Brownfields Inventory & Prioritization

Updated October 2018

For municipalities with brownfield sites, developing a Brownfield Inventory is a good first step to setting the green team’s brownfields redevelopments priorities.

The Inventory component of this action requires a municipality to compile a list of brownfield sites obtained through publicly available information and research. Using this data, the municipality must submit an inventory spreadsheet and brief descriptions of how the inventory list was developed and verified. The municipality can earn 5 additional points for a total of 15 points if they have three or more brownfields by submitting a list of prioritized sites and description of the criteria used for prioritization. The Inventory list must have been compiled no earlier than 2 years before Sustainable Jersey certification application submission. An approved Brownfield Inventory & Prioritization action will expire 4 years from the Sustainable Jersey approval date.

Note: If your municipality has no brownfields listed in the NJ DEP database, your municipality is not eligible for points under this action.

Why is it important?

A Brownfield Inventory is an important land use tool. Once remediated, brownfields can improve the local economy, increase the municipal tax base, address environmental contamination, and provide public green space, effecting positive change to a once blighted and/or underutilized area.

Cleaning up and reinvesting in brownfield properties can provide job opportunities, take advantage of underutilized but available infrastructure, and lessen development pressures on greenfields and other undeveloped lands. An EPA-sponsored study by the George Washington University, (Public Policies and Private Decisions Affecting the Redevelopment of Brownfields: An Analysis of Critical Factors, Relative Weights and Area Differentials; 2001) found that for every one acre of brownfields that are redeveloped, 4.5 acres of greenfields are saved from development. An EPA-sponsored study by Duke University School of Economics (Estimating the Impacts of Brownfield Remediation on Housing Property Values; 2012) concluded that when brownfield sites are remediated, local property values adjacent to the remediated property may increase as much as 12.8%. A Brownfield Inventory can highlight potential human health and environmental risks that may require attention prior to site reuse. It can be used for marketing to attract redevelopment and as a tool for municipal land use planning and decisions on how to allocate public resources. A comprehensive Inventory can be used to boost interest in available abandoned or underutilized sites with existing infrastructure and direct development away from open public space or greenfields.

Conducting a comprehensive Brownfield Inventory can serve the following functions:

- Verify that sites of suspected contamination are brownfield sites in need of clean-up;
- As an indicator of areas suitable for specific types of development;
- As a resource during review of planning or zoning requests;
- As a marketing tool to bring redevelopment to a community;
- As a way to prioritize preparation of shovel-ready sites to promote development;
- As a tool for making decisions about placement of infrastructure, roads, sewers, schools, etc.;
- As a resource in preparation of a Brownfield Element for the municipal Master Plan;
- As an educational tool for residents to learn more about their community and potential threats to their health and the environment.

A Brownfield Inventory includes the names, number and characteristics of potential brownfield sites. It is an important tool used by Environmental Commissions, Planning and Zoning Boards, green teams and municipal staff to track the status of sites, their location, potential contamination, ownership, and redevelopment potential. The Brownfield Inventory must be a dynamic document, updated as additional data becomes available, e.g. when properties are cleaned, redeveloped, sold, or when new properties are identified. Developing a policy to update the list and assigning a responsible person is part of this action’s requirements.

Prioritization is an optional step in this action that follows the Inventory, and offers additional benefits for communities with multiple brownfield sites. This step will help focus municipal attention on problem sites that pose a significant hazard, are blocking needed redevelopment, or hinder achievement of other community goals. Identifying prioritized sites prepares a municipality for the subsequent action of marketing sites or developing Reuse Plans to address the brownfield sites. (See Brownfield Planning Reuse Action or Brownfield Marketing Action).

For additional background information on brownfields, including the definition and the extent of the issue in New Jersey, please click here.

Who should lead and be involved with this action?

A Brownfield Inventory can be created, verified and prioritized by the green team, municipal staff, and/or outside consultants. It may be helpful during
site verification to involve the tax assessor, brownfield property owners or their consultants, known as Licensed Site Remediation Professionals (LSRPs), who are hired to identify and address contamination issues on identified sites. The green team can be instrumental in soliciting and / or providing input during the prioritization phase.

### Timeframe

The timeframe to complete a Brownfield Inventory can vary, depending on the number of brownfield properties in the municipality, the accuracy of available State records (accessed via a DataMiner report) for the municipality and the completeness of the records maintained by the municipality on brownfield properties. Research, collection of data, calls and site visits required to supplement and verify the DataMiner data can be time consuming. These activities can be conducted either by volunteers, municipal staff or consultants. Although Dataminer is a key source of information, data for the Brownfield Inventory can also be collected from sources such as: New Jersey Office for Planning Advocacy, LSRPs, U.S. Environmental Protection Agency, tax assessor database, historic municipal data and site visits. This may already be available or take time to collect and sift through for relevance and accuracy.

### Project costs and resource needs

The Brownfield Inventory and verification can be completed by the green team, municipality or by an outside consultant. A project plan should be developed with the tasks and timeline or scope of work to assign responsibility and identify resource gaps. If there are a limited number of properties, green team members may have the capacity to compile and verify the Brownfield Inventory on their own. However, a consultant may be needed if there are many properties or municipal staff has limited time to assist in data collection and verification. The cost could range between $1,000 and $15,000 depending on what elements are outsourced, the number of properties, and data available. A consultant may also be available to create maps with GIS software that could then be useful for prioritization. It is recommended that the Brownfield Inventory be linked to a map, which will also be useful for prioritization (See “Map the Brownfield Sites” section below).

### What to do, and how to do it (“How to”)

This section provides guidance for implementing the action. You do not need to follow this recommendation exactly as long as your final product meets the requirements.

Prior to beginning your Brownfield Inventory and Prioritization, please click here to view a video from the Center for Environmental Studies at Rutgers describing the Brownfields Cleanup Process in New Jersey.

**STEP 1 – Create the Inventory.**

Here are the steps in developing a list of brownfields in your municipality.

**Download** your municipality’s site inventory directly from the NJDEP DataMiner site. Click [here](#) to link to a spreadsheet resource that provides DataMiner download instructions, definitions of fields, actual fields from the DataMiner report and suggested other fields you can add to make your Inventory robust and useful. The spreadsheet has the following tabs:

- Tab 1: Instructions to Download Dataminer Report
- Tab 2: Field Definitions
- Tab 3: DataMiner Report + Other Fields
- Tab 4: Prioritization Sheet (Sample)

Select the Excel option when you download the DataMiner report so that you can edit the document.

**Add properties/fields.** Your municipality may already have a list of brownfield properties that it compiled based on a range of data sources including information from DEP, the municipality’s historic records, windshield (field) surveys, tax assessment or other sources more fully described below. It may have also asked green team members and residents to report information about sites they see in the community via the internet, phone calls or community meetings. These properties, and any data available on them, including acres, ownership, access to transportation, physical characteristics of property, environmental status, development status, etc. should be combined with the DataMiner report. These additional fields makes the Inventory robust and provides guidance in tracking and prioritizing sites.

**Step 2: Verifying the Brownfield Inventory**

Verification is a required step of compiling the Brownfield Inventory. This step requires communities to validate the accuracy of their Inventory and to revise accordingly before submission.

Information downloaded from DataMiner will generate a list of sites that are suspected of, or known to be contaminated. However, the list will likely include properties that are not legitimate brownfields as defined by the Brownfield and Contaminated Site Remediation Act. Criteria for determining if a site is a brownfield are:

- Suspected or known contaminated sites that have not been fully remediated;
- Abandoned, vacant or underutilized sites.

Therefore, occupied residential properties with a current or former oil tank spill, properties that have already been remediated as confirmed by the existence of a site wide remedial action outcome (RAO) closure document, or sites that are fully utilized, even if contaminated, are not brownfields and should be eliminated from your Inventory.

For the purpose of this action, “verification” means researching the status of the property or “ground-truthing” to determine whether it meets these criteria. For communities with 30 or fewer suspected or known brownfield sites, all sites should be researched to determine if they should remain on
the Inventory list or removed. For those communities with 30 or more sites, a subset of sites may be selected, if ground truthing the entire list is too labor intensive. In order to determine which subset to verify, communities can focus on publicly-owned properties or a particular priority corridor, a redevelopment area, a given radius of a transit station, or other justifiable sub-group. Municipalities may decide to focus on eliminating residential sites or those that are fully utilized or fully remediated. You will need to indicate in your submission how you determined which sites to verify.

Some ways to verify sites includes:

- Conduct drive by site visits to evaluate current usage status;
- Use google maps (https://www.google.com/maps) to determine the current use of the property;
- Evaluate zoning of the property to establish if a site has a non-conforming use;
- Get ownership information from Tax Assessor or Planning Department and call property owners to determine ownership status and usage;
- Contact the Licensed Site Remediation Professional (LSRP) for each site where there is one on record, and obtain any reports that have been issued.

If the property does not meet the brownfield criteria listed above, it should be removed from the Inventory list. You should keep a file of removed listings, the reason for removal, who approved the removal from the list and date.

Once the municipality completes the Brownfield Inventory and Prioritization, it should formalize a process for keeping the spreadsheet current. This includes assigning responsibility and developing a formal process that includes tracking changes and reviewing the inventory on a periodic basis with municipal staff and elected officials.

Step 3: Prioritization Action

Once the base inventory is complete, municipalities with three or more sites can earn 5 additional points if they undertake a process to prioritize the sites for action. Prioritization should be conducted on the entire inventory. However, for municipalities with greater than 30 sites on the inventory list, the prioritization can address a subset of sites that went through the verification process. The first step is to establish criteria to prioritize critical sites using such factors as whether a) they pose health risks and/or environmental hazards, b) are in areas in need of redevelopment, c) offer strong potential for redevelopment, d) support other community objectives. Actual prioritization criteria will vary by community, as will the relative importance of each criteria. Examples of factors to consider in any prioritization process include:

- Ownership (public versus private)
- Public Health Risk
- Redevelopment potential (related to size, location, or other characteristics)
- Potential to reduce blight
- Other

The prioritization process could be done by municipal staff in consultation with the green team or as part of an open public process that involves convening community members in a charrette or public meeting or conducting an online survey or poll. It is best practice to collaborate with interested parties, but this is not required for points. Those responsible for this action will use community input and collaborate on developing a list of criteria or factors to be considered in the prioritization process.

Once the criteria or weighting factors are established, the next step is the actual evaluation of the sites on the Inventory list. The Table below offers an example of a ranking system where four criteria are ranked on a scale from 1-5; 1 being the least important, 5 the most important and 3 representing a neutral score or a situation where sufficient information is not available for that site. In addition to the ranked factors, each criterion has been assigned a relative weight that reflects the factor’s importance to the community. Criterion with more importance would receive a higher weight. Each site should then be scored and ranked based on the agreed upon weighted factors.

The highest scoring sites represent the community’s Brownfields priorities. In this example, Site 2 would be ranked as the highest priority followed by Site 5.

<table>
<thead>
<tr>
<th></th>
<th>Ownership (3=public, 1=private)</th>
<th>Public Health Risk (3=high, 1=low risk)</th>
<th>Redevelopment potential (3=high potential, 2=low potential)</th>
<th>Blight Reduction (3=high potential, 1=low potential)</th>
<th>Overall Ranking Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighting Factors</td>
<td>12</td>
<td>6</td>
<td>13</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Site 1</td>
<td>5*10</td>
<td>1*5</td>
<td>5*15</td>
<td>3<em>2</em>4</td>
<td>54</td>
</tr>
<tr>
<td>Site 2</td>
<td>3*10</td>
<td>3*15</td>
<td>4<em>3</em>12</td>
<td>3<em>2</em>10</td>
<td>48</td>
</tr>
<tr>
<td>Site 3</td>
<td>3<em>5</em>6</td>
<td>1*5</td>
<td>3*9</td>
<td>3*6</td>
<td>26</td>
</tr>
<tr>
<td>Site 4</td>
<td>3<em>1</em>3</td>
<td>3*19</td>
<td>4<em>3</em>3</td>
<td>4*3</td>
<td>38</td>
</tr>
<tr>
<td>Site 5</td>
<td>2<em>4</em>10</td>
<td>2<em>1</em>25</td>
<td>4<em>3</em>3</td>
<td>2*3</td>
<td>42</td>
</tr>
</tbody>
</table>

This priority ranking must be done either for all Brownfield Inventory sites or, when a municipality has 30 or more brownfield sites, for a subset of properties to yield a list of prioritized sites. You can develop your own prioritization methodology; you only need to document who was involved in the process and list the criteria that was used in determining the priority sites.

Step 4: Map the Brownfield Sites (Optional)

It is helpful to create a visual map of the Brownfield sites within your community because visualization is a valuable tool for checking accuracy of the
Inventory and for the prioritization process. Location can be very significant; for example, three small brownfields near one another represent different challenges and opportunities than three brownfields scattered throughout a municipality. For municipalities with only a few Brownfield sites, a map can be created manually by marking up an existing municipal map. It is also common to import coordinates, addresses, or block and lot information into a Geographic Information System (GIS) based map. Various sources can be used create GIS maps. Some municipalities have GIS capabilities and can complete their own Brownfield Inventory maps. Most counties have GIS capabilities and are able to map the sites. Many colleges also have this capability, and for a reasonable fee might be available to produce a map using students. Importing sites into a GIS-based map has many additional benefits for prioritization and future Brownfield actions. Layers can be added to provide information related to utilities, accessibility to public transportation, nearby “sensitive” populations such as children (e.g. schools, playgrounds) or seniors (e.g. nursing homes, senior centers), access to existing open space, proximity to natural resources, etc.

What to submit to earn points for this action

In order to earn up to 15 points for this action, the following documentation must be submitted as part of the online certification application. Use the Inventory Checklist to complete narratives.

Submission Requirements for Brownfield Inventory (10 points):

1. Description of Implementation: In the space on the action submission form. Note: Please view the Inventory Checklist document. This document provides a template for the information required which includes:
   - A summary of the process and the data sources used to complete your Inventory, and a position of people who worked on the Inventory project.
   - A summary of the verification process used to add, retain or eliminate sites from your Inventory, including who performed the verification and general information on the number or types of sites removed from the DataMiner report.
   - The policy for regularly updating the Brownfields Inventory, including who is responsible and how often this will occur.
   - A summary of the process used to develop the prioritization criteria, including whether all the sites were ranked or if a subset was chosen; the rationale for selecting the subset if applicable, who participated in the decision-making, the list of the criteria used and how each criterion was weighted, if applicable. (If applying for the 5 points for prioritization)
   - Information on who the prioritized list was submitted to such as the business administrator, governing body, etc. Include date and method of delivery. (If applying for the 5 points for prioritization)

2. Upload: Brownfield Inventory in an excel spreadsheet or PDF format. This would consist of a DATED document with the fields from the original Dataminer report and any additional brownfield properties and fields.

3. Upload: The prioritized list of brownfield properties along with supporting information on the selection process. (If applying for the 5 points for prioritization)

4. Upload: Map of priority sites with GIS, based on Block/Lot information (optional).

Resubmission Requirements

Upon expiration, the municipality should submit an Inventory and list of priority sites, updated within the two years prior certification application submission dates in keeping with the requirements above. If your municipality has less than 5 brownfields you are not eligible for resubmission points.

Approved Action Expiration Date

Approved Brownfields Inventory and Prioritization actions will be set to expire December 31 of the fourth year following approval of the action. For example, if the action was approved in July of 2018, the expiration date will be set for December 31, 2022.

IMPORTANT NOTES:

There is a limit of six uploaded documents per action and individual files must not exceed 30 MB. Excerpts of relevant information from large documents are recommended.

*All action documentation is available for public viewing after an action is approved. Action submissions should not include any information or documents that are not intended to be viewed by the public.**

Spotlight: What NJ municipalities are doing

Jersey City

In 2010, Jersey City released the Morris Canal Brownfield Inventory. This listing of sites and accompanying map was created in partnership with New Jersey City University and with grant funds provided by the Association of New Jersey Environmental Commissions (ANJEC). This map catalogues Brownfield sites in the Morris Canal Redevelopment Area, located in the Lafayette neighborhood of Jersey City. The map includes potential contamination, cleanup efforts and redevelopment plans in an effort to attract new investment that will work toward revitalizing the prioritized Brownfields sites. The inventory and map can be accessed from the following link:

http://thejcra.org/wpcontent/uploads/2016/06/JCRA_brownfield_FINAL.pdf

Perth Amboy

The Middlesex County Improvement Authority (MCIA) and the City of Perth Amboy, New Jersey are working to develop cost effective and creative
strategies to address Perth Amboy’s brownfield properties. The City estimates that there are more than 200 brownfield properties in Perth Amboy. The goals of this project were to: 1) create an accurate digital data file for Perth Amboy and MCIA to use in updating existing Brownfield data sources; 2) identify properties that might be brownfields, but that are not currently listed in the state or federal databases; and 3) create digital maps and map layers for use in local and regional land use planning.

Rutgers University Center for Urban Environmental Sustainability (CUES) completed a field survey that verified the addresses and business names of properties listed in: 1) New Jersey Department of Environmental Protection’s (NJDEP) Known Contaminated Site List (KCSL); 2) NJ Office of Planning Advocacy’s Brownfields SiteMart; and 3) United States Environmental Protection Agency’s (USEPA) Resource Conservation Recovery Act (RCRA) databases. Based on the type of business activities conducted on a site, or observable physical site characteristics, the field survey also identified commercial properties that potentially may be Brownfields, but that are not currently listed in these three databases. Residential parcels were excluded from this analysis, which focused on commercial site uses that might contribute to contamination.

Perth Amboy planning staff divided the city into five priority neighborhoods, covering 1.8 sq. miles (Figure 1). Surveyor teams walked the five neighborhoods over an eight week period during summer, 2016. The CUES team surveyed 25 Site Mart properties, 76 KCSL sites, 178 RCRA sites, and 10,087 individual parcels within the survey area. Properties listed in the three databases were mapped (Figure 2). Residential and non-Residential properties were identified; commercial parcels were visually evaluated to determine the potential for contamination based upon the business type and existing site conditions.

The report includes extensive maps of sites within five priority neighborhoods. The full report is available at: https://cues.rutgers.edu/perth-amboy-brownfield-inventory/pdfs/Perth_Amboy_BF_Inventory.pdf

Resources
Trenton Inventory and Prioritization Spreadsheet:
http://www.sustainablejersey.com/fileadmin/media/Actions_and_Certification/Actions/Brownfields/4_-_Sample_Trenton_BF_Inventory_Prioritization.xlsx

EPA Office of Brownfields:
https://www.epa.gov/brownfields

NJ DEP Site Remediation Program:
http://www.nj.gov/dep/srp/brownfields/

NJ DEP Dataminer:
https://www13.state.nj.us/DataMiner/Search/SearchByCategory?isExternal=y&getCategory=y&catName=Site+Remediation

NJ Office for Planning Advocacy SiteMart:
http://www.njbrownfieldsproperties.com/default.aspx

Mapping Resources:
With the State of New Jersey Site Evaluator it is possible to produce a map that includes Planning, Environmental, Transportation, Economic Development, WorkForce/Demographic and Housing information.

The DEP web site also has a mapping tool, GeoWeb, which can provide useful information on selected sites. Go to the GeoWeb page at http://www.state.nj.us/dep/gis/geowebsplash.htm