**TO**: Building Green Cities Advisory Committee

**FROM**: Cascadia Consulting Group

**RE**: LID Incentives in Washington State Survey Results Analysis

**DATE**: May 3, 2019

# **Overview**

The following memo summarizes the results of the “Low Impact Development (LID) Incentives in Washington State” survey which was circulated to public works, community development and planning, and stormwater permit staff throughout Washington State from March 14th-April 5th, 2019.

The survey (presented in full in Appendix A) asked the following questions:

* **General Incentive Information**
	+ What incentives, assistance, or other strategies does your jurisdiction offer to increase use of LID?
	+ What stormwater development incentives, programs, or funding are you aware of in other jurisdictions to increase implementation of LID? Please list the City/County/entity name and provide a short description of the incentive, program, or funding strategy.
	+ Do you have any suggestions for new or novel ways to increase developers' use of LID?
	+ Do you have any other comments or suggestions for increasing developer use of LID?
* **Incentive Details** (for each type of incentive selected above)
	+ Please briefly describe the incentives, including how a project or developer becomes eligible, the process for reviewing and approving the incentive, and what specific benefit they receive from participating. If you have information on your jurisdiction's website, feel free to share the link.
	+ How effective have these incentives been in getting developers to use LID?
	+ What works well about these incentives?
	+ What would you change about these incentives?
	+ Have you received any feedback from developers about the incentives you offer?
	+ For approximately how many projects are incentives used in your jurisdiction?
* **Contact Information**
	+ Please let us know what jurisdiction and department you work for so that we can track the geographical spread of our survey responses.
	+ Please let us know if we may list your jurisdiction in the final report.
	+ If you are willing to be contacted for follow-up information regarding your response, please provide contact information below. We will not publish your contact information.

We received **93 total survey responses across 65 jurisdictions**. Note that the **17 responses received from outside of Washington State** are presented at the end of this memo for further consideration.

**Table 1:** Total survey responses by jurisdiction.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Within WA State** | **Outside of WA State** | **Other** | **Totals** |
| **Number of jurisdictions** | 53 | 12 | N/A | **65** |
| **Number of survey responses** | 76 | 13 | 4 | **93** |

The survey was developed collaboratively by the Washington State Department of Commerce, Puget Sound Regional Council, Cascadia Consulting Group, and Herrera Environmental Consultants with the goal of obtaining information on the **existing incentives that Washington State jurisdictions are using to encourage the use of LID best management practices (BMPs)**. The results of this survey will help inform a guidebook for local governments to motivate developers to go “above and beyond” the National Pollutant Discharge Elimination System (NPDES) municipal stormwater permit requirements for LID in urban centers. Above and beyond in this context refers to any of the following situations:

1. Using LID when a project is otherwise **under the size thresholds**.
2. Exploring options around **BMPs considered to be infeasible**, based on the technical infeasibility criteria included in the [Stormwater Management Manual for Western Washington](https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Stormwater-manuals).
3. Using **optional BMPs** (e.g., vegetated roofs, rainwater harvesting, minimal excavation foundations).
4. Using bioretention or permeable pavement in a drainage basin that is **flow control exempt** (e.g., Puget Sound).[[1]](#footnote-2)

While some survey responses refer to LID techniques that also apply to existing development or retrofits, it should be noted that LID retrofits on existing private development are not subject to NPDES requirements.

# **Survey responses from Washington jurisdictions**

76 respondents completed the survey across the **Washington jurisdictions** listed below. Ten Washington jurisdictions requested to respond to the survey anonymously; as such, their jurisdiction has not been listed by name below, but their responses have been incorporated into this memo.

|  |  |  |  |
| --- | --- | --- | --- |
| * City of Anacortes
* City of Bainbridge Island
* City of Bellevue
* City of Bellingham
* City of Bothell
* City of Burien
* City of Centralia
* City of College Place
* City of Covington
* City of Des Moines
* City of Duvall
 | * City of Edmonds
* City of Everett
* City of Federal Way
* City of Fife
* City of Kennewick
* City of Kirkland
* City of Lacey
* City of Lakewood
* City of Marysville
* City of Mercer Island
* City of Milton
 | * City of Oak Harbor
* City of Olympia
* City of Port Angeles
* City of Port Orchard
* City of Poulsbo
* City of Redmond
* City of Renton
* City of Seattle
* City of Spokane
* City of Tacoma
* City of Tumwater
 | * City of Vancouver
* Clark County
* King County
* Kitsap County
* Pierce County
* Skagit County
* Snohomish County
* Spokane County
* Thurston County
* Whatcom County
 |

When asked what incentives, assistance, or other strategies their jurisdiction offers to increase use of LID, 58 respondents reported the incentives outlined in **Figure 1** (n=58). Note that respondents could select more than one incentive type if applicable. The survey question provided the following incentive types to select from:

* **Financial incentives**, such as reduced permit fees, reduced inspection fees, reduced surface water/stormwater utility rates, grants, or one-time rebates.
* **Procedural incentives**, such as such as zoning or parking code variances or point-based incentives program.
* **Permitting** **incentives**, such as expedited permitting.
* **Recognition** **or award incentives**.
* **Other incentives** (respondents were asked to describe them).
* **None of the above**, or no incentives offered by the jurisdiction.

**Figure 1:** Incentive types within WA jurisdictions (n=58).

## Financial incentives

Among the 20 respondents who reported their jurisdiction offers financial incentives, most described these incentives as “somewhat effective” as shown in **Figure 2** (n=17).

**Figure 2:** Reported effectiveness of financial incentives (n=17).

The descriptions of these financial incentives fall generally within the following categories (n=15):

* Rebates per square foot of roof area or for LID construction materials.
* Reduction of surface water/drainage fees.
* Reduction of stormwater utility fees.
* Pilot funding to install LID facilities.
* Small grants.

The City of Everett is the only jurisdiction that reported an “**extremely effective**” financial incentive program (n=1). They noted that almost all projects (80-100%) in the jurisdiction take advantage of this incentive. The respondent did not provide a description of the incentive program; however, they noted that the program is well-liked by developers and attributed its success to putting “dollars in homeowners’ pockets.” The only thing this respondent would change to the incentive program is increasing its budget.

Among respondents who reported that their incentive program is “**somewhat effective**” (n=7), the City of Fife had the highest approximate usage rate (between 60-80% of projects). As outlined in Fife Municipal Code [13.18.080.C.1.e](https://www.codepublishing.com/WA/Fife/?Fife13/Fife1318.html#13.18.080), the City offers a 40% discount on stormwater utility fees for using LID on properties served by privately owned and maintained stormwater management systems. To qualify for this discount, the owner must provide a certified statement verifying that maintenance has been performed in accordance with the facility’s operation and maintenance manual. The City is then permitted to inspect the drainage facility and verify all information submitted by the owner. The respondent attributed this program’s effectiveness to the incentive offsetting the annual cost of maintenance. They also noted that developers appreciate the ability to reduce stormwater utility fees by maintaining their stormwater infrastructure.

Other financial incentive programs described as “**somewhat effective**” are summarized in **Table 2** below:

**Table 2:** Summary of "somewhat effective" financial incentive programs.

| **Usage rate** | **Description** | **What works well?** | **What would respondent change?** |
| --- | --- | --- | --- |
| **Kitsap County** |
| 1-20% of projects | **50% fee reduction to property owners who fully disperse or infiltrate stormwater in their site** (as long as it was not required at the time of development). Kitsap County also funds a program through the conservation district that **gives property owners either $1,000 towards a rain garden installation or provides a “dig day” to install rain gardens.** | The dig days work far better than the $1,000 rebate. People don’t want to take part in the labor portion of onsite infiltration. | N/A |
| **City of Duvall** |
| 1-20% of projects | Developers are offered an incentive **to reduce the one-time drainage acreage charge based on the projects LID approach**. There is also potential for individual lot LID BMPs to get a "**discount" on their monthly stormwater utility bill** if the facility is privately owned/maintained, functioning as designed, and properly maintained. | It seems to be helpful to offer "discounts" to incorporate LID into stormwater management, and to later have homeowner buy-in or stewardship to maintain their facilities (either lot specific or homeowner association owned and maintained facilities). | Not sure yet. It is a relatively new practice in the City. |
| **City of Olympia** |
| 1-20% of projects | Provides up to $400 **reimbursement for plant materials** for bioretention, when installed voluntarily. Does not apply to new development. | N/A | N/A |
| **City of Port Orchard** |
| 1-20% of projects | Port Orchard homeowners may utilize the Kitsap Conservation District's services at a **reduced cost to design and provide installation assistance for rain gardens** within city limits. This is a cheaper option than hiring a landscaper. | Provides citizens with a reduced cost option for LID practices. | Add a financial contribution from the City to match funds for LID and rain garden applications within City jurisdiction. |
| **City of Tacoma** |
| 1-20% of projects | Offer **small grants** like “[Make-a-splash](http://www.cityoftacoma.org/makeasplash)” and sustainability grants.  | Financial incentives work well. | Allow grants to reimburse for contractors.  |
| **City of Seattle** |
| Unsure | [RainWise Program](http://www.700milliongallons.org) offers a **rebate per ft2 of roof** to private property owners in out-of-compliance combined sewer overflow basins to incentivize installation of rain gardens and cisterns. The [Stormwater Facility Credit Program](http://www.seattle.gov/utilities/businesses-and-key-accounts/drainage-and-sewer/stormwater-facility-credit.) awards a **credit on a parcel's drainage bill** for installing on-site stormwater management. | The current financial incentives are designed for private property owners, not developers. Uptake has been consistent in eligible basins. | Larger incentives could potentially increase uptake but must be weighed against the realities of rate pressures and other factors. |

The following **areas for improvement** emerged among the seven respondents who reported their jurisdiction’s financial incentive program is “**not very effective**” or “**not at all effective**” (n=7):

* Increase the amount of the incentive/rebate, especially for single-family development.
* Change financial incentives to promote watershed and water quality improvements that provide the most public benefit, rather than focusing on small-scale private property improvements.
* Determine whether other discount programs pull developers away from LID-specific incentives.
* Publicize more widely.

## Procedural incentives

Among the 16 respondents who reported their jurisdiction offers procedural, most described these incentives as “not very effective” as shown in **Figure 3** (n=10). Of the four respondents who reported their jurisdiction’s procedural incentive program is “**not very effective**,” only one offered a suggested improvement: the City of Tacoma suggested changing their current incentive (height bonus) to something that more developers desire.

**Figure 3:** Reported effectiveness of procedural incentives (n=10).

The descriptions of these procedural incentives fall generally within the following categories (n=9):

* Density bonus.
* Height bonus.
* Other revised zoning regulations.
* Reduced number and/or smaller parking stalls
* Credits that reduce the size of stormwater facilities.

The City of Seattle is the only jurisdiction that reported an “**extremely effective**” procedural incentive program (n=1). They noted that almost all projects (80-100%) in the jurisdiction take advantage of this incentive. The incentive program offers points for "green" building practices, which are used to determine a density bonus. The respondent reported that developers like the flexibility of this incentive but that it can sometimes be difficult to find enough space to meet the LID green building practices. The respondent noted that green infrastructure is the most cost-effective way to meet mandatory stormwater requirements in commercial and multifamily residential zones and recommends extending this incentive to downtown zoning requirements.

City of Poulsbo, City of Bothell, and Snohomish County described their jurisdictions’ procedural incentive programs as “**somewhat effective**” (n=3). Snohomish County’s program offers credits to individuals to help them reduce the size of their stormwater facilities through LID techniques. While the Snohomish County respondent was unsure how many projects use this incentive, they noted that developers see project cost savings (which becomes profit) when they construct LID BMPs in place of conventional, centralized detention and water quality BMPs. Developers can also market these houses as “low impact,” which appeals to buyers. The respondent suggested the following improvements to this program:

* Make the placement of LID BMPs on private lots and other private properties the last option available (requiring a variance).
* Require a minimum of approximately 80% of the LID components to be placed in shared tracts (and the right of way in private developments) instead of easements in privately owned lots.

## Permitting incentives

Of the four respondents who reported that their jurisdiction offers permitting incentives, none provided further information on these incentives.

## Recognition and awards

None of the survey respondents were aware of recognition or award incentives within their jurisdictions.

## Other incentives

Information provided by the four jurisdictions offering incentives other than financial, procedural, permitting, or recognition is summarized below:

* **Technical Assistance:**
	+ **City of Tacoma** offers technical assistance to homeowners and developers upon request. The survey respondent ranked this incentive as “somewhat effective” due to the availability of staff and estimated 1-20% of projects use this incentive.
	+ **Thurston County** provides free stormwater facility operation and maintenance workshops for homeowners’ associations and contractors as well as technical assistance for facility design. Online they provide: (1) a stormwater contractors' [list](https://www.thurstoncountywa.gov/sw/Pages/sd-maintenance.aspx), (2) on-site technical [advice](https://www.thurstoncountywa.gov/sw/Pages/rs-consult.aspx) to ratepayers, and (3) design review [checklists and fact sheets](https://www.thurstoncountywa.gov/sw/Pages/dm-current-2016.aspx). Designers, contractors, owners, and operators have expressed the need for technical assistance and feedback has been positive. The County is considering developing customized homeowner’s association technical assistance to improve its relevancy and developing/posting online videos.
	+ **Snohomish County** hosted a free one-day LID workshop for the development community to promote and facilitate the use of LID in the County.
		- 60 members of the community participated in a regulatory discussion, as well as hands-on site assessment training that touched on topics ranging from how to determine site feasibility for LID, to protecting LID BMPs during construction.
		- The County would like to continue participating in workshops that promote LID in the development community and believes they work well because they allow developers to ask specific questions of the County, experts in the field, and each other.
		- In a follow-up survey, most respondents noted that the workshop was useful and were interested in more detailed, shorter trainings to keep apprised of the latest LID designs and implementation strategies.
* **Other:**
	+ **City of Poulsbo** suggests to developers that LID BMPs are usually a more cost-effective approach for stormwater control under the adopted Stormwater Manual. For example, explaining how multiple strategically placed, small infiltration BMPs can often substantially reduce or eliminate the need for detention facilities for small projects.

## Incentives in other jurisdictions

Respondents provided the following information when asked what stormwater development incentives, programs, or funding they are aware of in other jurisdictions to increase implementation of LID:

* City of Seattle’s Community Partnership grants for projects that incorporate both natural resource improvement and environmental equity goals.
* EnviroStars recognizes green business practices and links businesses to environmental and incentive programs.
* King County:
	+ Flood Control District.
	+ Green Globe Award honors businesses and individuals for their outstanding achievements in environmental stewardship.
	+ WaterWorks program provides funding for projects that benefit water quality in the regional Wastewater Treatment Division service area.
	+ Re-Green the Green program provides funding to plant shady vegetation at hotspots along Green/Duwamish and tributaries to improve Chinook habitat.
	+ Flood reduction grants provide funding for medium to small stormwater control projects that reduce flooding.
	+ Green Building Grants and Incentives provides funding to support residential or commercial green building or for permitting incentives that reward LID.
* Kitsap County:
	+ Conservation District Rain Garden & LID cost-share incentive program works cooperatively with county services, landowners, and local communities to expand knowledge and use of LID practices through technical assistance, planning, and rebate funding for rain gardens and other approved green stormwater infrastructure (reimbursement not to exceed $1000).
	+ Clean Water Kitsap has a rain garden incentive program that provides financial assistance to homeowners willing to retrofit their property with rain gardens.
* Whatcom County:
	+ Conservation District Lake Whatcom Homeowner Incentive voluntary program is supported by the City of Bellingham, Whatcom County, and the Whatcom Conservation District. It encourages Lake Whatcom watershed residents to install projects that treat stormwater runoff on their property. It provides financial reimbursement, personalized assistance with project planning and permitting, and in some cases, assistance with landscape design and construction.
* City of Puyallup cost-share program for rain gardens (up to $1000), permeable pavement (50% of total cost up to $7500), and rain barrels (up to $125) for city residents.
* City of Tacoma provides a rate incentive when LID retrofit is done voluntarily, not when it is a requirement of development.

Other jurisdictions named included Snohomish County, Pierce County, City of Auburn, City of Bellingham, City of Bothell, City of Everett, City of Kirkland, and City of Sumner.

## New or novel ways to increase use of LID

Respondents provided the following new/novel ways to increase the use of LID among developers:

* **Flexibility**:
	+ Allow the use of bioretention areas in lieu of permeable pavement.
	+ Allow for increased impervious surface.
	+ Expedite permitting.
	+ Under certain conditions and within the confines of legal and regulatory constraints:
		- Allow use of the right-of-way to meet or exceed code.
		- Technical and financial support for "beyond code" green stormwater infrastructure.
		- Encourage management of right-of-way runoff on private property through financial or other incentives.
		- Allow fee-in-lieu payment for meeting code requirements off-site.
* **Tools**:
	+ Draft subdivision code language that would provide a "toolbox" of options based on the use of certain LID techniques. The toolbox would include things like reduced setbacks internal to the development, narrowed pavement widths, reduction in the amount of impervious area calculated based on tree retention, etc.
	+ Create tools that will help developers determine feasibility (for example, feasibility maps for soils).
	+ Provide streamlined worksheets to developers that simplify the design process and help them understand requirements quickly, outside of large stormwater manuals.
* **Regulations**:
	+ Limit the infeasibility criteria in the Ecology Stormwater Management Manual.
	+ Establish a regional stormwater fee or tax, based on the amount of impervious surface, to fund Puget Sound recovery.
	+ Require applicants to follow the LID feasibility criteria. If the jurisdiction does not have LID stormwater feasibility criteria in their code, then add it.
	+ It must become more attractive than the alternative - or remove the alternative.
	+ Change state law to require stormwater site plans for Class I forest practices.
	+ Require local jurisdictions to discuss LID options with developers early in the process so that the developer understands the benefits of LID and what returns they will see. In turn, the local jurisdiction could receive incentives from Ecology for pushing LID in the form of recognition or bonus points on Stormwater quality grants or loan applications through the WQFA program.
* **Education**:
	+ Show a cost comparison between two identical developments, one using LID and the other using detention and end of pipe type treatment.
	+ Convince design consultants to incorporate LID. LID options are not always proven and quantifiable. Designers have a hard time putting their PE stamp on LID BMPs that they cannot quantify.
	+ Motivate design engineers to find ways to search harder for LID options. Discourage design engineers from jumping straight to infeasibility of LID for projects.
	+ Provide other marketable aspects of installing LID infrastructure in a development, for example:
		- Improved human health.
		- Improved outside atmosphere and landscape design.
		- Improved water quality in surrounding streams for animals and humans.
		- Interesting and beautiful water and plant features throughout the development in common areas as gathering places for the residents.
		- Combining LID features with park and common areas that residents will want to spend time in. Open spaces in developments are a big incentive to buy and attractive to future residents. Some LID features such as swales can integrate art and play structures as well.
		- Connect people to the names and hydrology of the place they live with LID components integrated into the common areas.
		- Drain roofs and sidewalks to common area landscaping vegetation and rain barrels for use on private lots.
* **Research**:
	+ Continue to seek better technology.
	+ Continue to examine how permitting and fee structures play into LID feasibility and long-term viability and cost.
* **Other**:
	+ Reduce fees or taxes.
	+ Focus on (1) retrofitting, (2) efforts above the mandatory level of effort, and (3) for small projects that fall below the land disturbance threshold.
	+ Public-private partnerships.

## Other comments or suggestions

Respondents provided the following additional comments and/or suggestions for increasing developer use of LID:

* Hold **focus groups** to discuss this topic with developers and succinctly document the perceived barriers. Change the perception that LID is too expensive.
* **Promote the benefits of LID** on a project-wide scale. Document the return on investment / cost-benefit analysis for LID. Provide FAQ sheets outlining how LID allows for modeling and other credits to developers to minimize their stormwater management costs, such as using landscaping requirements to also meet bioretention designs.
* Make LID **simple and easy** to implement and use incentives.
	+ Provide meaningful benefits to the developers who use LID within their site development.
	+ Revise rate structure to **incentivize voluntary LID retrofits** for properties with substandard treatment and/or flow control.
	+ **Promote flexibility** within areas where LID feasibility is high.
	+ Stop pushing permeable pavement and rain gardens and **start promoting glass-lined bio-swales/bio-infiltration and hybrid grey/green infrastructure**.
	+ Incentives should not increase fees already being paid by citizens.
* Make sure the planning department requirements for landscape to not conflict with the use of LID in those areas. Get **buy-in from engineering and maintenance staff** in smaller jurisdictions. There is a significant amount of resistance to LID, based on the perception that LID measures like bioswales or pervious pavement (1) increase maintenance costs and time, (2) require expertise to maintain the systems, and (3) shift away from traditional methods.
* **More training.**
	+ If engineers do not know how to design with LID or articulate the benefits to the developer, if contractors do not understand the critical parts of construction and installation, and if maintenance personal do not understand how to properly maintain LID facilities, then they will not be used or if they are used, they will not be properly designed, constructed, or maintained. This is such a departure from previous methods of development that there needs to be continuous and ongoing training opportunities for the private sector and for government so that they can properly review plans and inspect the facilities during and after construction.
	+ Conduct **technical seminars and workshop**s for developers to demonstrate the design and building of LID integrated sites.
	+ Ecology should put on more **technical seminars and workshops** or produce other outreach materials that target development professionals, explaining the need and advantages of LID.
* Increase **accountability** for proprietary structures and devices. The State, counties, and cities must hold the companies developing them and selling them more accountable for (1) what they install, (2) effectiveness, and (3) long-term maintenance.
	+ Greater education, **inspection** and **enforcement** efforts.
	+ Ensure ongoing operation and maintenance and prevent unauthorized modifications to BMPs.
* **Be careful when encouraging LID in areas where it is not feasible or borderline**. A developer may be willing to take the incentive, but if the LID BMP does not work long-term, a bigger problem will occur as the LID BMPs fail and that drainage is going downstream.

# **Survey responses from jurisdictions outside of WA State**

17 respondents completed the survey across the jurisdictions listed below. Seven jurisdictions requested to respond to the survey anonymously or did not provide a jurisdiction; as such, their jurisdiction has not been listed by name below, but their responses have been incorporated into this memo.

|  |  |  |
| --- | --- | --- |
| * City of Buffalo, NY
* City of Charlotte, NC
* City of Kansas City, MO
 | * City of New Orleans, LA
* City of San Francisco, CA
* City of Washington, DC
 | * San Francisco County, CA
* San Mateo County, CA
* Washtenaw County, MI
 |

When asked what incentives, assistance, or other strategies their jurisdiction offers to increase use of LID, 17 respondents reported the incentives outlined in **Figure 4** (n=17).

**Figure 4**: Incentive types from jurisdictions outside of WA (n=17).

## Financial incentives

Four respondents reported their jurisdiction offers financial incentives:

The **City/County Association of Governments of San Mateo County, CA** provides a countywide $50 per rain barrel rebate that is matched by some of the water purveyors throughout the county. Rebates are provided up to two for residential properties and four for commercial properties. The purveyors that subscribe to the program have generally been matching the incentive for an additional $50 per barrel. This incentive is designed primarily for retrofits of existing sites. Links: [www.bawsca.org](http://www.bawsca.org) and <http://bayareaconservation.org>.

The respondent rated this incentive program as “somewhat effective”. They noted that in areas where the rebate is matched by the water purveyor, applicants essentially get free rain barrels (if under $100). The jurisdiction likes that the program is managed through the Bay Area Water Supply and Conservation Agency, which runs other water conservation programs, so they pay all the rebates in conjunction with purveyors. The jurisdiction pays quarterly invoices to reimburse their portion, making implementation very easy. Look at ways to provide incentives for larger rainwater harvesting facilities, like cisterns. Look at ways to combine with lawn removal rebate programs for people to install rain gardens and rain barrels at same time for a more comprehensive transformation of their property.

The respondent noted they would change this program by identifying ways to provide incentives for larger rainwater harvesting facilities, like cisterns. They would also identify options for combining the incentive program with lawn removal rebate programs to encourage people to install rain gardens and rain barrels at the same time for a more comprehensive transformation of their property.

The **City of Washington, DC** offers a Stormwater Retention Credit Trading Program. When developers construct more LID than required, they can register the extra volumes retained towards the market where they can sell credits to other developers who may not meet their required obligations. They also offer a series of “[RiverSmart](https://doee.dc.gov/riversmart)” programs, including RiverSmart Homes, RiverSmart Communities, RiverSmart Schools, and RiverSmart Rooftops, through which LID BMPs are constructed for free or reduced cost to help reduce the impervious area charge by the local water utility. The respondent rated this incentive program as “somewhat effective” and noted that they think the RiverSmart program has made the biggest impact by showing that the Department of Energy & Environment is invested in helping the community. The respondent recommends eliminating the credit trading program and going “all in” with the RiverSmart program.

The **City of Buffalo, NY**’s incentive grant program is not yet publicly available, but an applicant is eligible if they are within a priority combined sewer overflow basin geographical area.

The **City of San Francisco and San Francisco County, CA** did not provide a description of their financial incentive program.

## Procedural incentives

Two respondents reported their jurisdiction offers procedural incentives:

The **City of New Orleans, LA**’s zoning code contains provisions for “Planned Developments” which permit additional density or height in exchange for additional stormwater management above the requirements. The code also allows for the installation of parking spaces above the minimum required number of spaces (maximum 150% of the minimum), if the spaces are paved with permeable pavement.

The respondent rated this incentive as “very effective,” and estimates that approximately 1-20% of projects take advantage of it. While the city has not had a developer take advantage of the density bonus with stormwater management, the provision of additional parking spaces has been very popular because it allows developers to receive a waiver for additional parking without going before a board for approval. The respondent noted that they would like to identify more opportunities to include these types of incentives to (1) cut down on the number of variances granted for things like parking, and (2) swap them out for stormwater related BMPs. The respondent feels that the density bonuses are not generous enough to justify the increased cost of compliance.

The other respondent who reported procedural incentives did not provide any further information and did not identify their jurisdiction.

## Permitting incentives

None of the survey respondents from jurisdictions outside of Washington were aware of permitting incentives within their jurisdictions.

## Recognition and awards

The **City of Buffalo, NY**’s award incentive program for LID is not yet publicly available.

## Other incentives

The **City of Kansas City, MO** offers a program within the combined sewer system, targeting areas with high stormwater capture potential and then working directly with developers to provide technical LID design support to integrate LID design elements into the private development. The City funds LID and green stormwater infrastructure (GSI) improvements that are determined to be cost effective to the combined sewer overflow program. Private development must agree to the required maintenance of the LID/GSI features.

The respondent rated this incentive program as “somewhat effective” and estimates that it is used on 1-20% of projects. The respondent identified two program attributes that work well: (1) targeting areas where redevelopment is occurring, and (2) being able to leverage private development for additional stormwater capture. To improve the program, the respondent suggests standardizing the process. The City is currently working on developing a standard public-private partnership program within the combined sewer system.

## Incentives in other jurisdictions

Respondents provided the following information when asked what stormwater development incentives, programs, or funding they are aware of in other jurisdictions to increase implementation of LID:

|  |  |  |
| --- | --- | --- |
| * City of Davenport, IA
* City of Everett, WA
* City of Kansas City, MO
* City of Lenexa, KS
 | * City of Minneapolis, MN
* City of Palo Alto, CA
* City of Philadelphia, PA
* City of Seattle, WA
 | * City of Shoreline, WA
* City of St. Paul, MN
* City of Toronto, ON, Canada
 |

## New or novel ways to increase use of LID

Respondents provided the following new/novel ways to increase the use of LID among developers:

* Simplified and prescriptive requirements and design guidance.
* Provide more flexible stormwater design standards. Current stormwater design standards are typically driven by transportation drainage standard to route water off the site, which results in curbs around parking lots, large setback curb inlets, and raised grass areas which provide no stormwater capture.
* Tie LID incentives to other community priorities like housing, congestion, etc. For example, a density bonus for adding green roofs.
* Reduce design complexity and costs, and maintenance costs.
* Financial incentives for leaving open space.

**Other comments or suggestions**

Respondents provided the following additional comments and/or suggestions for increasing developer use of LID:

* Most developers and their consultant engineers do not want to invest the time and money into evaluating various rainwater management options for their sites. The LID approach to rainwater management requires expertise that is challenging to build up.
* Shift the focus on stormwater management to frequent storms. Prohibit development in stormwater flow paths.
* LID needs to be a legitimate tool in the toolbox. Too often it is thought of as (1) something that "has to be done," (2) less practical than storm sewers and inlets for managing stormwater, and (3) removing developable space. Increase awareness of companies that can install and maintain LID BMPs.
* Reduce the cost by reducing requirements. Streamline the process at the jurisdictional level. Require a stormwater evaluation of the site before design begins.
* Consider requiring developers to retrofit public rights of way adjacent to new development in conjunction with other improvements, such as wider sidewalks, street trees, street lighting, etc.

# **Appendix A: LID Incentives in Washington State Survey**

Hello,

The Washington State Department of Commerce and Puget Sound Regional Council are leading research on how to increase use of low impact development (LID). This research will inform a guidebook for jurisdictions like yours on incentives to encourage developers to use more LID. We invite you to provide input through a brief survey regarding LID incentives to make sure the guidance adds value to what jurisdictions are already doing.

Your response is appreciated. For most jurisdictions, this survey should take approximately 5 to 10 minutes to complete. Your responses will help us gather a full picture of what incentives are currently available for developers in the state and how they are being used.

Feel free to forward this survey on to others in your jurisdiction that may be able to provide more information on incentive programs.

If you have any questions about this survey, please contact Marie Novak at marie@cascadiaconsulting.com.

Thank you in advance for your participation and support of this project!

1. Please let us know what jurisdiction/organization you work for so that we can track the geographical spread of our survey responses.

**[required text field]** Jurisdiction/organization:

1. Please let us know if we may list your jurisdiction in the final report **[select one]**.
* You may list my jurisdiction in the final report.
* Please do not list my jurisdiction in the final report.
1. What incentives, assistance, or other strategies does your jurisdiction offer to increase use of LID? *Select all that apply.* **[check boxes]**
	1. **Financial incentives** such as reduced permit fees, reduced inspection fees, reduced surface water/stormwater utility rates, grants, or one-time rebates
	2. **Procedural incentives** such as zoning or parking code variances or point-based incentives program
	3. **Permitting incentives** such as expedited permitting
	4. **Recognition or awards**
	5. **None of the above**
	6. **Other** (please describe): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Separate page for each incentive type, respondents only see pages for incentives they select in Q2.**

1. You said that your jurisdiction uses [type selected in Q2]. Please briefly describe it, including how a project or developer becomes eligible, the process for reviewing and approving the incentive, and what specific benefit they receive from participating. If you have information on your jurisdiction’s website, feel free to share the link.
**[Comment box]**
2. How effective have [type selected in Q2] been in getting developers to use LID?
	1. Very effective
	2. Somewhat effective
	3. Not very effective
	4. Not at all effective
	5. Unsure
3. What works well about [type selected in Q2]? **[open ended comment box]**
4. What would you change about [type selected in Q2]? **[open ended comment box]**
5. Have you received any feedback from developers about the [type selected in Q2] you offer?
	1. No
	2. Yes*Please describe their feedback.***[open ended comment box]**
6. For approximately how many projects is [type selected in Q2] used in your jurisdiction?
	1. Almost all projects (80-100%)
	2. Most projects (60-80%)
	3. About half of projects (40-60%)
	4. Some projects (20-40%)
	5. Very few projects (1%-20%)
	6. Never – No project has used it yet.
	7. I’m not sure

**All respondents**

1. What stormwater development incentives, programs, or funding are you aware of in other jurisdictions to increase implementation of LID? Please list the City/County/entity name and provide a short description of the incentive, program, or funding strategy.

**[open ended comment box]**

1. Do you have any suggestions for new or novel ways to increase developers’ use of LID?

**[open ended comment box]**

1. Do you have any other comments or suggestions for increasing developer use of LID?

**[open ended comment box]**

1. If you are willing to be contacted for follow-up information regarding your responses, please provide contact information below. We will not publish your contact information.
	1. First Name **[optional text box]**
	2. Last Name **[optional text box]**
	3. Title **[optional text box]**
	4. E-mail Address **[optional text box]**
	5. Phone Number **[optional text box]**
1. The municipal stormwater permit states that “projects qualifying as flow control exempt … do not have to achieve the LID performance standard, nor consider bioretention, rain gardens, permeable pavement, and full dispersion if using List #1 or List #2. However, those projects must implement [post-construction soil quality and depth] BMP T5.13; [downspout full infiltration] BMPs T5.10A, [downspout dispersion] B, or [perforated stub-out connections] C; and [concentrated flow dispersion] BMP T5.11 or [sheet flow dispersion] T5.12, if feasible.” [↑](#footnote-ref-2)