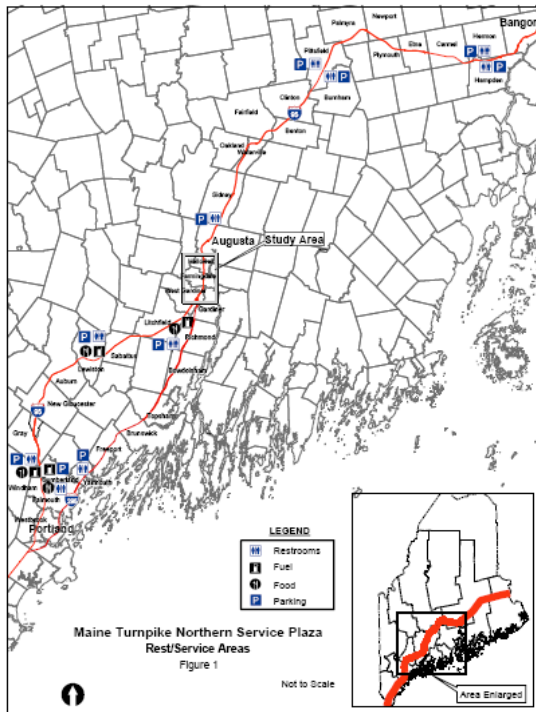


MAINE TURNPIKE NORTHERN SERVICE PLAZA/REST AREA

PRELIMINARY SITE IDENTIFICATION AND SCREENING REPORT



NOVEMBER 15, 2006

Prepared for:

The Maine Turnpike Authority & Maine Department of Transportation



Prepared by: HNTB Corporation
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1.0 INTRODUCTION	1
2.0 BACKGROUND	1
3.0 BASIC PROJECT PURPOSE AND NEED	6
4.0 SITE IDENTIFICATION CRITERIA.....	7
4.1 Distance to other service/rest areas.....	7
4.2 Site must be located on the Maine Turnpike	7
4.3 Accessibility to I-95/I-295	8
4.4 Distances to interchange ramps, acceleration lanes, merges and weaves.....	8
4.5 Proximity to the developed/urbanized portions of Augusta	8
4.6 Availability of Utilities – water, sewer, electricity.....	9
4.7 Site size requires approximately 50 - 60 acres.....	9
4.8 Facility should be built to serve both directions of traffic	9
4.9 Site Feasibility and Practicability	9
4.10 Site Should Avoid Resources and Minimize Impacts.....	9
4.11 Site Identification Conclusion.....	10
5.0 SITE SCREENING CRITERIA	10
5.1 Terrain.....	11
5.2 Construction/development costs	11
5.3 Engineering Considerations	11
5.4 Traffic Considerations	11
5.5 Proximity to Developed Areas and Nearby Land Uses	11
5.6 Town Plans of Development and Zoning	12
5.7 Wetlands	12
5.8 Streams & Watercourses.....	12
5.9 Floodplains and Floodways	12
5.10 Wildlife Habitat, Deer Wintering Areas	12
5.11 Rare, Threatened Species/communities	13
5.12 Unique Ecological or Geological Features	13
5.13 Stratified Drift Aquifers.....	13
5.14 Historic Resources	13
5.15 Prime & Statewide Important Farmland Soils	13
5.16 Hazardous/Contaminated Sites	13
5.17 Additional Considerations	14
5.17.1 Site Visibility	14
5.17.2 Toll Functions	14
6.0 PHASE I SITES.....	14
6.1 Phase I Sites Eliminated.....	18
7.0 PHASE II SITES.....	18
7.1 Site 1B.....	19
7.2 Site 2	21
7.3 Site 3	23
7.4 Site 5A	25
7.5 Site 5B.....	27
8.0 PHASE II SITE SCREENING	29

8.1 Site 1B.....	29
8.2 Site 2	30
8.3 Site 3	30
8.4 Site 5A	31
8.5 Site 5B.....	31
9.0 RECOMMENDED SITE.....	32

1.0 INTRODUCTION

This Site Identification and Screening report was prepared to document the process followed to identify and screen candidate sites for a new service plaza/rest area on the Maine Turnpike's (I-95) north end in the vicinity of West Gardiner/Augusta, Maine. The need for a new facility is documented in three studies conducted by the Maine Department of Transportation: 1) *Evaluation of Maine's Non-Interstate Roadside Facilities* (January 2002); 2) *A Plan for Maine's State Visitor Information Centers: A Needs Assessment for Existing Centers, and a Proposal for New Centers* (September 2002); and 3) *Commercial Vehicle Service Plan* (June 2003).

This report serves to document the range of reasonable alternative locations that were considered and the site screening and selection processes utilized. This process follows the U.S. Army Corps of Engineers, New England Division's Highway Methodology as documented in *The Highway Methodology Workbook – Integrating Corps Section 404 Permit Requirements with Highway Planning and Engineering and the NEPA EIS Process* (Oct. 1993, NEDEP-360-1-30). The proposed project will require both federal and state permits for unavoidable wetland impacts caused by the construction of the facility, as well as a Maine Site Location of Development permit.

2.0 BACKGROUND

The Federal Highway Administration, at the direction of Congress, conducted a study evaluating the adequacy of truck parking along Interstate highways at both public rest areas and privately owned truck stops.¹ That study suggested policies and programs to meet parking and rest needs. I-95 is the highest priority interstate in the United States recommended to have increased numbers of rest areas. In 2002, Maine Department of Transportation (MaineDOT) issued two reports related to truck rest areas, and in June 2003, MaineDOT issued a final report titled: *Commercial Vehicle Service Plan* which discusses in detail the existing conditions, history of service plazas, rest areas, and truck stops in Maine, and solutions to improve safety related to commercial vehicles. That study includes discussions about the needs for new facilities to fill gaps in the existing system, including the general study area location discussed here.

Recent changes to U.S. Department of Transportation (US DOT) regulations (Hours-of-Service) require that commercial truck drivers take regular breaks from driving. The regulations do not allow driving for more than 10 consecutive hours daily, no more than

¹ U.S. Department of Transportation, Federal Highway Administration, Commercial Drive Rest & Parking Requirements: Making Space for Safety, FHWA-MC-96-0010, May 1996

70 hours on duty in eight days, and require as much as 14 hours of off-duty time in a 24-hour period. Due to a shortage of truck parking spaces, service and rest areas, distances between existing facilities, and safety concerns raised by not having enough service plazas and rest areas, the Maine Turnpike Authority (MTA) and Maine DOT have initiated this project to add a new service plaza/rest area on the Turnpike near Augusta to serve both northbound and southbound traffic. The purpose of this project is to provide a new highway service plaza/rest area to accommodate motorists and commercial trucks traveling on the Maine Turnpike and Interstate 295 and to fill a gap in service plaza/rest areas between Portland and Bangor. Providing a service plaza/rest area in this vicinity will help drivers achieve compliance with the US DOT regulations and improve safety, and serve both commercial and non-commercial drivers using I-95 and I-295. The new service plaza/rest area is intended to serve automobiles, trucks, buses, and recreational vehicles.

In total, there are 98 rest areas and service plazas in the State of Maine², of which, only 16 are located on I-95 and I-295 (Table 1). Twenty-three of the 98 state-wide rest areas and service plazas provide truck parking.³

Table 1- Interstate Service & Rest Areas in Maine

Maine Turnpike I-95 Service Plazas	MaineDOT I-95 Rest Areas	MaineDOT I-295 Rest Areas
<ul style="list-style-type: none"> ○ Mile 24 Kennebunk - 2 - 1 Northbound, 1 Southbound ○ Mile 57 Cumberland/Gray - 2 - 1 Northbound, 1 Southbound ○ Mile 83 Lewiston - 1 Southbound ○ Mile 98 Litchfield - 1 Northbound 	<ul style="list-style-type: none"> ○ Mile 3 Kittery – Visitor Center, 1 Northbound ○ Mile 116 Sidney - 1 Southbound ○ Mile 147 Pittsfield - 2 - 1 Northbound, 1 Southbound ○ Mile 177 Hampden - 2 - 1 Northbound, 1 Southbound ○ Mile 243 Medway - 2, 1 Northbound, 1 Southbound ○ Mile 305 Houlton – Visitor Center, 1 serves Southbound & Northbound 	<ul style="list-style-type: none"> ○ Mile 17 Yarmouth - 1 Serves Southbound & Northbound
Total 6	Total 9	Total 1

Total Interstate Service & Rest Areas in Maine - 16

² Commercial Vehicle Service Plan, Office of Freight Transportation, MaineDOT, June 2003. Note: Total number of rest areas reported in MaineDOT report was reduced by one with the subsequent closure of northbound rest area in Augusta.

³ Ibid.

Maine Turnpike Facilities

The Maine Turnpike (I-95 from Kittery to Augusta) has three northbound service plazas, each separated by roughly 35 miles of highway. The southbound direction also has three plazas, but not all coincide with northbound facilities. The southern-most plazas are located in Kennebunk, the next plazas are located in Cumberland and Gray, and the northern-most plazas are located in Lewiston and Litchfield. Turnpike service plazas provide restrooms, food, fuel, and parking areas suitable for tractor-trailers (classified large trucks), commercial trucks, buses, automobiles, and recreational vehicles.

The Kennebunk plazas are currently undergoing a facility renovation and parking expansion program. The Turnpike service plazas in Cumberland (southbound) and Gray (northbound), roughly 44 miles from the proposed service plaza/rest area site, are undergoing renovation and expected to be completed within the next year, but no expansion of parking is proposed. The closest Turnpike southbound service plaza is located in Lewiston 19 miles away from the proposed site, and the closest northbound service plaza is in Litchfield (4 miles away). Both the Litchfield and Lewiston service plazas have limited economic viability on their own and on-site septic complexities and are proposed for closure in conjunction with the opening of the proposed expanded-capacity facility to the north. The closure of northern Turnpike service plazas (Lewiston and Litchfield) and downgrading of central service plazas (Cumberland and Gray) is due in part to technical limitations of sites, and in part due to economic inefficiencies of operating multiple facilities. To remain economically viable, the Turnpike plans to consolidate the northern plazas into one larger facility serving both northbound and southbound travel directions, usable to travelers on both interstates, and with much more truck parking.

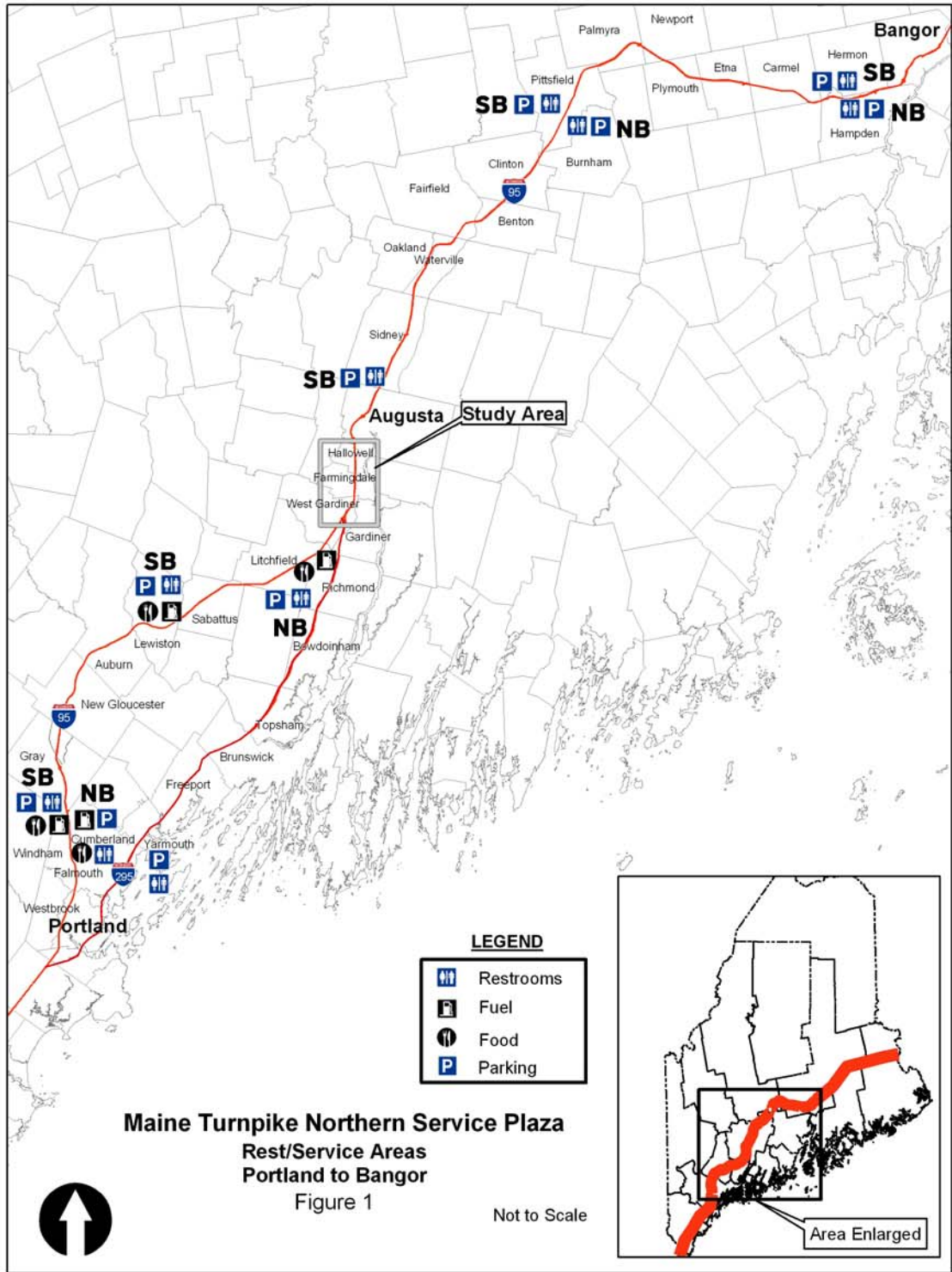
Freeway Facilities

Other “rest areas” (MaineDOT facilities) on I-95 to the north of Augusta, and to the south on I-295, provide restrooms and limited parking areas. Fuel and meal services are not provided at rest areas, although locations have vending machines for snacks and cold drinks. North of the study area, the closest I-95 northbound rest area is in Pittsfield (41 miles north based upon distances from the approximate center of the study area), and the closest I-95 southbound rest area is located 10 miles away in Sidney. The nearest northbound rest area in Augusta (I-95 northbound) was recently closed due to a Maine DEP closure order for septic problems and the construction of a new Augusta Interchange (Exit 113) near Old Belgrade Road. Due to ramp proximity conflicts and ongoing septic problems, there is no plan to replace the rest area in that location. The Sidney rest area is also proposed for closure when the new service plaza/rest area is opened.

To the south on I-295 the closest rest area is located in Yarmouth (38 miles away from the approximate center of the study area), serving both northbound and southbound traffic. The Yarmouth rest area, which is located on Route 1, is accessed by exiting the highway at Interchange 17 and driving to the site on Route 1. Figure 1 shows the locations of service plazas and rest areas between Portland and Bangor on both I-95 and I-295, and the types of services provided at each location. The lack of a service or rest area in the Augusta/West Gardiner region, the proposed closure of the two northern-most Turnpike service plazas, closure of the Sidney rest area, and distances to nearest rest areas to the north re-enforces the need for a new, expanded, economically viable facility in the study area to fill the gap.

The need for additional service and rest areas is further evidenced by the frequency of full lots and the number of trucks using unauthorized pull offs along the interstates. Examples of unauthorized pull offs include trucks parked on unpaved areas near interchange ramps or along wide shoulder stretches of roadway, or near toll plazas.

Privately owned truck stops are also helping to provide resting and service areas along the interstate roadways in Maine. Examples of these private stops include: Howell's Truck Stop in Kittery, Irving in Auburn, Pilot Travel Center (formerly Trucker's International Truck Stop) in Fairfield, Irving 201 in Fairfield, Irving Big Stop in Newport, Dysart's Truck Stop in Hermon, Irving Big Stop in Medway, and Travelers Big Stop in Houlton. Neither the MaineDOT nor the Maine Turnpike Authority is involved with the operations of these private facilities. None of these privately owned truck stops are located near the project study area. The closest private truck stop is approximately thirty miles to the north in Fairfield, and 27 miles to the south in Auburn.



3.0 BASIC PROJECT PURPOSE AND NEED

The purpose of this project is to provide a new highway service plaza to accommodate motorists and commercial trucks traveling on the Maine Turnpike (I-95) and Interstate 295 and to fill a gap in service plaza/rest areas between Portland and Bangor. A new service plaza/rest area will provide an approved resting/sleep area which will increase safety and reduce automobile and truck accidents caused by drivers falling asleep or by not being attentive while driving. Recent U.S. Department of Transportation regulations [68 FR 22516, Apr. 28, 2003], regulate Hours-of-Service (driving times) for commercial vehicles. Providing a service plaza/rest area in the vicinity will help drivers achieve compliance with the US DOT regulations and improve safety, and serve both commercial and non-commercial drivers using I-95 and I-295. Based upon driving limitations, service or rest areas are to be provided on major interstates at intervals sufficient to allow truck drivers and motorists safe parking and rest locations to protect against excessive driving intervals, and to discourage “pull-offs” onto roadway shoulders for resting purposes. Current national guidelines recommend spacing between rest areas equivalent to one hour of driving time.⁴ Also, to be effective at meeting the needs identified by FHWA, the facility must be easy to access and convenient to use.

Existing Maine DOT rest area facilities are too far apart to satisfy the project purpose. Some existing rest area and service plaza facilities have site deficiencies including septic disposal and land constraints, and northern Turnpike service plazas are economically constrained. Existing interchanges and private facilities such as gas stations, restaurants and hotels that were not designed for this specific need would not be easy to use or conducive to local traffic patterns or facility operations. Most private gas stations, restaurants and hotels, and local roads are not equipped to handle the numbers and types of vehicles that would use a highway service plaza or rest area. Local roads would experience a negative impact, particularly during peak travel times, if service plaza users were diverted from the Turnpike onto local roads. Relying on potential private investment in the development of a truck stop in this vicinity is not prudent or reliable. Considering the importance of such facilities for safety, the Turnpike Authority and Maine DOT have committed to promptly address the demand for a new facility.

Building one new expanded service facility to serve both I-95 and I-295 and serving both travel directions, in conjunction with consolidation of the northern Turnpike service plazas will provide an economically viable facility that will fulfill the truck rest area spacing requirements. In consideration of these factors, the reasonable and prudent solution is to construct a new facility.

⁴ Commercial Vehicle Service Plan, Office of Freight Transportation, MaineDOT, June 2003.

4.0 SITE IDENTIFICATION CRITERIA

Based upon the distances to the nearest rest areas to the north on I-95 and to the south on both I-95 and I-295, and the proposed consolidation of Turnpike service plazas to the south, another service plaza/rest area is warranted to the south of Augusta. To provide a single efficient facility, it should be sited to allow access for motorists on both I-95 and I-295. The I-95/I-295 confluence is in West Gardiner, thereby defining the southern limit of the study area. The criteria outlined below were used to define the study area limits and to identify candidate site locations as project alternatives. The location criteria balance considerations related to the proximity to other truck rest areas, available services, site access, economic viability, safety, planning consistency, development and operation costs, and environmental and social impacts. The criteria are not presented in any particular order of importance or weight.

4.1 Distance to other service/rest areas

The service plaza/rest area must be located at the appropriate interval between existing service/rest plazas on I-95 and I-295 to provide a safe resting location that does not cause excessive driving times between the existing rest area locations. The facility is needed to serve motorists between Portland and Bangor. Based upon the distances to nearest service/rest areas and the recent closure of the northbound rest area near Old Belgrade Road in Augusta, and pending closure of Turnpike facilities to the south, a new facility is warranted in the vicinity of Augusta/West Gardiner. Based upon this criterion, the study area occupies an area roughly six miles long on I-95 (the Maine Turnpike) between State Route 126 in West Gardiner and Western Avenue in Augusta.

4.2 Site must be located on the Maine Turnpike

The site must be on the Maine Turnpike because the Federal Highway Administration prohibits restaurants and fuel stations on the Interstate Highway System. Although the Maine Turnpike is designated as an interstate highway, it is a toll funded facility and exempt from these federal highway regulations. Therefore, service plazas with food and fuel are allowed. Conversely, I-95 to the north of Augusta and I-295 to the south are not a part of the Turnpike, and full-service facilities on those highway segments would be prohibited.

4.3 Accessibility to I-95/I-295

The service plaza/rest area should be located to serve travelers using I-95 and I-295, the junction of which is located in West Gardiner near State Route 126. This criterion will satisfy concerns about travel distances to the nearest service or rest areas on each of those roadways. Furthermore, a new service plaza/rest area near or north of the junction will allow one facility to be constructed on I-95 rather than building two service plazas or rest areas (one each on I-95 and I-295) so that maximum benefits will be realized with minimal impacts and costs.

4.4 Distances to interchange ramps, acceleration lanes, merges and weaves.

The site must be located such that it meets American Association of State Highway and Transportation Officials (AASHTO) Interchange Spacing Requirements for safe merges of traffic. This requires that the facility be located far enough from existing interchanges or ramps to provide safe lane merges and by not creating conflicting traffic movements. Most notably in the AASHTO Highway Design Manual (HDM), interchanges or ramps in close proximity create traffic conflicts due to acceleration, deceleration and lane changes. Considerations also include safe sight distances (vertical and horizontal) to afford good visibility near ramps. Furthermore, commercial trucks tend to accelerate slower than automobiles, and generally decelerate earlier when departing the highway, so grades should be considered. At a minimum, the facility should be no less than one mile from an existing interchange if the service plaza/rest area is accessed by a new ramp.⁵ Alternative service plaza/rest area concepts are considered that use an existing interchange or construct a new interchange for access to the proposed facility and satisfy the highway design safety criteria.

4.5 Proximity to the developed/urbanized portions of Augusta

The site should be located such that it does not conflict with existing or planned development in the Augusta urbanized area. In addition, the site should not be located such that it causes economic competition with fuel and food businesses at nearby interchanges. The facility will provide 24-hour services, and a site would be less desirable if it were located near residences. One consideration is that the centers of development of Augusta, Hallowell, Farmingdale, and Gardiner are all east of I-95. Land to the east of the highway is generally planned for development, or more likely to become developed. Existing land development patterns find a higher density of residential development to the east of the highway. This consideration strongly suggests that best planning practices would locate a new facility to the west of the highway in the study corridor towns.

⁵ A Policy on Geometric Design of Highways and Streets, AASHTO, 2001

4.6 Availability of Utilities – water, sewer, electricity

The site will require municipal services including sanitary sewer and water, as well as electrical services, telephone and cable. Due to the high volume of usage, septic systems have been problematic at the Litchfield service plaza and former Augusta rest area. In addition, some locations have reported poor well water quality in the study corridor. A candidate site location not presently served or not within a reasonable distance to services could be more costly to develop and maintain. The site location should be considerate of minimizing potential impacts from the utilities.

4.7 Site size requires approximately 50 - 60 acres

The site must be sized to accommodate the parking and operations requirements of a full service and truck rest area. Land areas of up to 60 acres are needed for a fully expanded facility that may be needed in the future and to buffer the site from other land uses.

4.8 Facility should be built to serve both directions of traffic

An efficient and economically viable facility would serve traffic traveling in both the northbound and southbound directions, and also serve I-95 and I-295. Most Maine Turnpike service plazas and MaineDOT rest areas are only accessible from one travel direction. Using a similar facility concept for the new location would necessitate building two service plazas, which would be more costly to construct, operate, and maintain, and would likely have greater environmental impacts and less economic viability. The single facility approach for both travel directions is being used throughout the country.

4.9 Site Feasibility and Practicability

The site must be cost effective and practicable to build and maintain. Complicated sites cause excessive engineering and construction costs and would be unreasonable to develop the site. Examples of complicated sites include those with geological constraints such as steep terrain, shallow bedrock, and sites consisting of clay or muck soils. Reasonably foreseeable complexities to designing and building the site would be a consideration to avoid a site.

4.10 Site Should Avoid Resources and Minimize Impacts

Within practicable limits, the facility should be sited to avoid and minimize impacts to social and natural environmental resources, including among other considerations,

developed properties and wetlands. Providing a single facility to serve both travel directions and both I-95 and I-295 supports this criterion and would minimize impacts.

4.11 Site Identification Conclusion

The above ten criteria provide clear guidance in choosing candidate site locations for the new facility. Based upon these considerations, the new facility should be located somewhere along the six mile stretch of I-95 defined by an area at least one mile south of the Western Avenue interchange in Augusta, west of the highway, and somewhere north of or at the I-95/I-295 junction in West Gardiner. A proposed service plaza/rest area could be accessed by providing new service ramps and a new bridge over the highway, by adding new ramps and connecting to an existing state or local cross-road, or by utilizing an existing interchange on I-95. Seven roads cross I-95 in the study area (Route 126 and High Street in West Gardiner, Northern Avenue and Maple Street in Farmingdale, and Litchfield Street, Central Street and Winthrop Street in Hallowell.)

Data from available sources was used to identify resources in the study area for the purpose of site planning. Examples of data sources include: aerial photographs (Maine Office of GIS), US Fish and Wildlife Service national wetland inventory maps, Natural Resources Conservation Service (formerly SCS) soils maps, Federal Emergency Management Agency 100-year floodplains, town zoning and comprehensive plans, state and federal registries of contaminated sites, U.S. Geological Survey topographic maps, and state GIS data for ecological data. Resource data was included on digital photographs and mapping when identifying candidate sites, conducting facility location studies, and developing conceptual facility plans.

5.0 SITE SCREENING CRITERIA

Available information was used to evaluate the screening elements below using both Geographic Information System (GIS) methods for quantitative assessments, and interpretive methods for qualitative considerations. Candidate sites were approximated using a concept site footprint layout of roughly 60 acres made with the objective of avoiding impacts. The candidate sites were then evaluated against screening criteria to rate potential direct impacts. That information was considered to help select less-damaging feasible alternatives.

The following resources and factors are some of those considered in the site screening. They are not presented in any particular order of importance or weight.

5.1 Terrain

Terrain of the site affects the amount of earthwork and disruption at the site, and potentially off-site effects due to earth moving operations and access on other roadways. Long term stability of the site, runoff, and site aesthetics are considerations related to the terrain.

5.2 Construction/development costs

Costs of building the site are important to assess practicability of site development. Sites with similar environmental and social impacts but with higher construction costs are less desirable and will likely be dropped from consideration. This consideration includes land acquisition costs beyond land already owned by the Maine Turnpike Authority or Maine Department of Transportation.

5.3 Engineering Considerations

Engineering considerations include any unique design or construction elements that might complicate site development, potentially increase development costs, or are less-desirable from maintenance or operations perspectives. Examples include sanitary waste pumping stations, geotechnical aspects such as clay soils, depth to bedrock or soil stability for structures, and constructability. In addition, engineering considerations include road grades which are an important consideration for trucks. Steep road grades adversely affect truck movements due to their weight, and traction limitations during frozen or slick conditions. Sight distances are an important engineering consideration to assure safe traffic merges.

5.4 Traffic Considerations

The site development should not adversely affect traffic on either the interstate or local roads. A facility with dedicated ramps that do not connect with existing secondary roads would have no effect on local traffic. Similarly, a facility properly spaced from existing interchanges would not adversely affect functionality and safety.

5.5 Proximity to Developed Areas and Nearby Land Uses

The site would be optimally located in undeveloped areas such that disturbances to residential neighborhoods could be avoided or reduced. Disturbances from traffic, vehicle noise, idling trucks, fueling, restaurant cooking and other processes are also considered. Adjacent land uses are an important consideration when screening sites.

Project sites ideally would be compatible with nearby land uses. Proximity to high density residential development, religious centers, cemeteries, parks and passive recreational areas would be less desirable.

5.6 Town Plans of Development and Zoning

As much as practicable, the project site should be consistent with local comprehensive plans of conservation and/or development. This is closely related to land use compatibility above, but considers future development planned by the community.

5.7 Wetlands

The site should avoid wetland impacts (based upon Natural Resources Conservation Service hydric soil mapping and U.S. Fish & Wildlife Service national wetland inventory mapping). Where unavoidable impacts to wetlands will occur, minimize impacts or choose wetland areas that are less-valuable as inferred by the setting, condition, wetland type and the functions and values. Unique, uncommon or rare wetland sites should be avoided. Sites with a high percentage of wetland area are less desirable. Hydric soils were used as provided by the NRCS with the exception of a minor adjustment near Site 1A and 1B. In that location, minor hydric soil boundary adjustments were made to account for land use and grading activities that have since altered the soil characteristics.

5.8 Streams & Watercourses

The site should avoid streams and watercourses. Consideration of the type of stream, for instance perennial or intermittent, its functions, such as providing fisheries and aquatic habitat or spawning areas, and the relative placement in the watershed (upper, lower etc.) are important screening criteria.

5.9 Floodplains and Floodways

Sites should avoid floodplains and floodways. Sites with impact within a floodplain should be minimized to protect the floodplain dynamics, reduce risks of flooding at the site or offsite, and to maintain natural drainage patterns in the local setting.

5.10 Wildlife Habitat, Deer Wintering Areas

Sites should avoid known or potential deer wintering areas (deer yards) and designated critical wildlife habitats for any faunal group including amphibians, reptiles, mammals, and birds.

5.11 Rare, Threatened Species/communities

Known rare, threatened, or endangered species of plants or animals, or uncommon natural communities should be avoided. Consideration of state-listed species, as well as federally-listed species should be made equally.

5.12 Unique Ecological or Geological Features

This consideration includes avoiding uncommon vegetative communities, unique geological features such as important mineral deposits, or commercially important resources such as gravel or sand deposits.

5.13 Stratified Drift Aquifers

Stratified drift aquifers are usually sand and gravel deposits of sufficient depth and water saturation to support municipal or private water supplies. Any development over stratified drift aquifers must be sensitive to increased risks of contamination from some land uses such as fuel storage, on-site effluent treatment and disposal, industrial manufacturing, auto recycling and other similar higher risk practices. Although design safeguards are included in a new service plaza/rest area facility, it is preferable to not construct service plazas/rest areas over stratified drift aquifers.

5.14 Historic Resources

Known historic resources including standing historic structures and archaeological sites should be avoided. Similarly, it is preferable to not locate a facility adjacent to historic properties or districts.

5.15 Prime & Statewide Important Farmland Soils

Soil types classified by the Department of Agriculture as prime or statewide important farmland should be considered. Soils are not required to be actively used in agriculture to be designated. Prime and statewide important farmland soils in active agriculture should be afforded higher protection than inactive lands meeting the soil designations.

5.16 Hazardous/Contaminated Sites

Known contaminated sites or sites of high risk of exposure to hazardous materials should be avoided. A primary consideration relative to known contaminated sites is the clean-up cost. Other considerations are the potential complexities resulting from determining responsible parties, increasing project construction duration, and long-term monitoring.

5.17 Additional Considerations

5.17.1 Site Visibility

Fiscal constraints on both the Turnpike Authority and State of Maine Department of Transportation necessitate that the facility should be economically viable, which is in part accomplished through fuel, food, and other amenity services. Visibility from the highway will maximize the draw of trucks, and improve the use and viability of the service plaza/rest area. It is preferable to locate a facility to be visible from both highway travel directions.

5.17.2 Toll Functions

Due to a combination of toll locations, interchange access, and placement of candidate service plaza/rest area driveways and ramps in West Gardiner, circumstances could cause a potential shortfall of toll revenue or conversely, a scenario where service plaza/rest area patrons pay a double toll. This circumstance could possibly deter patrons. This consideration only affects two of the candidate sites (described below) that utilize the Route 126 interchange in West Gardiner (Site 1 and Site 2). Site 1A was designed as a split facility such that I-95 and I-295 traffic would remain separated and not contribute to toll revenue intricacies. Site 1B access and ramp designs do not allow un-tolled traffic connections that would contribute to toll intricacy problems, but cause potential double tolling for Turnpike travelers.

6.0 PHASE I SITES

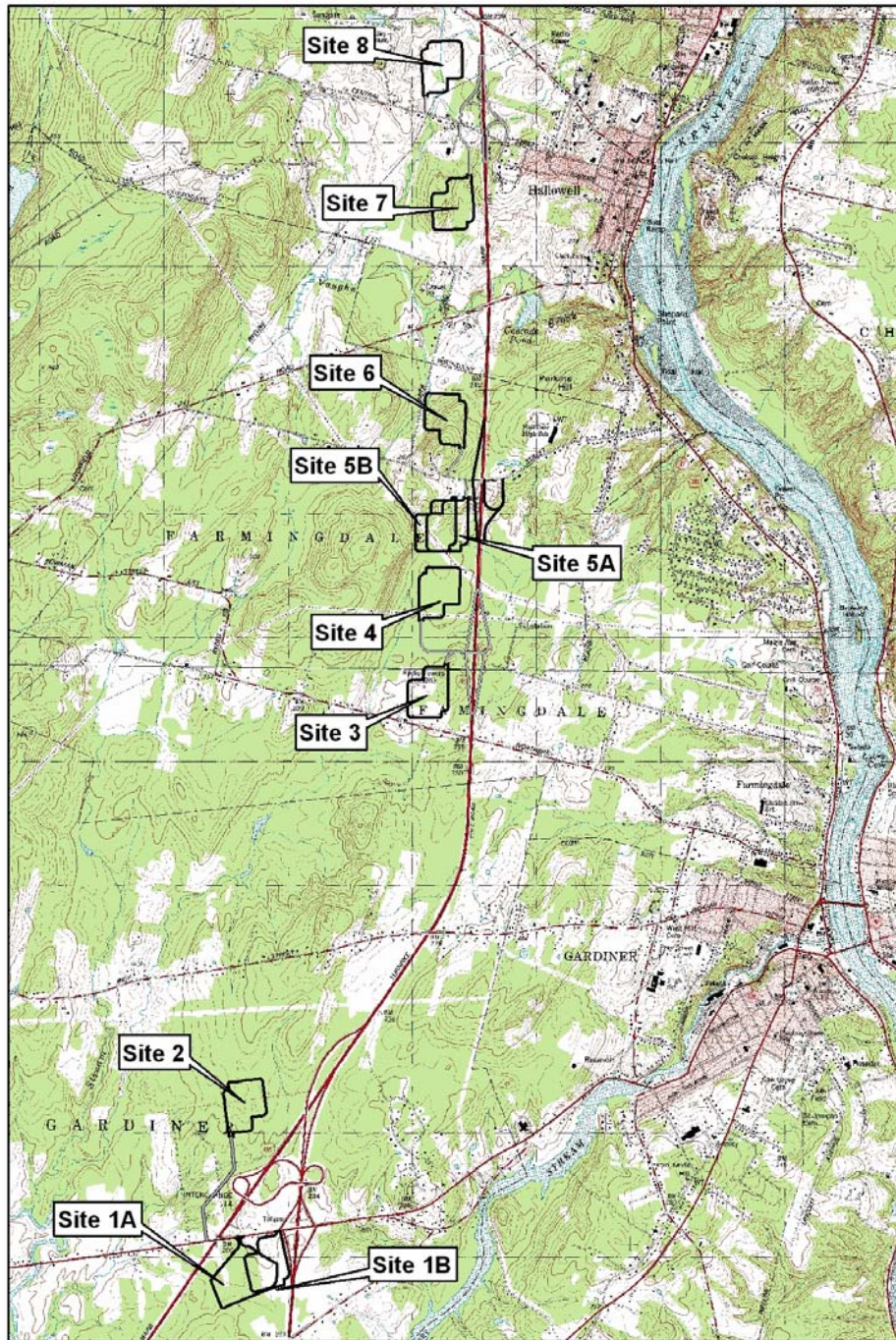
A total of eight candidate sites were identified that would meet the basic project purpose for Phase I analysis. The sites were identified using the site identification criteria described above. Note that some sites have alternative access scenarios or alignments and are denoted alpha-numerically with a letter suffix such as A, B etc. The Phase I sites include two in West Gardiner (Site 1 A & B, and 2), four in Farmingdale (Sites 3, 4, 5 A & B, and 6), and two in Hallowell (Site 7, Site 8). All ten concepts are shown in Figure 2. Sites 1A, 1B, 2, 5A, 6, 7 and 8 will require traffic mixing due to using existing cross roads to access the proposed facility. Sites 3, 4, and 5B have dedicated ramps serving only the proposed facility.

These Phase I sites were reviewed against the site screening criteria described above and decisions were made by the Maine Turnpike Authority, Maine Department of Transportation, and the consultant to eliminate some of the sites (site screening) due to factors such as constructability, costs, engineering, wetland impacts, and proximity to

residential development. Some factors were weighed more heavily, such as wetland impacts, land uses, and costs.

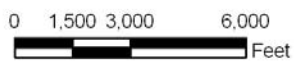
One early location that was considered as a potential site is at the immediate confluence of I-95 and I-295 and north of Route 126 in West Gardiner. That area would be extremely visible, would utilize land that would never be available for development, and would provide a positive public perception by using “interior highway right-of-way” type land. However, that location is mostly wetland and would not offer any room for future expansion of a facility. Therefore, that location did not meet the minimum criteria for a Phase I site and was not studied further.

The following matrix (Table 2) shows the Phase I sites and the screening criteria that were determinants in the selection process. The Phase II sites that were further investigated are described below.



Maine Turnpike Northern Service Plaza
Phase I Alternatives

Figure 2



**MAINE TURNPIKE NORTHERN SERVICE PLAZA
SITE SCREENING AND SELECTION
Table 2 -Phase I Matrix**

RESOURCES & CONSIDERATIONS

Site Alternative	Phase II Alternative	Terrain	Site Highway Visibility	Access Location	Access Road Length	Access Location Approach Grade	Bridge Required	Ramps Required	Toll Consideration	Costs (\$ Million)	On-site Land Uses	Adjacent Land Uses	Town Plans of Development & Zoning	Traffic	Historic Resources	NWI Wetlands (ac.)	Wetland (Soils) (ac.)	Watercourses (l.f.)	Floodplains (ac.)	Wildlife Habitat	Deer Wintering Areas	Rare & End. Species	Unique Ecological Features	Stratified Drift Aquifers (ac.)	Unique Geological Features	Farmland Soils - S=Statewide, P=Prime (ac.)	Hazardous/Contaminated Sites	Notes
1A West Gardiner		Flat	Good	Route 126	3,050	3.5%	Yes	3	Desirable	\$ 35.2 M	Undeveloped Woodland/Barren	Sparse Res. Undeveloped Woodland	No Zoning In Town Growth Area	Mixed with Local	Unknown	0	28.0	0	0	Good	Potentially	no eagle others unknown	None	0	None	0	Probable	State & federal database records show spills and leaking Underground Storage Tank at site.
1B West Gardiner	■	Flat	Good	Route 126	3,800	3.2%	No	2	Desirable	\$ 23.5 M	Residential/Commercial/Woodland	Residential Undeveloped Woodland	No Zoning In Town Growth Area	Mixed with Local	Unknown	0	6.5	0	0	Low	Not likely	no eagle others unknown	None	0	None	0	Probable	State & federal database records show spills and leaking Underground Storage Tank at site.
2 West Gardiner	■	Moderate	Poor	Route 126 & I-95	3,200	3.5%	Yes	3	Undesirable	\$ 30.4 M	Undeveloped Woodland	Undeveloped Woodland	No Zoning in W. Gardiner	Mixed with Local	Unknown	0.1	7.3	100 l.f.	0	Good	Potentially	no eagle others unknown	None	0	None	0	Not likely	Stream crossed by site access driveway.
3 Farmingdale	■	Moderate	Good	Ramp From I-95	2,800	4.0% Access Ramp	Yes	4	Desirable	\$ 34.7 M	Undeveloped Woodland	Undeveloped Woodland	Plan not available	Dedicated Access	Unknown	1.5	7.7	212 l.f.	0	Good	Potentially	no eagle others unknown	None	0	None	0	Not likely	Stream crossed by new interchange ramps. Commercial radio towers (3) impacted.
4 Farmingdale		Flat	Good	Ramp From I-95	2,500	4.0% Access Ramp	Yes	4	Desirable	\$ 36.1 M	Undeveloped Woodland/Field	Undeveloped Woodland	Plan not available	Dedicated Access	Unknown	2.2	27.7	310 l.f.	0	Good	Potentially	no eagle others unknown	None	0	None	0	Not likely	Stream crossed by new interchange ramps. Site contains power line.
5A Farmingdale	■	Moderate	Moderate	Maple Street	2,600	5.0%	Yes	4	Desirable	\$ 30 M	Undeveloped Woodland/Field	Sparse Res. Undeveloped Woodland	Plan not available	Mixed with Local	Unknown	0	7.6	1479 l.f.	0	Low	Not likely	no eagle others unknown	None	0	Adjacent Former Quarry	0	Potentially	Site contains power line requiring relocation. Former land use of site may find contaminants.
5B Farmingdale	■	Moderate	Moderate	Ramp From I-95	2,300	3.0%	Yes	4	Desirable	\$ 31 M	Undeveloped Woodland/Field	Sparse Res. Undeveloped Woodland	Plan not available	Dedicated Access	Unknown	0.2	14.6	1396 l.f.	0	Low	Not likely	no eagle others unknown	None	0	Adjacent Former Quarry	0	Potentially	Site contains power line requiring relocation. Former land use of site may find contaminants.
6 Farmingdale		Steep	Poor	Maple Street	2,950	5.0%	Yes	4	Desirable	\$ 48.2 M	Undeveloped Woodland	Sparse Res. Undeveloped Woodland	Plan not available	Mixed with Local	Unknown	0	13.7	525 l.f.	0	Moderate	Not likely	no eagle others unknown	None	0	None	0	Not likely	Site has stand of mature softwood trees.
7 Hallowell		Moderate	Good	Central Street	3,600	8.0%	Yes	4	Desirable	\$ 36.8 M	Undeveloped Woodland	Residential Farmland	Op. Space Rural Farm Resour. Prot.	Mixed with Local	Unknown	0.6	13.2	511 l.f.	0	Moderate	Not likely	no eagle others unknown	None	0	None	13.3 S 1.0 P	Potentially	Stream crossed by new interchange ramps. Site within 2000 feet of Sand & Gravel Aquifer. Access ramps affect Conservation Land. State & federal records indicate spill and underground fuel storage.
8 Hallowell		Moderate	Moderate	Central Street	2,600	8.0%	Yes	4	Desirable	\$ 37.9 M	Undeveloped Woodland/Active Farm	Institutional Commercial Sparse Res.	Open Space Rural Farm Resour. Prot.	Mixed with Local	Unknown	0	20.4	2,226 l.f.	0.1	Low	Not likely	no eagle others unknown	None	0	None	11.4 S 1.0 P	Potentially	Stream crossed by new interchange ramps and at Site. State & federal records indicate spill and underground fuel storage Access ramps affect Conservation Land.

SCREENING METRICS

ENGINEERING CONSIDERATIONS

Terrain	Steep Moderate Flat	Toll Consideration I-95/I-295	Toll Revenue Loss = Not Desirable Double Toll = Not Desirable Toll Unaffected = Desirable
Access Approach Constraints	Approach Roads > 4% grade highly constrained	Site Visibility	Visible from Highway = Good Not Visible from Highway = Poor Impeded Visibility = Moderate
Costs	Millions	Traffic	Access from existing local road = Mixed Access from dedicated Interchange = Dedicated

SOCIAL CONSIDERATIONS

Plan of Development	Consistent Not Consistent
Land Uses of Site & Nearby	Developed Residential Developed Industrial Developed Commercial Farmland Undeveloped Woodland Undeveloped Field Barren
Historic Property	Present Potentially Absent

NATURAL ENVIRONMENT CONSIDERATIONS

NWI Wetland	Area	Watercourse	Perennial Intermittent Length of Impact	Wildlife Habitat	Good Moderate Low
Wetland Soils (SCS Hydric)	Area	Deer Wintering Area	Dense Potential = Conifers Present	Threatened & Endangered Species	Known Eagle Nest Plant or Animal Population
100 Year Floodplain (FEMA)	Area				

OTHER

Stratified Drift Aquifer	Area
Farmland Soils (SCS Soils, Dept. of Agriculture)	Prime Area Statewide Area
Hazardous/Contaminated Site	State/Federal Database Shows Present Not Present

6.1 Phase I Sites Eliminated

Five Phase I sites/scenarios were eliminated. These include: Site 1, scenario A in West Gardiner, Site 4 in Farmingdale, Site 6 in Farmingdale, Site 7 in Hallowell, and Site 8 in Hallowell.

Reasons for not advancing Site 1A include wetland impacts, costs, and wildlife habitat impacts, and partially the complexities related to multiple ramp connections and serving both I-95 and I-295 and separating the I-95 and I-295 traffic.

Reasons for not advancing Site 4 were wetland and stream impacts, costs, and wildlife habitat.

Reasons for not advancing Site 6 were primarily related to construction costs due to terrain, bedrock, and development of the site.

Site 7 is in close proximity to residential development, affects active farmland, has higher farmland soils impacts, is within 2,000 feet of a sand and gravel aquifer, has steep access road grades, high cost, and the highway access ramps will affect conservation land (Community Gardens property) off Winthrop Street in the Town of Hallowell.

Site 8 would affect considerable stream and wetland, and is near residential development, has higher farmland soils impacts, has steep access road grades, high costs, and the highway access ramps will affect conservation land in the Town of Hallowell.

7.0 PHASE II SITES

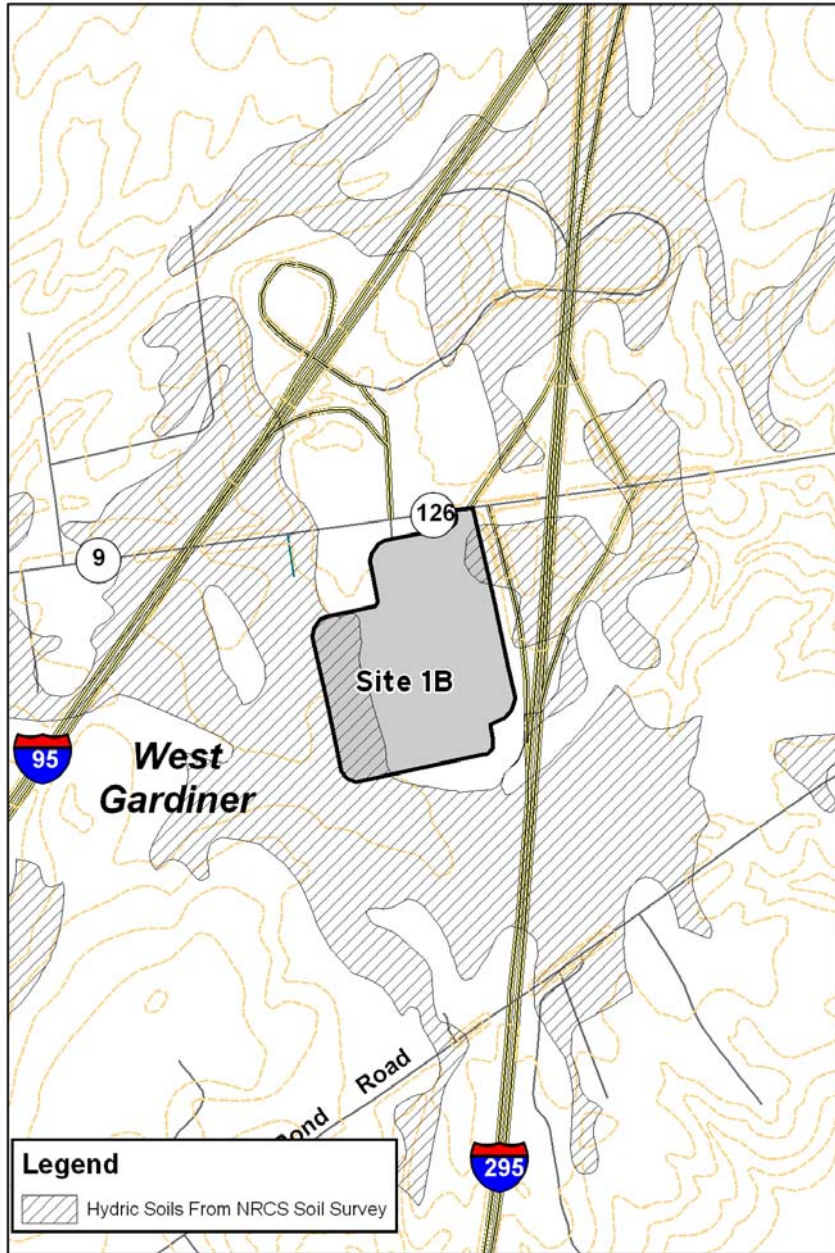
Of the eight Phase I sites (10 scenarios) considered, five met the initial site screening criteria and were evaluated further as Phase II alternative locations (Sites 1B, 2, 3, 5A and 5B). The Phase II sites were then designed to concept plan levels, a preliminary site evaluation was made, and refined cost estimates to construct the sites were developed. The following paragraphs describe the five Phase II sites and the factors considered in site screening and the selection of the preferred site.

7.1 Site 1B

West Gardiner, Route 126/Pond Road Site

This site is to the west of I-295 and includes area bounded by Pond Road, the I-295 SB onramp, and the cleared lot adjacent to Route 126 at the I-295 ramp. This site occupies portions of a vacant formerly developed property, two residential properties, as well as undeveloped woodland. It is located between both interstate highways and would be served by existing I-95 and I-295 interchanges with Route 126. This site would be visible from both travel directions on I-295 and from southbound on I-95. Utilities for this location would be served from along Route 126 to the east and require roughly 6,200 feet of new utility service along Route 126 and another 1,900 feet to service the site.

Impacts attributable to this site include approximately 6.5 acres of wetland (based upon SCS mapped hydric soils and not field-delineated wetlands). Impacts from utilities are not included in this estimation. Roughly one half of the site is forested habitat and one half of the site is barren soil and grass, formerly developed property as well as two residences on Route 126. No floodplains, mapped watercourses, or aquifers occur at the site. Access to the site would be gained by using the existing I-295 interchange and by the I-95 (Turnpike) ramps to Route 126. Using existing ramps will minimize impacts to wetlands and other resources caused by access. Site screening for known contamination by searching state and federal databases found a portion of the site has developed land use history and contamination potential. The databases indicate on-site underground fuel storage and spills records. If contamination is encountered, utilization of this site would allow proper clean up of the property. Development costs for this location are approximately \$23.5 million which is the lowest of any candidate location. This location scenario has desirable toll operations since toll avoidance would not occur, but a potential double toll for Turnpike patrons would occur. This location's access would be gained through an existing interchange and therefore, would not require a change in access to the interstates. The proposed facility is within the West Gardiner planned growth area as reported in the 1990-2000 West Gardiner Comprehensive Plan.



Maine Turnpike Northern Service Plaza

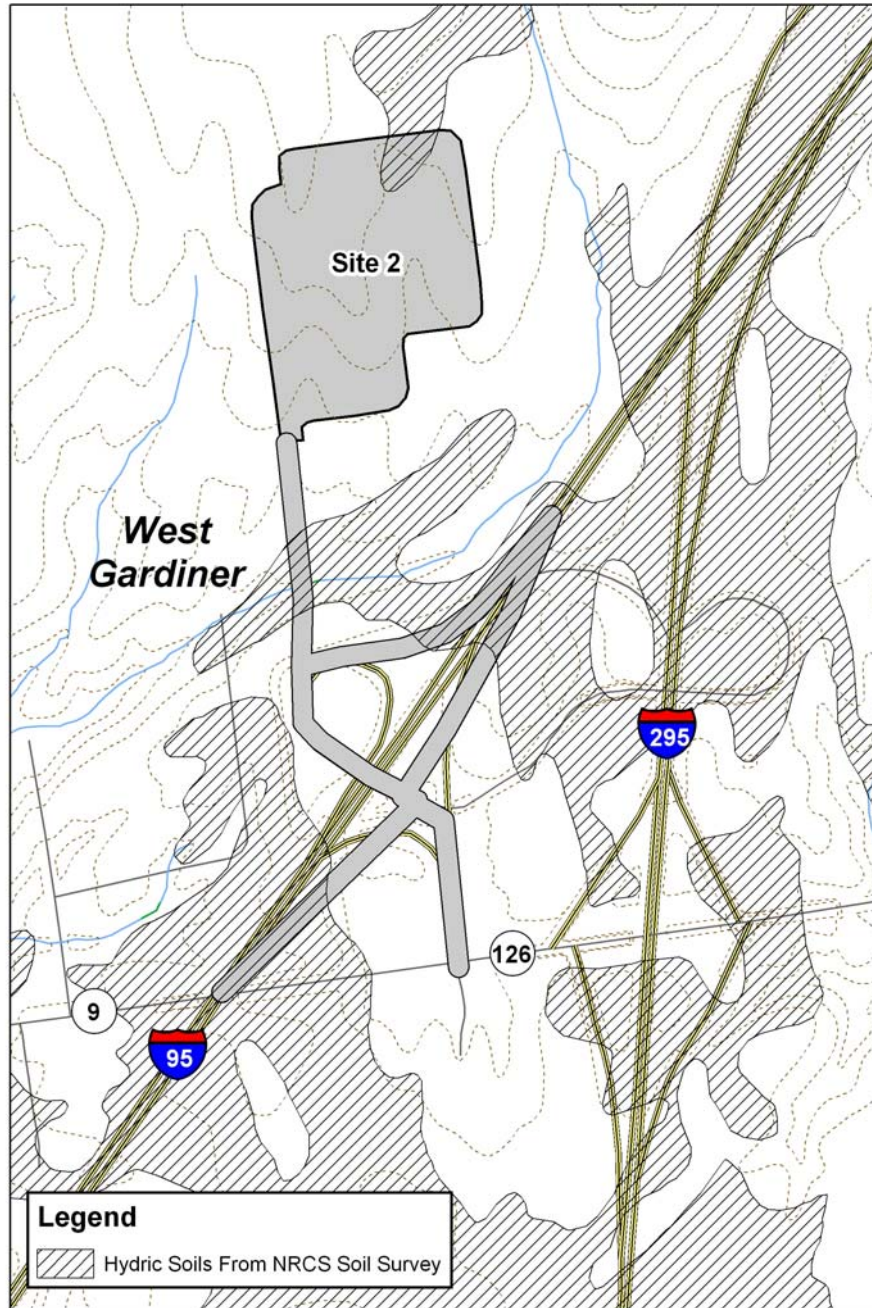
Site 1B
Figure 3

7.2 Site 2

West Gardiner, North of I-95/Rte 126 Interchange Site

Site 2 is located to the northwest of I-95 in West Gardiner. This site is entirely forested and not likely to be overly visible from the Maine Turnpike, and even less visible from I-295. Access to the site would be made from the I-295 interchange with State Route 126, and through restoration of previously closed ramps on I-95. A driveway would connect the Site with the restored interchange on I-95 and Route 126 near the existing Turnpike Maintenance Facility between the interstates. Surrounding land uses at the site include undeveloped woodland. Utilities would likely be brought to the site along Route 126 from east of I-295 for a distance of roughly 6,400 feet and an additional 4,700 feet along the access drive.

Impacts that would be attributable to this site include approximately 7.3 acres of wetland (based upon SCS mapped hydric soils and not field-delineated wetlands), 100 linear feet of intermittent stream, and a conversion of predominantly forested habitat to developed land use. Impacts from utilities are not included in this estimation. No floodplains or aquifers occur at the site. Screening for known contamination by searching state and federal databases found no records for this location. Development costs for this location are approximately \$30.4 million which is the third lowest of any candidate site and \$6.9 million more than Site 1B. This location scenario results in undesirable toll operations by providing un-tolled connections between the Turnpike and I-295. Site access would be gained through an existing interchange and therefore, would not require a change in access to the interstates.



Maine Turnpike Northern Service Plaza

Site 2
Figure 4

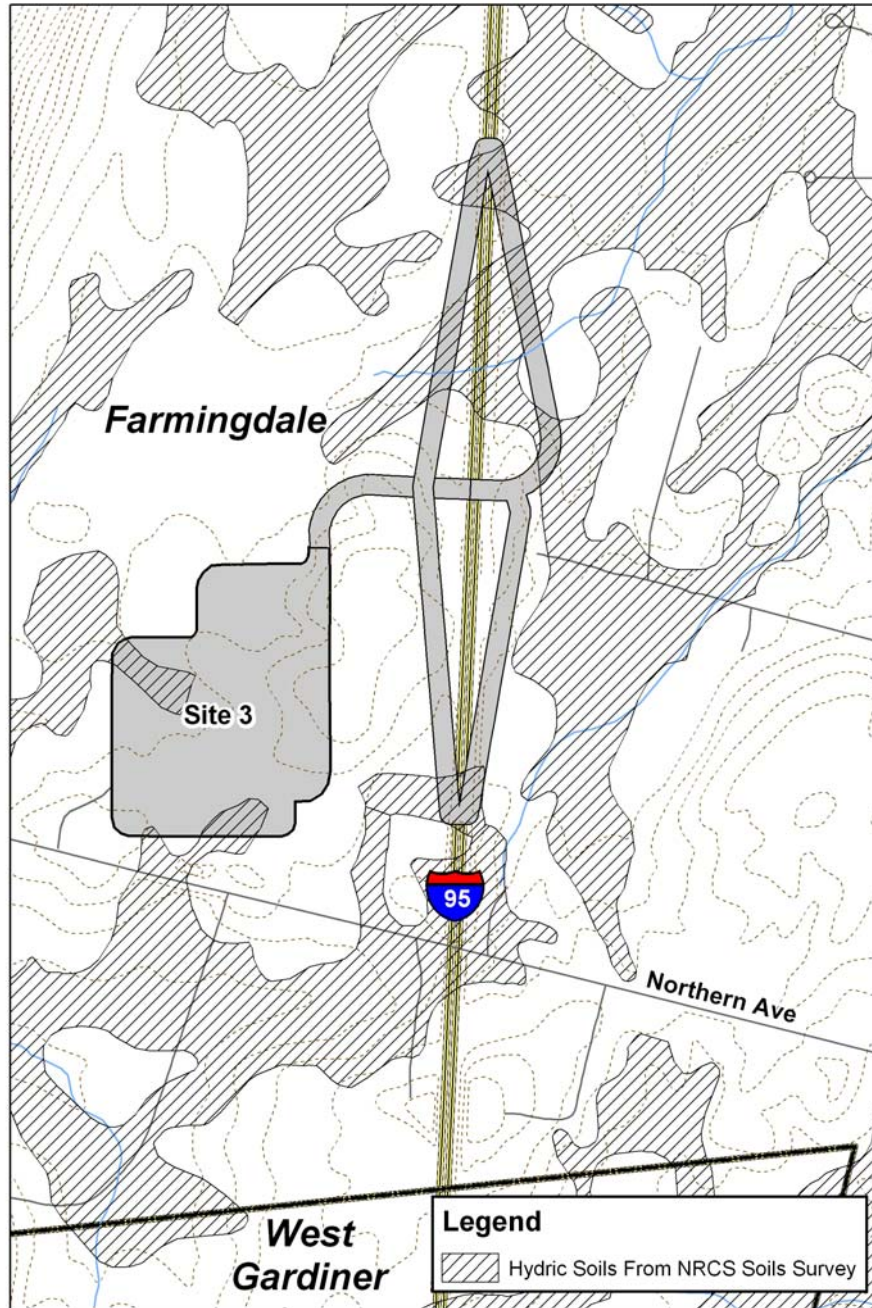


7.3 Site 3

Farmingdale, North of Northern Avenue

This site is west of the Maine Turnpike (I-95) and located immediately north of Northern Avenue. The location is undeveloped woodland and old field, and three commercial radio towers are located at the site. A cemetery and sparse residential development are nearby and directly adjacent to Northern Avenue. This site would likely be visible from both travel directions on I-95. Access to the site would be gained by a new dedicated interchange to serve the facility. No traffic connections with Northern Avenue would be made for facility patrons, however, a driveway from Northern Avenue would serve employees for access. This site scenario would not cause a change in access to the interstate. Utilities would likely be brought to the site by extending services by 2,700 feet along Maple Street then extended southward parallel to the Turnpike for another 7,500 feet.

Impacts attributable to this site include approximately 7.7 acres of wetland (based upon SCS mapped hydric soils and not field-delineated wetlands), most of which would be affected by the construction of the interchange. Impacts from utilities are not included in this estimation. The majority of the site is forested habitat. The three commercial radio towers would be impacted by the proposed facility. No floodplains or aquifers occur at the site. Roughly 212 feet of intermittent stream would be affected by the proposed interchange ramps. One acre of statewide important farmland would be affected by the site. Screening for known contamination by searching state and federal databases found no records for this location. Development costs for this location are approximately \$34.7 million which is near the middle of the range of site development costs and \$11.2 million more than Site 1B.



Maine Turnpike Northern Service Plaza



Site 3
Figure 5

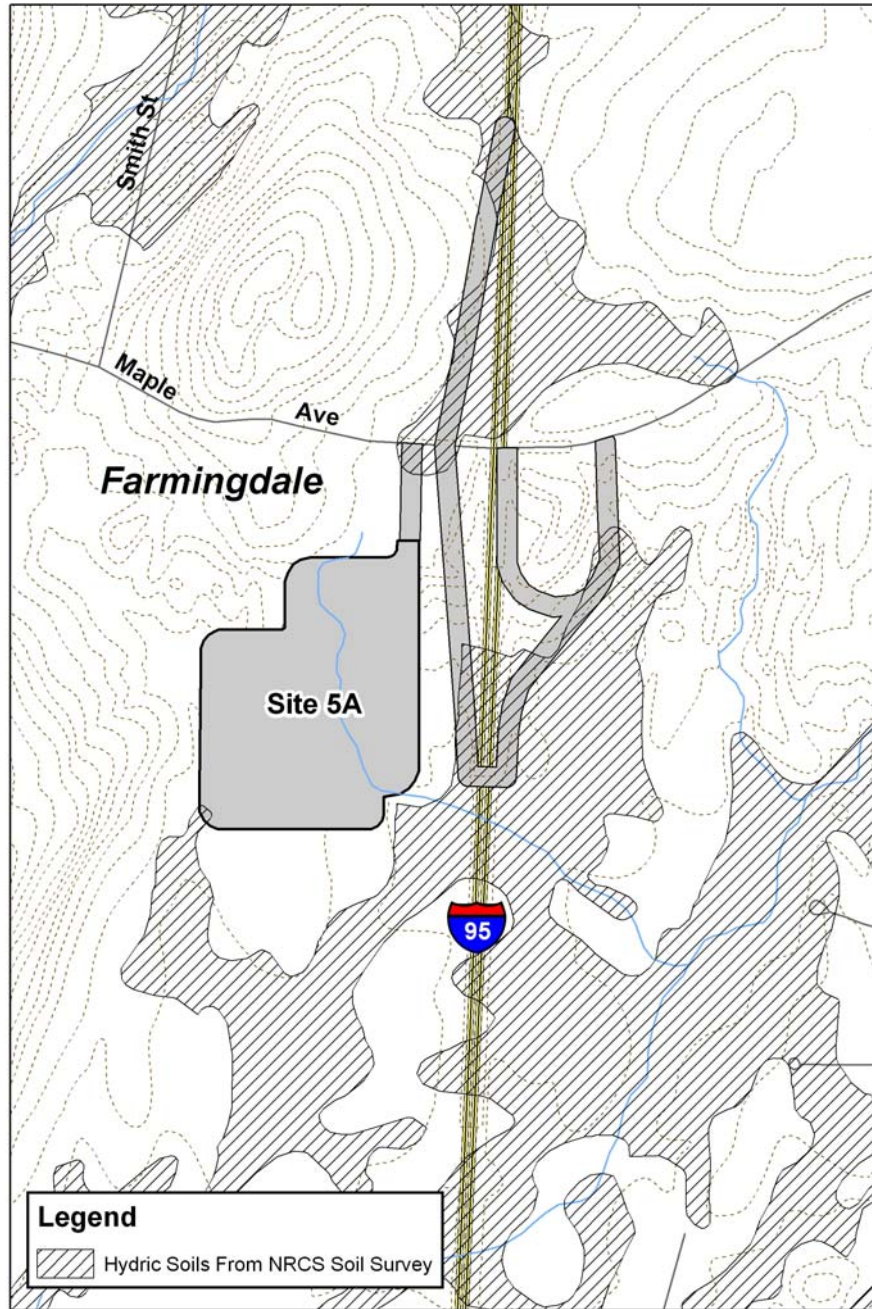


7.4 Site 5A

Farmingdale, South of Maple Street

This site is to the west of the Maine Turnpike, south of Maple Street, and extends to the high-voltage power transmission line. Access to the site will be made by constructing a new interchange at Maple Street and a new driveway linking the site with Maple Street. This site scenario would cause a change in access to the interstate. Utilities would be extended roughly 2,200 feet along Maple Street and then another 3,300 feet to the site. This site is comprised of previously disturbed land. Prior land clearing, excavation, filling, and debris disposal are evident through much of the site. A small pond is near the northern end of the site and an intermittent stream flows southward from the pond. The pond would be avoided, however, the intermittent stream would be affected by the site development. Wetland impacts would include 7.6 acres (based upon SCS mapped hydric soils and not field-delineated wetlands) and mostly due to new ramps to Maple Street. Approximately 1,479 feet of intermittent stream would also be affected at the site. Impacts from utilities are not included in this estimation. Some residential and commercial development occurs along Maple Street. This site would be clearly visible from northbound traffic lanes, but less visible in southbound lanes due to terrain.

The site is predominantly broken canopy forested habitat, and highly disturbed from prior land uses, including excavation, construction debris disposal, and automobile disposal. No floodplains or aquifers occur at the site. Screening for known contamination by searching state and federal databases for known hazardous materials or contamination risks found no records for this location, although site conditions indicate potential for discovery of materials. Utilization of this site would allow proper clean up of the property. Developing this site would require relocation of Central Maine Power Company high voltage power lines. Development costs of this site are approximately \$30 million, which is the second lowest site cost of the 10 alternatives, and \$6.5 million more than Site 1B.



Maine Turnpike Northern Service Plaza

Site 5A

Figure 6

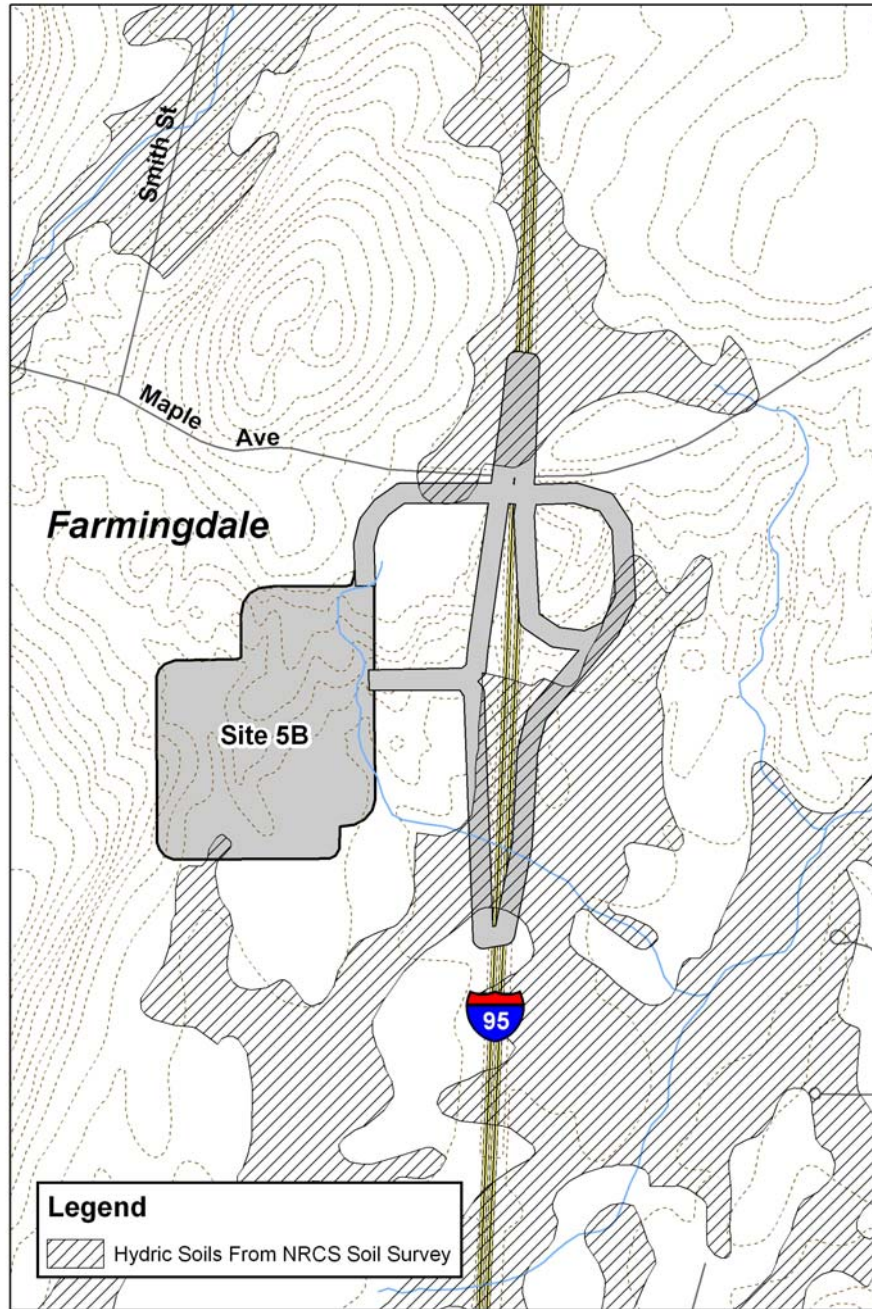


7.5 Site 5B

Farmingdale, South of Maple Street

This site is to the west of the Maine Turnpike, south of Maple Street, and extends to the high-voltage power transmission line. This site location is offset slightly to the west of Site 5A. Access to the site would be gained by a new dedicated interchange to the site requiring the slight shift westward to accommodate interchange ramps. Since access to the potential service plaza/rest area would be made by a new dedicated ramp network on I-95, no connections with Maple Street would be made and it would not cause a change in access to the interstate. Utilities would be extended roughly 2,200 feet along Maple Street and then another 3,300 feet to the site. This site is comprised of previously disturbed land. Prior land clearing, excavation, filling, and debris disposal are evident through much of the site. A small pond is near the northern end of the site and an intermittent stream flows southward from the pond. The pond would be avoided, however, the intermittent stream would be affected by the site development. Some residential and commercial development occurs along Maple Street. This site would be clearly visible from northbound traffic lanes, but less visible in southbound lanes due to terrain.

Impacts attributable to this site would include: approximately 14.6 acres of wetland (based upon SCS mapped hydric soils and not field-delineated wetlands), most of which would occur due to the ramps. The site is predominantly broken canopy forested habitat, and highly disturbed from prior land uses, including excavation, construction debris disposal, and automobile disposal. No floodplains or aquifers occur at the site. Impacts to approximately 1,396 feet of intermittent stream would occur at the site and at the new ramps. Impacts from utilities are not included in this estimation. Screening for known contamination by searching state and federal databases found no records for this location, although site conditions indicate potential for discovery of materials. Utilization of this site would allow proper clean up of the property. Developing this site would require relocation of Central Maine Power Company high voltage power lines. Development costs for this site would be approximately \$31 million, which is comparable with Site 5A and Site 2, and \$7.5 million more than Site 1B.



Maine Turnpike Northern Service Plaza

Site 5B

Figure 7

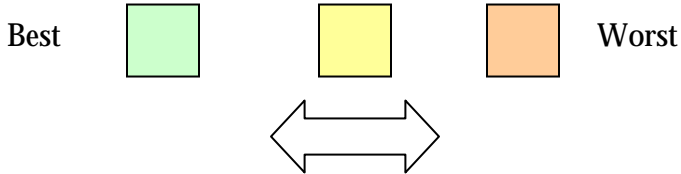


8.0 PHASE II SITE SCREENING

Based upon further investigations of the Phase II sites including refined facility footprint designs, and in consideration of other factors such as environmental document requirements and possible future toll plaza locations, further site choices were made. Table 3 is a summary of the Phase II sites and key resources.

Table 3 - Phase II Sites and Key Resources

SITE	KEY RESOURCES						
	Cost (Millions)	Change Interstate Access	On Site Land Use	Adjacent Land Use	Wetland Impact (NRCS) (acres)	Stream Impact (linear feet)	Wildlife Habitat
1B	23.5	no	Residential/ Commercial Woodland	Woodland/ Sparse Residential	6.5	0	low
2	30.4	no	Woodland	Woodland	7.3	100	high
3	34.7	no	Woodland	Woodland	7.7	212	high
5A	30.0	yes	Woodland/ Field/Debris	Woodland/ Sparse Residential	7.6	1,479	low
5B	31.0	no	Woodland/ Field/Debris	Woodland/ Sparse Residential	14.6	1,396	low



8.1 Site 1B

Site 1B would have the lowest cost of all alternatives (\$23.5 million), and lowest wetland impacts of the Phase II sites (6.5 acres). Site 1B is the best option in all screening categories except residential land use impact. Therefore, additional wetland

investigations were conducted at this site to better ascertain the potential for wetland impact at this site. Delineations were performed, and not all areas mapped as hydric soil were found to be wetland. Therefore, the site has an even lower presence of wetlands than would be indicated by NRCS information and this suggests that the wetland impact for Site 1B would likely be lower than 6.5 acres. Site 1B requires acquisition of two residential properties and would involve developing land with a history of known contamination threats. One advantage of this site is that it would allow re-development of previously developed land. The facility would be located between two interstate highways near the junction location and therefore, have less habitat fragmentation impacts compared with sites in more remote locations. This site would be visible from both I-95 and I-295 and is within the town-designated growth area. Ramp connections could be made within AASHTO guidelines and toll considerations would be desirable. This site location scenario would not cause a change in access to the interstates. This site scenario is recommended.

8.2 Site 2

Site 2 would be entirely sited within a natural forested landscape and therefore affect considerable intact wildlife habitat. Visibility of the site would be poor from the interstates and therefore would be less-desirable and potentially less economically viable. This scenario would also cause toll complications causing toll revenue losses and contribute negatively toward the site economic viability. Access to the site would be gained from an existing interchange on I-295 and through restoration of the closed ramps on I-95. Developing this site would not cause a change access to the interstates at this location. This site would have the second lowest wetland impact of the Phase II sites (7.3 acres), but would also include a perennial stream crossing. Utilities would have to be extended over two miles to reach this site. The cost of developing Site 2 is \$30.4 million, \$6.9 million more than Site 1B. Due to toll complexities and poor site visibility affecting economic viability of the location, and in consideration of the development costs, this site is not recommended.

8.3 Site 3

Site 3 would have a dedicated ramp and would not cause a change in access to the interstate. This site would affect three active radio towers and would be located adjacent to residential properties on Northern Avenue. Utilities would require almost two miles of extension to serve the site. Access grades would be 4% which is steeper than desired for trucks. This site would affect statewide important farmland, whereas the other Phase II sites do not affect farmland soils. This site would have relatively low wetland impacts compared with other Phase II alternatives (7.7 acres). The cost of developing this site would be \$34.7 million, roughly \$11.2 million more than Site 1B. This site is the most

expensive of five Phase II alternatives. Due to complexities of active radio tower relocations, the less desirable road grades, and the considerably higher cost, this site is not recommended.

8.4 Site 5A

Site 5A would include new access to Maple Street and therefore potentially change local travel patterns and require more in-depth traffic analyses. One of the primary disadvantages of this site scenario is that the road grades are steep for trucks and that would inhibit truck movements. Utilities are nearby and would be brought to the site from Maple Street. Development of this site would involve relocation of a Central Maine Power Company high-voltage transmission line. This site would have approximately 7.6 acres of wetland impact, which is slightly more than 1B and near the middle of the Phase II alternatives. Nearly 1,500 feet of an intermittent stream would be affected by the development of this site. This site location is highly disturbed from former land activities and debris disposal practices and has no characteristics of pristine habitat. Developing this site would provide an opportunity to clean/restore undeveloped portions of the property and enhance the aesthetic qualities of the property. Cost of developing this site is \$30 million, approximately \$6.5 million more than Site 1B. Based upon the change in interstate access, steep grades, impacts to stream, and development costs of the site, this site is not recommended.

8.5 Site 5B

Site 5B would have a dedicated ramp connection from the Turnpike to the site. No change in interstate access would result from this scenario. The site is slightly west of Site 5A to allow ramp connections from the proposed dedicated interchange. Utilities are nearby and would be brought to the site from Maple Street. Development of this site would also involve relocation of a Central Maine Power Company high-voltage transmission line. This site would affect 14.6 acres of wetland, the highest of the Phase II alternatives, and most of which is related to the construction of the ramps. Nearly 1,400 feet of an intermittent stream would be affected by the development of this site and ramps. Portions of this site location are highly disturbed from former land activities and debris disposal practices and have no characteristics of pristine habitat. Developing this site would provide an opportunity to clean/restore undeveloped portions of the property and enhance the aesthetic qualities of the property. Cost of developing this site is \$31 million, approximately \$7.5 million more than Site 1B. Based upon the high impacts to stream, along with higher wetland impacts and higher cost of development, this site is not recommended.

9.0 RECOMMENDED SITE

The results of the investigation support reasons for selecting the recommended site. Based upon the site identification and screening studies, and in consideration of the costs to build the facility, the preferred location and access configuration is Site 1B. The advantages of Site 1B include: present conditions at the site include a high percentage of low quality upland habitat from prior land disturbance, a portion of the site would include re-use of previously developed property, the site setting is between two interstate highways and has good site visibility and economic viability, existing access would not change local travel patterns, toll operations would not be negatively affected, utilities are nearby, road grades for trucks are reasonable, terrain is relatively flat and minimal site earthwork is required, the site development is consistent with the Town's comprehensive plan, the site is near a Maine Turnpike maintenance facility, and the cost of development is practicable and much less than the other candidate sites. Some of the negative aspects of developing this site include two residential property takings, and potential to encounter contaminated soils from buried tanks and prior land uses.

A practicability comparison of the five Phase II sites reveals a significant cost differential between Site 1B and the other locations. Comparing the development costs and wetland impacts (based upon NRCS-mapped hydric soils) finds the next least expensive sites are \$6.5 million (Site 5A) and \$6.9 million (Site 2) (27.7-29.4%) more than Site 1B. Site 2 has 0.8 acre more wetland impact and Site 5A has 1.1 acres more wetland impact, and cost \$30.4 million and \$30 million respectively.

It should be noted that the site development cost estimates include factored wetland mitigation expense (e.g. # acres of impact multiplied by # dollars per acre.). For this study, a mitigation cost of \$100,000 per acre of wetland was used.