2003--officially released May 18, 2004

Timothy S. Hollister, with whom were *Matthew Ranelli* and, on the brief, *Beth Bryan Critton*, for the appellants (plaintiffs).

Brian R. Smith, with whom were *Robert S. Melvin* and *Karen A. L. Perry*, for the appellee (named defendant).

Dana Young and *Frank B. Cochran* filed a brief for the Connecticut Fund for the Environment, Inc., as amicus curiae.

Opinion

VERTEFEUILLE, J. The plaintiffs, River Bend Associates, Inc., and Griffin Land and Nurseries, Inc., appeal from the judgment of the trial court dismissing their appeal from the denial by the defendant conservation and inland wetlands commission of the town of Simsbury of the plaintiffs' application for an inland wetlands permit (application) submitted in conjunction with a proposed affordable housing development in Simsbury.¹ The issues presented in this appeal are whether

the trial court properly: (1) concluded that the defendant may regulate activities in upland areas² of the proposed area of development solely on the basis that such activities would adversely affect the wildlife that migrates through the wetlands or watercourses; and (2) applied the substantial evidence test in its review of the reasons given by the defendant for denying the plaintiffs' application.³ We conclude that, pursuant to our recent decision in *AvalonBay Communities, Inc. v. Inland Wetlands Commission*, 266 Conn. 150, 156, 832 A.2d 1 (2003), an inland wetlands agency may regulate activities outside of wetlands, watercourses and upland review areas only if those activities are likely to affect adversely the physical characteristics of those wetlands or watercourses and not just the wildlife that uses the wetlands. We also conclude that the trial court in the present case improperly applied the substantial evidence test when it relied on speculative evidence to support the defendant's reasons for denying the plaintiffs' application, and failed to cite to any specific evidence to support the conclusion that the plaintiffs' proposed actions were likely to have an actual adverse impact on the wetlands or watercourses on the proposed site of development. Accordingly, we reverse the judgment of the trial court.⁴

The following facts and procedural history are relevant to this appeal. The plaintiff Griffin Land and Nurseries, Inc. (Griffin), a Connecticut corporation with its principal place of business in Bloomfield, is in the business of, among other things, owning, developing, and managing industrial, commercial and residential real estate. Griffin owns several hundred acres of land in the north end of Simsbury, including the 363 acres at issue in this appeal (site), which it owns through a subsidiary, the plaintiff River Bend Associates, Inc. (River Bend). The site is bounded by Hoskins Road on the south, Country Road on the northeast, Holcomb Road on the northwest, with Firetown Road and Barn-door Road running through the southwest corner. The site includes approximately twenty-three acres of wetlands⁵ and watercourses⁶ in thirteen separate locations, constituting slightly less than 7 percent of the site. Most of the site is presently zoned for single-family detached homes on one and two acre lots.

Prior to Griffin's acquisition of the site, it was owned by the Culbro Corporation, which, for most of the past 100 years, had used approximately 200 of the 363 acres for growing tobacco or nursery stock. Despite the site's prior use as tobacco fields, the wetlands and watercourses on the site generally exhibit environmental health and diversity and perform appropriate ecological functions. In 1997, Culbro Corporation transferred title to the site to River Bend.

In November, 1999, the plaintiffs filed⁷ their first application with the defendant for a permit to undertake

certain regulated activities in conjunction with their plans to construct 640 residential units on the site, 25 percent of which were to be set aside as affordable housing. The application sought permission to: (1) permanently fill 647 square feet and regrade one acre of wetlands in order to upgrade, expand or build several private access roads; (2) temporarily disturb approximately six acres of “buffer” area,⁸ also called “upland review”⁹ areas, in order to remediate low-level residual pesticide contamination; (3) temporarily disturb one acre of upland review area to install utilities; (4) build several storm water detention basins within the upland review area; and (5) release storm water from the storm water detention basins into the surrounding upland review area, after filtering and pollutant removal. In totality, the plaintiffs’ application proposed a permanent disturbance of 4280 square feet of wetlands and watercourses, constituting 0.42 percent of the wetlands and watercourses on-site, and a temporary disturbance of approximately nineteen acres of upland review area.

As part of the application process, the defendant conducted duly noticed public hearings over a period of six days,¹⁰ during which numerous experts for both the plaintiffs and the defendant presented evidence. Prior to the conclusion of the hearings, the North Simsbury Coalition, Inc. (coalition); see footnote 1 of this opinion; intervened in the proceedings to oppose the application, pursuant to General Statutes § 22a-19 (a).¹¹ The coalition’s intervention was acknowledged by the defendant and the coalition was made a party to the administrative proceedings.

On April 18, 2000, the defendant denied the plaintiffs’ application, stating, among other things, that the proposed development would sever the site from a much larger interconnected ecosystem in the region, thereby adversely affecting the on-site wetlands and wildlife;¹² that it likely would cause excessive sedimentation in the wetlands and watercourses; and that it possibly could cause pesticide mobilization that could detrimentally affect the wetlands and watercourses. In addition, pursuant to General Statutes § 22a-19 (b),¹³ the defendant made a finding that the proposed development would unreasonably impair, pollute or destroy the public trust in the air, water or natural resources. The defendant further concluded that it was unable to find that a feasible and prudent alternative to the development did not exist.

Approximately one month later, responding to the recommendations presented in the defendant’s denial, the plaintiffs submitted a revised application that reduced the area of permanent wetlands and watercourses disturbance from 4280 square feet to 647 square feet, and the temporary disturbance from approximately nineteen acres to a little more than eleven acres. Specifically, the changes in the revised application

included reducing the number of proposed homes from 640 to 371; reducing the number of roads that would cross a particular wetland from three roads to one; changing the location of all storm water detention basins so that they were all located outside the seventy-five foot upland review area; and increasing the designated open space on the site to 144 acres.

The defendant then held four days of public hearings on the revised application. Again, the coalition intervened pursuant to § 22a-19 (a). As with the first application, the plaintiffs and the defendant provided substantial oral and written expert testimony.¹⁴ After the close of the public hearings, the defendant voted again to deny the plaintiffs' application, generally citing the same reasons it provided in the denial of the plaintiffs' first application.

The plaintiffs subsequently appealed from the defendant's denial of their revised application to the Superior Court pursuant to General Statutes § 22a-43 (a).¹⁵ After reviewing the briefs and arguments of the parties, and the voluminous record,¹⁶ the trial court rendered judgment dismissing the plaintiffs' appeal. The trial court concluded, among other things, that the defendant properly could regulate certain activities in the upland area¹⁷ of the site because those activities were likely to impact wetland wildlife; that there was substantial evidence in the record to support the defendant's denial of the plaintiffs' permit application; and that the plaintiffs had not met their burden of proving that no feasible and prudent alternatives existed to their proposed regulated activities.

Following the judgment of dismissal, the plaintiffs filed a petition for certification for review in accordance with General Statutes § 8-8 (o),¹⁸ which was granted by the Appellate Court. We later transferred the subsequent appeal to this court pursuant to General Statutes § 51-199 (c) and Practice Book § 65-1. Further facts will be set forth as necessary.

I

The plaintiffs' first claim on appeal is that the trial court improperly concluded that the defendant could regulate certain proposed activities solely on the basis that such activities adversely would affect the wildlife that migrates between the wetlands or watercourses. Specifically, the plaintiffs argue that the Inland Wetlands and Watercourses Act (act); General Statutes §§ 22a-28 through 22a-45; does not provide inland wetlands agencies with jurisdiction to regulate activities that solely affect the wildlife that uses the wetlands and watercourses, without affecting the wetlands or watercourses themselves. We agree.

The following additional facts are relevant to this issue. The site is located in Simsbury between McLean Game Refuge, located immediately to its north, and

Great Pond State Forest, located immediately to its south, with Great Pond, in particular, providing a “ ‘significant habitat’ ” for plant and wildlife species. The site is also surrounded by several roads, residential neighborhoods, and parcels of land used for agricultural purposes as well as public and private open space.

In conjunction with its review of the plaintiffs’ applications, the defendant hired Michael W. Klemens, a herpetologist, to evaluate the proposals. At the July 6, 2000 hearing on the revised application, Klemens testified that the plaintiffs’ proposed development would, for the first time, sever the site’s wetlands, watercourses and wildlife from a much larger, interconnected regional ecosystem¹⁹ that spanned more than 1000 acres. Specifically, Klemens stated that he had noted “both wood frogs and spotted salamander larva” on the site, as well as a high potential for the occurrence of the eastern box turtle and the eastern ribbon snake, and since “[t]hese animals . . . move large distances” the plaintiffs’ proposed development could cause “significant mortality of [these] animals if they move back and forth between these wooded patches.”

On the basis of Klemens’ evaluation, as well as other expert testimony, the defendant found that the “surrounding region provide[s] habitat for many . . . wetland dependent species. Located between Great Pond State Forest . . . and McLean Game Refuge . . . the [site] provides ecological connections among the region’s many natural resources, including several inland wetlands and watercourses.” Therefore, the defendant concluded that the plaintiffs’ permit should be denied, in part, because the plaintiffs’ proposed activities in the upland areas would further sever the “interconnected ecosystem” and “restrict the wildlife corridor in this area,” thereby causing significant mortality of animals migrating between wetlands, so as to adversely affect existing wetlands and watercourses on the site.

Our recent decision in *AvalonBay Communities, Inc. v. Inland Wetlands Commission*, supra, 266 Conn. 150, is dispositive of this claim.²⁰ In that case, the plaintiff claimed that the trial court improperly had concluded that the inland wetlands commission of the town of Wilton had jurisdiction to deny the plaintiff’s inland wetlands permit application on the basis that the plaintiff’s proposed nonwetland development activity adversely would affect the upland habitat of the spotted salamander, resulting in a reduction of the biodiversity in the wetlands and watercourses.²¹ Id., 156. In reversing the trial court’s ruling, we concluded that “[a wetlands] commission may regulate activities outside of wetlands, watercourses and upland review areas only if those activities are likely to affect the land which comprises a wetland, the body of water that comprises a watercourse or the channel and bank of an intermittent water-

course.” Id., 163. We reasoned that the explicit language and legislative history of the act made it clear that the legislature’s intent was to “[protect] the physical characteristics of wetlands and watercourses and not the wildlife, including wetland obligate species, or biodiversity.” Id.

In the present case, the trial court, without the benefit of our decision in *AvalonBay Communities, Inc.*, concluded that there was evidence in the record to support the defendant’s determination that the plaintiffs’ proposed development activities in the wetlands and upland review areas would fragment the “larger ecosystem,” causing “unacceptable amphibian and other animal mortality from the increased vehicular traffic [from the development]” and thereby adversely affecting the site’s wetlands and watercourses. Although the defendant concluded, in denying the plaintiffs’ application, that such adverse effects to wildlife negatively would impact the site’s wetlands or watercourses, we find no evidence in the record to support such a conclusion, and the defendant has not cited any to us. Accordingly, in light of our holding in *AvalonBay Communities, Inc.*, we conclude that the trial court improperly upheld the defendant’s denial of the plaintiffs’ application based upon the likely effects the proposed activities might have on wildlife migrating through the wetlands.

II

The plaintiffs’ next claim is that the trial court improperly applied the substantial evidence test in its review of the reasons given by the defendant for denying the plaintiffs’ revised application by failing to require that there be specific evidence in the record that the plaintiffs’ activities would in fact adversely impact the wetlands or watercourses.²² Specifically, the plaintiffs argue that the trial court failed to recognize that the substantial evidence test requires a substantial basis in fact that an adverse impact to the wetlands or watercourses will result from the proposed activities and that the defendant’s decision must be supported by more than a possibility of that adverse impact. We agree.

Whether the substantial evidence test was applied properly by the trial court in its review of the defendant’s decision is a question of law over which our review is plenary. See *Fort Trumbull Conservancy, LLC v. Alves*, 262 Conn. 480, 485, 815 A.2d 1188 (2003).

We begin with a review of the well established parameters of the substantial evidence test. It is widely accepted that, “[i]n reviewing an inland wetlands agency decision made pursuant to [its regulations], the reviewing court must sustain the agency’s determination if an examination of the record discloses evidence that supports any one of the reasons given. . . . The evidence, however, to support any such reason must be substantial; [t]he credibility of witnesses and the

determination of factual issues are matters within the province of the administrative agency. . . . This so-called substantial evidence rule is similar to the sufficiency of the evidence standard applied in judicial review of jury verdicts, and evidence is sufficient to sustain an agency finding if it affords a substantial basis of fact from which the fact in issue can be reasonably inferred. . . . The reviewing court must take into account [that there is] contradictory evidence in the record . . . but the possibility of drawing two inconsistent conclusions from the evidence does not prevent an administrative agency's finding from being supported by substantial evidence" (Internal quotation marks omitted.) *Tarullo v. Inland Wetlands & Watercourses Commission*, 263 Conn. 572, 584, 821 A.2d 734 (2003); accord *Samperi v. Inland Wetlands Agency*, 226 Conn. 579, 587–88, 628 A.2d 1286 (1993). Evidence of general environmental impacts, mere speculation, or general concerns do not qualify as substantial evidence. *Connecticut Fund for the Environment, Inc. v. Stamford*, 192 Conn. 247, 250, 470 A.2d 1214 (1984).

In our recent decision in *AvalonBay Communities, Inc.*, we conducted a brief review of "the purpose and statutory scheme of the act as set forth in *Connecticut Fund for the Environment, Inc. v. Stamford*, [supra, 192 Conn. 249–50]. The [act] is contained in . . . §§ [22a-28] through 22a-45, inclusive. Under the act the [commissioner of environmental protection] is charged with the responsibility of protecting inland wetlands and watercourses by . . . regulating activity which might have an adverse environmental impact on such natural resources. Under [General Statutes] §§ 22a-42 and 22a-42a, any municipality, acting through its legislative body, may authorize or create a board or commission²³ to regulate activities affecting the wetlands and watercourses located within its territorial limits and any such board or commission is authorized to grant, deny or limit any permit for a regulated activity. . . .

"The municipal inland wetland agency is authorized to establish the boundaries of inland wetlands and watercourse areas within its jurisdiction. Once such boundaries are established pursuant to procedures set forth in § 22a-42a, no regulated activity shall be conducted within such boundaries without a permit issued by the local agency.

"It is apparent from the foregoing that local inland wetland bodies are not little environmental protection agencies. Their environmental authority is limited to the wetland and watercourse area that is subject to their jurisdiction. They have no authority to regulate any activity that is situated outside their jurisdictional limits. Although in considering an application for a permit to engage in any regulated activity a local inland wetland agency must, under [General Statutes] § 22a-

41, take into account the environmental impact of the proposed project, it is *the impact on the regulated area* that is pertinent, *not the environmental impact in general.*" (Emphasis altered; internal quotation marks omitted.) *AvalonBay Communities, Inc. v. Inland Wetlands Commission*, supra, 266 Conn. 160–61.

In determining the impact of a proposed activity on inland wetlands and watercourses, an inland wetlands agency must consider the criteria established in the act and in applicable municipal regulations. Section 22a-41 (a)²⁴ of the act sets forth specific criteria that must be considered in deciding whether an application for a wetlands and watercourses permit should be granted. Specifically, the statute requires the consideration of: "(1) The *environmental impact* of the proposed regulated activity *on wetlands or watercourses* . . . (3) The relationship between the short-term and long-term *impacts of the proposed regulated activity on wetlands or watercourses* and the maintenance and enhancement of long-term productivity of such wetlands or watercourses; (4) Irreversible and irretrievable loss of wetland or watercourse resources which would be caused by the proposed regulated activity . . . [and] (5) The character and degree of injury to, or interference with, safety, health or the reasonable use of property which is caused or threatened by the proposed regulated activity" (Emphasis added.) General Statutes § 22a-41 (a).

Section 6.2 (a) through (g) of the Simsbury inland wetlands and watercourses regulations (Simsbury regulations) require the defendant to review, among other things, the same five considerations we previously set forth from § 22a-41 (a). Section 6.2 (h) of the Simsbury regulations, however, goes further than the statutory requirements by establishing additional factors that the defendant must also consider: "(1) the amount of material to be removed or deposited and the *projected effect on the water table and drainage patterns*; (2) danger of erosion and siltation; (3) likelihood of siltation and leaching, *and any resulting adverse effects on water quality* and aquatic life; (4) the nature of any material to be removed or deposited *and its effect on flood control, water supply and quality*, and on aquatic organisms; (5) projected changes in velocity, volume, or course of water flow or in the water table, *and their effects*; (6) changes to the physical, chemical, or biological properties of the water or soil, *and their impact*; (7) change in the suitability of the area for recreational or aesthetic enjoyment; (8) importance of the area to the region with respect to water supply, water purification, flood control, natural habitat, recreation, open space, and size; (9) consistency with the Connecticut Department of Environmental Protection water quality classifications and goals; [and] (10) *the effects on the inland wetland's or watercourse's natural capacity* to support desirable biological life, prevent flooding, supply water, control sediment, facilitate

drainage, and promote public health and safety.” (Emphasis added.) In requiring consideration of these additional factors, the Simsbury regulations mandate consideration of both a physical event, for example, siltation and leaching, and also its consequence, e.g., “any resulting adverse effects on water quality” Simsbury Inland Wetlands and Watercourses Regs., § 6.2 (h) (3).

Taken together, these provisions of the act and the Simsbury regulations require a careful consideration by the defendant of the precise impact that the plaintiffs’ proposed activities will have on the wetlands and watercourses on the site and surrounding area. The sine qua non of review of inland wetlands applications is a determination whether the proposed activity will cause an *adverse impact* to a wetland or watercourse. See *Queach Corp. v. Inland Wetlands Commission*, 258 Conn. 178, 199, 779 A.2d 134 (2001) (stating that “the upland review process merely provides a basis for determining whether activities will have an adverse impact on the adjacent wetland or watercourse”); *Mario v. Fairfield*, 217 Conn. 164, 171, 585 A.2d 87 (1991) (upholding regulation that required permit to erect structure on nonwetland portion of property because structure could “adversely affect” wetlands); *Cioffoletti v. Planning & Zoning Commission*, 209 Conn. 544, 558, 552 A.2d 796 (1989) (court upheld regulation of upland mining activity in adjacent areas because activity “would adversely affect wetlands areas”); *Connecticut Fund for the Environment, Inc. v. Stamford*, supra, 192 Conn. 249 (“[u]nder the act the commissioner of environmental protection . . . is charged with the responsibility of protecting inland wetlands and watercourses by . . . regulating activity which might have an adverse environmental impact on such natural resources”). With these constraints in mind, we turn to our analysis of the trial court’s application of the substantial evidence test in the present case.

In its memorandum of decision, the trial court reviewed the six reasons given by the defendant for its denial of the plaintiffs’ revised application,²⁵ and, pointing to certain evidence in the record, concluded that there was substantial evidence supporting each of the reasons given. In its analysis, however, the trial court misapplied the substantial evidence test by failing to determine whether the defendant’s reasons for denial were supported by substantial evidence in the record that the activities proposed by the plaintiffs would result in an adverse impact to the wetlands or watercourses on the site. The trial court looked for evidence that supported the defendant’s conclusions without regard to whether that conclusion necessarily implicated an adverse impact to a wetland or watercourse as defined in the act or in § 6.2 (h) of the Simsbury regulations.

Three of the six reasons given by the defendant for denying the application addressed the plaintiffs' plan to remediate the soil contamination at the site. Evidence was presented at the hearings on both of the plaintiffs' applications that approximately 125 of the site's 363 acres contain varying amounts of residual chlordane, a pesticide harmful to humans that was used in the 1960s and 1970s to kill insects that, inter alia, might harm tobacco plants. Both the plaintiffs' original and revised application proposed to remediate fully the contaminated soil by plowing under the pesticides to a range of thirty-six to forty-eight inches, thereby reducing the concentrations by volume and creating a physical barrier to contact or ingestion. The proposed soil remediation is not required by any statute or regulation. The soil remediation plan gives rise to a wetlands application because out of the 125 acres of soil to be remediated, 5.4 acres lie within the upland review area, thus giving the defendant jurisdiction to review the remediation plan to determine its impact on wetlands and watercourses. The plaintiffs proposed to remediate fully the soil contamination on the site to standards established by the department of environmental protection for exposure to contaminated soil, which are known as the remediation standard regulations, §§ 22a-133k-1 through 22a-133k-3 of the Regulations of Connecticut State Agencies. These standards do not apply to the site or to the soil remediation plan,²⁶ but the plaintiffs nevertheless agreed to remediate the soil in a manner sufficient to meet these standards.

After hearing a significant amount of evidence from experts on both sides, the defendant found that the plaintiffs' proposed plan to remediate soil contamination on the property through soil mixing "*may* increase pesticide mobility and result in . . . greater pesticide transport . . . into wetlands and watercourses" (Emphasis added.) Specifically, the defendant determined that "soil mixing is a relatively unproven, untested and unregulated remedial method that would . . . spread the contamination to greater depths and possibly into wetlands [and] watercourses . . . through increased leaching, erosion, sedimentation, volatilization and airborne deposition." The defendant, however, made no specific finding of any actual adverse impact to any wetlands or watercourses.

Upon review, the trial court concluded that there was substantial evidence in the record to support the defendant's stated rationale. In doing so, the court referenced the same evidence on which the defendant relied, which stated that the disturbance caused by the soil mixing may "increase pesticide mobility" and, therefore, potentially could result in "greater transport of pesticides into . . . groundwater that drains into the wetlands and watercourses and greater pesticide transport directly into wetlands and watercourses"

Specifically, the trial court cited the same expert testimony relied upon by the defendant from its expert, Gordon T. Brookman, professional engineer and president of Environmental Risk Limited, who stated in a letter that, any “hotspot,” which he defined as high concentrations of the pesticides, “should be removed from the site prior to soil mixing” because they “could result in less than complete absorption of the pesticides on the soils, and . . . potentially can result in the pesticides having increased mobility.” The trial court also cited the written statement of another of the defendant’s experts, David H. Lord, a certified soil scientist and environmental consultant for Soil Resource Consultants, who stated that “[t]he soil erosion and sediment control measures proposed [by the plaintiffs’ chemical remediation plan] . . . do not appear to adequately address the issue of potential movement of fine soil particles and organic matter to adjacent wetlands.” The trial court then concluded that there was substantial evidence to support: (1) the defendant’s reason for denying the plaintiffs’ application due to its dissatisfaction with the soil mixing plan; and (2) “the [defendant’s] reason for denial of the application that the proposed soil mixing may increase pesticide mobility and result in greater transport of pesticides into . . . wetlands and watercourses”

The trial court failed, however, to determine whether the proposed soil mixing plan would result in an adverse impact to any of the wetlands on the site. Determining what constitutes an adverse impact on a wetland is a technically complex issue. See *Milardo v. Inland Wetlands Commission*, 27 Conn. App. 214, 222, 605 A.2d 869 (1992). Inland wetlands agencies commonly rely on expert testimony in making such a finding. See generally *Kaufman v. Zoning Commission*, 232 Conn. 122, 156–57, 653 A.2d 798 (1995). Our careful review of the record in the present case, however, does not reveal that any of the experts opined that the plaintiffs’ soil mixing plan would result in any adverse impact to a wetland or watercourse. No expert expressed any opinion regarding whether the possible transport of pesticides into wetlands from the soil remediation would have any significant or adverse impact on the wetlands.²⁷ See *Forsell v. Conservation Commission*, 43 Conn. App. 239, 249, 682 A.2d 595 (1996) (conservation commission’s denial of inland wetlands permit application not supported by substantial evidence that adverse impact to wetlands or watercourses was likely or significant). The absence of such evidence is particularly egregious given the requirement in the Simsbury regulations that the defendant consider not only the nature of any material deposited in the wetland but “its effect on . . . water supply and quality”; Simsbury Inland Wetlands and Watercourses Regs., § 6.2 (h) (4); and not merely the likelihood of siltation and leaching, but also “any resulting adverse effects on water quality” *Id.*,

§ 6.2 (h) (3). The specific terms of the Simsbury regulations preclude the defendant from inferring an adverse impact to wetlands; instead, they mandate an analysis of the actual impact on the wetlands. See *id.*, § 6.2 (h). We conclude that because there was no substantial evidence in the record that the soil remediation plan would cause an adverse impact to a wetland or watercourse,²⁸ the trial court improperly concluded that there was substantial evidence in the record supporting the defendant's reasons for denial of the application because of the plan.

The defendant also denied the application because of the impact of discharges from the storm water management basins. The defendant found that the release of treated storm water into the upland review areas might have an adverse impact on the site's wetlands and watercourses. After reviewing the testimony and evidence presented by both the plaintiffs' and the defendant's experts,²⁹ the defendant concluded that the plaintiffs' application should be denied, in part, because "[t]he proposed stormwater discharges into regulated areas and connected wetlands and watercourses will increase the sediment and pollutant load directed into wetlands and watercourses," thereby "inevitably result[ing] in short-term and long-term impacts to sensitive wetlands and watercourses."

In finding substantial evidence in the record to support this conclusion, the trial court relied heavily on a report from the plaintiffs' expert, Erik V. Mas, a project environmental engineer for Fuss and O'Neil, Inc., an engineering consulting firm, in which he noted that while the vast majority of elements would be removed by the storm water management system, "over 36 [percent] of nitrogen, copper, and zinc would not be removed by the stormwater control devices and would flow into the wetlands and watercourses."³⁰ Mas' statement, however, does not meet the substantial evidence test because it does not provide a substantial basis in fact that any specific harm to the wetlands or watercourses will occur from the dispersal of these elements into a wetland or watercourse. Like the defendant, the trial court simply assumed from Mas' report that these elements adversely would affect a wetland or watercourse, without evidence that they would in fact do so. An increase in chemical concentration from one part per billion to one part per million is a 1000-fold increase, but that concentration may or may not impact adversely the site's wetlands or watercourses in any manner outlined in § 22a-41 (a) or in the Simsbury regulations, which specifically require an analysis of the impact or effect of any material leaching into or being deposited in a wetland. Simsbury Inland Wetlands and Watercourses Regs., § 6.2 (h) (3) and (4). Once again, our careful review of the record in the present case fails to reveal any expert evidence that the discharge from the storm water management basins adversely would affect any

wetland or watercourse. Accordingly, we conclude that the trial court failed to apply the substantial evidence test properly by failing to look for substantial evidence of an adverse impact to any wetland or watercourse.³¹

III

The plaintiffs' final claim is that the trial court improperly concluded that the defendant has jurisdiction to regulate activities occurring in the upland area outside the seventy-five foot upland review area established by its own regulations without first adopting a regulation that grants it the authority to do so as required by § 22a-42a (f) of the act. Because the plaintiffs did not raise this claim before the trial court, they failed to preserve the issue for appeal, and we decline to review it.

“We have stated repeatedly that we ordinarily will not review an issue that has not been properly raised before the trial court.” *Bell Atlantic Mobile, Inc. v. Dept. of Public Utility Control*, 253 Conn. 453, 485, 754 A.2d 128 (2000); see Practice Book § 60-5 (“court shall not be bound to consider a claim unless it was distinctly raised at the trial or arose subsequent to the trial”); *Santopietro v. New Haven*, 239 Conn. 207, 219–20, 682 A.2d 106 (1996) (court “not required to consider any claim that was not properly preserved in the trial court”); *Yale University v. Blumenthal*, 225 Conn. 32, 36 n.4, 621 A.2d 1304 (1993) (court declined to consider issues briefed on appeal but not raised at trial). “Only in [the] most exceptional circumstances can and will this court consider a claim, constitutional or otherwise, that has not been raised and decided in the trial court.” *State v. Evans*, 165 Conn. 61, 69, 327 A.2d 576 (1973).

On appeal, the plaintiffs argue that the defendant's denial of their application was an ultra vires act because § 22a-42a (f) of the act requires that before an agency can exercise jurisdiction over activities in an upland area, the agency must first adopt a regulation authorizing the exercise of such jurisdiction. A thorough review of the briefs filed in the trial court, however, reveals that at no point did the plaintiffs ever make this particular argument. See *State v. Dabkowski*, 199 Conn. 193, 198, 506 A.2d 118 (1986). Instead, in their trial brief, the plaintiffs made a more general jurisdictional claim, arguing that the defendant acted illegally by asserting jurisdiction over the plaintiffs' activities occurring outside the seventy-five foot upland review area as defined by its own regulations. That claim, however, is distinct from the claim that is now being raised, namely, that under § 22a-42a (f) of the act, a wetland agency may regulate activities within the upland review area only after it has adopted a regulation authorizing the exercise of such jurisdiction. We therefore decline to consider this issue.

IV

As an alternate ground for affirmance, the defendant

claims that the plaintiffs' failure to contest one of the grounds for the defendant's decision mandates the affirmance of the trial court's judgment upholding the defendant's denial of the plaintiffs' application. Specifically, the defendant argues that because, under *Huck v. Inland Wetlands & Watercourses Agency*, 203 Conn. 525, 539–40, 525 A.2d 940 (1987), an agency's decision must be upheld where any rationale for the decision is supported by substantial evidence in the record, the present appeal must be dismissed because the plaintiffs failed to contest the defendant's decision based upon its findings pursuant to General Statutes § 22a-19 (b).³² We disagree.

The following additional facts are relevant to this issue. On July 19, 2000, the defendant voted to deny the plaintiffs' revised application pursuant to a "Motion to Deny Application" (motion to deny) that set forth the six reasons for the defendant's denial. On that same day, the defendant also voted for a separate motion entitled "Motion to Make Findings," (§ 22a-19 motion), which made a finding, in the language of § 22a-19 (b), that the regulated activities proposed by the plaintiffs were "reasonably likely to have . . . the effect of unreasonably polluting, impairing, or destroying the public trust in the air, water or other natural resources of the state" The defendant made this finding in direct response to the intervention petition filed by the coalition pursuant to § 22a-19 (a). See footnote 11 of this opinion. When the plaintiffs subsequently appealed from the denial of their application to the trial court, they did not challenge the defendant's findings in the § 22a-19 motion.

The defendant now claims that "the plaintiffs failed to contest the [defendant's] reason for denial which was based upon its findings under § 22a-19" and therefore, under *Huck*, this appeal should be dismissed. Although the defendant correctly argues that an agency's decision must be upheld where any rationale for the decision is supported by substantial evidence in the record, the defendant did not deny the plaintiffs' application because of its findings in the § 22a-19 motion. The § 22a-19 motion says nothing about the denial of the plaintiffs' application; it simply makes a finding in the language of § 22a-19. Furthermore, the motion to deny, pursuant to which the defendant denied the plaintiffs' application, does not reference, cite or rely on the findings made in the § 22a-19 motion. Although the finding in the motion to deny was incorporated into the § 22a-19 motion, the finding in the § 22a-19 motion was *not* incorporated into the motion to deny. We therefore conclude that because the defendant's motion to deny contained all of the reasons for its denial of the plaintiffs' application, the defendant did *not* deny the plaintiffs' application based in any way on the findings in the § 22a-19 motion. Accordingly, we conclude that the defendant's alternative ground for affirmance is with-

out merit.

The judgment is reversed and the case is remanded to the trial court for further proceedings according to law.

In this opinion SULLIVAN, C. J., and KATZ and PALMER, Js., concurred.

¹ Although the North Simsbury Coalition, Inc., was also named as a defendant in this appeal, it chose not to submit a separate brief, stating, in a letter to this court, that it concurred with the defendant's statement of the case, argument and conclusions insofar as they pertain to the coalition. For convenience, we refer only to the conservation and inland wetlands commission of the town of Simsbury as the defendant.

² The term "upland area" is used to describe the nonregulated area *outside* of the wetlands, watercourses and upland review (buffer) area of the proposed development.

³ In part III of this opinion, we conclude that a third issue raised by the plaintiffs, namely, whether the defendant may regulate activities occurring outside its defined upland review area without first adopting a regulation that grants it the authority to do so, was not properly preserved for appellate review.

⁴ The plaintiffs seek a remand to the trial court for a further review of the defendant's denial of the application focused solely on the impact of the proposed activities on the wetlands, watercourses and upland review areas, and not on wildlife, and employing a proper application of the substantial evidence test. We agree that such a remand is appropriate.

⁵ General Statutes § 22a-38 (15) defines "[w]etlands," in relevant part, as: "[L]and, including submerged land . . . which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey"

⁶ General Statutes § 22a-38 (16) defines "[w]atercourses," in relevant part, as: "[R]ivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon this state or any portion thereof"

⁷ Griffin filed as the developer of the project and River Bend filed as the owner of the site.

⁸ The term "buffer" area is synonymous with the term "upland review" area and, prior to 1996, the terms were often used interchangeably. See *AvalonBay Communities, Inc. v. Inland Wetlands Commission*, supra, 266 Conn. 153 n.1.

⁹ Section 4.1 of the Simsbury inland wetlands and watercourses regulations fixes Simsbury's "upland review area," to "uses and activities within a seventy-five (75) foot buffer to any wetland or watercourse."

¹⁰ Duly noticed public hearings on the plaintiffs' application were held on January 4 and 18, 2000, and with the plaintiffs' consent, continued on February 2 and 16, and March 7 and 21, 2000.

¹¹ General Statutes § 22a-19 (a) provides: "In any administrative, licensing or other proceeding, and in any judicial review thereof made available by law, the Attorney General, any political subdivision of the state, any instrumentality or agency of the state or of a political subdivision thereof, any person, partnership, corporation, association, organization or other legal entity may intervene as a party on the filing of a verified pleading asserting that the proceeding or action for judicial review involves conduct which has, or which is reasonably likely to have, the effect of unreasonably polluting, impairing or destroying the public trust in the air, water or other natural resources of the state."

¹² Specifically, the defendant stated in its April 18, 2000 denial that the site was "[l]ocated between Great Pond State Forest (immediately south of the site) and McLean Game Refuge (immediately north of the site) . . . [thereby providing] ecological connections among the region's many natural resources" Consequently, the defendant, citing its expert witness, Michael W. Klemens, a herpetologist, concluded that, "the 363-acre tract and its wetlands are [therefore] part of a much larger, interconnected ecosystem."

¹³ General Statutes § 22a-19 (b) provides: "In any administrative, licensing or other proceeding, the agency shall consider the alleged unreasonable pollution, impairment or destruction of the public trust in the air, water or other natural resources of the state and no conduct shall be authorized or approved which does, or is reasonably likely to, have such effect so long

as, considering all relevant surrounding circumstances and factors, there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety and welfare.”

¹⁴ All of the evidence and testimony received for the original application were incorporated by reference into the record for the revised application by agreement of the parties.

¹⁵ General Statutes § 22a-43 (a) provides in relevant part: “The commissioner or any person aggrieved by any regulation, order, decision or action made pursuant to sections 22a-36 to 22a-45, inclusive, by the commissioner, a district or municipality or any person owning or occupying land which abuts any portion of land within, or is within a radius of ninety feet of, the wetland or watercourse involved in any regulation, order, decision or action made pursuant to said sections may, within the time specified in subsection (b) of section 8-8, from the publication of such regulation, order, decision or action, appeal to the superior court for the judicial district where the land affected is located, and if located in more than one judicial district to the court in any such judicial district. . . .”

¹⁶ The record contains more than 400 exhibits and 1400 pages of hearing transcripts.

¹⁷ See footnote 2 of this opinion.

¹⁸ General Statutes § 8-8 (o) provides: “There shall be no right to further review except to the Appellate Court by certification for review, on the vote of two judges of the Appellate Court so to certify and under such other rules as the judges of the Appellate Court establish. The procedure on appeal to the Appellate Court shall, except as otherwise provided herein, be in accordance with the procedures provided by rule or law for the appeal of judgments rendered by the Superior Court unless modified by rule of the judges of the Appellate Court.”

¹⁹ Although neither the defendant nor the trial court defined the term “ecosystem,” Webster’s Third New International Dictionary defines it as “an ecological community considered together with the nonliving factors of its environment as a unit.” “Ecological” is defined in relevant part as: “[O]f or having to do with the environments of living things or with the pattern of relations between living things and their environments” Webster’s Third New International Dictionary.

²⁰ The decision in *AvalonBay Communities, Inc.*, officially was released on October 14, 2003, after the briefs in the present case had been filed and oral argument had been held.

²¹ The facts of *AvalonBay Communities, Inc.*, differ from those in the present case in that in the present case, the plaintiffs do not contest the fact that several of their proposed activities would occur in a wetland, watercourse, or the upland review area on the site, whereas in *AvalonBay Communities, Inc.*, the plaintiff’s activities were located entirely outside the wetlands, watercourses and upland review area. See *AvalonBay Communities, Inc. v. Inland Wetlands Commission*, supra, 266 Conn. 153-56.

²² The defendant argues that this court need not address the issue of whether the evidence relied upon by the trial court was too speculative in nature. Specifically, the defendant argues that the proper remedy would have been for the plaintiffs to file a motion for articulation of the trial court’s decision rather than attempting to address the issue on appeal. We disagree. The defendant’s argument mischaracterizes the plaintiffs’ claim. The plaintiffs are not claiming that the trial court failed to address all of the issues presented on appeal, or that it failed to state the standard of review that it used to decide the issues in the case, thereby warranting a motion for articulation under Practice Book § 66-5. Rather, the plaintiffs claim that the trial court misapplied the standard of review.

²³ Subsequent to this court’s decision in *Connecticut Fund for the Environment, Inc.*, the act was amended to require, rather than encourage, municipal regulation of wetlands and watercourses. See Public Acts 1987, No. 87-533, § 5.

²⁴ Although § 22a-41 (a) specifically provides that the criteria shall be considered by the commissioner of environmental protection, the criteria is applicable to municipal inland wetlands agencies pursuant to General Statutes § 22a-42 (f).

²⁵ The six reasons given by the defendant for denying the plaintiffs’ revised application were: (1) the potential that the plaintiffs’ proposed plan to remediate chemicals on the property through soil mixing would likely, “spread the contamination to greater depths and possibly into wetlands [and] watercourses”; (2) the lack of evidence that there were no “feasible and prudent alternatives to the [plaintiffs’] proposed soil mixing, seeding, removal, and

replenishment activities”; (3) the plaintiffs’ failure to provide a feasible and prudent alternative to its proposal to construct a road between two wetlands that might adversely impact wildlife migrating between these two wetlands; (4) the potential that discharges from the plaintiffs’ storm water management basins into upland review areas will likely “affect, alter, and pollute wetlands”; (5) the potential that the soil mixing proposed by the plaintiffs “may increase pesticide mobility,” which, in turn might result in “greater pesticide transport directly into wetlands and watercourses”; and (6) the proposed development activities in the upland areas would sever the interconnected wetlands “that are a vital part of a larger ecosystem in the region” so as to affect adversely existing wetlands and watercourses on the site.

²⁶ The remediation standard regulations, for example, apply to: (1) hazardous waste disposal sites as provided by §§ 22a-116-B-1 through 22a-116-B-10 of the Regulations of Connecticut State Agencies; (2) properties where a “spill,” as defined by General Statutes § 22a-452c, has occurred; (3) properties subject to judicial cleanup orders as provided by General Statutes § 22a-16; and (4) sites participating in a remediation program supervised by the state of Connecticut or a licensed environmental professional. See, e.g., General Statutes § 22a-133m.

²⁷ The defendant may have inferred from the expert testimony that the plaintiffs’ proposed actions would adversely impact the wetlands and watercourses. Such an inference, however, would be improper in this case. In *Feinson v. Conservation Commission*, 180 Conn. 421, 429, 429 A.2d 910 (1980), this court held that, “a lay commission acts without substantial evidence, and arbitrarily, when it relies on its own knowledge and experience concerning technically complex issues” In the present case, the record contains no evidence that the defendant had the requisite technical expertise to find facts sufficient to reasonably infer from the expert testimony that the plaintiffs’ proposed activities would adversely impact the wetlands or watercourses. Consequently, it would be inappropriate for the defendant to draw such inferences. Furthermore, even if we were to determine, as the dissent suggests, that some of the members of the defendant had the requisite technical expertise, the defendant would then be required “to reveal publicly its special knowledge and experience, [and] to give notice of the material facts that are critical to its decision, so that a person adversely affected thereby has an opportunity for rebuttal at an appropriate stage in the administrative proceedings.” *Id.*, 428–29. The defendant, however, made no such disclosure.

²⁸ It is axiomatic that in order to prevail in this appeal, “the plaintiff must establish that substantial evidence does not exist in the record as a whole to support the agency’s decision.” *Samperi v. Inland Wetlands Agency*, 226 Conn. 579, 587, 628 A.2d 1286 (1993). The dissent disagrees with our conclusion that there is no such substantial evidence supporting the defendant’s findings and conclusions with regard to the plaintiff’s proposed soil remediation plan. The dissent focuses almost exclusively, however, on the defendant’s findings; it does not cite substantial evidence in the record that might support those findings or a conclusion that the soil remediation plan actually will result in an adverse impact to the wetlands or watercourses within the meaning of § 22a-41 or the Simsbury regulations. Moreover, the dissent concedes that its review of the record reveals that the pesticides already at the site “present the *risk* of an adverse impact or, *at the very least, an impact of some kind*’ to the wetlands. (Emphasis added.) Under the Simsbury regulations and our prior case law as previously set forth herein, an impact on the wetlands that is speculative or not adverse is insufficient grounds for denial of a wetlands application. The Simsbury regulations and our prior case law do not authorize the denial of a wetlands application due to uncertainty as to the impact of a proposed activity on wetlands and watercourses. Furthermore, although the dissent focuses on the plaintiffs’ burden of proof in the proceedings before the defendant, the defendant never made a finding that the plaintiffs failed to meet that burden.

²⁹ As part of its revised application, the plaintiffs proposed constructing twelve storm water detention basins in the site’s upland area in an effort to regulate storm water on the site. These basins would collect the storm water from the surrounding land, filter it, and then discharge it into the surrounding area, with some of the discharged storm water being released into regulated areas.

³⁰ In its memorandum of decision, the trial court also noted the expert testimony of Klemens, who stated that the plaintiffs’ proposed discharge of storm water could “ ‘adversely affect amphibian reproduction by creating thermal and chemical spikes . . . that can smother eggs and . . . compro-

mise salamander reproduction.' ” As we concluded in part I of this opinion, regulation of impacts to wildlife is outside the jurisdiction of inland wetland agencies and therefore cannot constitute substantial evidence supporting the denial of the plaintiffs’ application.

³¹ Two of the six reasons proffered by the defendant for denying the plaintiffs’ application, and reviewed by the trial court, were that the plaintiffs had failed to present feasible and prudent alternatives to their proposed activities as required under § 22a-41 (b) (2) of the act. In light of our conclusion that the trial court misapplied the substantial evidence test by failing to find evidence of actual adverse impacts to wetlands or watercourses, we cannot address the issue of feasible and prudent alternatives that would cause “less or no environmental impact to wetlands or watercourses” General Statutes § 22a-41 (a) (2). Until such time as the trial court properly concludes that the defendant properly assessed the impact of the proposed activities, the trial court cannot decide whether the defendant properly determined that there may have been feasible and prudent alternatives that would cause *less* environmental impact. Review of these reasons therefore must await the remand to the trial court.

³² General Statutes § 22a-19 (b) provides: “In any administrative, licensing or other proceeding, the agency shall consider the alleged unreasonable pollution, impairment or destruction of the public trust in the air, water or other natural resources of the state and no conduct shall be authorized or approved which does, or is reasonably likely to, have such effect so long as, considering all relevant surrounding circumstances and factors, there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety and welfare.”