Detecting Potential Urban Brownfields by Means of Remote Sensing and GIS Data

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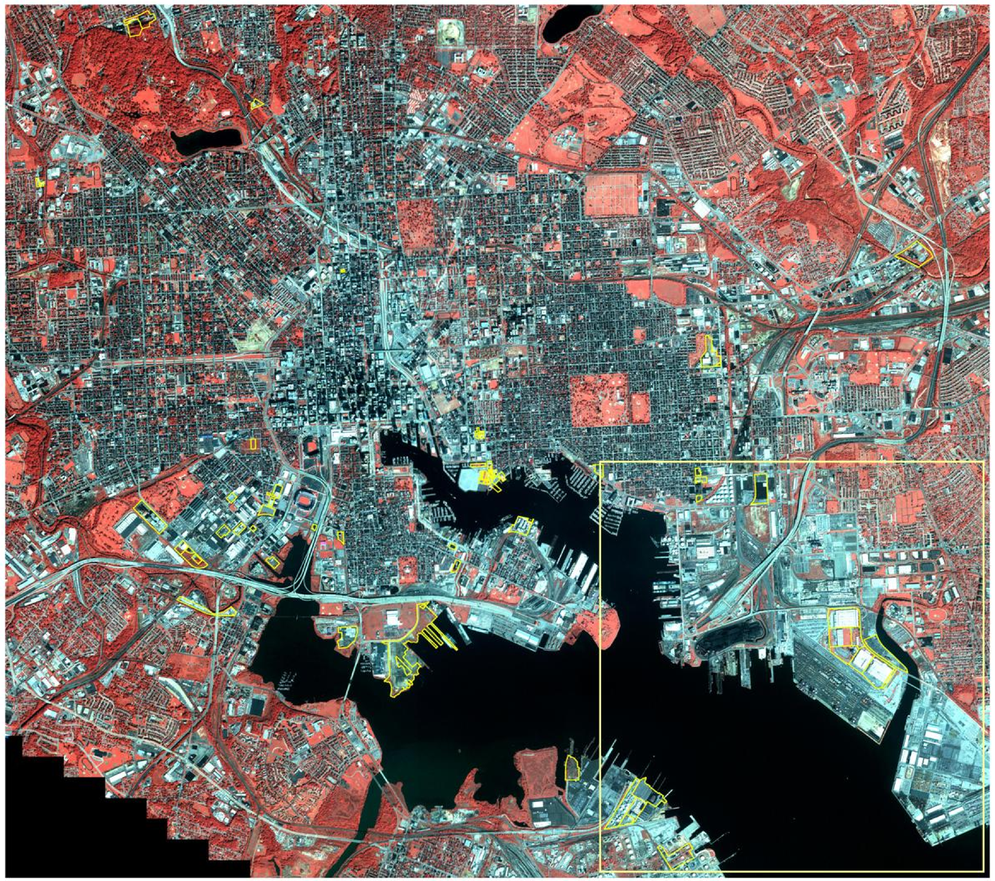
Baltimore City



Acknowledgements

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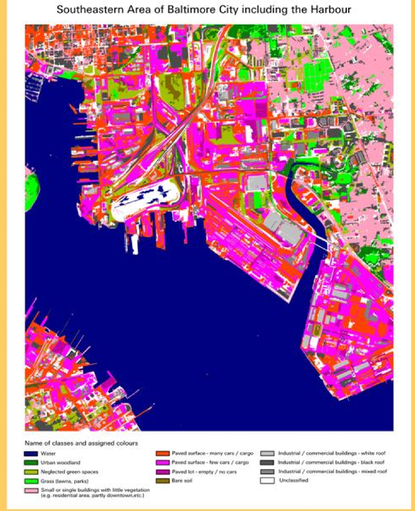
Street addresses of presented Brownfields sites according to Baltimore's Voluntary Cleanup Program with courtesy of mde - Maryland Department of the Environment
Parcel boundaries assigned to mde Brownfields sites by Frank Rodgers, Community Forestry, Parks & People Foundation, Inc.



Remote sensing only offers a bird's eye perspective on a critical and challenging issue.

What do industrial / commercial and Brownfields sites have in common?

- Road access
- Paved surface
- Parking lots
- Often green spaces
- Building(s)

What do we presume to be characteristic features for Brownfields in contrast to active businesses?

- Neglected green spaces
- Only few or no cars on parking lots
- Rather rotten building(s)

What is the advantage of high resolution remote sensing data to detect such sites?

- Potential sites can be assigned for a whole city
- Brownfields are features that consist of different objects. Thus a step-wise approach can be worked out for individual characteristics of these feature. This approach can easily be modified for specific features in a certain city (e.g. Brownfields in a virtual city is most likely next to water or to the local foothills, or consists of older pavement than all other lots do.
- Potentially assigned sites can be marked in maps and checked by local authorities.

What is the disadvantage to use remote sensing data for this issue?

- High resolution data sets need to be available
- There is no single assignment for Brownfields sites and their detection is highly knowledge based
- The detection is not operational yet and still basic research.
- Presently test sites or at least test areas are needed to verify / falsify Brownfields sites as structure groups for each city.

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