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## Vernal Pools, Queach, and Preserving Biodiversity through Upland Regulation

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One of the most controversial issues presently facing local inland wetlands agencies in Connecticut is the extent to which they may regulate activities in uplands that would impact the survival of amphibians dependent upon vernal pools for part of their life cycle. The Connecticut Supreme Court's decision in Queach Corporation v. Inland Wetlands Commission<sup>2</sup> and recent Superior Court decisions may offer some helpful guidance on this issue.

### Vernal Pools and Obligate Species

In the absence of a Connecticut regulatory definition of vernal pool<sup>3</sup>, this article will define the term as a body of water, typically intermittent, in a defined depression or basin, that lacks a fish population and may support the breeding or development of certain animal species dependent upon such watercourses.<sup>4</sup> Vernal pools are identified as being within the definition of "watercourses" regulated by the Inland Wetlands and Watercourses Act ("IWWA").<sup>5</sup> That term is defined as: "rivers, streams, brooks, ...and all other bodies of water, natural or artificial, vernal or intermittent...."<sup>6</sup> As such, vernal pools are clearly subject to wetlands regulation.<sup>7</sup>

These unique wetlands are critical to the survival of a variety of species which breed in or otherwise depend upon them for a significant part of their life cycle, and thus

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<sup>2</sup> 258 Conn. 178, 779 A.2d 134 (2001).

<sup>3</sup> The Army Corps of Engineers defines the term in its Programmatic General Permit, State of Connecticut (GP-41) as: "an often temporary body of water occurring in a shallow depression of natural or human origin that fills during spring rains and snow melt and typically dries up during summer months. Vernal pools support populations of species specially adapted to reproducing in these habitats. Such species may include wood frogs, mole salamanders (*Ambystoma* sp.), fairy shrimp, fingernail clams, and other amphibians, reptiles and invertebrates. Vernal pools lack breeding populations of fish."

<sup>4</sup> This definition is a paraphrase of the definition proposed by the CACIWC/DEP Task Force for adoption as part of the Model Inland Wetlands and Watercourses Regulations. The Department is planning to formally issue a regulatory definition of vernal pool and guidance for its use, as well as criteria to aid in identification of vernal pools, by year-end. This model regulation and guidance will not include recommendations on regulating these resources.

<sup>5</sup> Conn. Gen. Stat. § 22a-36 *et seq.*

<sup>6</sup> Conn. Gen. Stat. § 22a-38(16) (emphasis added).

<sup>7</sup> For further information on vernal pools, see the article "Connecticut Vernal Pools: Identification and Regulation" by Douglas G. Hoskins III in the Spring 1999 issue of the Habitat (Vol. XII, No. 4).

are considered “obligate” species. Common obligate species include the spotted salamander, wood frog, and fairy shrimp. Some obligate vernal pool species, such as the Jefferson salamander and the Blue-spotted salamander, are considered “species of special concern”<sup>8</sup> by the Department of Environmental Protection (“DEP”). While vernal pools are essential habitat for many of the amphibian species for part of their life cycle, the adults of these species spend most of the year in wooded uplands a considerable distance from the vernal pools – typically hundreds of feet from the vernal pool where they were born and to which they will likely return to breed.

These distances greatly exceed the typical 50 to 100 foot upland review area contained in most commissions’ regulations. Therefore, the specific regulatory issue is whether, in the absence of direct impact on the vernal pool watercourse, local wetlands agencies can protect vernal pool obligates by regulating the upland areas, including the corridors to and from the vernal pools, beyond upland review areas prescribed in the regulations.

### **Queach and Recent Superior Court Decisions**

In his detailed and thoughtful discussion of the Queach decision, Assistant Attorney General David H. Wrinn correctly points out that nothing in the Court’s opinion directly addresses the issue of upland regulation to protect obligate vernal pool species in the absence of some direct threat to the vernal pool watercourse itself by excavation, filling, sedimentation, etc. However, Queach clearly endorsed the authority of wetlands agencies to regulate activities outside the boundaries of wetlands where necessary to preserve the natural resources of the state. This strong reaffirmation of prior precedents on the subject suggests that, given an appropriate hearing record, the Court might well uphold a local commission’s effort to regulate upland development activities that could adversely impact obligate vernal pool species.

Since the Queach decision was released, two Superior Court decisions have upheld local commissions’ authority to regulate upland areas beyond specifically defined regulatory setbacks to protect populations of vernal pool obligate species in the upland areas. One case relied expressly on Queach, the other on earlier Supreme Court precedent.

In Avalonbay Communities, Inc. v. Wilton Inland Wetlands Commission,<sup>9</sup> one of the issues on appeal was whether the commission could deny an application for an inland wetlands permit for an affordable housing project where its project involved no regulated activities within 50 feet of a wetland or 100 feet of a watercourse, the minimum “regulated area” under Wilton’s regulations.<sup>10</sup>

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<sup>8</sup> In the context of these species, this designation is given by DEP to “any native nonharvested wildlife species documented by scientific research and inventory to have a naturally restricted range or habitat in the state or to be at a low population level....”

<sup>9</sup> Docket No. HHB CV00-0502146 (Conn. Super. Ct. J.D. New Britain).

<sup>10</sup> See Avalonbay Communities, Inc. v. Wilton Inland Wetlands Commission, No. HHB CV000502146, 2001 Conn. Super. LEXIS 2541, at \*7, \*9, \*20-21 (Sept. 6, 2001) (“Avalonbay I”).

The 10.6 acre property contained a .30 acre deciduous wooded wetland, an intermittent watercourse flowing through it, and a separate .02 acre deciduous wooded wetland associated with a small pond off-site.<sup>11</sup> The evidence in the record concerning the extent of the spotted salamander population and the impact of the project on such population was inconclusive<sup>12</sup>.

As a basis for its denial, the commission cited the applicant's failure to demonstrate that no feasible or prudent alternative existed which would have less impact on spotted salamander populations. The commission also suggested that the applicant could meet its burden by demonstrating more conclusively through appropriate expert investigation whether or not a spotted salamander population exists at the site, and, if so, whether the population is so small as to be terminal.<sup>13</sup>

In Avalonbay I, the Superior Court, prior to release of the Queach decision, relied upon the 1995 and 1996 amendments to the IWWA in ruling that the commission was limited to considering activities within wetlands and watercourses and the respective 50 and 100 foot upland review areas specified in the regulations.<sup>14</sup>

The commission and the DEP Commissioner requested reconsideration following release of the Queach decision. Upon reconsideration, Judge Munro reversed the prior ruling sustaining the applicant's appeal. The court concluded that the Supreme Court had "determined that, regardless of where the upland activities are contemplated, the commission may exercise jurisdiction."<sup>15</sup> If so, then the commission must make a threshold decision as to whether the activity is likely to impact the wetlands. If the commission concludes that wetland impacts are likely, then it may regulate the activity, just as it would within a specified upland review area.

The court observed that the Wilton regulations required the commission to consider the environmental impact of the proposed regulated activity, including its impacts on the ability of the wetlands and watercourses to support desirable biological life.<sup>16</sup> The court found that the Wilton commission had concluded that the development would result in the loss of the spotted salamander population both on and off-site, and therefore would necessarily have an adverse effect on the overall biologic community.<sup>17</sup> The court also found that this conclusion was supported by substantial evidence in the record.<sup>18</sup> The applicant appealed the ruling in Avalonbay II to the Appellate Court, and the appeal is currently pending.

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<sup>11</sup> Id. at \*5.

<sup>12</sup> Id. at \*28.

<sup>13</sup> Id. at \*10-11.

<sup>14</sup> Id. at \*26-28.

<sup>15</sup> Avalonbay Communities, Inc. v. Wilton Inland Wetlands Commission, No. HHB CV000502146, 2002 Conn. Super. LEXIS 157, at \*23 (Jan. 15, 2002) ("Avalonbay II").

<sup>16</sup> Id. at \*28-29.

<sup>17</sup> Id. at \*29.

<sup>18</sup> Id. at \*31-32.

The other Superior Court decision in which the regulation of vernal pools and their obligate species came into play was, interestingly, in an appeal from a zoning commission decision on an affordable housing application in Farmington. In Landworks Development, LLC v. Town of Farmington Town Planning and Zoning Commission,<sup>19</sup> the applicant had proposed a 384 unit apartment complex on 67.6 acres. The three-part application involved a zone change request, a request to amend the affordable housing zone regulation, and a site plan application. The commission denied the application citing, among other reasons, environmental impacts and unreasonable impairment to the public trust in natural resources pursuant to Section 22a-19 of the General Statutes.<sup>20</sup>

Based on the record of the zoning proceedings, Judge Eveleigh found that the applicant's plans would impact wetlands and watercourses on the site, both by introducing sediment and pollutants from storm water, and by failing to provide an adequate buffer around vernal pools at the site.<sup>21</sup> The court concluded that, because the applicant had never applied for a wetlands permit and no final decision from the wetlands agency had been issued, the zoning commission was prohibited by Section 8-3 of the General Statutes from granting a site plan approval.<sup>22</sup>

In its decision denying the application, the commission had also found that a 400 foot buffer was required around the vernal pool at the site to protect two obligate species, the spotted salamander and wood frog and that the applicant's proposed site plan included buildings, driveways and parking areas within 150 feet of the vernal pool, which might threaten the populations of these species. Although the applicant's expert claimed a buffer of 85 feet was adequate, conflicting expert testimony suggested that a 1,000 to 1,600 foot buffer was more prudent. The applicant challenged the 400 foot buffer on the basis that the commission lacked substantial evidence in the record to make such a finding.<sup>23</sup>

The court observed that:

“Uplands surrounding vernal pool wetlands are unique biological habitats, integral parts of the wetlands ecosystem, and critical to the survival of amphibians, including spotted salamanders and wood frogs. Because vernal pools are functionally tied to their immediate surroundings, permanent changes to topography and vegetation from the development of land can pose the greatest risk to the vernal pool habitat. Such changes may be harmful regardless of whether they occur outside of the vernal pool itself, within the contributing watershed or much further away, due in part to the fact that species such as spotted salamanders move up to a half mile from vernal pools, with distances of about 400 feet common for most populations. Changes that take place

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<sup>19</sup> No. CV000505525, 2002 Conn. Super. LEXIS 543 (Feb. 14, 2002).

<sup>20</sup> Id. at \*1-2.

<sup>21</sup> Id. at \*33-34.

<sup>22</sup> Id. at \*30.

<sup>23</sup> Id. at \*30-32.

outside the vernal pool can prevent wildlife from returning to the pool to breed or considerably diminish re-population.”<sup>24</sup>

Because the court found that there was substantial evidence in the record to support the commission’s denial, it dismissed the appeal. The applicant has petitioned the Appellate Court for permission to appeal, and the petition is currently pending.

### **Summary**

Wetlands commissions should consult with their own counsel on the subject before addressing the regulation of uplands utilized by vernal pool obligates. However, the cases to date would seem to support a commission in that effort, so long as there is expert evidence in the record as to existence of the vernal pool, the species that utilize it, and their respective home ranges.

Queach clearly gives a commission the authority to regulate activities outside the boundaries of wetlands, watercourses or defined upland review areas, if the agency concludes that the activities in question are likely to adversely impact the resource. The Queach holding was sufficient for the court in Avalonbay II to reverse itself and uphold the Wilton commission based upon the local regulation requiring the commission to consider impacts on wetlands or watercourses which would enable the resources to support beneficial biological life. Finally, in Landworks, information in the record that vernal pools are intrinsically tied to their upland surroundings allowed Judge Eveleigh to uphold the commission’s conclusion that disruption of the uplands within 400 feet is likely to adversely impact the vernal pool and its periodic inhabitants.

As noted above, an appeal of Avalonbay II is pending before the Appellate Court. When rendered, the Appellate Court’s decision in the Avalonbay II appeal will be a significant milestone in determining whether the IWWA authorizes local commissions to preserve the biodiversity of a watercourse by regulating uplands utilized by vernal pool obligates.

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<sup>24</sup> Id. at \*32-33.