Reuse Analysis of Vacant Land in Holyoke, Massachusetts

Vacant and abandoned property has become a stark reality since the real estate and foreclosure crisis hit the country in 2008. This reality only intensified for America’s shrinking cities - such as Holyoke, Massachusetts. Where there is crisis, there is also opportunity. The economy will (eventually) turn around and so the necessary steps should be taken now to plan for the future use of those vacant and abandoned properties. This will include determining what vacant parcels are best to focus time, efforts and money on to redevelop and which ones should be turned into open space for community use and environmental regeneration (passive use). There will be those lands that do not fit into either end of this spectrum and these lands can find temporary uses that are non-invasive and allow the land to eventually be redeveloped or become open space.

This project uses GIS to help pinpoint development and reuse opportunities within the City of Holyoke in Western Massachusetts. Holyoke was chosen as the test case because it is one of the old mill towns that MassINC outlined in its 2007 “Reconnecting Massachusetts Gateway Cities” report as one of the 11 towns/cities that have an opportunity of rebirth after being left behind during the Commonwealth’s economic shift to a technology base.

City of Holyoke Parcels
Total Parcels = 10,163
Vacant Parcels = 586
Vacancy/Abandonment Rate = 5.8%

Potential Reuse
Redevelop = 208 parcels
Temporary Use = 230 parcels
Passive Use = 148 parcels

Analysis
By evaluating a vacant parcel’s spatial relation to other factors in the city such as economic, environmental, and social elements, the City could potentially establish a system to determine whether those lands have redevelopment, temporary use, or passive use potential. With that spatial evaluation, the City could then adjust their regulations and processes to make those potential land uses easier and more likely to happen.

Economic: Poverty Rate by Block Group (2000)
Poverty rate was determined by dividing the total number of individuals living at or below the poverty level by the total population of that block group. By doing this, it is possible to see the rate of poverty in each block group. Those block groups with higher poverty rates may benefit from redevelopment efforts of vacant land within their block group.

Social: Distance to Food Sources
The various food access points (grocery stores, restaurants, community gardens) were geocoded with nearly 100% accuracy. The distance to these points was then determined through a spatial analysis. By doing this, it is possible to see what areas of the city are underserved by food sources. Those vacant parcels that are located further from food sources should have focused redevelopment to potential provide a new food resource to the surrounding community.

Environmental: Open Space Locations
Holyoke has extensive tracts of green space, namely due to the Mount Tom Range that runs down the center of the city. The distance to the various open space options in the city was determined through a spatial analysis. By doing this, it is possible to see those areas that are underserved by park space (dark green). Those vacant parcels that are located further from park space should have focused efforts to convert the land to passive uses.