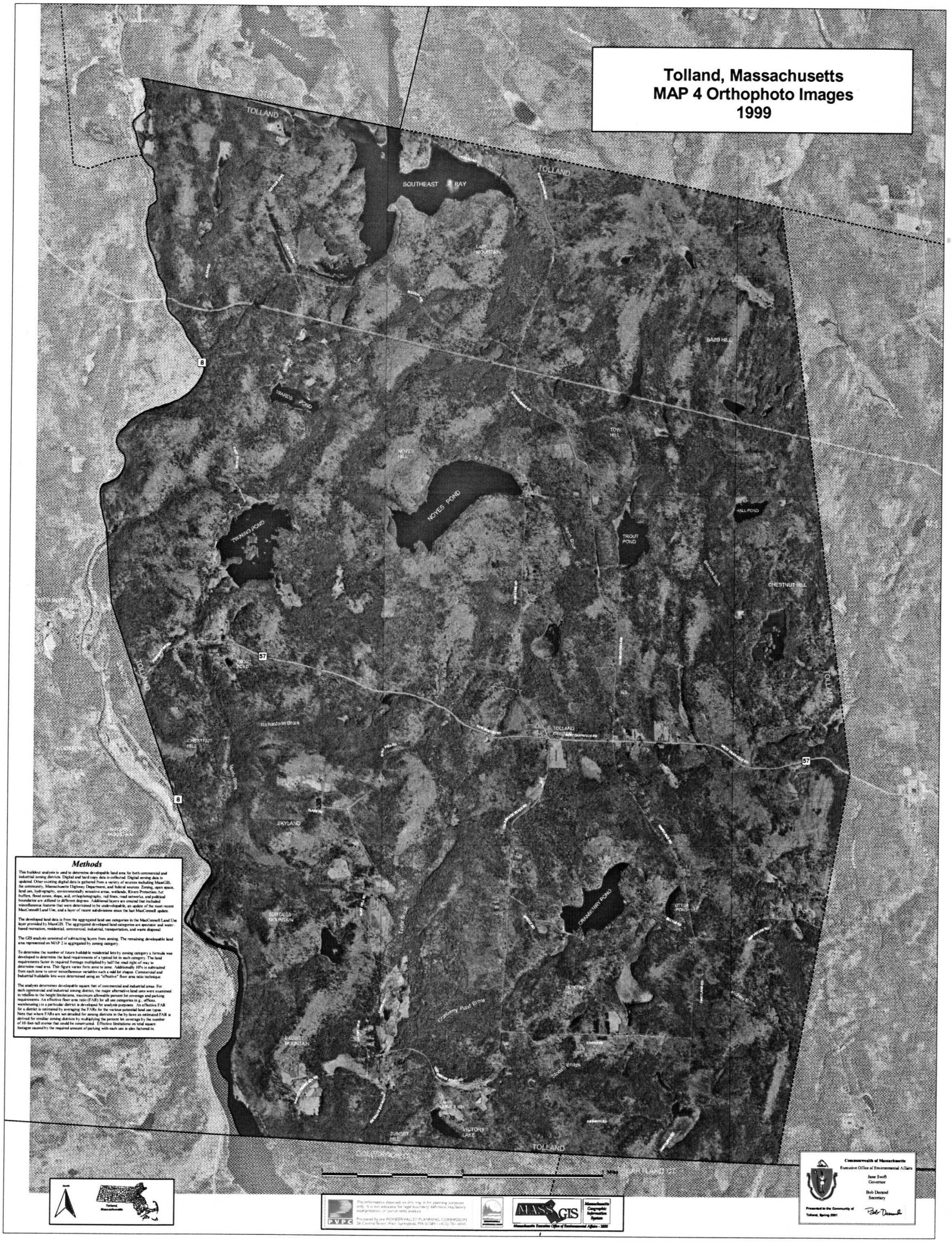
Tolland, Massachusetts
MAP 4 Orthophoto Images
1999
TOLLAND
SOUTHEAST BAY
WARDS POND
NOYES POND
TWINING POND
TROUT POND
HALL POND
CHESTNUT HILL
Richardson Brook
SKYLAND
CRANBERRY POND
HUNTING HILL
VICTORY LAKE
SUNSET HILL
8
57
Methods
This buildout analysis is used to determine developable land area for both commercial and industrial zoning districts. Digital and hard copy data is collected. Digital zoning data is updated. Other existing digital data is gathered from a variety of sources including MassGIS, the community, Massachusetts Highway Department, and federal sources. Zoning, open space, land use, hydrography, environmentally sensitive areas, wetlands, Rivers Protection Act buffers, flood zones, slope, soil, orthophotography, rail lines, road networks, and political boundaries are utilized to different degrees. Additional layers are created that included miscellaneous features that were determined to be undevelopable, an update of the most recent MacConnell Land Use, and a layer of recent subdivisions since the last MacConnell update.
The developed land data is from the aggregated land use categories in the MacConnell Land Use layer provided by MassGIS. The aggregated developed land categories are spectator and water-based recreation, residential, commercial, industrial, transportation, and waste disposal.
The GIS analysis consisted of subtracting layers from zoning. The remaining developable land area represented on MAP 2 is aggregated by zoning category.
To determine the number of future buildable residential lots by zoning category a formula was developed to determine the land requirements of a typical lot in each category. The land requirements factor in required frontage multiplied by half the road right-of-way to determine road area. This figure varies form zone to zone. Additionally 10% is subtracted from each zone to cover miscellaneous variables such a odd lot shapes. Commercial and Industrial buildable lots were determined using an "effective" floor area ratio technique.
The analysis determines developable square feet of commercial and industrial areas. For each commercial and industrial zoning district, the major alternative land uses were examined in relation to the height limitations, maximum allowable percent lot coverage and parking requirements. An effective floor area ratio (FAR) for all use categories (e.g., offices, warehousing) in a particular district is developed for analysis purposes. An effective FAR for a district is estimated by averaging the FARs for the various potential land use types. Note that where FARs are not detailed for zoning districts in the by-laws an estimated FAR is derived for similar zoning districts by multiplying the percent lot coverage by the number of 10-foot-tall stories that could be constructed. Effective limitations on total square footages caused by the required amount of parking with each use is also factored in.
Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Jane Swift
Governor
Bob Durand
Secretary
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MASS GIS
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PVPC