

CLEAN WATER ACT SECTION 319(H) URBAN GUIDANCE FOR INDIANA



INTRODUCTION

1. OVERVIEW

The Federal Clean Water Act Section 319(h) provides funding to the Indiana Department of Environmental Management (IDEM) to support the Indiana Nonpoint Source Management Program. Using this funding, IDEM provides grants through the Program for projects that work to reduce nonpoint source (NPS) water pollution. Those projects that implement best management practices (BMPs) are required by Indiana's Nonpoint Source Management Program to develop a cost-share program. Details of the cost-share program must be submitted to the IDEM Project Manager prior to implementing the program, including information requested in the [Section 319 Cost-Share Program Development Guidelines](#). The approved cost-share program allows Section 319 funds to be used to support the implementation of BMPs that reduce sediment, nutrients and other pollutants from nonpoint sources in the watershed. Before watershed groups commit funds to a specific project, they must work with their IDEM Project Manager to obtain approval of the proposed BMP (see [Considerations When Choosing a BMP](#)).

This guidance document provides general program information, priorities, funding restrictions, definitions of basic terminology, and frequently asked questions related to the distribution of Section 319 funds on [urban land](#): defined as forests, wetlands, mining areas, and land that is currently not cropland, pastureland, rangeland, native pastureland, other land used to support livestock production, or tree farms. The policies and guidance within this document primarily apply to urban projects. If you have any questions about circumstances under which this document applies, contact an [IDEM Section 319 Project Manager](#). This is a living document, and as such, the policies and guidance within are subject to change. Please ensure that this is the most current version of the document.

2. PROGRAM INFORMATION AND REQUIREMENTS

Section 319 funds may be used to develop a watershed management plan (WMP) and install projects for the purpose of implementing a WMP that meets IDEM's [Watershed Management Plan Checklist](#). BMPs should be selected based on the goals of the watershed management plan, and must be implemented in critical areas as described in the WMP.

Section 319 cost-share funds may be used to pay a maximum of 75% of the total BMP cost. At least 25% of the cost must be provided by the landowner/organization or other non-federal source as match. Design costs may be included in the total cost of the BMP, and will be reimbursed after the BMP is implemented. All cost-share work must be documented by bills with costs which are reasonable and customary for the work being done. Eligible costs include: cost of materials, labor charges (including landowner labor), contractor, consultant, or third party charges, cost to modify existing equipment for a different use, lab fees, and equipment rental fees. Under certain circumstances, BMPs may be used as “Demonstration Projects” (see [Educational Projects](#)), and in these cases Section 319 can pay up to 100% of the total cost with prior approval of IDEM. BMPs must comply with standards and specifications developed by: IDEM: *Indiana Storm Water Quality Manual*, Natural Resources Conservation Service (NRCS): *NRCS Field Office Technical Guide (FOTG)*; and, other acceptable standards and specifications (see [BMP Design Standards and Specifications](#)).

In situations where a BMP is installed to avoid maintenance or replacement costs of the existing infrastructure, the portion of the project that would be Section 319 eligible is the difference between the cost for repair/replacement and the cost of totally retrofitting that infrastructure with the BMP.

For example:

- If a building owner who needed to replace the roof were persuaded to install a green roof instead, the difference in cost between replacing the roof and installing a green roof would be eligible for Section 319 funds. However, if a roof not in need of repair or replacement was converted to a green roof, then the total cost of the project would be eligible for Section 319 funds.
- A city needing to replace the pipe holding a buried stream is interested in using Section 319 funds to instead [daylight](#) the stream. The difference in cost between replacing the pipe and daylighting the stream would be eligible for Section 319 funds. However, if the pipe was not in need of replacement, and the city agreed to daylight the stream, the total cost of the project would be eligible for Section 319 funds.

In situations where serviceable infrastructure is demolished and/or removed, Section 319 will pay for those activities if they are needed to properly install a BMP. However, such demolition and/or removal can add a significant cost to projects and must be justified by the positive impact the project will have on water quality. Before approving a project where serviceable infrastructure is demolished and/or removed, Project Managers may apply the criteria discussed below in [Considerations When Choosing a BMP](#).

Examples of serviceable infrastructure being demolished and/or removed as part of a BMP's installation include:

- Removing concrete in an alley and installing a vegetative swale;
- Removing concrete around parking lot storm drains and installing pervious pavement;
- Removing parts of a roof and installing a green roof; and,
- Removing a storm water pond's riser and installing a riser that releases less water.

All cost-share projects installed with grant or match funds must be maintained as follows: [Land Management Practices](#), [Vegetative Practices](#), and [Structural Practices](#) on [residential land](#)—5 years, [Structural Practices](#) on non-residential land—10 years. [Low Impact Development](#) site designs do not require maintenance.

When cost-share or demonstration projects are implemented, watershed groups must estimate pollutant load reductions using an approved method (see [Calculating Load Reductions](#)). In some cases, calculating pollutant load reductions will not be possible; please consult with your IDEM Project Manager when these circumstances arise.

In order to receive reimbursement for BMPs that have been implemented, an invoice for payment must be submitted to IDEM by the watershed group along with the completed [319-U Form](#) and the following documents:

1. Plan Map, showing location of all practices in relation to adjacent roads;
2. Copies of bills or receipts for each practice showing the total cost;
3. Copies of the pollutant load reductions estimated for the practices installed, when applicable;
4. IDEM Itemization Form;
5. IDEM Match Form; and,
6. All required receipts.

3. APPLICABILITY WITH STATE AND FEDERAL RULES

Section 319 funds may not be used to implement projects for the purpose of meeting any State Rule or National Pollutant Discharge Elimination System (NPDES) Storm Water Program requirements. Within an urban setting, these requirements most often apply to [Rule 5](#) and Rule 13, which is also known as the [Municipal Separate Storm Sewer System](#) (MS4) rule.

Rule 5 and the MS4 rule are very similar in that they both require developers of one acre or more to implement a plan to reduce construction and post-construction erosion. One of the most important differences between the two rules is that the MS4 rule applies to urban areas, while Rule 5 covers all parts of the state that have not been defined as urbanized. It is the responsibility of the watershed group to know if Rule 5 or the MS4 rule applies to a proposed project site.

The easiest way to ensure Section 319 funds are not improperly spent is to avoid working on new construction or redevelopment sites, since those sites fall under the applicability of either Rule 5 or the MS4 rule. Those groups wanting to work on such sites can do so if the proposed project goes above and beyond the requirements of the applicable rule. Your Section 319 Project Manager can help determine if a scenario meets above and beyond. More specific information about above and beyond and the overlap of Section 319, Rule 5, and the MS4 rule can be found in IDEM's [MS4 Guidance](#).

URBAN BMPS AND EDUCATION PROJECTS

1. CONSIDERATIONS WHEN CHOOSING A BMP

When implementing a BMP, watershed groups must get approval from their Project Manager before committing funds to a specific project. In deciding if projects should be approved, Project Managers will ensure that the project is in a [critical area](#) as defined by an approved WMP, addresses a water quality problem outlined in the WMP, and follows the project's approved cost-share program. These three conditions ultimately determine if a project is approved. However, there are other related criteria that a watershed group should consider when implementing a BMP and that Project Managers may need to explore if aspects of the three conditions above cannot clearly be decided:

A. Context of the BMP Site

319 groups should consult long-term planning documents or Planning Department staff prior to selecting locations to ensure that the BMP fits in with the long term planning and zoning characteristics of the site. Watershed groups wouldn't want to invest in filter strips across an area that is being rezoned or work on a street retrofit if local ordinances restrict such projects. The BMP should have the support of local partners to ensure there is a commitment to maintenance and the pursuit of complementary projects whenever possible. IDEM encourages urban watershed groups to take advantage of the many stakeholders in their area and encourage those partners to bring ideas forward and see where their priorities overlap with the goals and opportunities identified in the WMP.

B. BMP Appropriateness

The BMP should address the goal(s) of the WMP and be appropriate for the NPS pollution in the critical area where the project site lies. For example, even within a critical area, it would not be wise to place a BMP where runoff already infiltrates and has little chance of reaching a [Water of the State](#). Further, IDEM will not fund BMPs that are "bandages", or spot fixes of much larger issues.

For example, stabilizing streambanks without first addressing the source of the extra flow and sediment causing the bank instability is not a high value project or a funding priority. Remember that all BMPs, including streambank stabilizations, must be approved by your IDEM Project Manager before Section 319 funds are committed to your partners (see [FAQ #22](#)).

C. Pollutant Load/Runoff Reductions

Because storm water runoff delivers additional pollutants to urban streams and contributes to bank destabilization, stopping runoff from reaching streams is important in an urban setting. This does not mean that Section 319 funds can address flooding concerns or remove flow from a stream channel. Rather, a project decreasing polluted runoff before it reaches a Water of the State or an MS4 conveyance may be considered eligible. Examples would include:

- Installing rain barrels or rain gardens in neighborhoods adjacent to streams;
- Modifying a storm water pond to allow more water to infiltrate into the ground;
- Installing pervious pavement around parking lot storm drains and areas where snow is piled; and,
- Installing a green roof.

IDEM expects watershed groups to consider the ratio of BMP cost to pollutant load/runoff reduction and to make judicious use of their limited grant funding. IDEM's first priority is to improve water quality through the reduction of pollutant loads and/or runoff. Project Managers may ask for a project's estimated load and/or runoff reduction before approving the use of Section 319 funds. Projects that can't demonstrate a load and/or runoff reduction will not be funded (exceptions will be made if a method for estimating a project's reductions do not exist). Information on estimating load reductions may be found at [Calculating Load Reductions](#). Estimates of a BMP's ability to infiltrate, store, or otherwise keep runoff from reaching a Water of the State or an MS4 conveyance can often be supplied by the manufacturer or installer.

2. SECTION 319'S PREFERRED URBAN BMP PROJECTS

IDEM encourages watershed groups to work closely with the NPS/TMDL Section to answer questions about the three factors listed above before committing Section 319 funds. Because urban environments across Indiana are so varied—both from the perspectives of local MS4 rule requirements and watershed goals—a list of pre-approved urban BMPs is not possible. If possible, consider using a [system of BMPs](#) to maximize pollutant load reductions. IDEM recommends that watershed groups in urban areas focus on the following two types of potential urban BMP cost-share projects—Low Impact Development and Retrofits.

A. Low Impact Development

[Low Impact Development](#) (LID) is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible. LID employs site design principles such as preserving and recreating natural landscape features and minimizing imperviousness to create functional and appealing site drainage that treats storm water as a resource rather than a waste product. Because LID site plans demand a background in project design, hydrology, soils, and other disciplines, watershed groups interested in funding this must use a qualified professional engineer to develop these plans. LID site design plans are not reimbursable at the same rate as other BMPs; see [FAQ #7](#) for more information. Load reduction calculations do not have to be made for LID site design plans.

Often LID designs will recommend specific BMPs which complement the design by infiltrating runoff. Common examples of urban infiltration BMPs include green roofs, rain gardens and barrels, porous pavement, and bio-swales. LID designs can also include the non-traditional use of traditional agricultural BMPs within an urban setting. An example would be using NRCS's *Tree/Shrub Establishment* BMP instead of traditional rip rap to stabilize an eroding hill side. Although traditional agricultural BMPs can sometimes be used in an urban environment, there are several urban BMPs (see [Table 1](#)) that are not commonly implemented in an agricultural environment, and as such may be unfamiliar to many Indiana watershed groups who traditionally have focused on agricultural watersheds.

If stakeholders are unfamiliar with LID and urban BMPs they may hesitate to utilize them, which gives Indiana watershed groups an opportunity to start educating stakeholders on these new practices. The Center for Neighborhood Technology has an educational tool called a "[Green Calculator](#)" that can be used to demonstrate the economic benefits of LID designs to stakeholders. The Southeast Michigan Council of Governments has developed a [Low Impact Development Manual for Michigan](#). This manual has chapters designed to educate elected officials, planners, consultants, businesses, and citizens about LID and how it can be incorporated into local planning documents and ordinances. The manual also provides in-depth standards and specifications for several urban BMPs as well as information on maintenance, calculating infiltration and runoff rates, and native plant lists.

Below are additional links that explore a wide variety of urban BMPs. Although IDEM strongly encourages watershed groups to explore these websites, please be aware that not everything mentioned within the sites is Section 319 eligible.

- U.S. EPA, [National Menu of Storm Water BMPs](#), click on Post Construction
- U.S. EPA, [Low Impact Development Page](#)
- Low Impact Development Center, [Urban Design Tools](#)
- Ohio Department of Natural Resources, [A Brief Overview of Typical Two-Stage Ditch Characteristics](#)
- Minnesota Pollution Control Agency, [Protecting Water Quality in Urban Areas-A Manual](#)
- Rocky Mountain Institute, [Daylighting: New Life for Buried Streams](#)

B. Retrofits

[Retrofits](#) provide an opportunity to add a water quality benefit to an existing site, structure, or BMP, often by adding some of the BMPs discussed above. Within the urban environment, meeting water quality goals without retrofitting will be difficult. More and more urban communities are compiling lists of retrofit opportunities and prioritizing them for implementation. The use of Section 319 funds during a planning or implementation project to assist local communities in creating a [retrofit strategy](#) is appropriate.

Within urban MS4 areas, Section 319 eligible retrofit opportunities may be limited. However, given the right circumstances and partners, retrofitting opportunities can be located. The Center for Watershed Protection has published a manual titled “[Urban Storm Water Retrofit Practices](#)”, which provides relevant details about a number of potentially eligible individual practices, many of which are discussed in the links listed above. The manual also provides input on finding water quality retrofits on the following landscapes:

- **Existing Ponds**—Storm water ponds can be retrofitted to include wetland features or have their riser modified to improve water quality.
- **Parking lots**—Both large and small parking lots can provide opportunities to add curb cuts, vegetated beds designed for storm water infiltration, porous pavement, and sand filters adjacent to the lot where runoff flows.
- **NPS Hotspots**—Hotspots are areas with greater than normal concentrations of nonpoint source pollution. Hotspots are usually industrial and often make good sites for sand filters.
- **Transport Rights-of-Way**—Large areas along highways and small areas like street medians may support infiltration practices or wetland features.
- **Individual Streets**—Streets may be retrofitted to include porous pavement, infiltration practices, and improvements to drainage swales.

- **Individual Roofs**—Some existing roofs can be retrofitted to support a green roof.
- **Hardscape Landscapes**—Tree boxes, tree lawns, porous pavement, and bioretention can provide infiltration opportunities in traditionally impervious areas.

3. PREFERRED URBAN EDUCATIONAL PROJECTS

Educational projects should be an important part of any urban Section 319 Project. Considering the small pool of funds available for BMPs, education can be a means to extend a project's reach to a larger segment of a watershed's community and encourage people to take action or change their behavior. Educational projects must address a problem or goal outlined in the WMP. Educational projects are not funded through cost-share and can take many forms including demonstration projects, educational events, training, and local environmental policy education. Educational events, training, and local environmental policy education do not have to be held within a critical area but must focus on an issue pertinent to a critical area. Watershed groups are encouraged to review U.S. EPA's [Getting in Step](#) manual, which focuses on conducting watershed educational campaigns.

A. Demonstration Projects

[Demonstration projects](#) are BMPs that introduce new NPS reduction/removal techniques in the watershed and encourage buy-in from landowners. Section 319 will fund up to 100% of the projects with the following stipulations:

- The practice must not have already been cost-shared on in the watershed with Section 319 funds.
- They must be located in a critical area identified in the WMP.
- They must be located on public land or any area where the public can access on a regular basis. Examples of locations suitable for demonstrations include parks, shopping plazas, and common areas in subdivisions. Locations must be approved by IDEM prior to the submittal of any invoices.
- They must be used/showcased as part of an education and outreach event.
- They must be installed and maintained according to the instructions on the 319-A or 319-U form.
- The implementation of demonstration practices must be authorized in the project's Grant Agreement.

Please note. Projects are welcome to hold demonstrations of BMPs that were cost-shared on. In such a case, only numbers 2 and 5 above are applicable.

B. Educational Events

Major changes in behavior require that people shift their mindsets, which takes education. Education gives an individual the needed knowledge regarding an issue to make sound decisions that will ultimately benefit the environment. Education also helps identify the specific skills that an individual needs to implement or act on the subject, but does not develop those skills. Some examples of [educational events](#) are public meetings, displays at county fairs, [field days](#), and [workshops](#) on nonpoint source pollution and water quality. To be considered an “educational event” an event must meet all of the following conditions:

- Conveys general information about watersheds, improving water quality, nonpoint source pollution, or BMPs, etc.
- The desired outcome is a change in participant’s behavior.
- Behavior change does not reflect the gaining of any particular skills on the part of the participants. Examples include:
 - Ceasing to pour motor oil down stormdrains;
 - Following manufacturer’s directions when applying fertilizers and chemicals at home;
 - Switching to a more environmentally friendly product;
 - Properly using, operating, and maintaining something such as a septic system or chemical applicator; and,
 - Learning about BMPs but not specific information about how to install them.

If a person is performing work required by the educational event (i.e., laborer, classroom aide, presenter, etc.), services CAN be counted as match (or reimbursed with Section 319 funds). If the person’s involvement is solely in a learning capacity, they are not providing a service, but are a beneficiary of the project and time or other expenses can NOT be counted as match or reimbursed with Section 319 funds.

C. Training

[Training](#) is an activity that imparts knowledge to a participant and allows them to develop the skills necessary to complete or oversee work that is reasonably expected to be carried out during watershed planning or implementation (as documented in either the grant agreement or watershed management plan). Training includes activities where participants can earn [Continuing Education Units](#) (CEUs) or learn to install BMPs in the watershed.

To be considered training, the event must meet one of the following criteria:

Allow the participant to meet continuing education/development credits from an approved certification program. U.S. EPA Region 5 encourages sponsors of training events/activities to work with as many certification programs as suitable for the subject matter.

The [North American Lake Management Society's](#) Lake Management and Lake Professional Certifications and the Certified Professional in Erosion and Sediment Control, [Certified Professional in Storm Water Quality](#), and Certified Erosion, Sediment and Storm Inspector are two examples of certification programs. Work with your IDEM Project Manager if you think your training event can count towards CEUs.

If the event is not applicable for continuing education/development credits, it must meet all of the following conditions:

- Be led by a professional discussing their field of expertise.
- Be structured such that participants receive needed skills and knowledge that are detailed and specific enough to work on an objective required of the watershed planning process or from the draft or approved WMP. Examples include:
 - A rain garden training where participants learn how to build a rain garden by actually constructing one;
 - A water quality sampling training where participants learn how to sample by physically taking and reading or analyzing samples;
 - A training on low impact land-use planning where participants learn how to incorporate new planning tools that promote sustainability and other low impact concepts; and,
 - A training on [hydromodification](#) where participants learn the consequences of channelization, drainage, impervious surface, etc. and how to incorporate new techniques that decrease long term maintenance costs and benefit water quality and stream health.
- The participants must be in a position to use the received skills and knowledge in the project area. Examples include:
 - Homeowners learning how to install a specific BMP on their property; and,
 - Land-use planners and other relevant officials learning how to incorporate LID within their jurisdiction.
- Be pre-approved by IDEM in order to be documented as training.

If approved, expenses related to the training may be counted as match for participants who are watershed stakeholders. However, stakeholders' expenses to attend the training are not Section 319 eligible. Expenses related to presenters at training activities may be reimbursed with grant funds.

D. Local Environmental Policy Education

Watershed groups are encouraged to create working relationships with local officials and to educate those officials about new ideas and concepts that reduce nonpoint source pollution as long as those actions help achieve a goal in the WMP. Examples of this strategy include:

- Porter County’s Unified Development Ordinance, which, among other things, categorized local waterways according to needed levels of protection. The local watershed group helped identify waterways and their needed level of protection based in part on the priorities in their WMP.
- Educating local officials and planning departments on incentives they can give to developers to promote ‘green’ development. A good example is the City of Chicago’s expedited permitting process for green development.
- Educating landowners and drainage board members about the consequences of hydromodification and benefits of Two-Stage Ditches and other alternative maintenance techniques for legal drains.

In addition to these examples, watershed groups can work with local officials on ordinances as long as 319 funds are not spent on [ordinance development or revision](#). Ordinances are an especially important tool in urban watersheds because each year new development often exceeds conservation efforts. Section 319 funds can be spent on:

- Education events and training to inform the public’s local officials about needed ordinances or ordinance changes.
- Researching ordinance topics and creating ordinance recommendations as long as the delivered product of the watershed group’s work is not ordinance language.
- Education events and training to inform the public and local officials on research and recommendations done on behalf of a local entity.

For a brief introduction to ordinances and example ordinances, see Minnesota’s Pollution Control Agency [Introduction to LID Ordinances](#).

BMP DESIGN STANDARDS AND SPECIFICATIONS

BMPs funded with Section 319 funds must be constructed in accordance with standards and specifications and the source of those standards and specifications must be listed on the 319-U form. Since urban BMPs have been a fairly recent priority, a formalized list of standards and specifications does not exist. The following list provides approved standards and specifications for “traditional” BMPs—i.e. BMPs such as filter strips, swales, and wetlands that usually have been implemented on agricultural land, but may also be appropriate for urban areas.

- Natural Resources Conservation Service, [Field Office Technical Guide](#).
- The Indiana Department of Natural Resources, Division of Forestry, [Indiana's Forestry Best Management Practices](#).
- The Indiana Department of Environmental Management, Office of Water Quality, [Indiana Storm Water Quality Manual](#).
- Indiana Department of Natural Resources, [The Indiana Drainage Handbook](#).
- Illinois Natural Resources Conservation Service, [Illinois Urban Manual](#).

Widespread acceptance of urban BMP standards and specifications does not exist at this time. IDEM will consider standards and specifications from non-traditional sources such as non-governmental websites, other state government websites, and BMP contractors/manufacturers if the source of the standards and specifications is properly documented on the 319-U form. IDEM reserves the right to reject proposed standards and specifications. This would most commonly occur if IDEM believes a proposed BMP's standard and specification is inconsistent with other standards and specifications for the identical BMP or if the standard and specification is applied in a manner inconsistent with Section 319 policy. If you have any questions about the appropriateness of standards or specifications, please contact your IDEM Project Manager.

Standards and specifications for certain urban BMPs are listed in the table below, but these are only recommendations; other standards and specifications can be used. The chart also provides information on how to calculate load reductions for each BMP. More information about pollutant load calculating requirements is in the following section ([Calculating Load Reductions](#)).

TABLE 1

BEST MANAGEMENT PRACTICE	STANDARD/SPECIFICATIONS *Not every BMP in the referenced BMP Manuals is Section 319 eligible.	POLLUTANT LOAD REDUCTION INFORMATION
2-Stage Ditch	NRCS' Stream Restoration Design Manual , Chapter 10 & G. E. Powell, et. al. "Two stage channel systems: Part 1, a practical approach to sizing agricultural ditches" Journal of Soil and Water Conservation, Volume 62, Number 4 , pgs. 277-296.	Load reductions not required
Berm	LID Manual for Michigan (Chapter 7: Infiltration Practices) & City of Philadelphia, Storm Water Manual (Chapter 7.7)	Use STEPL (choose Diversion BMP)
Bioretention (includes rain gardens)	LID Manual for Michigan (Chapter 7: Bioretention), City of Philadelphia, Storm Water Manual (Chapter 7.5), & Wisconsin Department of Natural Resources, Rain Garden Websites	Use STEPL Or Use Region 5 Model (choose Wetland Detention)
Curb Openings/Curbless Design	City of Philadelphia, Storm Water Manual (Chapter 7.15)	Load reductions are dependant on the BMP paired with the curb design
Stream Restoration (daylighting)	Consult an engineer on design needs	Chesapeake Bay Program
Drivable Grass	Plantable Concrete Systems	Use Region 5 Model
Flow Splitter	City of Philadelphia, Storm Water Manual (Chapter 7.15) & Stormwater Management Manual for Western Washington, Volume V (Chapter 4.5)	Load reductions are dependant on the BMP being paired with the flow splitter
Green Roof	LID Manual for Michigan (Chapter 7: Vegetated Roof) & City of Philadelphia, Storm Water Manual (Chapter 7.1),	Find removal efficiency from the Pennsylvania Storm Water BMP Manual and use the Simple Method (see below) to calculate load reductions

Level Spreader	LID Manual for Michigan (Chapter 7: Level Spreaders), Designing Level Spreaders to Treat Storm Water Runoff , & City of Philadelphia, Storm Water Manual (Chapter 7.15)	Find removal efficiency from the Pennsylvania Storm Water BMP Manual and use the Simple Method to calculate load reductions
Low Impact Development	Section 319 will not fund LID designs unless a Professional Engineer creates the design and signs the 319-U form. For information on LID, see LID Manual for Michigan (Chapters 4 & 5)	Load reductions not required
Porous Pavement	LID Manual for Michigan (Chapter 7: Pervious Pavement with Infiltration) IDEM Storm Water Quality Manual & City of Philadelphia, Storm Water Manual (Chapter 7.13) Visit the National Ready Mixed Concrete Association for a list of companies approved to install pervious concrete	Use Region 5 Model
Rain Barrel	City of Philadelphia, Storm Water Manual (Chapter 7.2)	Load reductions not required unless 250 or more are installed. Projects installing over 250 use STEPL
Sand Filter	LID Manual for Michigan (Chapter 7: Constructed Filter), City of Philadelphia, Storm Water Manual (Chapter 7.4) & Stormwater Management Manual for Western Washington, Volume V (Chapter 8)	Use Region 5 Model
Storm water pond riser/orifice modification	City of Philadelphia, Storm Water Manual (Chapter 7.15)	Load reductions not required
Subsurface Infiltration	LID Manual for Michigan (Chapter 7: Infiltration Practices) & City of Philadelphia, Storm Water Manual (Chapter 7.12)	Use STEPL

Swale	City of Philadelphia, Storm Water Manual (Chapter 7.8)	Use Region 5 Model
Tree Box Filters	VA Demonstration Project & LID Manual for Michigan (Chapter 7: Planter Boxes)	Find removal efficiency from the VA Demonstration Project and use the Simple Method to calculate load reductions
Vegetated Streambank Stabilization (Bioengineering)	Indiana NRCS FOTG	Use Region 5 Model
Vegetated Swale	LID Manual for Michigan (Chapter 7: Vegetated Swale) & City of Philadelphia, Storm Water Manual (Chapter 7.8)	Use STEPL
Wetland	Indiana NRCS FOTG , LID Manual for Michigan (Chapter 7: Detention Basins), State of Pennsylvania Storm water BMP Manual , & Storm water Management Manual for Western Washington, Volume V (Chapter 10)	Use Region 5 Model

CALCULATING LOAD REDUCTIONS

Pollutant load reductions must be calculated and reported to IDEM for most BMPs installed with cost-share or demonstration funds. Many BMP load reductions can be calculated with the [Region 5 Model](#) or the [Spreadsheet Tool for Estimating Pollutant Load \(STEPL\)](#). These models will generate load reductions in a format that can easily be reported to IDEM.

Unfortunately, the Region 5 and STEPL Models cannot estimate load reductions for some urban BMPs. In these instances you will have to calculate pollutant load reductions using another method. One such method is to calculate the current load using the Simple Method (Schueler, 1987) and determine load reductions based on the BMP's stated pollutant removal efficiency. BMP efficiency can often be found on websites (see [BMP Design Standards and Specifications](#)) or through the BMP's manufacturer.

The Simple Method is an equation that calculates a pollutant load coming off a site:

$$L = (P*0.9) * [(Rv*I) / 12] * (C) * (A) * (2.72)$$

Where *L* = pounds of pollutant/period of time (years will be used)
P = rainfall depth (inches) over the desired time interval (use years)
0.9 = factor that corrects *P* for storms that produce no runoff--always use
Rv = 0.050, which is a mean runoff coefficient
I = the percent of site imperviousness
C = flow weighted mean concentration of the pollutant in urban runoff (mg/L)
A = area of the development site (acres)
2.72 = a conversion factor
 * = multiply
 / = divide

The following values are suggested to be used for 'C' when using the Simple Method:

Pollutant	Urban Areas 5 years old or less	Urban Areas over 5 years old	Central Business District
Total Phosphorus	0.26 mg/L	1.08 mg/L	-
Total Nitrogen	2.0 mg/L	13.6 mg/L	2.17 mg/L
Total Suspended Solids	25 mg/L	20 mg/L	15 mg/L

Example: You want to calculate the yearly load for sediment coming off a 0.20 acre parking lot located downtown. Annual rainfall is 30 inches. The runoff is flowing into a series of rain gardens with a sediment removal efficiency of 75%. 100 percent of the area is impervious, so "100" should represent "I".

$$\text{Annual sediment load} = (30 \text{ inches/yr} * 0.9) [(0.050 * 100) / 12] * (15 \text{ mg/L}) * (0.20 \text{ acres}) * (2.72)$$

The result—108lbs of sediment/year come off the parking lot. If the rain gardens decrease that amount by their stated efficiency of 75%, the load reduction is 81 lbs of sediment/year.

*** If your BMP is not part of STEPL or the Region 5 Model, and you can't find a removal efficiency, please contact your IDEM Project Manager. Calculating load reductions for every BMP may not be possible. In these situations, IDEM will work with U.S. EPA to establish acceptable site specific efficiency.

ADDITIONAL FUNDING FOR URBAN PROJECTS

Section 319 is not the only funding source for urban groups to consider. In addition to local grants and foundations available from neighboring businesses, communities, or organizations, there are other state and regional funding opportunities. IDEM also has a [funding matrix](#) on its website.

BROWNFIELD ECONOMIC DEVELOPMENT INITIATIVE (BEDI)

[BEDI](#) is designed to help local governments redevelop brownfields, defined as abandoned, idled, or underutilized real property, including industrial and commercial facilities, where expansion or redevelopment is complicated by the presence or potential presence of environmental contamination.

GREAT LAKES NATIONAL PROGRAM OFFICE

U.S. EPA's [Great Lakes National Program Office](#) provides funding pursuant to "(i) §104 of the Clean Water Act and (ii) §118 of the Clean Water Act calling for the achievement of the goals in the Great Lakes Water Quality Agreement, the principal goal of that Agreement being the restoration and maintenance of the chemical, physical, and biological integrity of the Great Lakes basin."

INDIANA BROWNFIELDS PROGRAM

The [Indiana Brownfields Program](#) offers financial assistance to qualifying political subdivisions (as defined by Indiana Code 13-11-2-164(c)) in Indiana to acquire, assess, demolish and remediate brownfield sites. The Program also matches grants for recipients of financial assistance from the U.S. EPA.

INDIANA LAKE MICHIGAN COASTAL PROGRAM

The [Indiana Lake Michigan Coastal Program](#) (LMCP) is administered by the DNR Division of Nature Preserves. The program's purpose is to enhance the State's role in planning for and managing natural and cultural resources in the coastal region and to support partnerships between federal, state and local agencies and organizations. The LMCP provides technical and financial assistance through its grants program and coastal nonpoint program.

LAKE AND RIVER ENHANCEMENT (LARE)

The [LARE Program](#) is administered by the DNR Division of Fish and Wildlife. Its purpose is to ensure the continued viability of Indiana's publicly accessible lakes, streams,

and reservoirs. “Program goals include (a) controlling inflows of eroded soil and associated nutrients to lakes, streams, and reservoirs and (b) where appropriate, forestalling or reversing degradation from these inflows through remedial actions. To accomplish these goals, the LARE program provides technical and financial assistance to qualified projects. These include: (a) studies, management plans, sediment removal and design and construction activities involving specific lakes or streams; (b) land treatment practices or management plans for designated watersheds and (c) management plans; and control of exotic plants and animals in targeted lakes.”

STATE REVOLVING FUND LOAN PROGRAM (SRF)

The [SRF Program](#) provides low-interest loans to Indiana communities for projects that improve wastewater and drinking water infrastructure. The Program's mission is to “provide eligible entities with the lowest interest rates possible on the financing of such projects while protecting public health and the environment”. The SRF also provides loans for NPS projects that are tied to a wastewater loan.

RESTRICTIONS

Section 319 grant funds may not be used for the items listed below, nor may they be counted as match for the project:

- Purchase of large agricultural equipment or other large pieces of equipment - (equipment modifications and leasing are allowable)
- Purchase of land or land easements (see [FAQ #9](#)) for more information)
- Dredging
- Any practices, equipment, or supplies used to fulfill the requirements of a Federal permit, such as an MS4 or other NPDES permit, or to comply with a State rule or permit, such as [IDEM's Confined Feeding Operation Rule](#) (327 IAC 16), or to meet enforcement requirements
- Practices at a Concentrated Animal Feeding Operation (CAFO)
- Wetland mitigation sites
- Incentive payments of any kind
- Yield losses
- Any project which is directed at water *quantity* rather than water *quality*, such as drainage/flood control or channelization
- Practices not sanctioned by IDEM or a partner agency of IDEM
- Practices not installed in accordance with standards and specifications developed by IDEM, NRCS, IDNR or other acceptable standards
- Sales tax
- Log jam removal
- Low flow plumbing
- Invasive species removal (unless removal is needed to implement a BMP)
- Sediment traps, basins, or ponds within a Water of the State
- Construction of dry detention ponds (adding infiltration capacity to an existing dry pond is acceptable)
- Permeable weirs
- [Regional water quality features](#)
- Ordinance revision or development
- Well capping (oil/gas and water)
- Installation, maintenance, or repair of septic systems, including demonstration septic systems
- Food/beverages/entertainment for events
- Office furniture
- Permit fees

DEFINITIONS

Best Management Practice (BMP) – A structural or management practice that is used to reduce the quantity of pollutants generated and/or delivered from a source to a receiving water body. A structural BMP is something that is built or involves changes in landforms or equipment. A managerial BMP involves a specific way of using or handling infrastructure or resources. Management practices control the delivery of NPS pollutants to receiving water resources by 1. minimizing pollutants available (source reduction) or 2. retarding the transport and/or delivery of pollutants, either by reducing water transported and thus the amount of the pollutant transported, or through deposition of the pollutant. To be considered a best management practice, a practice must have been selected through a planning process designed to inventory resources and needs, determine available alternatives, and weigh the alternative's benefits against the practice's. All BMPs except Low Impact Development and Conservation Easements require regular inspection and maintenance as part of the IDEM cost-share or demonstration project agreement.

Bioengineering – A method of construction combining live plants with dead plants or inorganic materials, to produce living, functioning systems to prevent erosion, control sediment and other pollutants, and provide habitat. Bioengineering techniques can often be successful for erosion control and bank stabilization, and even water treatment. It is commonly used to restore vegetation on river banks to enhance natural decontamination of runoff before it enters a stream. Bioengineering is Section 319's preferred method of stabilizing streambanks.

Conservation Easement – A legal agreement between a landowner and a land trust that places specific land-use restrictions on a property according to the landowner's express wishes. The easement stays with the title to the property, allowing the property to remain in private ownership and to be used for purposes consistent with the conservation values of the property. The terms of the easement remain intact if the property is sold or bequeathed, thus requiring all future owners to abide by the terms of the agreement. The land trust's responsibility is to monitor and ensure that the terms of the agreement are observed. Land Trusts cannot put conservation easements on land they own.

Continuing Education Units – Recognized units earned for participation in qualified continuing education programs that may be used for professional advancement or as evidence of increased abilities, not for college credit.

Critical Area – According to the 2009 IDEM WMP Checklist, Critical Areas are defined areas where WMP implementation can remediate NPS sources in order to improve water quality and/or can mitigate the impact of future sources in order to protect water quality. Guidance on selecting Critical Areas is located in the 2009 IDEM WMP Checklist.

Daylighting – The process of deliberately liberating some or all of a waterbody after it has been confined to a culvert or pipe. The goal of these projects is to allow streams to return to a more natural state so they can filter pollutants, slow floodwaters, and provide habitat for fish and wildlife.

Demonstration Project –BMPs used to introduce new techniques in the watershed and to encourage landowners to install the practice. The BMP must: 1. be located on public land or any area where the public has access on a regular basis. Examples of locations suitable for demonstrations include parks, shopping plazas, and common areas in subdivisions. Locations must be approved by IDEM before grant funds are allocated to the BMP project. 2. be located in a critical area as defined in the WMP, 3. not have been cost-shared on before in the watershed with Section 319 funds, and 4. be used/showcased as part of an education and outreach event. Demonstration projects must be authorized in the project's Grant Agreement, and implemented and maintained according to the instructions on the 319-A or 319-U form.

Educational Event – An event that conveys general information about watersheds, improving water quality, nonpoint source pollution, or BMPs, etc. The desired effect of an education event is a change in the participant's behavior. Behavior change does not reflect the gaining of any particular skills on the part of the participants.

Field Day – An educational event that provides on-site information about a BMP or practice.

Hydromodification – Engineered changes to a stream, usually through channelization, constrictions, or damming, which change a waterbody's physical structure as well as its natural function. These changes can cause problems such as changes in flow, increased sedimentation, higher water temperature, lower dissolved oxygen, degradation of aquatic habitat structure, loss of fish and other aquatic populations, and decreased water quality.

Land Management Practices – Practices that are implemented through management techniques and methods such as low impact development and conservation easements.

Low Impact Development (LID) - An innovative storm water management approach with a basic principle that is modeled after nature: manage rainfall where it falls using uniformly distributed decentralized micro-scale controls. The goal of LID is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source.

Municipal Separate Storm Sewer System (MS4) - A municipal separate storm sewer system (MS4) is a conveyance or system of conveyances (sewers, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, storm drains) that is:

- Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage districts, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges to waters of the United States;
- Designed or used for collecting or conveying storm water;
- Which is not a combined sewer; and,
- Which is not part of a publicly owned treatment works.

For more information on the relationship between Section 319 and MS4s, please see IDEM's [MS4 Guidance](#).

Nonpoint Source Water Pollution (NPS) – Nonpoint source water pollution is so named because the pollutants do not originate at single point sources, such as industrial or municipal waste discharge pipes. Instead, NPS pollutants such as fertilizer, road salt, sediment, pesticides, nutrients and bacteria are carried over fields, lawns, and streets by rainwater or snowmelt. These pollutants then enter lakes, wetlands, and streams or seep into groundwater. While some NPS pollution is naturally occurring, much of it is a result of human activities.

Ordinance development and/or revision – Using accumulated research and recommendations to draft new ordinance language. Whether done by a watershed group, a stakeholder, or a subcontractor, ordinance development and/or revision is not 319 eligible.

Regional Water Quality Feature – A BMP that is constructed and operated to treat a problem or address an issue from a surrounding area. It is typically designed to remove water from a stream, treat it, and then return it to the stream. Section 319 funds must be focused on keeping pollutants from reaching a stream, not removing those pollutants once they have entered the stream. Regional water quality features are not Section 319 eligible.

Residential Land – Any piece of residential property with one unit of housing. For the purposes of Section 319 funding, apartment complexes and common spaces within housing developments are not considered residential. Individual houses which are leased as apartments are considered residential.

Retrofit – Opportunities to add a water quality benefit to an existing site, structure, or BMP. Examples of retrofits include adding a rain garden to a property, installing rain barrels at a house, or retrofitting a dry pond with wetland features.

Retrofit Strategy – A community’s defined plan for how retrofit opportunities will be prioritized and funded. Often the retrofit strategy includes a map of logical sites for retrofits—parks, schools, other public land, and private land belonging to partners—and recommendations for ensuring that the proposed projects don’t conflict with zoning and other planning tools.

Rule 5 – A performance-based regulation designed to reduce pollutants that are associated with construction and/or land disturbing activities that disturb one acre or more. It overlaps with the MS4 rule in that, the MS4 rule requires MS4 entities to develop ordinances for the Construction and Post-Construction MCMs, and those ordinances must meet the minimum requirements of 327 IAC 15-5 (Rule 5). Rule 5 applies statewide, but the ordinances developed by the MS4s are specific to each MS4 jurisdictional area. Section 319 funds cannot be spent on Rule 5 requirements unless the proposed project is above and beyond the rule’s requirements. The codified version of Rule 5 may be found in the [Indiana Administrative Code](#).

Stakeholder – A person (or group) who is responsible for making or implementing a management recommendation, who will be affected by the recommendation, or who can aid or prevent its implementation.

Storm Water Quality Management Plan – A SWQMP is a comprehensive written document that addresses storm water run-off quality within an MS4 area. The SWQMP is divided into three (3) different submittal parts as follows:

- Part A-Initial Application.
- Part B-Baseline Characterization and Report.
- Part C-Program Implementation.

Structural Practices – Practices that involve constructing designed (engineered) features using machinery. Examples of urban structural practices include 2-stage ditches, streambank stabilization, porous pavement, rain barrels, wetlands, and green roofs.

System of BMPs – A system of BMPs, also known as a treatment train, is any combination of BMPs that are used together to comprehensively control a pollutant from the same source.

Training – An activity that imparts knowledge to a participant and allows him/her to develop the skills necessary to complete or oversee work that is reasonably expected to be carried out during watershed planning or implementation.

Urban Land – Forest, wetlands, mining areas, and land that is currently not cropland, pastureland, rangeland, native pastureland, other land used to support livestock production, and tree farms.

Vegetative Practices - Practices that only involve seeding or planting to establish or re-establish plant cover (such as filter strips, tree plantings, and other simple plantings).

Waters of the State – Waters of the State are accumulations of water, surface and underground, natural and artificial, public and private; or a part of the accumulations of water; that are wholly or partially within, flow through, or border upon Indiana. The term does not include:

- an exempt isolated wetland;
- a private pond; or,
- an off-stream pond, reservoir, wetland, or other facility built for reduction or control of pollution or cooling of water before discharge.

The term includes all waters of the United States, as defined in Section 502(7) of the federal Clean Water Act (33 U.S.C. 1362(7)), that are located in Indiana.

Watershed Management Plan (WMP) – A strategy and implementation plan for achieving water resource goals which provide assessment and management information for a geographically defined watershed. It includes the analyses, actions, participant input, and resources related to development and implementation of the plan.

Workshop – An education event that involves a seminar, lecture, or group discussion.

FREQUENTLY ASKED QUESTIONS

This section attempts to address frequently asked questions regarding urban projects and eligibility. If additional information or clarification is needed, please contact an [IDEM Section 319 Project Manager](#).

1. What is eligible for Section 319 funding at a site where Rule 5 or the MS4 rule apply?

Only BMPs that go above and beyond the requirements of those rules are eligible. Depending on the type of BMP being proposed and its location, additional work may also be eligible. See IDEM's MS4 Guidance for more information.

2. With respect to Section 319 eligibility, what are the differences between retrofits, redevelopment, and new development?

Retrofits are opportunities to add a water quality benefit to an existing site, structure, or BMP. Redevelopments are alterations of a property that change a site or building in such a way that there is disturbance resulting in one (1) acre or more of bare land. New developments are similar to redevelopment except that the property lacks any buildings or infrastructure when the alteration begins. Redevelopments and new developments are subject to either Rule 5 or the MS4 rule and are only Section 319 eligible if the proposed BMP goes above and beyond the applicable rule. Retrofits are exempt from those rules—as long as one acre or more is not disturbed—and are potentially Section 319 eligible.

3. What exactly makes up the MS4 conveyance system and what parts of that system are 319 eligible?

See the definition of an [MS4](#). For the purpose of 319 policy, U.S. EPA and IDEM have defined “conveyance” as a constructed pipe, ditch, pond, or similar structure that was never a Water of the State and was designed and built to move storm water (or wastewater) between two points. Under no circumstance can 319 pay for a BMP to be placed directly at the end of a conveyance system, as this would constitute a “point source control”. However, 319 funds can be spent on the conveyance system if the project will improve water quality; but only the part of the project that improves water quality is eligible. 319 funds can also be spent on improving storm water quality before it reaches the conveyance system and in some circumstances after it has left the system. See IDEM's [MS4 Guidance](#) for more information. Below are some common examples of potentially eligible 319 projects within a conveyance system:

- *Retrofitting a storm water pond into a wetland. All storm water ponds are part of the conveyance system.*
- *Reengineering a ditch into a 2-stage ditch. Drainage ditches are part of the conveyance system if they were never a water of the state and were designed and built to move storm water.*
- *Adding infiltration capacity to a swale. Swales are part of the conveyance system if they were never a water of the state and were designed and built to move storm water.*

- *Improving the water quality of flow that has left the conveyance system and is collecting or causing additional pollutants (as it erodes a slope for example) separate from what it carried while inside the MS4 system.*

4. Can match be counted for work done independently of the Section 319 funded organization?

Match can also be counted for projects done within the watershed but independent of the Section 319 funded organization. For example, if the watershed group learns that a neighborhood association is installing BMPs, the time, energy, and cost associated with that project is match eligible as long as the BMP addresses the goals of the WMP, does not fulfill a permit or rule requirement, will improve water quality and reduce sedimentation or nutrient, pesticide or pathogen loads to receiving waters, and the following information is submitted to IDEM:

- *Pollutant load reductions associated with the BMP.*
- *A 319 In-kind/cash match form showing the total cost of the BMP, amount claimed as match, and receipts or other documentation equaling that total amount.*
- *Written documentation of what standards and specifications were used to install the BMP (actual standards and specifications do not need to be turned in).*
- *The location of the BMP.*

5. Can participants' time at educational events be counted as match?

No. However, if the participant is a watershed stakeholder and is attending a training event that person's time and travel is match eligible. See [IDEM's Preferred Urban Educational Projects](#) for more information.

6. When should the Section 319-U form be used?

When requesting reimbursement for eligible BMPs funded through cost-share or demonstration funds and installed on urban land. When an eligible BMP is installed on agricultural land—but that land ceases to be used for agricultural purposes immediately after installation—the Section 319-U form should be used. In addition to the required invoice paperwork, the following must be submitted with the 319-U form: a plan map showing the location of all practices, copies of bills or receipts showing the total cost, and pollutant load reduction estimations for each applicable BMP (see [Program Requirements](#)). If the project was a demonstration, documentation of an education/outreach event must also be submitted.

7. Is a LID site design plan Section 319 eligible?

Yes, but not at the same level as other BMPs. U.S. EPA mandates that when a project utilizes an LID site design plan, only a percentage of the total design costs be Section 319 eligible. IDEM has set this percentage at 75%. For example, if the total cost of designing a new housing development (using LID) was \$15,000, only \$11,250 (or 75% of \$15k) would be Section 319 eligible. If the development project was a Section 319 demonstration, then 100% of the eligible project cost (\$11,250) would be reimbursable.

If the project was a Section 319 cost-share project, no more than 75% of the eligible project cost would be reimbursable. In this example, cost-share would reimburse for \$8,437.50 of the original total project cost of \$15,000.

8. Can I get reimbursed for a LID design before the design is implemented?

Yes. A Low Impact Development site design does not protect water quality unless it is actually implemented. Section 319 realizes that watershed groups cannot force partners to implement the recommendations resulting from an LID design. However, it is expected that developers willing to go through the LID process are likely to act on its recommendations. For this reason, Section 319 will reimburse for a LID design after it is completed by a professional engineer and before the design is implemented.

9. Can I use Section 319 money on conservation easements?

Placing a conservation easement on land reduces the economic value of that land, and the dollar amount of that reduction cannot be reimbursed to the owner through Section 319. However, the administrative costs associated with the conservation easement (surveys, contract drafting, negotiating right of ways, mortgage subordination, appraisals, title work, wetland delineation, etc.) are Section 319 eligible if and where the purpose of the easement is to restore or protect vegetation, hydrologic function, or some other characteristic which will have a positive effect on water quality within a critical area. Section 319 funds will not be reimbursed until a lawyer signs Section B of the 319A/U form to certify the easement has been established.

10. Can I use Section 319 money to purchase land for the purpose of permanently protecting it after the purchase?

No, however, the administrative costs associated with appraising and purchasing the land is Section 319 eligible if the purchaser is a land trust or other entity in a position to protect the land permanently and the purchase will enable restoration or protection of vegetation, hydrologic function, or some other characteristic which will have a positive effect on water quality within a critical area. The eligible administrative costs are outlined above in FAQ 9. Section 319 funds will not be reimbursed until the land is purchased and protected. Similarly to conservation easements, a lawyer needs to sign Section B of the 319A/U form to certify sale and protection.

11. What if I'm spending funds on a LID design or a Conservation Easement, what paperwork do I need to turn in?

You have to fill out the 319-U form. In addition to the required invoice paperwork, a plan map showing the location impacted by the project is required, as are copies of bills or receipts showing the total cost of the project. Pollutant load reduction estimates are not required.

12. How do I calculate load reductions from a system of BMPs?

The STEPL Model can calculate load reductions from multiple BMPs. If STEPL does not have information for your BMPs, calculate the load reduction associated with the dominant (the one practice in the system that will have the greatest impact on loading reduction) practice and add 10%.

13. What if I can't find any widely accepted standards and specifications for the BMP I want to install?

The 319-U form requires that BMPs be built to accepted standards and specifications. Certain urban BMPs do not yet have widely accepted standards and specifications. In these instances, the BMP manufacturer or installer's specifications may suffice. Additionally, IDEM may have other sources of specifications that will be helpful. Contact your IDEM Project Manager if you have any questions about the appropriateness of BMP standards and specifications and see the instructions on the [319-U form](#) for more information.

14. When does IDEM require that standards and specifications for BMPs be sent in with the invoice materials?

IDEM does not require that standards and specifications be sent in with invoice material. However, copies of all standards and specifications should be producible in the event that your project is audited or IDEM wishes to verify this criterion.

15. Can I use Section 319 funds to pay for ordinance development?

No. Section 319 will not fund the creation, development, or revision of an ordinance. Section 319 will fund efforts researching ordinances, creating recommendations, and sharing those recommendations with relevant stakeholders if the ordinance would potentially benefit a critical area.

16. If the applicant does not own the land where practices will be installed, is the landowner's signature required on the 319-U form?

Yes, unless the applicant has power of attorney for the landowner.

17. When can Section 319 money be spent on flow splitters?

Flow splitters are devices that divert storm water from its conveyance into a water quality BMP. Flow splitters are eligible if installed outside of an MS4 conveyance system. Because they do not provide a direct water quality improvement, flow splitters are not Section 319 eligible if they are installed within an MS4 conveyance system.

18. Can I use Section 319 money to build wetlands?

In general, if the wetland will be an isolated wetland, Section 319 funds may be used to build it. However, there are several issues beyond the location of the project which must be taken into consideration before the use of Section 319 funds is approved. Contact your IDEM Project Manager for information on all applicable policies.

19. Can I use Section 319 money to divert part of a stream's flow into a BMP?

No. Such a BMP would be classified as a “regional water quality feature” which is an unfundable practice. Section 319 funds must be focused on keeping pollutants from reaching a stream, not removing those pollutants once they have entered the stream.

20. Can I use Section 319 money to address flow coming from a storm water pipe?

It depends on if the pipe is part of the MS4 conveyance system. If the pipe is not part of the conveyance then Section 319 funds can be used without restriction to treat the flow if a water quality problem exists. If the pipe is part of the conveyance the project must address a water quality problem created as the flow moves from the pipe to a receiving water. In other words, the flow must be collecting or causing (as it erodes a streambank for instance) additional pollutants separate from what it carried while inside the conveyance system.

21. Can I use Section 319 money to cost-share on soil testing in an urban setting?

No. Section 319 will only cost-share on soil testing and nutrient management for agricultural lands. You can use Section 319 money to buy soil test kits for an educational event pertaining to nutrient runoff in urban areas.

22. Can I use Section 319 money on low flow plumbing?

No. Although the Section 319 Program recognizes that excess flow can contribute to nonpoint source water quality problems in streams, and although BMPs that limit flow entering nearby streams (rainbarrels, cisterns, permeable pavement, etc.) are fundable, low flow plumbing is not fundable because the water moving through a building's pipes does not carry a non point source pollutant.

23. Can I use Section 319 money on streambank stabilization?

Traditional “hardscape” streambank stabilization will only be funded on rare occasions which are decided by the NPS/TMDL Section Chief on a case-by-case basis. Streambank stabilization using bioengineering can avoid going through the Section Chief if the excess flow causing the instability is being addressed, and the project's schedule is sufficient for all necessary permits to be gathered.

24. Can I use Section 319 money on rain barrels?

Yes. The total cost of rain barrels which have been installed may be cost-shared just like any other BMP. The only caveat is that load reductions do not have to be calculated unless 250 or more are installed. Watershed groups wishing to hold a rain barrel education event may use money from their education and outreach task to buy one (1) rain barrel. Any additional barrels used or distributed at the educational event need to be cost-shared on. The cost-share amount will not be reimbursed until the rain barrels are installed.

25. Can I use Section 319 money on the removal of invasive species?

Yes, in certain circumstances. In brief, this would fall under site preparation, not invasive species removal. If, in the process of preparing a site for BMP installation, invasive plants needed to be

removed, this would be permissible. However, the primary purpose of the BMP cannot be the removal of invasive species, as this is not eligible for funding by Section 319 grants.

26. What costs are included in the “total practice cost”?

The total cost of the BMP includes actual costs associated with design, materials, and labor (excluding tax). If a landowner is contributing labor, it should be calculated based on the reasonable and customary price in that area for the work being done.

27. What do we do if we need to change our cost-share program, once it has been approved?

Submit the revised cost-share program guidelines to the IDEM Project Manager for approval.

REFERENCED WEB LINKS

Indiana Non Point Source Management Program

<http://www.in.gov/idem/nps>

IDEM's Section 319 Website

<http://www.in.gov/idem/nps/2524.htm>

IDEM's Watershed Management Plan Checklist

<http://www.in.gov/idem/nps/3385.htm>

IDEM's MS4 Guidance

<http://www.in.gov/idem/nps/3430.htm>

Green Values' Green Calculator

<http://greenvalues.cnt.org/>

Southeast Michigan Council of Governments' Low Impact Development Manual for Michigan

<http://www.semco.org/LowImpactDevelopment.aspx>

U.S. EPA National Menu of Storm Water BMPs

<http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm>

U.S. EPA Low Impact Development Page

<http://www.epa.gov/owow/nps/lid/>

Urban Design Tools: Low Impact Development

<http://www.lid-stormwater.net/>

Ohio DNR: 2-Stage Ditch Design

http://streams.osu.edu/streams_pdf/2stage_dan.pdf

MPCA: Protecting Water Quality in Urban Streams

<http://www.pca.state.mn.us/water/pubs/sw-bmpmanual.html>

Rocky Mountain Institute: Daylighting, New Life for Buried Streams

http://www.rmi.org/rmi/Library/W00-32_DaylightingNewLifeBuriedStreams

Center for Watershed Protection: Urban Subwatershed Restoration Manual Series

http://www.cwp.org/documents/cat_view/68-urban-subwatershed-restoration-manual-series/89-manual-3-urban-stormwater-retrofit-practices-manual.html

U.S. EPA Getting In Step

<http://www.epa.gov/OWOW/watershed/outreach/documents/>

MPCA: Introduction to LID Ordinances

<http://www.pca.state.mn.us/index.php/download-document.html?gid=7153>

NRCS: Field Office Technical Guide

http://efotg.nrcs.usda.gov/efotg_locator.aspx?map=IN

Indiana DNR's Indiana's Forestry Best Management Practices

<http://www.in.gov/dnr/forestry/files/BMP.pdf>

IDEM's Indiana Storm Water Quality Manual

<http://www.in.gov/idem/4899.htm>

Indiana DNR's The Indiana Drainage Handbook

[DNR: Indiana Drainage Handbook](#)

Illinois NRCS, [Illinois Urban Manual](#)

<http://www.il.nrcs.usda.gov/technical/engineer/urban/>

Journal of Soil and Water Conservation: Archives

http://www.swcs.org/en/journal_of_soil_and_water_conservation/abstracts_and_archives/

City of Philadelphia, Storm Water Manual

<http://www.phillyriverinfo.org/Programs/SubprogramMain.aspx?Id=StormwaterManual>

Stormwater Management Manual for Western Washington, Volume V

<http://www.ecy.wa.gov/biblio/0510033.html>

U.S. EPA's STEPL and Region 5 Models

<http://it.tetrattech-ffx.com/step1/>

Wisconsin DNR's Rain Garden Web Site

<http://dnr.wi.gov/runoff/rg/links.htm>

Chesapeake Bay Program

http://www.chesapeakebay.net/pubs/subcommittee/nsc/uswg/BMP_Pollutant_Removal_Efficiencies.pdf

Soil Retention: Plantable Concrete Systems

<http://www.soilretention.net/plastic-honeycomb-driveway-grass-insert.html>

National Ready Mixed Concrete Association

<http://www.nrmca.org/certifications/pervious/>

Idaho Department of Environmental Quality: Storm Water BMPs

http://www.deq.state.id.us/water/data_reports/storm_water/catalog/sec_4/bmps/6.pdf

North Carolina State University: Designing Level Spreaders to Treat Storm Water Runoff

http://www.bae.ncsu.edu/cont_ed/main/handouts/lsworksheet.pdf

University of Nevada Cooperative Extension: Virginia Street Tree Box Demonstration

<http://www.unce.unr.edu/programs/sites/nemo/files/pdf/TreeBoxes.pdf>

IDEM Watershed Funding Matrix

<http://www.in.gov/idem/nps/2688.htm>

Brownfield Economic Development Initiative

<http://www07.grants.gov/search/search.do?oppId=15566&flag2006=true&mode=VIEW>

Great Lakes National Program Office

<http://www.epa.gov/glnpo/fund/glf.html>

Indiana Brownfields Program

[IFA: Indiana Brownfields](#)

Indiana Lake Michigan Coastal Program

<http://www.in.gov/dnr/lakemich/>

Indiana DNR LARE Program

[DNR: Lake & River Enhancement](#)

Indiana State Revolving Loan Fund Program

<http://www.in.gov/ifa/srf/>

IDEM's Confined Feeding Operation Rule

<http://www.in.gov/legislative/iac/T03270/A00160.PDF>