

# Land Based Wind Energy Facility Siting Considerations for Swampscott, MA

## Map Introduction

This map was produced by the Metropolitan Area Planning Council's (MAPC) Geographic Information Systems (GIS) Department for purposes of identifying criteria relevant to siting wind energy facilities in the North Shore coastal region. The MAPC applied for and received funding from the Massachusetts Technology Collaborative Community Planning and Development Grant Program to integrate certain forms of distributed power generation and renewable energy into the local planning process. Funds were secured under the grant CP-04-05 for the creation of a map that would highlight areas with an increased potential for wind energy development within the coastal North Shore study area. The map also plays a role in identifying areas that may need to be considered when siting wind energy developments.

## Data Sources

A complete list of data sources and the agencies involved in the map's creation are as follows: Massachusetts Geographic Information System (MassGIS), Metropolitan Area Planning Council (MAPC), Massachusetts Highway Department (MHD) and Massachusetts Technology Collaborative.

## Map Notes

This map was created by the MAPC GIS Department using the ArcInfo mapping and map analysis software. Specific mention of brand-name products or services does not necessarily constitute endorsement for use by the MAPC.

The features depicted on this map represent approximations of real-world conditions and should only be used for planning purposes. The features depicted on this map may or may not meet National Map Accuracy Standards. That this exists for features shown on this has not been evaluated. There have been no deliberate omissions of map feature geography or feature attributes.

**Base Map Features**

- Town Boundaries
- Roads**
  - Arterial/Collector
  - Local
- Water Bodies
- Protected Open Space
  - Municipal, State and Federal Land
  - Not Protected Open Space
- Infrastructures**
  - Contours (Feet)
  - Schools
  - Historic Buildings
- Siting Considerations**
  - Wetlands
- Generalized Zoning**
  - Commercially Zoned
- Wind Resource at 70 Meters (230 Feet) Hub Height**

Mean Speed

miles/hour	meters/second
13.4 - 14.5	6 - 6.5
14.5 - 15.7	6.5 - 7
15.7 - 16.8	7 - 7.5

Wind regimes below this mean wind speed are generally considered to be non-commercially viable in 2004

