



Using the DWSRF to Support Brownfield Redevelopment

Introduction

The *Small Business Liability Relief and Brownfields Revitalization Act* defines brownfields as “property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.” The Government Accountability Office estimates that there are more than 500,000 brownfields in the United States. These sites do not include land listed on the National Priorities List (also known as Superfund or CERCLA sites) or facilities subject to the Solid Waste Disposal Act. States, Tribes, communities, and coalitions may designate a site as a brownfield if it satisfies the definition. Brownfields are found throughout the country; most are abandoned or idle industrial sites in urban and suburban areas. Examples of brownfield sites range from closed gas stations to moth-balled manufacturing plants.



Why Revitalize Brownfields?

By redeveloping brownfields, communities can stimulate economic development by increasing the local tax base, facilitating job growth, and raising property values for nearby owners.

Revitalizing brownfields also supports “smart growth” principles. By using existing infrastructure and previously-developed space, brownfield revitalization projects decrease the community’s impact on the environment by slowing sprawl and by recycling expensive resources such as land and infrastructure. In addition, brownfield redevelopment can reduce the pressure to develop the remaining urban green spaces in a community.

Brownfields often contain unknown contaminants, such as solvents, fuels, and volatile organic compounds, in unknown quantities. This pollution may contaminate ground water and surface water or pose a direct threat to public health by seeping into pipes that deliver finished drinking water. As brownfields are stabilized and rehabilitated, the threat of pollution is eliminated or contained, thus protecting both the human health and the environmental health of the community.

**Lafayette Village
Residential Development:
Brownfield Revitalization in
Jersey City, NJ**

Before



After



EPA and other federal agencies have joined forces with states and cities to revitalize brownfields. In addition to removing potentially dangerous contaminants from communities, these redevelopment projects lead to the creation of jobs, commercial centers, and homes.

What is the Drinking Water State Revolving Fund?

The Drinking Water State Revolving Fund (DWSRF) was established by the 1996 Safe Drinking Water Act (SDWA) Amendments to provide loans to publicly and privately owned public water systems. The loans can be used for infrastructure improvements needed to protect public health and ensure compliance with the SDWA. The DWSRF is a state-run program that works like a bank, providing low- or no-interest loans to communities, public utilities, and private companies for drinking water projects that meet

“There are more than 500,000 brownfields in the United States.”

Source: GAO

the program’s criteria. Federal and state contributions capitalize the programs, which exist in all 50 states and Puerto Rico.

In addition to providing loans, states may set aside up to 31 percent of their DWSRF grants to finance a variety of activities, such as encouraging improved water system management and performance and helping systems prevent contamination through source water protection measures.

Annually, DWSRF programs provide nearly \$2 billion in assistance to drinking water projects. Using the loan fund and set-asides, state DWSRF programs can provide financial assistance in a variety of ways to support the rehabilitation of brownfield sites across the country.



A redeveloped brownfield in Dallas, Texas, built on the site of former gas stations and an automotive and tire center, that is now an environmentally-friendly police headquarters.

Are Brownfield Revitalization Projects Eligible for DWSRF Loans?

In response to a public health risk, state DWSRFs are able to loan money to water systems for the infrastructure costs needed to provide a brownfield site with safe drinking water, if certain conditions are met. The flowchart on pages 4-5 illustrates the criteria that states should consider (in order of progression) when determining whether a brownfield-related drinking water project is eligible for a DWSRF loan. Since exact project eligibility and available funding vary by state, water systems should contact their state DWSRF representative for more information. Contact information can be found on EPA’s DWSRF Web site at <http://www.epa.gov/safewater/dwsrf.html>.

How Can the DWSRF Help Communities Revitalize Brownfields?

There are a number of ways DWSRF programs can assist local communities and states in redeveloping brownfields. Exhibit 1 shows specific brownfield activities and whether they can be funded by DWSRF loans, DWSRF set-asides, or other EPA sources. Since the DWSRF program is managed by states, set-aside funding decisions are made at the state level. Given that each state administers its program differently, the first step in seeking assistance is to contact the state DWSRF representative. Contact information can be found on EPA’s DWSRF Web site at <http://www.epa.gov/safewater/dwsrf.html>.

Exhibit 1: Eligibility of Brownfield Activities for DWSRF Assistance

Type of Project/Activity	Eligible Under DWSRF Infrastructure Fund	Eligible Under DWSRF Set-Asides	Eligible Under Other EPA Programs
Planning Activities			
Assessment of drinking water infrastructure	✓*	✓*	
Legal costs	✓*	✓*	✓
Design/engineering plans for drinking water infrastructure	✓*	✓*	
Drinking Water Infrastructure Projects			
Main replacement or rehabilitation	✓		
Installation of temporary line to maintain service (if pipe has live service connections)	✓		
Installation of other distribution system components (e.g., valves, backflow prevention devices, meters, service boxes, flushing hydrants, booster pumps)	✓		
Reconfiguration and/or replacement of service line	✓		
Looping to eliminate dead ends and improve pressure	✓		
Expand other system components (e.g., storage and treatment)	✓		
Other Brownfields Rehabilitation Projects			
Phase I, II, and III site assessments			✓
Design/engineering plans for entire site			✓
Excavation and disposal of underground storage tanks			✓
Excavation, removal, and disposal of contaminated soil or sediments			✓
Capping of wells or soil			✓
Remediation of stormwater runoff			✓
Monitoring of ground water or surface water for brownfield contaminants			✓

* Certain activities are eligible for loans while others are potentially eligible for set-asides.

Question 1

Does the project include expansion of the system?

- Assume the project is otherwise eligible for DWSRF funding.
- An increase in the service population, amount of water produced, or amount of water delivered is not considered expansion; only an increase in the capacity of the assets is considered expansion.
- If assets are replaced with those of equal size, the project should be considered eligible for DWSRF funding.
- If new infrastructure is added or assets are replaced with components of higher capacity, consideration of project eligibility continues under Question 2.

Question 2

Is the proposed expansion meant to address future population growth?

- If the expansion is to meet the needs of the current population, the project is eligible for DWSRF assistance.
- If the expansion is solely attributable to a single commercial or industrial operation, the project is not eligible for funding.
- If the project includes some capacity for future population growth, consideration of project eligibility continues under Question 3.

Community A proposes replacing 1 mile of deteriorated 8-inch main that runs under a brownfield site with 1 mile of new, reconfigured, 8-inch main to serve the planned residential redevelopment.

Community B proposes replacing 1 mile of deteriorated 8-inch main that runs under a former brownfield site with 1.3 miles of 12-inch main to serve the planned residential redevelopment.

Community K proposes replacing 6-inch mains with 8-inch mains to provide water for future residents at its affordable housing units being built on a brownfield site. Total cost increase of expansion is 7% of overall project costs.

Community J proposes replacing 6-inch mains with 12-inch mains. Additional costs from this expansion are substantial (approximately 50% of overall project costs).

Community I is proposing a new water system that will include a brownfield redevelopment for housing. The costs of this expansion are significant.

Not Expansion

Not Substantial

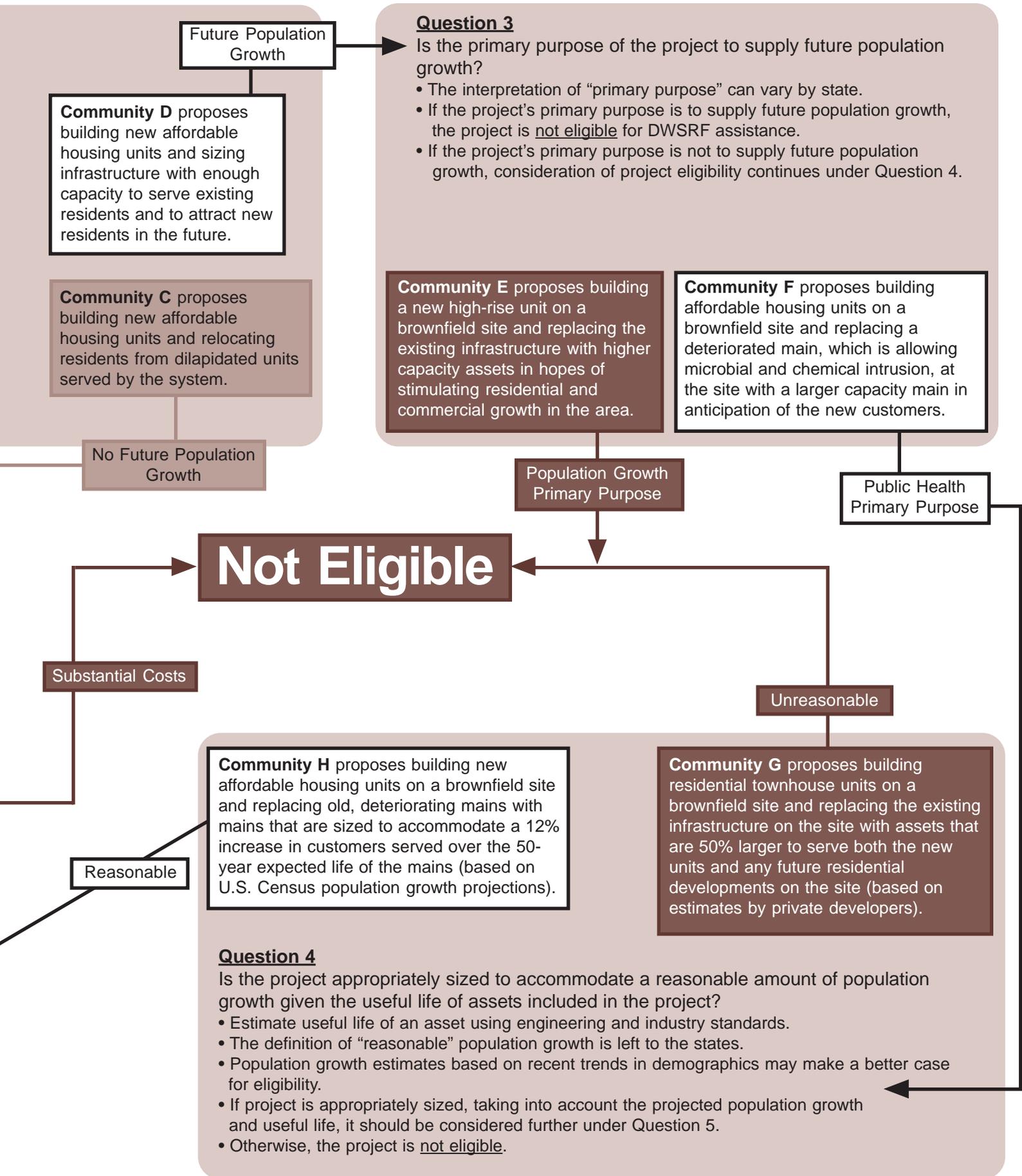
Substantial Costs
(placed lower on priority list)

Eligible

Question 5

Is growth a substantial portion of the project?

- If growth is NOT a substantial portion of a project, the project is eligible for funding.
- If growth is a substantial portion of a project for a NEW water system, the project is not eligible for DWSRF assistance.
- If growth is a substantial part of an EXISTING system's project, the project is eligible for assistance but will be moved lower on the state's funding priority list.



Case Studies of Possible DWSRF-supported Brownfield Redevelopment

The project proposals summarized on this page illustrate how two New Jersey water systems hope to use DWSRF loans to finance drinking water infrastructure improvements as part of

brownfield redevelopment efforts. Neither New Jersey nor EPA have determined whether these proposed project are eligible for DWSRF loans.

Milltown, NJ: Residential Units, Retail Space, and Offices

(Proposed February 2004)

Along the banks of Mill Pond and located just outside of downtown Milltown, NJ, is a 22-acre tract of abandoned industrial land (including the remains of a Michelin Tire Factory) and partially used office space. Developers in Milltown are working on a project to reuse this brownfield by creating over 300 new residential units and over 80,000 square feet of retail and commercial office space on the property. The developers plan to relocate existing offices to new buildings, renovate at least one of the industrial buildings on the property in its entirety, build a parking garage to accommodate the new uses, and keep at least 30 percent of the property as green space.

This project will strengthen downtown Milltown by reusing waterfront property, increasing investments, and bringing new companies and residences back to the center of town. The redevelopment will be designed to blend with the surrounding existing residential and commercial structures.

Milltown is applying for a DWSRF loan to fund the installation of new water connections for the residential development planned on the brownfield. Over 400 new units will need connections to the existing water system, which currently serves a population of 70,000. The cost of the needed drinking water infrastructure improvements is estimated to be \$2 million.

New Jersey City University: Performing Arts Center, Housing, Retail Space, and More

(Proposed September 2004)

New Jersey City University (NJCU) has applied to the New Jersey Water Supply Administration for a DWSRF loan to help finance a planned brownfield redevelopment. The site of the proposed project is approximately 3 square blocks on the western side of NJCU's campus. Soil at the site is contaminated, and groundwater has tested positive for pollution at concentrations above the New Jersey Department of Environmental Protection's (NJDEP's) Groundwater Quality Criteria.

The master plan for the site includes building retail space, housing, a performing arts center, a professional building, parking, and new academic space for the university.

NJCU's DWSRF application requests funds to cover the costs of the following necessary infrastructure improvements:

- Replacing distribution pipes (\$49,368)
- Excavating old distribution infrastructure (\$5,736)
- Installing water meters (\$110,000)
- Designing and planning the system (\$24,766)

The total DWSRF pricetag is \$189,870. NJCU envisions a well-planned, well-managed smart growth development that adds new housing and new jobs while preserving open space, farmland, and environmental resources.



What Other Resources Are Available to Redevelop Brownfields?

In addition to the DWSRF program, there are a number of other programs that provide tools and financial assistance for brownfield redevelopment. This support comes from other federal agencies (including other EPA programs), state and local governments, non-governmental agencies, and private sources.

In 1995, EPA joined with multiple federal agencies to promote and fund brownfield revitalization more widely. In 2002, the partnership of over 20 agencies (see Exhibit 2) reiterated its support for brownfield revitalization in its Federal Partnership Action Agenda.

Some of the largest federal brownfield programs are sponsored by EPA and the Department of Housing and Urban Development. These programs have already dispensed over \$236 million in grants and loans for brownfield projects. A few of the largest programs are listed in Exhibit 3.

Exhibit 2: Other Federal Sources



U.S. Department of Labor	National Institute of Environmental Health Sciences	U.S. Department of Transportation
U.S. Small Business Administration	National Oceanic and Atmospheric Administration	Federal Housing Finance Board
U.S. Department of Agriculture	U.S. Department of the Interior, Office of Surface Mining	U.S. Geological Survey
U.S. Department of Energy	Agency for Toxic Substances and Disease Registry	Appalachian Regional Commission
U.S. Department of Defense	U.S. Economic Development Administration	U.S. Department of Justice
Bureau of Land Management	Federal Deposit Insurance Corporation	U.S. General Services Administration
U.S. Army Corps of Engineers	National Park Service	

Exhibit 3: Other Major Federal Programs

Federal Agency	Name of Program	Description of Program	Total Funds Awarded (2004)
U.S. Environmental Protection Agency	Clean Water State Revolving Fund	Low-interest loans repayable over 20 years to communities, municipalities, individuals, businesses, and citizen groups to finance brownfield projects that address water quality problems	Over \$136 million distributed
	Assessment Grants	Up to \$200,000 to assess, plan, and conduct public outreach in preparing for revitalization of brownfield sites (\$350,000 with waiver)	
	Brownfields Cleanup Revolving Loan Fund	Loans up to \$1,000,000 repayable over five years to carry out cleanup and redevelopment activities at one site	
	Brownfields Job Training Grants	Up to \$200,000 over two years to support environmental job training in brownfield communities	
	Cleanup Grants	Up to \$200,000 per site plus a twenty percent cost share to fund cleanup activities	
U.S. Department of Housing and Urban Development	Brownfields Economic Development Initiative	May be used to pay project costs, or as a loan loss/debt reserve, in conjunction with Section 108 loans	\$25 million appropriated
	Community Development Block Grant Program	Provides annual grants to "entitlement communities" whose projects aim to benefit low income people, prevent or eliminate slums, and/or meet community development needs	\$4.4 billion appropriated

Federal agencies are not the only groups that provide funding and support for brownfield projects. State and local governments, private investors, and non-profit groups also support the revitalization of brownfields.

State and Local Governments

State and local governments often provide funds to match or augment the grants and loans from federal sources. Some of these funds are provided through public works or transportation departments. Other funds are generated by the sale of bonds. In addition, communities across the country are investing their staff, equipment, and materials into addressing their brownfields.

Private Investors

Federal funds may be used to begin brownfield assessments. However, depending on the findings of the site assessment, communities may be able to find developers who are willing to buy the land and redevelop it. These investors might pay for some or all of the site cleanup and necessary infrastructure improvements.



Affordable senior housing in Port Jervis, NY, built after the remediation of a former chemical manufacturing site.

Other Sources

Numerous non-profit organizations work in conjunction with EPA and federal programs to identify and revitalize brownfields throughout the country. These organizations include Groundwork USA, Habitat for Humanity International, and the Brownfields Non-Profits Network. There are also many organizations that work closely with EPA to conduct research on brownfield-related topics, provide training, and give technical assistance to EPA, other federal agencies, and state and local governments. These organizations include the Northeast Midwest Institute, Purdue University, the U.S. Green Building Council, and the Environmental Law Institute.

For More Information

For additional information the Drinking Water State Revolving Fund Program and how it may be used to fund brownfields revitalization projects in your state, visit these Web sites:

DWSRF: <http://www.epa.gov/safewater/dwsrf.html>

EPA Brownfield Web Site: <http://www.epa.gov/swerosps/bf/index.html>

EPA Office of Ground Water and Drinking Water: <http://www.epa.gov/safewater>

CWSRF: <http://www.epa.gov/owm/cwfinance/cwsrf/index.htm>