

Introduction

The State of North Carolina Brownfields Program's (N.C. Brownfields Program) stakeholder partnering approach has yielded significant benefits to North Carolina residents, brownfields developers and local communities. A commitment to partnering and a risk-based brownfields redevelopment approach has resulted in more than 530 brownfields agreements and an investment of more than \$17 billion in North Carolina's communities (Figure 1). Both urban and rural communities from across the state have benefited from a revitalization of underused and vacant properties impaired by environmental contamination.

North Carolina's Brownfields Program was designed to promote a collaborative environment fostered through the legal structure afforded by the North Carolina Brownfields Act in North Carolina statutes. The partnering approach used by the Program is inclusive of state and local government, brownfields developers, and local communities. The Act promotes a statute-driven program that provides the partners with the tools necessary to develop the highest and safest reuse of properties which are contaminated or perceived by the community to be contaminated using risk-based measures.

Elements of the partnering process include a dynamic brownfields agreement process, brownfields redevelopment incentives, and a riskbased approach for safe redevelopment.



Elements of the Partnering Process

A critical element of a successful partnering process is ensuring that the partners can have confidence in understanding the requirements, resources needed and estimated time commitment to execute a brownfields agreement

The N.C. Brownfields Program developed a dynamic brownfields agreement workflow process underlain by a solid legal framework affording the N.C. Brownfields Program, developers and community participants confidence in the process (Figure 2).



Among the required submittals with a brownfields application, the developer provides documentation of the public benefit and community support for the project, proof of financial viability to complete the brownfields process, and a signed affidavit as a noncausative party. After the developer submits the application to the N.C. Brownfields Program and the property is deemed eligible, a process is initiated where the developer and N.C. Brownfields Program staff work to identify environmental data gaps at the property where additional environmental assessment/remediation may be required. Once the environmental assessment is completed, a risk screening analysis is conducted to evaluate if the brownfields property can be used safely for its proposed use or if potential measures will be required to mitigate the environmental risks.

As part of the brownfields application process, the developer also submits community letters of support for the project and identifies the benefits to the local community. Prior to completing the brownfields agreement, a public comment period is held to allow community input to address questions or concerns. (Figure 3)



North Carolina's Partnership with Developers: William Schmithorst **North Carolina's Team Approach Yields Many Successess** North Carolina Department of Envionmental Quality Division of Waste Management, Brownfields Program

Incentives for Partnering

The N.C. Brownfields Program is designed to provide incentives to the various partners and stakeholders involved in the brownfields redevelopment process. Incentives for the State of North Carolina and local communities include:

- Revitalized neighborhoods;
- Increase in local jobs;
- Reduction of greenspace development pressure;
- Increased local tax base; and
- Protecting future brownfields users through land-use restrictions.

Benefits and incentives for the prospective developer include:

- North Carolina covenant not to sue for non-causative parties;
- Defined environmental liability;
- Property tax incentives (Figure 4);
- Liability assurances needed for financing;
- Brownfields Agreement defined completion schedule;
- Increase of property values; and
- Business opportunities.

Partnering to Assess Risk

The N.C. Brownfields Program's focus on risk management has been instrumental in the successful implementation of brownfields agreements across the state. The N.C. Brownfields Program's risk-based cleanup approach allows for "safe reuse" of a brownfields property.

The N.C. Brownfields Program works with prospective developers to efficiently assess potential environmental risks from brownfields sites through assessment and risk analysis, rather than being solely constrained by inflexible environmental standards. The risk management part of the partnering process includes identifying areas where additional environmental assessment and data are needed, and then confirming that the proposed use of the brownfields property is acceptable based on the known environmental risks. The risk management process incudes comparing environmental laboratory data to applicable screening standards and using the North Carolina toxicological risk screening tool further refine the analysis of risks posed by the contaminants at the site. Based on the risks identified, additional assessment, remediation or vapor mitigation measures may be required to safely meet the proposed use for the property. The risk-based process results in a greater likelihood of successfully redeveloping a brownfields property while supporting a safe, marketdriven use for the property.

Example of Flexible Risk Management

The partnering benefits realized from the flexibility of the N.C. Brownfields Program is demonstrated through management of risks from vapor intrusion. In North Carolina, potential vapor intrusion from volatile chemical compounds (VOC) often pose the most significant risks to future users of brownfields properties. The N.C. Brownfields Program encourages prospective developers to proactively manage vapor through effective monitoring and mitigation.

A challenge with brownfields redevelopment is estimating the change in VOC concentrations in subsurface vapor after significant changes are made to the permeability of the surface cover due to construction (Figure 5). There is the risk that VOC soil vapor concentrations could potentially increase to unacceptable levels due to surface permeability changes after redevelopment. To address these potential unknowns, the N.C. Brownfields Program often encourages prospective developers to install the basic components of a vapor mitigation system, such as a vapor barrier and below-grade vapor mitigation system (piping), that can be upfitted to an active system post-construction, if VOC soil vapor concentrations were to be detected above acceptable levels post-construction. The benefits realized through this type of contingency planning allows development and occupancy to proceed on schedule, while providing a means to continue to safely use a building into the future. (Image: Vapor Mitigation)





Commercial/Residential Brownfields Project Covering Several Parcels - Raleigh, NC

Measuring and Sharing Partnering Success

Successful partnerships benefit both the local economy and development community. To assist with assessing the financial benefits to local communities, the N.C. Brownfields Program has evaluated brownfields development impacts on local property values to measure success. Results from the property value evaluation have shown a significant, positive impact to property values at brownfields sites across the state.

In addition, the N.C. Brownfields Program surveys developers who have participated in the Program for feedback regarding their experiences. Information from the survey assists with improving the partnering process. A snapshot of survey results:

- Tax Incentive.
- entering into a Brownfields Agreement.
- \$7.7 million.

The N.C. Brownfields Program also regularly uses social media to share brownfields success stories with the public. See our success stories on Facebook at: https://www.facebook.com/ncdeq/ or follow@NCDEQ on Twitter.

The Partnership Continues...

The N.C. Brownfields Program is working to stay ahead of the challenges faced by a maturing brownfields program. Over time, there is the possibility that knowledge of and compliance with site specific brownfields land-use restrictions (LURs) associated with a specific brownfields property may decrease, especially with changes in ownership.

To proactively manage these challenges, the N.C. Brownfields Program established the Property Management Unit to assist brownfields property owners with brownfields LUR compliance. The staff also will be able to take effective actions in situations where non-compliance with a LUR is not remedied. The N.C. Brownfields Property Management Unit annually verifies that LURs are maintained and continue to provide a safe environment for users of brownfields properties as originally intended. The Property Management Unit will continue to provide further benefits to the local real estate market by providing documentation that brownfields LURs are in compliance and mitigation measures are maintained.

And North Carolina Benefits from the Success!

While many examples can be showcased, a highlight of the Program's success can be viewed along Charlotte's Blue Line light rail. The Brownfields Program has facilitated the explosion of development along the line, revitalizing a large area of the city, and helping to provide the momentum for further redevelopment. (Figure 6)



Minor League Baseball Stadium (Under Construction) - Kannapolis, NC



• 57% of respondents would not have undertaken redevelopment without the Brownfields

• 88% of respondents indicated that the liability incentive was the primary reason for

• Average actual brownfields property capital investment reported by respondents was

• Respondents reported average property values increased by more than 1,000 per cent!



Aixed-Use Brownfields Development Adjacent t the Carolina Panthers Stadium - Charlotte, NC

Charlotte Brownfields - Lynx Blue Line 2019

Rocky Mount Community Center Brownfields Project - Rocky Mount, NC



SOFT PLAY AREA • VIDEO ARCADI

CONCESSION AREAS

• 4 LOCKER ROOMS