

COMMONWEALTH OF MASSACHUSETTS
DIVISION OF ADMINISTRATIVE LAW APPEALS
98 N. Washington Street Boston, Massachusetts 02114 617-727-7060

January 9, 2008

In the Matter of

Burley Street, LLC

Docket No. DEP-06-122
File No. 326-0248
Wenham

RECOMMENDED FINAL DECISION

SUMMARY

The applicant's proposed roadway does not satisfy the standards set forth in the wetlands regulations, 310 CMR 10.00. Specifically, work in the buffer zone will not contribute to the protection of the interests of the Wetlands Protection Act. In addition, the proposed work will alter wetlands in excess of the wetlands replication the applicant has agreed to provide. Consequently, the wetlands permit should be denied.

*Thomas J. Harrington, Esq. and Marguerite D. Reynolds, Esq. (Miyares and Harrington LLP),
Watertown, for the petitioner.*

John L. Hamilton, Esq., Hamilton, for the intervenors.

John R. Keilty, Esq., Peabody, for the applicant.

MacDara K. Fallon, Esq., Boston, for the Department of Environmental Protection.

Bonney Cashin, Administrative Magistrate.

INTRODUCTION

This appeal concerns a development proposed under M.G.L. c. 131, §40, the Wetlands Protection Act. The Department of Environmental Protection issued a wetlands permit to the applicant, Burley Street, LLC, allowing a housing development with associated roadway construction and infrastructure. The Wenham Conservation Commission appealed.

The Conservation Commission argued that the applicant should be required to access the site from a different location on the property that would require less wetland alteration than the

access selected. The DEP allowed the applicant to use its chosen access; however, it required the applicant to provide 3,000 square feet of wetland replication.

I conclude that the proposed roadway work does not satisfy the standards set forth in the wetlands regulations, 310 CMR 10.00. Specifically, work in the buffer zone will not contribute to the protection of the interests of the Act. In addition, the proposed work will alter the wetland in excess of the wetland replication the applicant has agreed to provide.

I base my conclusion primarily on the lack of support offered by the applicant and the DEP for the amount of wetlands replication required under the DEP's wetlands permit. Consequently, the wetlands permit should be denied.

Background

The applicant, Burley Street, LLC, proposes to construct ten two-unit townhouses, a roadway, and associated infrastructure on 7.2 acres of wooded land in Wenham, Massachusetts. An unpaved cart path traverses the eastern side of the property and curves around generally to the south. The cart path was constructed under an earlier wetlands permit. It is about twenty-four feet wide measuring from toe-of-slope to toe-of-slope. The traveled portion of it is approximately twelve feet wide.

The applicant's proposed roadway would be over one thousand feet long and twenty-feet wide. A three-foot wide sidewalk is planned adjacent to one side of the road for approximately the first four hundred feet. The roadway would be located over the existing cart path and would intersect with Burley Street in Wenham. In the southwestern corner of the property, another undeveloped way branches off the cart path and connects to Lester Road in Danvers. Whether the applicant should be required to access the site from Burley Street or from Lester Road is at the heart of the dispute here.

The unpaved cart path crosses the wetland system on the site at two locations, separating it into four distinct, yet hydraulically-connected areas. The largest area, delineated by wetland

flags A1 to A55, begins at the outlet of the upper-most culvert under the roadway near Burley Street. Wetland area A extends along the eastern boundary. A second culvert is located near the western boundary and connects wetland area A to wetland area B, delineated by wetland flags B1 to B8. Upgradient of the culvert that discharges into wetland area A is wetland area C, delineated by wetland flags C1 to C14. Wetland area C lies to the south along the edge of fill that created the unpaved cart path. It is adjacent to Burley Street. Wetland area D is located on the northerly side of the unpaved cart path in the southeast corner of the site, near Burley Street.¹ The wetland boundary was established in an order of resource area delineation issued on April 9, 2002.

In order to construct a cantilevered bridge over a portion of the wetland as part of the roadway, the applicant proposes to fill 150 square feet of wetland near the culvert that connects wetland areas A and B. This wetland filling is not the subject of the controversy here. Indeed, the Conservation Commission approved this aspect of the applicant's project. Moreover, all parties agree that this filling would be necessary whether the site is accessed from Lester Road or from Burley Street.

The Conservation Commission approved the 150 square feet wetlands filling; however, it did not approve the applicant's planned access from Burley Street. The applicant initially proposed to fill the 150 square feet of wetland under 310 CMR 10.53 (3)(e). This "limited project" provision allows the Conservation Commission or the DEP to permit a wetland crossing for a roadway when necessary to access the upland portion of a site, subject to certain criteria, when the work in the wetland would not otherwise comply with the performance standards at 310 CMR 10.55 (4)(b). The Conservation Commission found that the applicant's proposed crossing did not meet the regulatory criteria, which includes an analysis of alternatives, because,

¹ This uncontested description of the bordering vegetated wetland on the site is taken from the testimony of William J. Manuell, a wetlands scientist who testified for the applicant.

in its view, alternate access was available from Lester Road. Consequently, the applicant requested the DEP to supersede the Conservation Commission's decision.

The DEP approved the project, including the roadway construction from Burley Street. The DEP required the applicant to replicate 3,000 square feet of wetland because work would occur close to the wetland along portions of the roadway. The Conservation Commission appealed. I allowed a group of Danvers residents to intervene pursuant to M.G.L. c. 30A, § 10.² The group supports the Conservation Commission's position regarding site access and additional wetland alteration.

Following the prehearing conference, the Conservation Commission filed a motion for partial summary decision. It argued that the DEP should not have allowed the applicant to access the site from Burley Street because it involved more wetland alteration than if access was from Lester Road. The applicant had convinced the DEP during its permit review that a conservation restriction on a portion of the site adjacent to Lester Road prevented access from that location.³ The Conservation Commission argued that the DEP exceeded its authority by making a determination about the applicant's property rights with respect to the conservation restriction. Alternatively, the Conservation Commission argued that even if the DEP has the authority to determine the validity of the conservation restriction, it should have found the restriction invalid because the proper statutory procedures were not followed when it was drafted. I ruled that the applicant had a bona fide, although disputed, claim that the terms of the conservation restriction prevent primary access from Lester Road. *Ruling on Motion for Partial Summary Decision*, 13 DEPR 216 (August 8, 2006).⁴ Consequently, the appeal proceeded with access from Burley Street as proposed by the applicant.

² The project site abuts the Wenham/Danvers town line.

³ The parcel subject to the conservation restriction is 3,593 square feet.

⁴ In my ruling, I also remanded this matter to the DEP regional office to consider the factors identified at 310 CMR 10.55 (4)(b) because, based on the record before me, the DEP had not done so. At that time, all parties represented

The parties filed their testimony and exhibits. I held a hearing to consider the extent and location of wetlands alteration associated with the proposed roadway work and the project's compliance with the regulatory standards for work in a bordering vegetated wetland and its 100-foot buffer zone. Prior to the hearing, I viewed the site with the parties.

Legal Framework

The wetlands protection regulations, 310 CMR 10.00, establish performance standards for work in various resource areas. The general performance standard for work in a bordering vegetated wetland directs that such work shall not destroy or otherwise impair any portion of the wetland. 310 CMR 10.55 (4)(a). The regulation further provides that the issuing authority, that is, the conservation commission or the DEP, may allow the loss of up to 5,000 square feet of bordering vegetated wetland provided the area is replaced in accordance with the general conditions set out in the regulation and with any specific conditions the issuing authority imposes to ensure that the replacement area functions in a manner similar to the area that will be lost. 310 CMR 10.55 (4)(b). The general conditions require that:

- 1) the surface of the lost area and the replacement area are of equal size;
- 2) the ground and surface water elevation of the replacement area is approximately equal to that of the lost area;
- 3) the replacement area has a similar location with respect to the bank as the lost area;
- 4) the replacement area has an unrestricted hydraulic connection to the same waterbody or waterway as the lost area;
- 5) the replacement area is located within the same general area as the lost area;
- 6) at least 75% of the replacement area shall be reestablished with indigenous plant species within two growing seasons; and the exposed soils must be temporarily stabilized to avoid erosion; and
- 7) the creation of the replacement area must be consistent with the performance standards for other wetland resource areas.

Id.

The wetlands regulations recently were revised to include a provision that outlines how the issuing authority must evaluate a proposal that would result in wetlands loss. Specifically,

that the revised version of the regulation applied to this matter. That is not the case, however, as shown by subsequent filings of the parties. See discussion at 5-6 *infra*.

the issuing authority shall consider the magnitude of the alteration and the significance of the site to wetland interests, the extent to which adverse impacts can be avoided or minimized, and the extent to which mitigation measures, including replication or restoration, are provided. This provision took effect March 1, 2005 and does not apply to wetland permit applications filed before that date. 310 CMR 10.10 (12). The applicant filed its wetlands permit application on December 23, 2003. Consequently, this provision does not apply to the applicant's proposal.

The DEP, however, issued the *Massachusetts Inland Wetland Replication Guidelines* in March, 2002. The *Replication Guidelines* state that "replication is at best an uncertain science" and conclude that the goals of the Act "can best be achieved by avoiding and minimizing impacts to wetlands, thereby reducing the need for replication projects of uncertain success." *Replication Guidelines* at 6-7. As a result, the *Replication Guidelines* promote reducing impacts to wetlands by applying a three-step process known as "sequencing." This process involves: 1) avoiding wetland impacts; 2) minimizing necessary impacts as much as possible; and 3) replicating wetland losses that cannot be avoided. *Replication Guidelines* at 7.

The *Replication Guidelines* observe that the limited project regulatory provision at 310 CMR 10.53 (3) requires the issuing authority to consider sequencing, while the provision at 310 CMR 10.55 (4)(b) governing work in a bordering vegetated wetland allows the issuing authority on a case by case basis to consider sequencing for alterations of less than 5,000 square feet. *Id.* The issuing authority should take into account the particular facts and circumstances of each case and relate such factors to the objective of protecting the interests of the Act, notes the guidance. *Id.* Such facts and circumstances include the existence of design changes that would avoid or minimize wetland impacts. *Replication Guidelines* at 8.

Certain resource areas, including bordering vegetated wetlands, have a 100-foot buffer zone associated with them. Work in the buffer zone (except for certain minor activities) that will alter a resource area requires the filing of a determination of applicability or a wetlands permit

application, called a notice of intent. 310 CMR 10.02 (2)(b). An applicant who proposes work in the buffer zone must demonstrate that the proposed work in the wetlands buffer zone will “contribute to the protection of the interests [of the Act].” 310 CMR 10.03 (1)(a)(3).⁵

A person contesting the DEP’s position in a wetlands appeal bears the burden of going forward. 310 CMR 10.03 (2). To meet this burden a petitioner must produce at least some credible evidence from a competent source in support of its position. *Id.* An applicant, however, bears the burden of proof. 310 CMR 10.03 (1). Specifically, an applicant must demonstrate that work in a resource area will contribute to the protection of the interests of the Act by complying with the general performance standards and that work in the buffer zone will contribute to the interests of the Act. *Id.*

At the prehearing conference the following issues were identified for adjudication: a. the location of the wetlands and buffer zone that would be altered by the project; b. whether the wetland alterations would comply with the performance standards at 310 CMR 10.55 (4); and whether the work in the wetlands buffer zone would destroy or impair any portion of the wetland and its ability to protect the interests of the Act.

Evidence Presented

1. Petitioner’s Evidence

The Conservation Commission maintains that the applicant’s proposal will alter more than 150 square feet of wetland. It presented the testimony of two witnesses to support its position, Michael J. DeRosa, a wetlands scientist, and Richard P. Kosian, P.E. I find both are competent to testify in their respective fields, based on their education and experience.

DeRosa testified that the project would alter additional wetland in two ways. First, portions of the wetland would be excavated 2 feet on either side of the roadway in order to place

⁵ The provision cited is that in effect when the applicant filed its wetlands permit application. The 2005 regulatory revisions effective March 1, 2005 changed the provisions governing work in the buffer zone. *See* 310 CMR 10.02

the forms needed to construct the roadway's retaining walls. He estimated that this work would cause the loss of 800 square feet of wetland. (DeRosa Dir. Test. Exh. C.⁶)

Second, DeRosa maintains that the removal of the existing tree canopy along wetland flags C3 to C12 and D4 to D5 in order to construct the roadway would increase sunlight penetration into the understory. He testified that the 60 to 80 foot-high tree canopy is almost completely closed over the cart path. According to DeRosa, the increased sunlight penetration would cause existing shade tolerant plant species to die off, allowing non-native, light tolerant plant species, such as buckthorn and purple loosestrife, to spread further and soon to predominate. The seed bank for the purple loosestrife is already on site, he explained, but it needs sunlight to germinate. Disturbed soils from the roadway excavation would also provide an opportunity for aggressive, non-native species to move into new areas.

Although much of the roadway work would occur in the buffer zone, its impact, DeRosa opined, would extend into the wetland itself because the existing canopy that would be lost extends over the wetland. The alteration of plant species composition would particularly change the wildlife habitat value of the wetland, according to DeRosa.

DeRosa testified that approximately 6,650 square feet of wetlands would be altered by removal of the existing tree canopy. He estimated that the canopy loss would extend 20 feet laterally into the wetland from the roadway footprint along both sides of the roadway. He used the 20-foot figure as an average because the canopy extends from 15 to 25 feet on either side, based on his observations at the site. Some canopy loss, DeRosa testified, will occur because trees in the buffer zone will be cut in order to expand the width of the traveled cart path for the roadway and sidewalk. Trees in the wetland will also be affected where their root systems

(2)(b)(3). (March 11, 2005 corrected rev.) As noted *supra*, the revised regulations do not apply to the applicant's project because its wetlands permit application was filed prior to March 1, 2005.

⁶ The witnesses' prefiled direct testimony and prefiled rebuttal testimony are cited as "Dir. Test." and "Reb. Test.", respectively. Exhibits attached to the witnesses' prefiled testimony are cited as "Exh. __."

extend into the work area and are damaged by the excavation and other construction work.

DeRosa estimated that from 20 to 30 trees in the buffer zone and wetland would be affected.

Kosian's testimony focused on the lack of detail about how the road would be constructed and the applicant's failure to identify the full extent of wetlands alteration.

Kosian testified that there would be construction impacts from the retaining wall construction that the applicant had not accounted for. He estimated that at least 2 feet outside the face of the retaining wall would be impacted by the installation of erosion control barriers, excavation and dewatering, and the installation of sheeting and formwork for the wall construction.

Kosian projected a likely construction sequence for the retaining wall construction, based on his experience with such work. (Kosian Dir. Test. ¶ 10.) All together, he concluded that an additional 388 square feet of wetland would be affected. He arrived at this figure by calculating the distance along the roadway on its south side that would be affected to be 194 linear feet and multiplying it by 2 feet, the distance beyond the face of the retaining wall that would be affected by its installation.

According to Kosian, the applicant did not provide replication to the extent requested by the DEP. Specifically, in its letter dated November 4, 2004, the DEP identified the area between wetland flags A3 to A55 as an area of "permanent impacts" to the wetland that it wanted the applicant to replicate in accordance with 310 CMR 10.55 (4). Using the applicant's method of calculating the area of impact (discussed in greater detail below), Kosian testified that an additional 250 square feet of wetland would be altered (50 linear feet by 5 feet equals 250 square feet). As a result, he continued, the total area altered would be 3,025 square feet. This figure includes the 150 square feet filled for the wetland crossing and 2,525 square feet along portions of the roadway – both recognized by the applicant – and the additional 250 square feet calculated by Kosian. The applicant is providing only 3,000 square feet of replication, however.

Kosian identified other deficiencies with the applicant's proposal. He testified that the placement of erosion control barriers was not clearly shown on the plans. The symbols used on the plans to show the extent and location of hay bales and silt fencing conflicted with Note 2 on Sheet 7 concerning the extent of silt fencing⁷ and with a detail drawing on Sheet 7 of an "Erosion Control Silt Fence" that includes haybales and silt fencing.

Furthermore, based upon Sheet 3, according to Kosian, 143 square feet of wetlands would be altered but not replicated. At two locations along the southern side of the roadway, according to Kosian, work is shown in the wetlands. He acknowledged that the detail of the roadway on Sheet 6 of the applicant's plans shows the wetland line outside of the roadway, unlike Sheet 3.

2. Applicant's Evidence

William J. Manuell, a wetlands scientist, testified for the applicant. In his view, the only wetlands alteration was at the road crossing. Nonetheless, after the DEP determined during its review of the project that permanent impacts exceeded those calculated by the applicant, Manuell agreed to provide replication for the alteration of various segments along the roadway. He consistently referred to these segments along the access road as areas of "theoretical" impacts.

In response to the DEP's request that the applicant provide additional wetlands replication, Manuell identified five areas along the roadway where, in his view, the roadway work was in "close proximity" to the wetlands. (Manuell Dir. Test. ¶ 4.) He did not identify a distance or otherwise explain what he meant by "close proximity." He did not identify the same areas as the DEP specified in its request for additional replication. Two of the areas are adjacent to the wetland crossing. The remaining three areas are along that portion of the roadway between Burley Street and the proposed townhouses.

⁷ Note 2 appears on Sheet 6, not sheet 7 and states: "Silt fence shall be maintained at the limit of work from driveway station 10+0 to 14+0 until all upgradient areas are permanently stabilized."

Manuell measured the extent of each of the five areas in linear feet; and he assumed the area of “theoretical impact” to be 5 feet wide. Consequently, he calculated the total “theoretical impact” to be 2,625 square feet. He added this figure to the 150 square feet of alteration associated with the wetland crossing, and then rounded the figure up to 3,000 square feet in order to determine the size of the replication area. During the hearing he explained that he thought 5 feet was a “reasonable” number to use, but said that he could have chosen 2 feet or 4 feet just as well. He did not explain why he used a width of 5 feet rather than 3 feet, which is the width that the DEP had requested.

When he calculated the areas of “theoretical” impact, Manuell did not include the area adjacent to wetland flags A3 to A55, although the DEP had concluded that wetlands would be impacted at this location. He testified that, except at one wetland flag location, the roadway retaining wall was not as close to the wetland because the wetland curves away from the proposed road’s location. He testified that the areas he identified along the C and D series flags are one or two feet away from the wetland. If Manuell were to include the area adjacent to wetland flags A3 to A55 as one to be replicated, he calculated that it would be roughly 40 feet long by 5 feet wide, or 200 square feet.

Manuell testified that his replication plan complied with the wetlands regulations. In his opinion, the DEP routinely allowed some “latitude” regarding the groundwater and surface water elevations of a replication area when multiple areas of buffer zone at different elevations are affected. He described the replication area for the 150 square feet of alteration for the wetland crossing as “entirely compliant.” He also testified that the applicant avoided and minimized wetland impacts by placing the road over the cart path and mitigated for actual and theoretical wetland losses by replication.

Manuell also disputed DeRosa’s testimony about canopy loss. In his opinion, the majority of canopy loss would occur over the cart path, that is, in the buffer zone. Under the

DEP's wetlands permit, no work was allowed in the wetland, and consequently, he viewed DeRosa's assessment that the wetland would be altered as incorrect.

He disputed DeRosa's calculation of the extent of tree canopy loss. In his opinion, the canopy extends no more than fifteen to twenty-five feet in total. On cross-examination, Manuell revealed that when he examined DeRosa's photograph of the proposed roadway location,⁸ he identified fourteen trees within the buffer zone that would be removed.⁹ He further testified that five trees located in the wetland might be affected, if proper precautions were not taken. If one or more of these five trees were to be affected, he continued, they could perhaps be saved by pruning the roots before excavation. He conceded that no plan was in place to prune tree roots before excavation began on the site, although the pruning process usually takes place over several months. Furthermore, he acknowledged, he did not know where the roots were located and thus could not predict the percentage of a tree's root system that would be affected. Moreover, in his view, only these nineteen trees could be affected because any remaining trees, based on his observations and his review of DeRosa's photograph, were ten to fifteen feet from the proposed roadway. He did not measure this distance in the field, but based his statement on the photograph.

The effect of any tree removal on species diversity or density would be "unperceivable," according to Manuell. He detected no difference in species diversity or density between the interior of the wetland and the edge along Burley Street at wetland flags C1 to C3. The cart path allows light to penetrate, he noted; and, thus, the roadway would be no different. In his view, buckthorn and asiatic bittersweet¹⁰ were already growing on the site, including along the margins

⁸ DeRosa Dir. Test. Exh. E.

⁹ Manuell testified that he did not include this information in his testimony because he did not consider it to be important at the time. I find this statement rather puzzling, since it is quite clear from DeRosa's testimony that the extent of canopy loss was at issue.

¹⁰ Buckthorn is one of the non-native species that DeRosa testified would invade the wetland. Manuell acknowledged that asiatic bittersweet is an upland species that is not dominant on the site.

of the cart path. As a result, the roadway work would be unlikely to exacerbate current conditions.

According to Manuell, temporary impacts are unintended impacts. In other words, if one of the five trees in the wetland that, in his view, could be affected by the work were in fact affected and perhaps removed, that would be a temporary impact because the applicant's intent is to work only in the buffer zone.

Manuell acknowledged that nothing in the record identifies how the project would be constructed in order to ensure that no wetland was altered beyond the 150 square feet authorized in the DEP's permit. He maintained, however, that there were ways in which it could be done. He testified that the easiest method would probably be to use steel sheeting. Manuell also testified that the excavated wetland soils would stay in place when they were exposed in order to construct the retaining wall and place the roadway footings. He did not know for how long the soils would be exposed, or whether the footings could be covered with soil at the end of each day.

Manuell acknowledged the error on Sheet 3, which shows a portion of the road in the wetlands. He noted that Sheet 3 referred to the plan detail on Sheet 6. In his opinion, a contractor would refer to the detail on Sheet 6, and avoid using Sheet 3; therefore, no work in wetlands would result from the plan error.

Manuell also acknowledged a discrepancy concerning the plan scale shown on Sheet 6. That sheet states: "1" = 40'"; but the scale drawing below the notation shows that one inch equals twenty feet. He explained that he checked the scale by referring to the station markings on the plan because he knew that the distance between stations was 100 feet. Manuell's calculations regarding areas of "theoretical impact" were based on measurements using the scale of one inch equals twenty feet, which he understood to be the intended scale for the detail sheet.

Clayton A. Morin, P.E. also testified for the applicant. The site plans were prepared under his direction. His written testimony consisted of his qualifications and rebuttal to Kosian's testimony.

Like Manuell, Morin maintained that no permanent wetland alteration was proposed along the roadway. Temporary impacts, he said, would be restored in place following construction of the roadway. In particular, he considered the 388 square feet of wetland alteration that Kosian associated with construction of the retaining wall and roadway, if it occurred, to be such a temporary impact. In Morin's view, a temporary construction impact was one that happened accidentally, for example, excavation beyond the limit of work. If such an impact occurred, the area would be restored in place.

In his written testimony, Morin agreed that the proposed road construction sequencing described by Kosian in his written testimony represented standard engineering practice that he did not dispute. On cross-examination he maintained that he meant that Kosian's sequencing represented one way to construct the road, but was not necessarily the method the applicant would use. For instance, he testified that the applicant would not necessarily drive sheeting outside the roadway when constructing the retaining wall or need to dewater the excavated roadbed.

Morin testified in writing that the roadway would be excavated using a small track excavator with a boom swing radius of less than twelve feet. Access would be to and from Burley Street or a staging area west of wetland flags C-12 and A-54. A dewatering basin, if needed, would be in this same location or east of wetland flag D-4.

On cross examination, however, Morin was unsure about the need for equipment in addition to the excavator, such as a crane to tie off the tops of larger trees, or a smaller backhoe in addition to or in place of a small excavator. He expected that the details would be worked out

with the contractor, who had not been selected yet. Nonetheless, he maintained that the equipment used would not impact trees along the roadway.

At the hearing, Morin also explained the process for clearing the cart path of trees and other vegetation in order to create a pathway suitable for trucks to pass and repass. He testified that an initial step would be to “clear and grub” the area using chainsaws, cutters and machines to pull the material out and create a path wide enough for the construction equipment. (Morin Test.)¹¹ Hand-held equipment could be used, he said, depending on the circumstances. Grubbing would include the removal of all roots and stumps, which Morin described as being incompatible with the fill material for the roadway. According to Morin, tree roots encountered on the wetland side could be cut back with saws, snips, or possibly hand tools.

Morin testified at the hearing that the installation of the roadway footings would involve placing erosion control measures at the limit of construction, with sheeting possibly at the outer limits of the retaining wall. Excavation would take place one foot beyond the footing itself. He explained that the footings are L-shaped, with a straight wall on the wetland side and a base extending toward the road bed, away from the wetland. He agreed that no width for the footings is shown on Sheet 6, and that no final plan for them existed yet.

Morin did not think that soil stability or groundwater water levels would pose a problem when placing the footings. He did not, however, know what type of soils was present on the site, how long the soils might be exposed, or what the groundwater elevation was. Morin acknowledged that under the DEP’s permit work was not confined to a particular season or time of year. He testified that he would rely on the contractor to evaluate the situation and remove water via the dewatering basin, if necessary.

Morin downplayed any inconsistencies with the plans. He maintained that Sheet 6 was clear regarding the locations of erosion control measures. However, Morin conceded that Note 2

on Sheet 6 called for the use of silt fence alone between stations 10 and 14, even though that conflicted with the plan detail.

Morin also maintained that Sheet 6 accurately depicted the location of the wetland in relationship to the proposed work. He explained the difference in the location of the wetland line on Sheet 3 and Sheet 6 by saying that Sheet 3 was intended to show the property survey line. Consequently, he testified that one should rely on sheet 6 for the location of the wetland.

3. DEP's Evidence

Jill Provencal, a wetland analyst, testified for the DEP. She testified that she initially reviewed the applicant's proposed wetland crossing under the limited project provision at 310 CMR 10.53 (3)(e) because the applicant had indicated in its permit application that it sought review under that provision.¹² She acknowledged at the hearing, however, that the project did not need a waiver from any performance standards.

Provencal concluded that the applicant satisfied the requirements of 310 CMR 10.53 (3)(e) because the location of the wetland crossing would "cause the least amount of permanent alteration to the BVW." (Provencal Dir. Test. at 5.) She noted that the 150 square feet of wetlands fill at the crossing would be necessary whether the roadway entrance was from Lester Road or Burley Street. Provencal did not review any work other than the 150 square feet of fill as a limited project. She did not look at alternatives for the entire roadway, but only for the wetland crossing. At the same time, she testified that the wetland crossing satisfied the standards at 310 CMR 10.55 (4) because replication would be provided at approximately the same surface and groundwater elevations and the area would be planted with an appropriate wetlands mix.

According to Provencal's written testimony, during her review of the project, she determined that there was a "potential for impacts and/or alterations" of bordering vegetated

¹¹ The witnesses' testimony given at the hearing is cited as "Test."

¹² Manuell testified that the applicant withdrew its request that the crossing be treated as a limited project. Consequently, I do not evaluate the project under 310 CMR 10.53 (3)(e).

wetland at several locations along the proposed roadway. She viewed the impacts as both temporary and long term. At the hearing, she further explained that the DEP had learned through experience that when work was as close to wetlands as it is here, “problems” could arise during construction or use of the area. In these situations, the DEP would ask an applicant to “identify areas of impact” and provide replication. (Provencal Test.) In this case, she asked the applicant to provide a total of 1,400 square feet of replication “to mitigate for the loss of 1,105 square feet of BVW [along wetland flags D4-D5, C4-C8, C10-C11, A3-A55] and the 150 square feet of BVW [at the wetland crossing].” (Provencal Dir. Test. ¶ 4.) She arrived at this figure by identifying areas along the roadway that were close to the wetland and multiplying the number of linear feet by a width of 3 feet. (Provencal Test.) She selected the three-foot distance after speaking with her supervisor, although she described the distance as a “judgment call” and “completely random.” *Id.*

Regarding Manuell’s calculation of 2,625 square feet, which assumed a five-foot width as the affected area, Provencal testified that his calculation of potential alteration was reasonable. She thus accepted the applicant’s proposal to provide 3,000 square feet of replication.

Provencal also testified that she had some concerns about the construction sequence, based on what she learned during the hearing, but ultimately maintained that she was not an engineer, so could not say what would work. In addition, she considered the only permanent impact to be the 150 square feet of fill allowed under the DEP’s wetlands permit. In her view, the DEP could always take enforcement action if there was a “permanent impact” to the wetland over 150 square feet. Temporary impacts could be restored in place or replicated, she testified.

Provencal acknowledged that the wetlands regulations did not distinguish between temporary and permanent impacts. She nonetheless understood the regulations to address only permanent impacts, such as fill, and to require replication for such impacts. In her opinion, temporary impacts were those that “did not deplete the functions” of a wetland. Provencal

agreed with DeRosa that the destruction of vegetation is an alteration, but explained that she would then ask herself whether the alteration was permanent. If the alteration could be restored so that the wetland functions are maintained, then she would consider it to be a temporary impact.

Provencal also agreed with DeRosa that increased light impacts would alter the wetlands. Again, however, she would ask herself whether the wetland would lose all function, or whether it could be restored. If there was a loss of canopy, which Provencal considered a temporary impact, she would recommend continued monitoring and possibly restoration. She testified that the applicant's replication plan included a restoration plan for temporary impacts, which would address the presence of invasive species in the wetland along the roadway. Provencal acknowledged that the applicant was not required under the permit to monitor the condition of the vegetation along the roadway during or after construction.

Provencal was questioned about the plan discrepancies concerning erosion control. Based upon her review of Sheet 6, Provencal initially testified that the plan showed the same line as the limit of work and as the location of erosion control measures. Upon being shown the detail on Sheet 7 of the erosion control measures, she agreed that haybales and silt fencing should both be used.

Provencal noted that the current version of 310 CMR 10.55 (4) differs from the version that which applies to this project, see p. 5-6 *infra*. She testified that, in her view, the project satisfied both versions of the wetland regulations because there is no alternative access and the applicant provided replication for "real and potential impacts." (Provencal Test.) Provencal testified at the hearing that the applicant avoided the wetland by using a retaining wall and by constructing the road over an existing cart path. She did not refer to the *Replication Guidelines* when she reviewed the proposed wetland crossing; instead, she relied on the limited project standards at 310 CMR 10.53 (3)(e). Initially, she appeared uncertain or confused about the

applicability of the *Replication Guidelines* to this project. Ultimately, Provencal stated that it was within her discretion whether she applied the *Guidelines* because projects were evaluated under them on a case-by-case basis. She had, thus, no obligation to examine whether wetlands impacts could be avoided by looking at the availability of other access, or whether the impacts could be minimized or mitigated. She testified that she generally referred to the *Replication Guidelines* only for guidance on how to create replication areas.

Discussion

1. Wetlands alteration

The Conservation Commission bears the burden of going forward in this appeal. To meet that burden as to work in a wetland buffer zone, it must come forward with some credible evidence that the roadway work proposed in the buffer zone will alter the wetland and that the alteration will adversely affect the ability of the wetland to contribute to the protection of one or more of the interests of the Act. *Matter of Cohen*, Docket No. 99-206, Final Decision, 8 DEPR 99 (May 3, 2001). The Conservation Commission has met that burden. Moreover, in addition, it has shown that the project will result in direct alteration of wetlands and that such alteration does not meet the performance standard at 310 CMR 10.55 (4).

DeRosa and Kosian have provided some credible evidence that the work in the buffer zone will alter the wetland and affect the wetland's ability to contribute to the interests of the Act. Buffer zone alteration at the edge of the wetland and extending into the wetland itself does not contribute to the resource area's ability to protect the interests of the Act.¹³ DeRosa's testimony concerning canopy loss is some evidence in support of the Conservation Commission's position that the project will alter additional wetlands.

¹³ The Conservation Commission's witnesses gave different figures for the amount of wetland alteration. I do not find the difference material. The witnesses' testimony was appropriately based on their different areas of expertise and so I do not find them to be inconsistent. To some extent, they also are referring to different ways in which the same area of wetland may be altered.

Once the petitioner comes forward with some credible evidence in support of its position, the burden shifts to the applicant to prove by a preponderance of the evidence that the project will comply with the Act and wetlands regulations. *Matter of Karp*, Docket No. 98-138, Remand Decision, 8 DEPR 47, 51 n.9 (February 26, 2001). *See also Matter of Jan Companies*, Docket No. 97-069, Ruling on Petitioner's Motion Regarding Burdens of Going Forward, 5 DEPR 54 (March 26, 1998). The applicant has failed to meet its burden.

The applicant's proposal does not satisfy the requirements of the wetlands regulations. The applicant's decision to create a replication area of 3,000 square feet is without adequate support. Neither Provencal's determination to ask the applicant to replicate 1,400 square feet, as well as her subsequent testimony that 2,625 square feet of alteration may occur, nor Manuell's offer to replicate 3,000 square feet of wetland are grounded in sound science or on another credible basis. In particular, their determinations of the width of the affected area are not based on an assessment of wetland function at the site or any other stated principle. Instead, their calculations represent little more than random numbers. To the extent they exercised any judgment, the record lacks an explanation or other support for the exercise of that judgment.

I also am persuaded that Provencal was unsure about the manner in which the wetlands regulations and the DEP policies applied to this project, and that this uncertainty contributed to inconsistencies in her testimony about the extent and degree of wetland alteration. To her credit, Provencal recognized that the likely impacts to the wetland would be greater than the applicant acknowledged and sought additional replication. The extent of alteration must be quantified, however, before proposed replication can be considered adequate. The interplay of the limited project roadway provision and the *Replication Guidelines* and the manner in which she applied these provisions to the project was incorrect. She applied 310 CMR 10.53 (3)(e), although the applicant had withdrawn its request for consideration under that provision and the work did not

require a waiver from a performance standard. She did not apply the *Replication Guidelines*, yet did not supply an adequate reason for not doing so.

In sum, no evidence exists to support a finding that the project satisfies the 1:1 replication ratio required at 310 CMR 10.55 (4)(b). I apply the performance standard for two reasons. First, the roadway is so close to the wetlands -- at some points it is about one to two feet away -- and the construction protocol is so nebulous that direct alteration of the wetland is inevitable.¹⁴ The applicant's witnesses conceded as much, although they spoke of temporary impacts that would be restored or replicated. Second, where the proposed work is in the buffer zone, the DEP's replication requirement only makes sense when seen as based on a determination that the replication was necessary to mitigate for the wetlands alteration in order to further the wetland's ability to protect the interests of the Act.¹⁵ Otherwise, the replication requirement would be outside the DEP's authority to impose.

DeRosa convincingly explained how the proposed roadway will require the removal of tree canopy along the edge of the cart path between wetlands flags C3 and C12 and between wetlands flags D4 and D5 because the roadway will be excavated two feet on either side of its footprint in order to place the forms to construct the retaining walls. The removal of the canopy would allow additional light to penetrate, increasing the amount of invasive species and leading to the destruction of native vegetation.

I accept DeRosa's decision to use two feet as the width for the excavation. It is supported by Kosian's testimony, which Morin at a minimum considered to represent standard engineering practice, if not in all regards the construction protocol that would be used for the project.

¹⁴ Another consideration is that the boundary was based on a delineation confirmed in April 2002, raising questions about its continued accuracy.

¹⁵ I note that the distinction between alterations in the wetland or in the buffer zone is not always clearly apparent from the record. The witnesses did not always carefully distinguish between the two when discussing where the work would occur.

The applicant's plans do not show an alternate width for the excavation. Nor did the applicant's witnesses convincingly come forward with a lesser width that it was committed to use. Morin's testimony that the roadway would be excavated one foot beyond the footing is contravened by other testimony that he did not know how wide the footings would need to be. Moreover, his testimony about the one foot figure was based more on the intent to stay out of the wetland than on any known construction methodology. Furthermore, Morin provided no explanation why, if two feet represented standard engineering practice, the applicant would deviate here and expect to excavate only one foot instead.

I accept DeRosa's estimates of the number of trees affected and the average width of the canopy that would be lost. I also accept his determination that trees outside the two-foot excavated area, including those in the wetland, will be lost. This would result in additional canopy loss based on evidence that trees that have a significant portion of their roots within the excavated area will have those roots cut. DeRosa's photograph of the site is a credible representation of the roadway limits in relation to the vegetation on site. His depiction of the areas affected by the excavation and canopy loss were based on Sheet 6 of the applicant's plans as well as his field observations.

Provencal agreed with DeRosa regarding the light impacts that would result from canopy removal, even though she viewed them as temporary. I find that the loss of mature trees cannot reasonably be considered a temporary impact. Even if the area is quickly restored, it cannot be replaced with nursery stock of the same level of maturity. The degree of canopy cover, thus, will be reduced.

DeRosa's opinion that an average width of 20 feet of canopy would be altered is reasonable as it is based on a range of 15-25 feet. I do not find it likely, however, that a continuous swath 20 feet wide would be affected, particularly along the southern edge of the roadway. The trees do not grow so uniformly; and, thus, the area altered would not be uniform

either. I do not consider this a fatal deficiency, however. The Conservation Commission's burden was to come forward with some credible evidence that additional wetlands would be altered beyond what the applicant proposed to replicate. DeRosa has satisfied that burden. For instance, even if 10 feet is used instead of 20 feet so that DeRosa's alteration figure is halved to 3,325 square feet, it is still greater than the amount to be replicated.

In accepting DeRosa's testimony, I give less weight to the conflicting testimony of the applicant's witness, Manuell. He did not consider canopy loss as a factor when he calculated areas of "theoretical" impact. I find DeRosa's description of the extent of existing tree canopy more in keeping with my recollection from the view taken of the site before the hearing. Specifically, I do not credit Manuell's statement that no more than twenty trees were in the buffer zone and wetland near the roadway and all other trees were ten to fifteen feet away.

Manuell was resolute in opining that the "theoretical" impacts that he replicated for would not occur.¹⁶ His firm adherence to this view led him to omit from his calculation of the replication area's size a location Provencal had identified as impacted by the construction. Manuell also did not account for the difference between the narrow width of the traveled portion of the cart path and the width of the proposed road. Trees are growing within the side slopes of the cart path. In sum, Manuell proceeds from the premise that any alterations are theoretical, but if they do occur it is an accident. It is likely, thus, that alterations during construction will not be prevented, but rather dealt with after-the-fact.

In addition, the plans, notes, and graphic detail for the location and type of erosion control measures are inconsistent. Consequently, it is likely that a contractor would not implement erosion control measures in a manner that protected the wetland, particularly when the wetland is so close to the work.

¹⁶ At one point during the hearing, he suggested that the creation of a replication area larger than the 150 square feet associated with the crossing was conditional, that is, it would be created if additional impacts occurred. The permit issued by the DEP, however, requires 3000 square feet of wetlands replication.

Neither Manuell nor Morin offered a concrete plan to prevent root damage. Their assurances that the applicant intends to comply with the permit's limit of 150 square feet of alteration falls short of the applicant's burden here, particularly when coupled with their view that any work in the wetland would be accidental and, thus, a temporary impact. The wetlands regulations do not distinguish between temporary and permanent impacts.¹⁷ In addition, Morin's assurance that any root damage would be minimal is at odds with his testimony describing how the roadway area would be cleared and grubbed.

Furthermore, the wetlands regulatory scheme at 310 CMR 10.00 is essentially preventative. It is aimed at identifying work that will alter wetlands and conditioning that work so that the alteration does not occur, or is replicated for. The interests of the Act are not furthered by a decision to wait for an alteration to occur and then, perhaps, take enforcement action. The wetlands regulations allow for the "wait and see" approach only when work in upland alters a wetland. 310 CMR 10.02 (2)(c).

The applicant's replication plan is inadequate, particularly with respect to canopy loss. (LaRosa Reb. Test. Exh. E.) It provides simply for the reseeded with wetland mix of "any temporary impact area." The monitoring narrative mentions inspection and monitoring of "all impacted areas, both permanent and temporary," but the more specific tasks laid out in the schedule address only the replication area. Similarly, the plan provides for the assessment of invasive species only in the replication area. The plan, thus, does not offer the degree of protection Manuell and Provencal testified that it did.

Even if I were to accept Manuell's method of calculating the size of the replication area, the applicant has not shown that the project complies with the wetlands regulations. The applicant did not provide replication for all of the affected areas identified by the DEP. Using

¹⁷ I note that the wetlands permit application form asks an applicant to identify and quantify temporary and permanent impacts. The applicant here identified only 150 square feet of impact for the road crossing.

Manuell's method of calculation, Kosian determined that an additional 250 square feet of replication should have been provided by the applicant because Manuell did not include the area between wetland flags A3 and A55 in his calculation. I reject Manuell's rationale for not including this area when he calculated the size of the replication area because his reasoning is not supported by the plans. The wetland between flags A3 to A55 is closer to the roadway than it is at some of the other locations identified by Provencal. The wetland curves away from the proposed road location west of wetland flag A55. I also reject Manuell's calculation of the size of the area. A review of Sheet 6 shows that he underestimated the distance between wetland flags A3 and A55, and that it is greater than 200 square feet. He also underestimated other calculations in the applicant's favor. I find him less credible because of this tendency.

In sum, the evidence supports a conclusion that, even under the applicant's method of calculation, the replication area should be 3025 square feet in order to comply with the performance standard at 310 CMR 10.55 (4)(b).

In arriving at the above alternate grounds for my conclusion that the wetlands permit should be denied, I do not accept one of the arguments offered by the petitioner. I find that the wetland boundary line as located on Sheet 3 is an error and that the detail on Sheet 6 correctly reflects the location of the wetlands boundary in relation to the roadway work. Therefore I do not accept Kosian's conclusion that 143 square feet of wetlands alteration will result because of what is shown on Sheet 3.

2. Access from Lester Road

In its closing brief, the Conservation Commission asked that, in the event access from Lester Road is determined to be available to the applicant, I find now that the impact associated with access from Burley Street can and should be avoided. In light of my decision that the

wetlands permit should be denied, I need not address the access issue any further. Accordingly, I decline to do so.

DISPOSITION

The wetlands permit issued to the applicant should be denied.

Bonney Cashin
Administrative Magistrate

NOTICE

This decision is a recommended final decision of the Administrative Magistrate. It has been transmitted to the Commissioner of the Department of Environmental Protection for her final decision in this matter. This decision is therefore not a final decision subject to reconsideration and may not be appealed to the Superior Court pursuant to M.G.L. c. 30A, §14(1). The Commissioner's final decision is subject to rights of reconsideration and court appeal and will contain a notice to that effect. Because this matter has now been transmitted to the Commissioner, no party shall file a motion to renew or reargue this recommended final decision or any portion of it, and no party shall communicate with the Commissioner's office regarding this decision unless the Commissioner, in her sole discretion, directs otherwise.