

**DRAFT**

IN THE MATTER OF

MAINE TURNPIKE AUTHORITY	) SITE LOCATION OF DEVELOPMENT ACT
York, York County	) GENERAL PERMIT
YORK TOLL PLAZA	) NATURAL RESOURCES PROTECTION ACT
	) FRESHWATER WETLAND ALTERATION
L-27241-TG-A-N (approval)	) WATER QUALITY CERTIFICATION
L-27241-TP-B-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. §§ 481–489-E and §§ 480-A–480-JJ, Section 401 of the Federal Water Pollution Control Act (33 U.S.C. § 1341), and Chapters 310, 315, 335, 375, and 500 of Department rules, the Department of Environmental Protection has considered the application of the MAINE TURNPIKE AUTHORITY with the supportive data, the public hearing testimony, agency review comments, the written comments submitted by the general public, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. **PROJECT DESCRIPTION AND PROCEDURAL HISTORY:**

A. Project Description: The Maine Turnpike Authority (MTA or applicant) is seeking Department approval for the construction of a new barrier toll plaza at Mile 8.8 of the Maine Turnpike that will include six open, E-ZPass lanes (three northbound and three southbound) with overhead open framed gantries with electronic toll collection equipment, called Open Road Tolling (ORT). In addition to the highway speed electronic tolling lanes, the toll plaza will include nine lanes with toll booths designed for cash collection (four northbound and five southbound); a 2,400-square foot administration building on the west side of the Turnpike; a service tunnel running underneath the Turnpike for the safe passage of staff from the administration building to the toll booths and for the storage of toll equipment and utilities; an access drive from Chase’s Pond Road to the administration building on land owned by the applicant; expansion of the existing ~~road~~ **Turnpike mainline** for approach and departure lanes; construction of stormwater treatment units; the demolition of the existing barrier toll plaza and administration building at Mile 7.3; and the reduction in the pavement at the existing toll plaza.

The proposed project will disturb approximately 58 acres and will include the redevelopment of approximately 38.5 acres of existing impervious area and the creation of approximately 15 acres of new impervious area. The proposed project will extend from Mile 7.0 to Mile 9.5. The existing toll plaza (toll booths and administration building) will be removed and a portion of the existing pavement will be reconfigured from a 17-lane toll plaza to a six-lane throughway. At Mile 8.8 the new toll plaza will result in the alteration of approximately 7,200 linear feet of highway within the right-of- way of the existing travel corridor to accommodate lane widening and the toll collection infrastructure. Development of the new administration building, with its associated

parking and the access drive, will occur on a 32.6-acre parcel of land owned by the applicant that abuts the right-of-way of the travel corridor to the west of the project site.

The proposed project will alter approximately 24 linear feet of stream, approximately 63,659 square feet (1.46 acres) of freshwater wetlands, including alteration of wetlands located within the critical terrestrial habitat of significant vernal pools, and wetlands associated with habitat for rare, threatened, and endangered species. The proposed project will also alter 62,195 square feet (1.43 acres) of upland within the critical terrestrial habitat of significant vernal pools.

The proposed project is shown a set of plans, the first of which is titled “York Toll Plaza, General Plan 1”, prepared by Jacobs Engineering Group, Inc. and Sebago Technics, Inc. and dated August, 2016, with a last revision date on any of the sheets of April 3, 2017.

B. Current Use of the Site: The highway and toll collection portion of the project site will be located within the right-of-way of the Interstate I-95 travel corridor in which a six-lane divided highway is currently located. The adjacent 32.6-acre parcel, through which the access road from Chase’s Pond Road to the administration building will be constructed, is currently undeveloped woodlands and forested wetlands.

C. Procedural History: On October 19, 2016, the MTA filed an application with the Department of Environmental Protection (Department) for a Natural Resources Protection Act (NRPA) Permit for the construction of a barrier toll plaza at Mile 8.8 on the Maine Turnpike (Turnpike) which is part of Interstate I-95 in the Town of York.

The applicant also submitted a Notice of Intent (NOI #81265) to comply with the standards and requirements of the Site Location of Development Act (Site Law) General Permit (General Permit) for the Maine Turnpike Authority (DEP #L-26825-TP-A-N, effective February 29, 2016). The General Permit authorizes the applicant to construct all developments under the applicant’s authority for which approval is required pursuant to the Site Location of Development Act, 38 M.R.S. §§ 481-490, after the Department’s approval of the NOI. Section VI(D) of the General Permit stipulates that when an NRPA permit is required for a project, the NOI review period will run concurrently with the NRPA permit application review period and the length of the review period will be the same as the review period for the NRPA permit application.

Several interested persons, including the Town of York and a citizens’ group, Think Again, requested that ~~the Board of Environmental Protection (Board) take jurisdiction over review of the proposed project or, if the Board did not take jurisdiction, that~~ the Department conduct a public hearing. Based upon the information submitted by the interested persons and pursuant to the Department’s Chapter 2 Rules Concerning the Processing of Applications and Other Administrative Matters, Sections 7(B) and 17(C), the Department determined, and conveyed in a letter dated December 2, 2016, that it would not recommend that the Board of Environmental Protection (Board) assume jurisdiction over the processing of the application, but that the Department would hold a public hearing on the proposed project.

On January 30, 2017, the Department received a Petition to Intervene from the Town of York and from the citizens' group, Think Again. Both petitions were granted on February 14, 2017 and the two intervenors consented to being consolidated into one.

During the Department's public hearing process, the Department's Presiding Officer issued four procedural orders:

1. The First Procedural Order, dated February 14, 2017, granted intervenor status to the Town of York and Think Again and consolidated the two intervenors into one called Citizens for Responsible Toll Collection (CRTC, or the Intervenors).
2. The Second Procedural Order, dated March 14, 2017, set a date for the public hearing and established procedures for pre-filed testimony.
3. The Third Procedural Order, dated May 12, 2017, ruled on the applicant's objection to certain witnesses testifying at the public hearing and established a public hearing schedule. This Order also acknowledged CRTC's request that the Presiding Officer ask the applicant to submit an updated version of the model prepared by its consultant, CDM Smith. The request was not acted upon in the Order, and the Department's decision was deferred on this matter until after the public hearing.
4. At the public hearing, CRTC renewed its request that the Presiding Officer ask the applicant for an updated model that calculates the necessary surcharge for an all-electronic tolling (AET) facility to maintain net revenue neutrality with an ORT facility over an initial ten-year period between 2020 and 2029. The Intervenors asserted that, because construction of an ORT toll plaza would not be completed until 2020, the model inputs should be revised to reflect predicted conditions for that period. The applicant responded that running the 2014 model with a seven-year delay would create unreliable predictions that could not be used in the decision-making process utilized by the MTA Board. The Presiding Officer allowed the two parties to file post hearing briefs on the request. The Fourth Procedural Order, dated June 16, 2017, ruled that the Department would not request submission of an updated model by the applicant.

The public hearing on the application was held on May 22, 2017 at the Kittery Community Center's Star Theater in the Town of Kittery. A portion of the public hearing was devoted to receiving testimony from members of the general public. Written comments were accepted throughout the application processing period, until the close of the hearing on May 22, 2017.

2. EXISTING SCENIC, AESTHETIC, RECREATIONAL OR NAVIGATIONAL USES:

The NRPA, in 38 M.R.S. §480-D (1), requires the applicant to demonstrate that the proposed project will not unreasonably interfere with existing scenic, aesthetic, recreational and navigational uses.

To demonstrate that its proposed project meets this criterion, the applicant submitted a description of the uses of the site, which include a multi-lane highway, tolling structures, and associated facilities. The applicant also submitted several photographs of the proposed project site and surroundings, including an aerial photograph of the project site. In accordance with Chapter 315, Assessing and Mitigating Impacts to Scenic and Aesthetic Uses (06-096 C.M.R. ch. 315, effective June 29, 2003), the applicant submitted a copy of the Department's Visual Evaluation Field Survey Checklist as Appendix A with the application. Department staff visited the project site on August 28, 2015, December 17, 2015, and April 5, 2017.

The proposed project is not located in a scenic resource visited by the general public, for the use, observation, enjoyment and appreciation of its natural and cultural visual qualities. The proposed project is adjacent to a scenic resource, the Whippoorwill Conservation Area. This area is an approximately 180-acre open space associated with the Whippoorwill Subdivision and subject to a conservation easement held by the York Land Trust. The easement limits public access to primarily the residents of the Whippoorwill Subdivision and the Grantor of the easement, and states that the general public will not be excluded unless such use becomes obtrusive or destructive. In written comments from interested persons and from testimony at the hearing, it was established that the conservation area is frequently used for recreational pursuits such as walking and bird-watching. The established trails within the conservation area are approximately 600 to 700 feet east of the Turnpike near the proposed location of the northbound toll booths. Because of land topography and forest cover between the project site and the scenic resource, the proposed project site is not visible from the currently established trails on the open space conservation parcel.

In response to questions from the general public, the applicant proposes to limit the effects from illuminating the new toll plaza by utilizing LED, fully cut-off lighting. Cut-off lights are designed such that no light is emitted above the horizon. The applicant also proposes to use lights that will emit light in the warmer (yellow) side of the spectrum as opposed to the blue hues typically associated with LED lights. To further minimize lighting impacts, the applicant proposes to place house-side light shields to control light intensities leaving the project site. Final lighting designs are being prepared. Prior to the start of construction, the applicant must submit a final photometric plan for the proposed project to the Department for review.

The Department staff utilized the Department's Visual Impact Assessment Matrix in the evaluation of the proposed project, and the Matrix showed an acceptable potential visual impact rating for the proposed project. Based on the information submitted in the application, the distance from the scenic resource, the visual impact rating, and the site visits, the Department determined that the location and scale of the proposed activity is compatible with the existing visual quality and landscape characteristics found within the viewshed of the scenic resource in the project area.

In its determination of the proposed project's potential impacts to existing scenic, aesthetic, and recreational uses, the Department considered the significance of the Whippoorwill Conservation Area, the existing character of the surrounding area, the distance between this scenic resource and the project site, and the expectations of the

typical user. The Department also considered the significance and public purpose of the proposed project and the applicant's actions to mitigate for impacts from overhead lighting. Based on the information submitted in the application, the visual impact rating, the site visits, and for the reasons stated above, the Department finds that the location and scale of the proposed activity is compatible with the existing visual quality, recreational uses, and the landscape characteristics found adjacent to scenic resource.

The application included the MTA Noise Policy and a noise study of the project area. The MTA Noise Policy stated that highway noise is generated from four major sources: vehicle engines, vehicle exhaust, aerodynamics, and tire-to-pavement friction; with tire noise being the dominant source from vehicles travelling at speeds greater than 20 miles per hour. The MTA Noise Policy also stated that the level of highway noise is dependent on the volume of free-flow traffic, the speed of that traffic, and the number of trucks in the flow of traffic. The MTA Noise Policy noted that geographic factors, such as steep inclines affect noise levels. The applicant's report titled "Noise Analysis Report," prepared by Jacobs Engineering Group, Inc. and dated September 27, 2016, documented potential noise impacts associated with the proposed project. Estimated vehicle noise emissions were calculated different periods of time and considered the build/no-build alternatives using the Federal Highway Administration's Traffic Noise Model. The model was calibrated using seven sites within the project area, including the Whippoorwill Subdivision. The model results predicted that noise levels resulting from the proposed project would result in a one decibel increase in noise over the no-build scenario, which is considered to be equivalent to existing conditions. The report highlighted that moving the toll plaza from its current location will eliminate the need to accelerate up the northbound hill and hard braking down the same hill when traveling southbound, which would reduce current noise levels. Regarding construction noise, the MTA Noise Policy stated that during the design phase of transportation projects, the applicant will work with local public officials and the local community to limit and minimize adverse construction noise, as practicable. Based on the information provided by the applicant, the Department finds that noise resulting from the proposed project is compatible with existing conditions.

The applicant's report titled "Air Quality Report," prepared by Jacobs Engineering Group, Inc. and dated September 1, 2016, compared the results of air modeling that examined total pollutant burdens from the proposed project and existing conditions. Modeling results predict an improvement in ambient air quality at the existing toll plaza location. Although the model predicted that the new toll plaza location would have a minor reduction in ambient air quality, the improvements in traffic moving through at highway speeds would reduce traffic congestion. Correspondingly, the reduced congestion will result in less brake and tire wear, which contribute to particulate matter and emissions of volatile organic compounds, carbon monoxide, and nitrous oxide. Based on the information provided by the applicant, the Department finds that changes to air quality resulting from the proposed project is compatible with existing conditions.

There are no navigational uses of any resources that would be unreasonably impacted by the proposed project.

The Department finds that the proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses of the protected natural resource provided that prior to the start of construction, a final photometric plan for the proposed project is submitted to the Department for review.

3. SOIL EROSION:

The NRPA, in 38 M.R.S. §480-D(2), requires the applicant to demonstrate that the proposed project will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

Included on the set of plans referenced in Finding 1 were the proposed location of silt fence intended to capture sediment mobilized in stormwater runoff.

To meet the terms of the Site Law General Permit, the applicant is required to develop an erosion control plan for the proposed project that conforms with the Maine Department of Transportation's Best Management Practices for Erosion and Sediment Control (BMP's), dated February 2008. To comply with the requirements of the General Permit, the contractor for the proposed project will be required to submit an erosion control plan to the applicant prior to the start of construction for approval by the applicant. This plan will provide specifications for the installation and implementation of soil erosion and sedimentation control measures based on site-specific conditions, the construction sequence, timing, and weather.

Prior to the start of construction, the applicant must submit an erosion control plan for the proposed project to the Department for review and approval.

The Department finds that the activity will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment provided that the erosion control plan is submitted to the Department for review and approval prior to the start of construction.

4. WETLANDS AND HABITAT:

The NRPA, in 38 M.R.S. §480-D(3), requires the applicant to demonstrate that the proposed project will not unreasonably harm significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

The applicant proposes to directly alter approximately 24 linear feet of stream, approximately 63,659 square feet (1.46 acres) of freshwater wetlands, including alteration of wetlands located within the critical terrestrial habitat of significant vernal pools, and wetlands associated with habitat for rare, threatened, and endangered species. The proposed project will also result in the alteration of 62,195 square feet (1.43 acres) of upland within the critical terrestrial habitat of significant vernal pools. The NRPA-regulated streams on the project site that are proposed to be altered are waterbodies that connect wetlands and either cross under the Turnpike through culverts or run adjacent to

the highway in roadside ditches. The freshwater wetlands comprise a drainage network collecting water from the upland adjacent to the Turnpike and directing it into the Cape Neddick River, Whippoorwill Swamp, or Little River watersheds.

#### A. Wetlands

*The Wetlands and Waterbodies Protection Rules*, 06-096 C.M.R. ch. 310, interpret and elaborate on the NRPA criteria for obtaining a permit. The rules guide the Department in its determination of whether a project's impacts would be unreasonable. A proposed project would generally be considered to result in an unreasonable impact if it would cause a loss in wetland area, functions and values and there is a practicable alternative to the project that would be less damaging to the environment. The extent and severity of impacts to the wetlands and the value and functions of the wetlands impacted are weighed against the practicability of a potential, less damaging, alternative to the proposed project, and that balancing underlies the Department's analysis of whether the impacts from the project as proposed are found to be unreasonable. Each application for a NRPA permit that involves a freshwater wetland alteration must provide an analysis of alternatives in order to demonstrate a practicable alternative does not exist.

An applicant's analysis of whether there is a practicable alternative to the project that would be less damaging to the environment is considered by the Department in its assessment of the reasonableness of any impacts. Chapter 310 defines practicable as available and feasible considering cost, existing technology, and logistics based on the overall purpose of the project. In determining whether a practicable alternative exists, the applicant must consider using, managing, or expanding other locations that would avoid impacts to protected natural resources; reducing the size, scope, configuration, or density of the proposed project, and thereby avoiding or reducing impacts; and developing alternative project designs to further avoid or reduce impacts.

The applicant's stated project purpose is to replace the existing barrier toll plaza at Mile 7.3 of the Turnpike with highway-speed electronic tolling lanes (ORT) and cash collection lanes that will address safety deficiencies at the existing plaza. The applicant states that ground settling and subsidence are occurring at the current toll plaza and facility deficiencies include substandard tolling equipment. The applicant states that its goal is to have the ability to adequately handle current and projected traffic volumes, and the ability to limit impacts to motorists while meeting expectations.

The Department finds that the applicant's description of its project purpose cannot be so narrow as to eliminate consideration of potential practicable alternatives. Thus, the Intervenor's evidence regarding a potential alternative which would be less environmentally damaging to the environment, in the form of an AET installation, was considered by the Department. The applicant also submitted evidence on this alternative.

#### 1) Analysis of Avoidance: Alternative Tolling Methods

##### a) Applicant's Toll System Alternatives Analysis and Evidence.

The applicant submitted an alternatives analysis for the proposed project completed by Sebago Technics, Inc. and dated October 17, 2016. The applicant considered two methods of toll collection that provide highway-speed electronic tolling: open road tolling (ORT) and all-electronic tolling (AET). The ORT method includes both highway-speed tolling lanes for vehicles with an electronic toll collection device as well as conventional toll booths, similar to that which currently exists for cash toll collection, while the AET method is comprised of only highway-speed electronic tolling and eliminates roadside cash collection. The AET method uses cameras mounted on overhead gantries that record all vehicle license plates and records passing vehicles using electronic toll collection devices. For users that otherwise would pay a cash toll, AET utilizes a pay-by-mail system to identify license plate images, match license plates with addresses, prepare and mail invoices, and track payments ~~and penalties~~. For both tolling methods, users that have an electronic toll collection device in their vehicle are assessed a toll which is then charged against the balance of their account.

The applicant commissioned two studies to evaluate the practicability of each tolling method. The results of the first study were published in a report titled “Maine Turnpike, Southern Toll Plaza, Initial All-Electronic Tolling Feasibility Review,” prepared by HNTB and dated February 20, 2009. The HNTB report stated that the benefits that could be realized with an AET plaza included a significantly reduced physical presence, reduced capital construction costs, reduced operational and maintenance costs of the infrastructure, reduced traffic congestion, improved safety at the toll plaza, elimination of fare collection staffing and support, and reduced environmental impacts resulting from traffic moving through the toll plaza without having to slow or stop. The HNTB report also identified negative impacts such as increased costs for back office and customer service center operations; logistical difficulties such as weather impacts on the reliability of equipment to read license plates and retrofitting the other toll plazas to integrate into the AET system; significant revenue loss because of non-payment transactions resulting from patrons choosing to simply not pay the invoice, improperly read license plates, and limitations of interstate agencies for providing vehicle-user data; and cost shifting onto patrons enrolled in electronic toll collection regimes resulting from non-payments from users that previously paid cash. The report concluded that there would be theoretical benefits to converting to an AET system, but noted that there would also be significant uncertainty related to the business costs. Noting that revenue loss poses a threat to the applicant and the lack of comparable industry information at the time of the report, converting to an AET system was not recommended by HNTB, the authors of the report.

The results of the second study were published in a report, titled “Maine Turnpike ORT/AET Impact Analysis,” prepared by CDM Smith and dated April 14, 2014. The purpose of the CDM Smith report was to compare traffic, toll rates, operating costs and net revenue of an AET system over a 10-year forecast period to a continuation of the current cash collection of tolls. The applicant considers an ORT system to be equivalent to the current system because the only difference between the two is that motorists with electronic toll collection devices can move



through an ORT toll plaza at highway speeds while the current system requires that they slow to pass through the toll gates. Impacts from installation of an AET system to net revenue were determined by estimating impacts to toll collection and operating costs, and potential revenue from administrative fees associated with non-payments. Because of uncertainties associated with an AET system that would no longer collect cash at the toll plaza, the CDM Smith report included a risk analysis of this tolling method that involved testing a range of assumptions regarding customer payments, image recognition, and other factors.

The CDM Smith report examined the predicted redistribution of traffic that currently utilizes cash payments. A portion of this traffic would be expected to convert to using the current electronic toll collection devices, another portion was estimated to divert from the Turnpike and use alternative routes, and the majority of motorists would have their license plate information captured by video with toll charges by a pay-by-mail system (video toll). The transactions of the video toll users were then subdivided into four basic groups: those transactions that would pay the toll; those transactions that would go unpaid; those transactions that were unbillable (i.e., vehicle owner addresses were not available); and, those transactions that resulted in unreadable license plates. The model predicted that 42% of all current cash collections would be lost following conversion to the AET method.

The CDM Smith report included a multi-variable model that was created to allow a comparison of the two tolling methods. ORT revenue generation was considered to be essentially the same as the current tolling method, so the ORT method was treated as the base case net revenue forecast. Based on this comparison, it was determined that a toll surcharge would be necessary to offset revenue loss predicted using an AET system. Surcharge rates ranging from zero to \$4.00, using \$1.00 intervals, were examined. For the first three years, net toll revenues from all of the AET options were less than the (ORT) base case; however, the model predicts that AET-based net revenues with surcharges of \$3.00 and \$4.00 would rise above the base case after three years, while the AET-based net revenue with a \$2.00 surcharge would rise above the base case after five years. After considering both operating and capital investment cost, the CDM Smith report concluded that the best 10-year net total revenue would come from an AET system; however, the CDM Smith report states that for this to be achieved, a significant increase in charges, as much as \$3.00, would have to be assessed on vehicles that do not have electronic toll collection devices. As a result of the surcharge, the report predicts, there would be a significant increase in the number of traffic diversions off the Turnpike, and the report states that the additional traffic would create a negative impact on local area roads. Notwithstanding the net total 10-year revenue figures, given the financial risk discussed below, the CDM Smith report concluded that the selection of an ORT plaza at York would be the more prudent business decision.

The application included an April 30, 2014 MTA Staff Report on the status of tolling on the Turnpike at that time that documented the efforts the applicant had taken to improve management of the Turnpike, evaluated the information

provided in the 2014 CDM Smith Report, and discussed MTA policy issues associated with converting to an AET system. These policy issues included fairness and equity for toll payers, traffic diversion from the Turnpike, customer service, safety, landowner impacts, environmental impacts, consistency with existing toll plazas, privacy, staffing and operations, financial responsibilities, and flexibility. The MTA Staff Report acknowledged that implementation of AET system would involve lower capital costs, minimal environmental impacts, and enhanced safety. The detriments to AET implementation listed in the MTA Staff Report included higher operating costs associated with back office collection operations, loss of revenue from uncollectable tolls, the need to place a significant surcharge on pay-by-mail customers and with that, fairness issues (that one group is paying a disproportionate share over other groups), financial obligations related to current bonds and future borrowing, traffic diversions, and operational conflicts with the current tolling method at other toll plazas.

The applicant evaluated the findings of each of the three reports and concluded at its July 24, 2014 Board meeting that an AET system would not be a practicable alternative that meets the project purpose because of the estimated doubling of the current toll rate at the York Plaza for pay-by-mail customers; the projected loss of revenue resulting in the first years of initiation of an AET tolling method, regardless of the additional surcharge and from uncollectable transactions, estimated to be as high as 42%; the loss of confidence from bondholders and current lenders which would result in lower bond ratings and higher future borrowing costs; overall customer dissatisfaction for fare increases and changes to the point of service (change from pay cash at the toll plaza to a pay-by-mail system); the risk of significant traffic impacts on local roads resulting from the projected diversions off the Turnpike by motorists seeking to avoid the toll; the need to replace existing ORT toll plazas to implement an AET system over the entire Turnpike system; and the negative reaction of other toll agencies, bond rating firms, and bond investors to the precedent that a permitting decision by an environmental agency would decide the toll collection methodology for the MTA.

The applicant further addressed the cost and financial impacts of implementing an AET system in a draft report submitted from the applicant's Chief Financial Officer, dated August 24, 2016. This report stated that the applicant has independent bonding capacity and that it receives no state funding, although it is subject to legislative review. The ability of the applicant to assure revenue is essential because in issuing its own bonds, the only collateral is the revenue stream. Bondholders are protected by means of bond resolutions, some of which include pledges that all revenues and cash are applied to the payment of the principal and interest to the bondholders; that the applicant may only use revenues in accordance with the terms of the bonds and may not impair the bondholders' rights; that with narrow exceptions, no free vehicular passage will be permitted and that no cost shifting favoring one group of users over another is permissible; and that specific steps for changing toll rates, schedules, classifications, and methodologies have been established and that the applicant must have a traffic consultant prepare a report showing that toll changes will

meet the net revenue requirement in the fiscal year of the requested toll change and in the subsequent five years. The Chief Financial Officer's draft report stated that because all revenue is pledged and the applicant cannot accept annual losses, the applicant determined that projected revenue losses resulting from conversion to an AET system, as shown in the CDM Smith report, would require an extensive traffic and revenue analysis across the entire Turnpike. In addition, the Chief Financial Officer stated that an AET system carries an inherently higher risk which could result in a downgrade of the ratings on current or future bonds, which would increase borrowing costs, which would have to be covered by toll increases. This report supports the conclusion in the CDM Smith report that the selection of an ORT plaza at York would be the more prudent business decision.

b) Intervenor's Toll System Analysis and Evidence.

Beginning in 2008, the Town and the people that constitute the CRTC have been involved with the applicant's efforts to replace the existing toll plaza by requesting and participating in public meetings, and by providing input on the reports commissioned by the applicant.

The Town of York commissioned the eTrans Group to review the HNTB and CDM Smith reports. The eTrans Group produced a report titled, "Shortfalls in MTA's Response to the Army Corps of Engineers," dated March 30, 2016. The report listed a number of items not addressed by the applicant in its September 1, 2015 correspondence to the Corps as part of the Phase I Avoidance assessment for the Corps licensing process. It stated the acknowledged environmental and safety benefits of constructing an AET system and offered a possible location on the Turnpike for placement of AET gantries. The eTrans Group report also described shortfalls in the applicant's financial analyses, specifically, that the CDM Smith report focused only on what the eTrans Group considered worst-case conditions, that the CDM Smith report only examined impacts of converting only two of the 18 toll collection locations on the Turnpike, and that the CDM Smith report only considered a ten-year study period. The eTrans Group report asserted, in part, that estimates of the more significant benefits of converting to an AET system were not considered, that the assumed surcharge fees were inconsistent with industry practices, that capital cost estimates will continue to rise over time, and that the traffic diversion projections were overestimated.

In a letter dated June 16, 2016, the Town of York argued that the applicant's decision to reject AET as the most practicable tolling method to meet the project purpose is not supported by the CDM Smith report. The Town of York reiterated the previously identified benefits to implementing an AET system versus an ORT system but acknowledged that, in doing so, additional costs from video toll transactions would be required and that there would be some loss of revenue from uncollectable toll transactions. The letter highlighted those portions of the CDM Smith report that predict that the AET system will generate more revenue over time, and questioned the applicant's assertion that a \$3.00 surcharge would be inappropriate or problematic.

c) Public Hearing.

The testimony at the May 22, 2017 public hearing was focused on those issues related to the licensing criteria relevant to the NRPA permit application filed by the applicant, for the most part the issue of the alternatives analysis.

The pre-filed testimony from the applicant described the process by which the MTA decided on the ORT option for the proposed new York toll booth, including the factors that led to commissioning traffic and tolling studies and the evaluation of the HNTB and the CDM Smith reports resulting from the studies. Witnesses for the applicant described the analysis of the practicability the AET alternative as compared to ORT, as they relate to conditions specific to the Turnpike, and outlined the anticipated financial impacts that would result from implementing an AET system.

CRTC's pre-filed testimony and cross-examination of the applicant's witnesses focused on the benefits of an AET system and described the increasing use of AET systems in other states. Further, CRTC witnesses testified that improvements in video technology, increased use of electronic toll collection devices, and the collective enforcement agreement between Maine, New Hampshire, and Massachusetts would reduce the percentage of uncollectable toll transactions to less than 10%. CRTC raised questions as to the validity of the model used in the CDM Smith report. Specifically, it questioned whether the financial performance of an AET system, as outlined in the CDM Smith report and used by the applicant in its dismissal of this tolling method as a practicable alternative, was outdated and that the model overestimated the number of traffic diversions to avoid payment of the toll. CRTC also asserted that it was inappropriate for the applicant to have a separate evaluation of the construction capital costs and operational/maintenance differences between the two systems in its practicability determination.

In response to the questions raised by CRTC, the applicant testified that since the CDM Smith report was prepared, there have been improvements in video technology and license plate identification. The applicant also listed the actions it has undertaken to increase the use of electronic toll collection devices. The applicant stated that a large percentage of motorists who pay by cash are tourists. Thus, unlike other examples of tolled roads cited by the Intervenor where AET is used, these infrequent users of the Maine Turnpike are not expected to obtain an electronic toll collection device.

Regarding reciprocity between Maine, New Hampshire, and Massachusetts, the applicant testified that each state has different rules for collecting tolls from motorists who travel on the Turnpike who do not use E-ZPass devices or pay cash at the toll plaza. The number of violations or toll amounts that must be accrued before formal enforcement is triggered varies by State and uncollected tolls represent a risk to the revenue stream. The applicant stated that despite these formal agreements, uncollected tolls from New Hampshire and Massachusetts

motorists are still 46% and 53%, respectively. The applicant's pre-filed testimony noted that approximately 63% of all cash tolls are obtained from out-of-state motorists, including approximately 5% from Canada. The applicant stated during the public hearing, that given the challenges in obtaining driver information from other states and Canada, the 42% revenue loss predicted in the model is likely.

The applicant provided testimony that the model used in the CDM Smith report was an investment grade study to determine the feasibility of implementing an AET system. An investment grade study is performed when new revenue bonds for a new facility, an expansion, or a new toll plaza issuance of new revenue bonds. The applicant's witness testified that in this case, because a surcharge was deemed necessary to ensure revenue neutrality, an investment grade study was deemed appropriate for proper analysis. Further, the applicant pointed out that an investment grade study is reviewed by bond rating agencies, bond insurers, and bond buyers who evaluate potential changes to the revenue stream. The applicant's witness stated that due to the sensitivity of the model to the input parameters, the model's timeline for implementing an AET system was set at one year following the collected input data.

Specific to the practicability of implementing an AET system, the applicant testified that bonds issued by the applicant are revenue bonds and not general obligation bonds, and that revenue bonds are a claim against the revenue stream, not against assets owned by the applicant. As security for these bonds, the applicant pledges to raise tolls to meet any deficiencies in operations, capital, or debt service, and in the event that payments are not made, the ~~b~~Bond Trusteeholder has the right to dictate toll rates. The applicant stated that imposing a surcharge is in effect a toll increase, and that increasing toll fees to make an AET financially feasible negatively impacts the applicant's or a Bond Trustee's ability to increase tolls in the future.

The applicant explained that calculating risk and revenue stream are determinants for bond rating, and it is this rating that affects the interest rate paid on a bond. The applicant stated that the need to include a surcharge to the existing toll fee for pay-by-mail users in order to ensure the financial viability of an AET system added to the risk of implementing this system. In contrast, the applicant testified that it determined that there is no risk with implementing an ORT system because this system would be financially equivalent to the current tolling system. The applicant's witness testified that the MTA's determination that a surcharge would be necessary to address lost revenue from uncollectable toll transactions with an AET led to its decision that an AET system was not a practicable tolling method.

The CRTC's witnesses testified that an AET system would be less costly, more efficient, and would have little to no environmental impacts because installation of an AET system simply requires the construction of overhead gantries for the camera system. CRTC's pre-filed testimony stated that when a side-by-side comparison of an AET system with an added surcharge is compared with an ORT system that includes capital costs for a new toll plaza along with operating and maintenance costs over a 10-year period, then the AET system is more cost

effective. The CRTC contended that this determination, in addition to the lack of any environmental impact from an AET system, should therefore be considered the most practicable alternative, less damaging to the environment.

The Intervenors noted, and questioned the applicant's witnesses about, a table in the CDM Smith report that predicted the "bottom line" cost difference between the two systems that included these costs for a 10-year period in an effort to understand why capital costs were not included in the model calculations. In response, the applicant explained that for ORT the entirety of the capital costs for the project were compressed into a ten year period when in fact capital costs would be stated that the model tested the two tolling methods solely on the net revenue and that capital costs and operating and maintenance costs were reviewed afterward, and that this is because of how capital costs are handled. The applicant explained that capital costs are depreciated over the life span of the toll plaza, a period between 35 to 40 years, not in the first 10 years of the project. Compressing the full capital costs into the first 10 years of the project results in an overstatement in this "bottom line" table of the cost difference between AET and ORT that favors AET.

The applicant's witnesses were questioned by the Intervenors regarding the predicted number of traffic diversions as a result of a possible surcharge, and whether the CDM Smith model predicting traffic delays on local streets was calibrated to existing field conditions. The applicant's witnesses responded that the number of traffic diversions predicted by the CDM Smith model were taken by a second traffic engineer and used to predict traffic delays on local streets in a second traffic model. Given that this second model predicted significant delay and that there would be the expectation that motorists would be aware of these delays, the Intervenors questioned whether the CDM Smith model was rerun to account for this and whether the predicted number of motorists diverting from the Turnpike would decrease. The applicant's witnesses stated that a second iteration of the CDM Smith model was not run based on the predicted traffic delays on local area streets predicted in the second traffic model. The Intervenors were seeking clarification as to how the number of traffic diversions were calculated and did not submit its own evidence to challenge the applicant's conclusions.

d) Testimony from the General Public on Alternatives.

During the evening portion of the public hearing, approximately 28 persons provided testimony both opposed to and in support of the proposed project. The testimony in opposition to the proposed project generally asserted that the ORT alternative proposed by the applicant would be costlier, that there would be significant benefits from the AET alternative, and that an AET system would be safer, less noisy, and would result in a reduction in air pollution. Some speakers who opposed the proposed project testified that implementing an AET system is consistent with actions being taken by tolling agencies in other states and that this system would not result in any impacts to the environment. One person testified in

favor of the proposed project, emphasizing the need for a cash toll collection option.

e) Department Analysis of Toll System Alternatives.

In its analysis of the reasonableness of impacts under the NRPA criteria the Department must consider the level of impacts to the resources resulting from the proposed activity (construction of the proposed toll plaza) and its use and the value of the impacted resources weighted against the practicability of any less damaging alternative. The mere existence of an alternative does not deem impacts to be unreasonable and result in the denial of a permit application for a proposed project.

The first step in the analysis of the reasonableness of impacts is the determination of the extent of any loss in wetland area, functions, or values. The proposed project will alter freshwater wetlands at 18 locations. These wetlands are mostly located immediately adjacent to the cleared right-of-way of the existing Turnpike. Except for two large, but isolated pockets of wetlands located at the center of the proposed new toll plaza which will be entirely lost, most of the wetland impacts will occur along the wetland edges. Typical impacts will be the result of culvert extensions or from shaping new road side slopes.

The application included a Functional Assessment, prepared by Sebago Technics and dated February 8, 2016. The Functional Assessment identified the relevant functions and values of the freshwater wetlands that will be altered as a result of the proposed project to be sediment and toxicant removal, nutrient removal, and wildlife habitat. The applicant proposes to mitigate for alterations to freshwater wetlands and uplands in the critical terrestrial habitat by making a contribution into the In-Lieu Fee program of the Maine Natural Resource Conservation Program, as discussed below.

The two isolated pockets of wetlands proposed to be filled entirely are 19,287 and 8,497 square feet respectively, and the functions these wetlands provide, sediment and toxicant removal and nutrient removal, will be lost. Although these are the primary functions of the two wetlands that will be filled, these wetland functions were also identified in the Functional Assessment to be the primary functions of other wetlands within the project site. Thus, wetlands that provide sediment and toxicant removal and nutrient removal are not rare in this area. Given the size of the other wetland areas to the amount of proposed alteration resulting from the project, the Functional Assessment did not anticipate any other losses or degradation of wetland functions or values. The Department finds that the level of impacts to wetlands, for which generally just the edges are proposed to be altered, will be relatively small.

The Department agrees with the Intervenor, that the use of an AET system could result in little to no wetland impacts and thus would be less damaging to the environment. The Department recognizes that AET systems have been implemented in many states and for a diverse number of road systems. While the

Intervenors argue that evidence of the usage by other road systems suggests that AET would be practicable in Maine, the applicant provided credible evidence of the unique factors at the current York toll plaza. The applicant's evidence of the higher percentage of motorists passing through York without an E-ZPass than on other toll roadways is credible, and while the E-ZPass participation is increasing, the Department finds it is not likely to equal the percentage found on other roadways utilizing AET. The evidence of factors that the applicant found problematic for an AET system, such as impacts to the revenue generated at the York toll plaza compared to the entire system, estimated to be 40% of the MTA's revenue and the percentage of out-of-State and Canadian traffic, are also credible evidence that AET is less than practicable at the York toll plaza. The Department also recognizes that based on CDM Smith's model, an initial loss in revenue is predicted if an AET system is implemented and that the loss of revenue could negatively affect the applicant's ability to issue and pay back bonds.

The record reflects that the applicant decided in 2014 that an AET system is not practicable. Following this decision, toll plaza design requirements were established, the process of site selection began, and site-specific design details were drafted by the applicant.

The Department finds credible the applicant's conclusions that conversion to an AET system represents a change in how tolls are collected, not only at the York Toll Plaza, but across the entire system, and that imposition of a surcharge to make an AET system financially viable constitutes a toll increase that limits the flexibility of the applicant to raise tolls in the future. When asked during the hearing if it was appropriate to use the model as a forecast tool for projecting further in the future, the applicant responded that the model is not designed to be used for that purpose because the input data would have changed and thus the reliability of the projected model output, whether a rate adjustment is necessary and what that adjustment should be, would be suspect.

The Department recognizes that although conditions that influence the viability of each tolling method may change over time, at some point the applicant must decide on the tolling method and move forward to design the project, and that it is impracticable to continue to reconsider the original decision as to which tolling method should be developed. Based on these factors which distinguish the southern section of the Turnpike from other toll roads that have adopted AET, the Department finds that the AET alternative has serious drawbacks in terms of its practicability. The Department finds that in light of the difficulties the applicant would have with an AET system at this location, the level of practicability is low and the impacts are therefore found to be reasonable in light of the public need for the project and the project purpose.

After weighing the extent of the impacts to the wetlands with the practicability of the AET alternative, the Department concurs ~~that~~with the applicant's determination that implementation of an AET system is not a practicable alternative.



## 2) Analysis of Alternative Sites

### a) Site Alternatives.

The applicant stated that it considered several possible locations for the proposed new toll plaza. The option of re-building at the existing site was dismissed because of several physical impediments that do not meet current highway safety standards for barrier toll plazas. The current site's drawbacks are its proximity to an interchange and a bridge, and that it is situated at the bottom of a hill and horizontal curve. These impediments do not provide adequate "decision sight distance" recommended by the Federal Highway Administration, and they negatively affect vehicle movement through the toll plaza. In addition, the applicant determined that required infrastructure repairs and environmental impacts associated with retrofitting the existing plaza would be costlier than constructing a new toll plaza in a different location. Initial consideration of a split plaza (one for northbound traffic and one for southbound traffic) was dismissed because of the likelihood of increased environmental impacts, impacts to abutters, and infrastructure redundancies (administration buildings, utilities, and access roads) resulting from two toll plazas.

In a technical memorandum titled "Southern Toll Plaza, Technical Memorandum on Alternatives Analysis," prepared by Jacobs Engineering Group, Inc. and dated October 13, 2015, five potential locations were evaluated based on the following categories: engineering and safety; abutter impacts; environmental impacts; cultural/historical resources costs; and logistical difficulties during construction. Initial capital and operational cost estimates for each location were also examined. The memorandum concluded that the selected site at Mile 8.8 is the most practicable location that meets the design criteria for a new toll plaza while minimizing impacts to the environment and to abutters. As design of the toll plaza at this location became more complete, the applicant was able to reduce the initial amount of wetland alteration and encroachments in significant vernal pool habitat.

Review of alternative sites for a similar ORT with cash lanes facility determined that while one location, at Mile 13.2, would likely result in less alteration to freshwater wetlands, use of that site would result in impacts to many more abutters than the selected site. This alternative site was not as advantageous from an engineering and safety perspective as well, and so was not selected by the applicant.

Based on the potential impacts to wetlands and abutters, as well as the engineering and safety considerations of the five sites the applicant evaluated, the Department concludes that impacts to the freshwater wetlands from the proposed project are not unreasonable provided that mitigation for these wetland impacts is addressed as outlined below.

### b) Minimal Alteration.

In support of an application and to address the analysis of the reasonableness of any impacts of a proposed project, an applicant must demonstrate that the amount of freshwater wetland to be altered will be kept to the minimum amount necessary for meeting the overall purpose of the project. To minimize resource impacts, the applicant stated that it located the access road from Chase's Pond Road to the administration building in uplands, thereby avoiding encroachment in critical terrestrial habitat of significant vernal pools and freshwater wetlands to the greatest extent practicable. The location and orientation of the freshwater wetlands in relation to the highway within the project area allowed the applicant to limit impacts to the wetland edges. Additional minimization of wetland impacts was achieved by designing sideslopes at 2H:1V within the delineated wetland areas.

The Department finds that the road design and the angle of the sideslopes in and adjacent to the wetland edges resulted in the minimum amount of impacts necessary for the project.

c) Compensation.

In accordance with Chapter 310 §5(C), compensation may be required to achieve the goal of no net loss of wetland functions and values. Compensation is required when the Department determines that a freshwater wetland alteration will cause a wetland function or functions to be lost or degraded as identified by a functional assessment or the Department's evaluation of the project. For the proposed project, because of the impacted or lost functions described above, the Department determined that compensation will be required.

The applicant proposes to make an In-Lieu Fee contribution to the Maine Natural Resource Conservation Program in the amount of \$281,649 to compensate for the permanent alteration of 54,022 square feet of freshwater wetlands. Prior to the start of construction, the applicant must submit a payment in the amount of \$281,649, payable to "Treasurer, State of Maine," and directed to the attention of the In-Lieu Fee Program Administrator at 17 State House Station, Augusta, Maine 04333.

The Department finds that the applicant has avoided and minimized freshwater wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging practicable alternative that meets the overall purpose of the project, provided that prior to the start of project construction, the applicant submits the In-Lieu Fee payment as described above.

B. HABITATS

The applicant's proposed project will alter 62,195 square feet (1.43 acres) of upland within the critical terrestrial habitat of significant vernal pools and wetlands associated with habitat for rare, threatened, and endangered species. According to the Department's Geographic Information System database there are no mapped Essential Habitats located at the site. The Maine Natural Areas Program's assessment, in a letter dated March 26,

2017, was that its existing maps and documents did not include any records documenting the existence of rare or unique botanical features within the area proposed for development on the project site.

1) Significant Vernal Pools

To address potential impacts to significant vernal pools and wetlands associated with habitat for rare, threatened, and endangered species the applicant submitted, in addition to its wetland report, a vernal pool survey of the project area. The vernal pool survey identified four vernal pools (VP 54-2, VP 54-3, VP 54-4, and VP 56-1) that meet the definition of significant vernal pool, pursuant to the Department's Significant Wildlife Habitat Rules, Chapter 335 § 9(A)(6)&(7). As a result, the freshwater wetlands where these significant vernal pools are located are classified as wetlands of special significance, pursuant to Chapter 310 § 4 of the Department's Wetlands and Waterbodies Rules. The applicant determined that two other vernal pools (VP 13-1 on the west side and VP 19-1 on the east side of the project site) were the result of excavation. Although each of those pools contained high numbers of amphibian egg masses, they are not considered significant vernal pools because they are human-made. However, VP 13-1 is 500 feet of the emergent wetland to the south and is suspected to be used as a travel corridor by ribbon snakes and spotted turtles. Spotted turtles are listed as threatened under the Maine Endangered Species Act, and ribbon snakes are listed as species of special concern.

VP 54-4 was determined to be significant because a 2008 survey documented the presence of fairy shrimp in the pool. Although vernal pool surveys conducted in 2015 and 2016 did not document the presence of any indicator species in this vernal pool, based on Chapter 335 of the Department's rules, VP 54-4 is considered to be a significant vernal pool. VP 54-4 is located less than 100 feet from the clearing limit of the existing highway, and the proposed road widening for the toll booth lanes will further encroach on the critical terrestrial habitat of this vernal pool, further reducing the habitat. The vernal pool is separated from the highway by a line of ledge that runs parallel to the Turnpike. Approximately 53,729 square feet of upland and 4,064 square feet of wetland will be altered within the critical terrestrial habitat of VP 54-4.

The proposed access drive that extends from Chase's Pond Road to the administration building will be located between the significant vernal pools on the 32.6-acre parcel owned by the applicant, and will encroach on the critical terrestrial habitat of significant vernal pools VP 54-2 and VP 56-1. Approximately 8,466 square feet of upland will be altered within the critical terrestrial habitat of these significant vernal pools.

Following an August 28, 2015 site visit by staff from the Maine Department of Inland Fisheries and Wildlife (MDIFW) and the Department, which was attended by representatives of the applicant, MDIFW stated in comments dated November 13, 2015 that the loss of forested habitat and potential changes to pool hydrology from the proposed project could negatively affect VP 54-4. MDIFW also stated that the access

drive will have an indeterminate negative effect on wildlife movements between the significant vernal pools on either side of the access

Chapter 335 of the Department's rules interprets and elaborates on the NRPA criteria pertaining to wildlife habitat. The rules guide the Department in its determination of whether a project's impacts would be unreasonable. A proposed project would generally be considered to result in an unreasonable impact if it would degrade the significant wildlife habitat, disturb the subject wildlife, or affect the continued use of the significant wildlife habitat by the subject wildlife, either during as a result of the activity, and there is a practicable alternative to the project that would be less damaging to the environment. Like the analysis for wetland impacts, each application for an NRPA permit that involves a significant vernal pool alteration must provide an analysis of alternatives in order to demonstrate that a practicable, less damaging alternative does not exist.

- a) Avoidance. An applicant's analysis of whether there is a practicable alternative to the project that would be less damaging to the environment is considered by the Department in its assessment of the reasonableness of any impacts. The applicant submitted an alternatives analysis for the proposed project completed by Sebago Technics, Inc. A full discussion of the applicant's alternatives analysis and the evidence submitted on this issue by the Intervenors and members of the public is in Finding 4A of this Order.

The applicant stated that its proposed access drive from Chase's Pond Road to the administration building that will service the toll plaza is designed to avoid any direct impact on the vernal pool depressions and, to the greatest extent practicable, the wetlands on the site. Given the location and orientation of the significant vernal pools and other protected natural resources, the applicant stated that impacts to the critical terrestrial habitat of the significant vernal pools cannot be entirely avoided.

As with wetland impacts, the reasonableness of impacts to significant vernal pools is based on the determination of the extent of any loss in habitat area, functions, or values. The proposed project will encroach on the critical terrestrial habitat of three significant vernal pools, but will not affect any of the pool depressions. Encroachment on VP 54-4 is unavoidable given the pool's proximity to the existing highway. VP 54-4 was determined to be significant because of the presence of fairy shrimp. Because fairy shrimp are only found in the pool depression and do not migrate from pool to adjacent upland or wetland, the loss of critical terrestrial habitat will affect the continued used of this vernal pool by fairy shrimp, provided the forest canopy over the pool depression remains intact. Approximately 25 feet of natural forest cover will remain around VP 54-4 following completion of the proposed project. The access road from Chase's Pond Road to the administration building will have only minimal disturbance to the critical terrestrial habitat of VP 56-1, VP 54-2, and VP 54-3. The access road could affect the movement of wildlife that use the pools. Given that the area the access road avoids will be along the uplands, and avoids wetlands and drainage swales leading to or from the significant vernal pools, and that the majority of the

forest canopy and duff layer around the pools will remain undisturbed, wildlife movement is expected to be minimal.

As with the wetland impacts, the amount of impact to the edges of the significant vernal pool habitat is not unreasonable given the drawbacks of the AET alternative, which would otherwise allow an avoidance of impacts to the critical terrestrial habitat. These impacts are not anticipated to result in a loss in significant vernal pool functions or values. The Department finds that the practicability of implementing an AET system is low, and that the impacts to significant vernal pools are reasonable in light of the public need for the project and the project purpose.

b) **Minimal Alteration and Habitat Maintenance.** The amount of significant wildlife habitat to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project. The applicant stated that it considered several design layouts and chose the one that meets the project goals while minimizing impacts to the habitat, and that due to the location of the significant vernal pools, there is only one possible point of entry for the access road from Chase's Pond Road to the location of the proposed administrative building that avoids the critical terrestrial habitat around the significant vernal pools and other wetlands. The access drive and development around the administration building were configured to limit disturbance of the critical terrestrial habitat around the significant vernal pools to the outermost edges of the 250-foot setback of the critical terrestrial habitats. The applicant is proposing to alter a small portion of the critical terrestrial habitat of significant vernal pools VP 56-1, VP 54-2, and VP 54-3. As noted above, the eastern portion of the critical terrestrial habitat associated with VP 54-4 has already been compromised by the existing Turnpike, and the proposed project will expand the highway closer to the vernal pool depression. The applicant stated that these impacts cannot be avoided or minimized.

The Department finds that the access road design resulted in the minimum amount of impacts necessary for the project.

c) **Compensation.** In accordance with Chapter 335 §3(D)(1), compensation is required when the Department determines that an impact to significant wildlife habitat will cause habitat functions or values to be lost or degraded as identified by the Department. After considering several compensation options, the applicant proposes to make a contribution into the In-Lieu Fee (ILF) program of the Maine Natural Resource Conservation Program. Compensation for project impacts is discussed further in Finding 4A.

The applicant's compliance with Chapter 335 is not an independent criterion, equivalent to the standards of 38 M.R.S. § 480-D that must be met as a condition of approval, but the availability of alternatives and their practicability are factors considered by the Department in its determination as to whether the proposed project will result in unreasonable impacts. The Department balances the extent of the impacts to the resource and the relevant uses of the resource with the availability and feasibility of the

alternatives. Based on a balancing of the extent of the impacts and the nature of the alternatives in light of the purpose of the project, the Department finds that the proposed project will not result in unreasonable impacts under the wildlife habitat criteria set forth in 38 M.R.S. § 480-D.

The Department finds that the applicant has avoided and minimized impacts to significant wildlife habitat to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project provided that, prior to project construction, the applicant submits the ILF payment as described in Finding 4A.

## 2) Rare, Threatened, and Endangered Species

The applicant identified several rare, threatened, and endangered species that may be present within the project site. These include the northern long-eared bat, the New England cottontail rabbit, the ribbon snake, and the spotted turtle.

The application included a bat acoustic survey performed by Stantec Consulting Services, Inc, and dated September 22, 2015. During two nights of operation in July 2015, sensors identified almost 1,500 bat passes. Of these, five passes were determined to be from northern long-eared bats. Based on the limited number of passes from northern long-eared bats, the survey concluded that this species of bat is not expected to use the forests in and around the project site. The Department finds that the proposed project will not unreasonably affect the forested habitat used by northern long-eared bats.

In its comments, dated November 13, 2015, MDIFW stated that although New England cottontails have not been documented at the site of the proposed toll plaza and no evidence of their presence was noted during the August 28, 2015 site visit, thick brush cover which allows for dispersal of rabbits can be found along the east side of the project site and would be the most likely location for an impact to New England cottontails to occur, if they are present. The west side of the project site had very little early successional habitat which would be used by New England cottontails. The application included excerpts from a New England cottontail pellet survey performed by Normandeau Associates, Inc. and dated July 2010. The report stated that the project area contains potential habitat for cottontails at Mile 7.3, the location of the existing toll plaza. Although no evidence of the presence of New England cottontails was found, the report did not consider the absence of evidence of cottontails in the area to be conclusive. The Department finds that the proposed project will not unreasonably affect the habitat used by New England cottontails.

MDIFW commented that populations of ribbon snake and spotted turtles have been documented at the emergent wetland located on the west side of the project site and north of the proposed administration building. The April 2016 vernal pool survey documented the presence of a spotted turtle at VP 13-1 which is approximately 300 to 400 feet north of the emergent wetland. MDIFW commented that it is likely that both snakes and turtles travel between these two areas following a seasonal outlet from the emergent wetland, which is channelized in a roadside ditch running north along the highway before turning northwest and into the woods, returning to a natural stream. MDIFW further commented

that maintaining the hydrological connection between these two wetlands is critical to the reptiles that move through this area. The proposed project includes lane widening and installation of new side slopes beginning at a point approximately 150 feet south of the outlet of the emergent wetland and continuing approximately 450 feet north, beyond the point where the stream cuts northwest into the woods. Approximately 20,287 square feet of upland; 3,900 square feet of wetland; and 20 linear feet of stream between the emergent wetland and VP 13-1 will be altered. The applicant proposes to maintain the natural drainage between the emergent wetland and VP 13-1; thus, although altered, the hydrologic connection between the two waterbodies will remain. The cumulative wildlife habitat impacts resulting from the proposed project will be approximately 25,900 square feet, including approximately 5,619 square feet of wetland at four locations and approximately 20 linear feet of stream channel. The Department finds that the applicant's plan will adequately protect the travel corridor for snakes and turtles.

During the August 28, 2015 site visit, a spotted turtle nest was found by MDIFW staff next to a culvert on the eastern edge of the highway. The discovery provided new evidence of a breeding population on the east side of the project site. At this location, the proposed project will encroach approximately 20 to 25 feet into the adjacent wetland where the turtle nest was found.

In its November 13, 2015 comments, MDIFW stated that the proposed project is expected to adversely impact populations of ribbon snakes and spotted turtles because of direct impacts to suitable wetland habitat and forested buffers and from increased noise, lights, and ground vibration. MDIFW described several mitigation options which the applicant could propose to compensate for these impacts. One option was to replace a 36-inch culvert crossing north of the emergent wetland with bridges or box culverts to facilitate wildlife movement under the Turnpike to allow connectivity between the two populations of turtles. The applicant did not propose this form of mitigation due to the high costs associated with a bridge or large culvert crossing, together with the lack of natural light due to the length of the culvert.

The applicant consulted with MDIFW to develop acceptable plans to address potential impacts to wildlife and wildlife habitat pursuant to the Maine Endangered Species Act. To account for the predicted loss of wildlife habitat, the applicant and MDIFW negotiated a Memorandum of Understanding (MOU) that formalizes a proposed mitigation plan for impacts to wildlife habitat resulting from the proposed project if a permit is issued for the project. The MOU was signed on October 17, 2016 and included the applicant, MDIFW and the Maine Department of Transportation (MDOT) as signatories. In the MOU, the applicant agrees to place the remaining undeveloped portion of the 32.6-acre parcel adjacent to the Turnpike under a conservation easement for the protection of habitat for spotted turtles, ribbon snakes, and other species, to erect wildlife barrier fencing in the vicinity of the new toll plaza, and to provide funds, in the amount of \$170,000, to the MDOT for a planned wildlife connectivity crossing (including wildlife barrier fencing) at a site on State Route 236 in Eliot, approximately 11 miles to the southwest. A copy of the MOU was included in the application. The wildlife connectivity crossing, which would be a tunnel under State Route 236, would be located on a stretch of road that bisects two wetland areas, where there has been a high incidence of documented turtle mortality as a result of turtles trying to cross the road. The Department finds that this

proposed connectivity crossing proposal will reduce turtle mortality along State Route 236 and mitigates for encroachment of turtle habitat along the project site.

The final design specifications of the wildlife barrier fencing and specific location around the project site have not been determined. Both the applicant and MDIFW agreed that, prior to the start of construction, the applicant will submit to the Department final design specifications and plans showing the location of the wildlife barrier fencing as approved by MDIFW.

At the time of the signing of the MOU, the final language of the conservation easement and its specific location around the project site had not been determined. Both the applicant and MDIFW agreed that, prior to start of construction, the applicant will submit to the Department the recorded conservation easement protecting the parcel identified in the MOU. The Department finds that the conservation easement on the remaining portion of the 32.6-acre parcel and wildlife barrier fencing along the Turnpike will protect the habitat and reduce mortality of spotted turtles on the Turnpike.

In accordance with 38 M.R.S. §480-D(3), the Department may consider proposed mitigation in determining whether an activity will result in an unreasonable harm to significant wildlife habitat. The Department finds that the applicant has made adequate provision for compensation for the potential impacts to wildlife and wildlife habitat provided that the applicant submits the recorded conservation easement and final design specifications of the wildlife barrier fencing and plans showing the location of the wildlife barrier fencing to the Department for review prior to the start of construction.

The Department further finds that the activity will not unreasonably harm any freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life provided that the applicant complies with the requirements of the MOU, and final design specifications and plans showing the location of the wildlife barrier fencing and the recorded conservation easement are submitted to the Department for review prior to the start of construction.

5. WATER QUALITY:

The waters that are or may be affected by the proposed project are currently classified (38 M.R.S. §468(9)) as Class B. As discussed in Finding 3, the applicant proposes to use erosion and sediment control during construction to minimize impacts to water quality from siltation.

The Department does not anticipate that the proposed project will violate any state water quality law, including those governing the classification of the State's waters.

6. OTHER NRPA STANDARDS:

The Department finds, based on the design, proposed construction methods, and location of the proposed project, the proposed project will not interfere with the natural flow of



any surface or subsurface waters (38 M.R.S. §480-D(4)) and will not cause or increase flooding (38 M.R.S. §480-D(6)). The proposed project is not located in a coastal sand dune system (38 M.R.S. §480-D(7)), is not a crossing of an outstanding river segment (38 M.R.S. §480-D(8)), does not involve dredge spoils disposal or the transport of dredge spoils by water (38 M.R.S. §480-D(9)), and does not involve withdrawal of groundwater from a significant groundwater well (38 M.R.S. §480-D(10)).

7. SITE LOCATION OF DEVELOPMENT ACT GENERAL PERMIT:

The applicant filed a Notice of Intent to Comply with attachments providing evidence to demonstrate that for the proposed project, it will comply with the terms and conditions of the General Permit for the Maine Turnpike Authority, Department Order DEP #L-26825-TP-A-N, dated February 29, 2016. A development authorized by the General Permit is required to meet all the applicable requirements of the Site Law pursuant to 38 M.R.S. § 484, the specific conditions listed in the General Permit, and any conditions attached to approval of a Notice of Intent.

Standards of the General Permit.

A. Financial Capacity (38 M.R.S. § 484(1)): The applicant is required to have the financial capacity and technical ability to develop the proposed project in a manner consistent with state environmental standards and consistent with the Site Law.

Funding commitments are authorized by the applicant's Board of Directors through the applicant's Four Year Capital Investment Plan, Thirty Year Financial Plan, and annual Reserve Maintenance Deposit requirements. The applicant submitted a copy of the draft 4-Year Capital Investment Plan for the period 2018-2021 which listed the proposed project. The Plan indicates that this project was funded in 2017.

The Department finds that the applicant has demonstrated adequate financial capacity to comply with Department standards.

B. No Adverse Effect on the Natural Environment (38 M.R.S. § 484(3)): The construction and operation of the proposed project, may not adversely affect existing uses, scenic character, air quality, water quality or other natural resources.

Analysis of the evidence regarding impacts to the natural environment is found in Findings 2, 4, and 5.

The Department finds that the applicant has demonstrated that the proposed project will not adversely affect the existing uses, scenic character, or natural resources within the Town of York.

C. Soil Types (38 M.R.S. § 484(4)): The proposed project is required to be built on soil types that are suitable to the nature of the undertaking.

The applicant employs or contracts with geotechnical engineers to evaluate the suitability of existing soils and determine the need for engineering practices to address soil limitations. The applicant submitted a soil survey map based on the soils found at the project site and a geotechnical report. This report was prepared by a professional engineer and reviewed by staff from the Division of Environmental Assessment (DEA) of the Bureau of Water Quality.

The Department finds that, based on this report and DEA's review, the soils on the project site present no limitations to the proposed project that cannot be overcome through standard engineering practices.

D. Storm Water Management and Erosion Control (38 M.R.S. § 484(4-A)): The proposed project is required to comply with the Storm Water Management and Erosion Control Standard of Site Law through implementation of the General Permit requirements. The proposed project triggers the thresholds of the Basic, General, and Flooding Standards of the Chapter 500, Stormwater Management (06-096 C.M.R. ch. 500, effective August 12, 2015), thus the applicant is required to apply design and engineering measures to the extent practicable such that project drainage avoids adverse impacts to offsite property resulting from project-related peak flows.

A full analysis of the evidence pertaining to erosion control is found in Finding 3 above.

The applicant submitted a stormwater management plan based on the Basic, General, and Flooding standards contained in Chapter 500 Stormwater Management rules. The proposed stormwater management system consists of drainage swales, catch basins, a subsurface drainage system, and nine vegetated underdrained soil filters. The stormwater management system proposed by the applicant was reviewed by, and revised in response to comments from, the Bureau of Land Resources. After a final review, the Bureau of Land Resources commented that the proposed stormwater management system is designed to the greatest extent practicable with the General and Flooding Standards contained in Chapter 500.

Based on the stormwater system's design and the Bureau of Land Resources' review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the General Standards contained in Chapter 500 to the greatest extent practicable.

E. Groundwater (38 M.R.S. § 484(5)): The applicant is required to construct and operate the proposed project in a manner that will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur.

The applicant's engineering staff and consultants will develop viable and sustainable water extraction practices for both potable and production systems. The applicant's Environmental Coordinator, in conjunction with its environmental consulting firm, has developed and continuously updates sound management practices for, and training in, the storage of hazardous materials. These actions are directed toward minimizing impacts to waters recharging the groundwater regime.

The project site is not located over a mapped sand and gravel aquifer. The proposed project does not propose any withdrawal from, or discharge to, the groundwater.

The Department finds that the proposed project will not have an unreasonable adverse effect on groundwater quality quantity.

F. Infrastructure (38 M.R.S. § 484(6)): The applicant is required to make adequate provisions for utilities, including water supplies, sewerage facilities and solid waste disposal required for the proposed project, and the proposed project may not have an unreasonable adverse effect on the existing or proposed utilities in the municipality or area served by those services.

The applicant identified approximately 1,500 linear feet of water main within the project area that must be relocated and has initiated coordination with the York Water District to ensure that there will be no unreasonable burden on, disruption of, or interference with, service. Wastewater will be disposed of by an individual subsurface wastewater disposal system designed to meet the requirements of the Maine State Plumbing Code. This information was reviewed by DEA. The applicant's Standard Specifications for contractors provides detailed requirements to ensure that all solid, special, universal, and hazardous wastes associated with transportation projects are managed in accordance with State and Federal Requirements.

The Department finds that the applicant has made adequate provisions for utilities, including water supplies, sewerage facilities and solid waste disposal.

G. Flooding (38 M.R.S. § 484(7)): The proposed project must not unreasonably cause or increase the flooding of the alteration area or adjacent properties nor create an unreasonable flood hazard to any structure.

Approximately 0.3 acres of development from the proposed project will be located within the 100-year flood plain. The applicant submitted a stormwater management plan to control stormwater runoff from the project site. Stormwater controls will reduce the rate of runoff on impervious surface not currently treated; thus, increased flooding of the project area or adjacent properties is not anticipated.

The Department finds that the proposed project is unlikely to cause or increase flooding or cause an unreasonable flood hazard to any structure.

H. Blasting (38 M.R.S. § 484(9)): The applicant is required to conduct any blasting for the proposed project in accordance with the standards set forth in 38 M.R.S. § 490-Z (14).

The applicant's Standard Specifications for contractors (Section 105.2.7) provide detailed requirements for blasting. These standard specifications were reviewed by staff from DEA, and based on DEA's, were revised to ensure compliance with 38 M.R.S. § 484(9).

The Department finds that, with those revisions, the applicant has made adequate provision to ensure that any blasting for the proposed project will be conducted in accordance with the standards in 38 M.R.S. § 490-Z (14).

I. Public Involvement: The applicant is required to treat the proposed project as a “Substantial Public Interest Project” under its existing Public Participation Plan, effective May 2010, that includes at least one preliminary public meeting and one final public meeting on the proposed project, depending on the scope of the project and anticipated level of public interest. The applicant is also required to notify the public in accordance with Chapter 2 of the Department’s Rules for the proposed project.

The NOI included a list of the public meetings held regarding the proposed project for the period 2006 through 2016. The NOI also included printed material available to attendees of the October 17, 2016 Public Informational Meeting.

The Department finds that the applicant has made adequate provision to ensure that the general public has appropriate notice of the proposed project.

The applicant is authorized to construct the facility in accordance with the applicant’s Notice of Intent, received by the Department on October 19, 2016 in accordance with the terms and conditions of the General Permit.

### **Natural Resources Protection Act Conclusions**

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to the Natural Resources Protection Act, 38 M.R.S. §§ 480-A–480-JJ, and Section 401 of the Federal Water Pollution Control Act:

- A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses provided that a final photometric plan is submitted to the Department prior to the start of construction, as outlined in Finding 2.
- B. The proposed activity will not cause unreasonable erosion of soil or sediment provided that the final erosion control plan is submitted to the Department prior to the start of construction as discussed in Finding 3.
- C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.
- D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life provided that the applicant complies with the requirements of the MOU with MDIFW and DOT and final design specifications and plans showing the location of the wildlife barrier fencing and the recorded conservation easement are submitted to the Department prior to the start of construction outlined in Finding 4; and that, prior to the

start of construction, the applicant makes a contribution to the ILF program as discussed in Finding 4.

- E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.
- F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters.
- G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.
- H. The proposed activity is not on or adjacent to a sand dune.
- I. The proposed activity is not on an outstanding river segment as noted in 38 M.R.S. § 480-P.

THEREFORE, the Department APPROVES the above noted application of the MAINE TURNPIKE AUTHORITY to construct a new barrier toll plaza as described in Finding 1, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. Standard Conditions of Approval, a copy attached.
2. The applicant shall take all necessary measures to ensure that its activities or those of its agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.
3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.
4. Prior to the start of construction, the applicant shall submit the recorded conservation easement to the Department.
5. Prior to the start of construction, the applicant shall submit a final photometric plan to the Department for review.
6. Prior to the start of construction, the applicant shall submit the erosion control plan to the Department for review and approval.
7. Prior to the start of construction, the applicant shall submit final design specifications and plans showing the location of the wildlife barrier fencing to the Department for review.
8. Prior to the start of construction, the applicant shall submit a payment in the amount of \$281,649, payable to "Treasurer, State of Maine", to the attention of the In-Lieu Fee Program Administrator at 17 State House Station, Augusta, Maine 04333.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER  
REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY  
COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS \_\_\_\_ DAY OF \_\_\_\_\_, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_

For: Paul Mercer, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.  
RLG/L27241ANBN/ATS#81093&81263