Technical Report 14

Sustainable Development for Highway 99

PLANGREEN

Towards a Sustainable Urban Ecosystem

Technical Report On Sustainable Development For Highway 99 Sub-Area Plan, Clark County, WA

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Recommended Tools and Incentives for Sustainable Revitalization

Sustainable communities seek development that enhances the local environment and quality of life as well as developing a local economy that supports both thriving human and ecological systems. Sustainable communities are characterized by improved public health and a better quality of life for all the residents, by limiting waste, preventing pollution, maximizing conservation, promoting efficiency and developing healthy regional economic development and vibrant neighborhoods. Integrated planning and design are key elements of developing sustainable communities. This paper seeks to make recommendations on moving the Highway 99 Sub-Area towards sustainability.

Continue and Strengthen the Direction You Are Going

It is clear from both planning and public forum documents to date that Clark County, business owners and residents within the Highway 99 Sub-Area Plan borders want to move the area towards sustainability. As the population ages and energy costs rise, there is increasing demand for communities that are both walkable, safer and more resource efficient--and that is where the principles you have developed for the sub-area plan will take you. The tools outlined in this paper will help you carry out your principles.

From a review of participant comments in public forums there are calls for the use of such sustainable development practices as: mixed-use; compact development; human scaled building design; historic preservation; pedestrian and bicycle access, safety, and comfort (including landscaping and aesthetics); crime prevention and security; creating and protecting public spaces and parks; improving public transit; revising parking standards and improving street connectivity.

All of the above will be critical in revitalizing Highway 99 into a sustainable corridor that addresses dwindling petroleum resources and the need to reduce carbon footprints and greenhouse gases. The Mixed-Use Ordinance and design standards are an important piece. It provides incentives to develop a higher-density, active, urban environment than is generally found in a suburban community. Ultimately, one hopes that, along with the recommendations in this report, your strategy will help to reduce the number of automobile trips and encourage alternative modes of transportation and create a safe, attractive and convenient environment for living, working, recreating and traveling.

Watch for Opportunities from State Climate Change Legislation

The Washington Legislature passed two pieces of climate change legislation (HB 2815 and SB 6580) before it ended the 2008 session. The legislation directs the Washington State Department of Ecology to design a regional carbon cap and trade proposal; require annual emissions reporting by all significant generators of

greenhouse gases; and create new "green collar jobs" programs to provide training and apprenticeship opportunities, and a requirement to significantly reduce per capita vehicle miles traveled by 2050.

In March, Governor Christine Gregoire, directed her Climate Action Team to come up with related climate change program recommendations. Its preliminary draft report *"Leading the Way on Climate Change: The Challenge of Our Time"* gives a hint of what might be expected in new policy from the Governor's Office. The 27 member Climate Advisory Team developed recommendations that are geared to helping Washington meet its emissions and economic goals. Its 12 Powerful Directional Recommendations include "smart growth" and "green building" recommendations. Recommendations 5 and 8 are the focus of this paper. These programs could provide funding for elements of the Highway 99 Sub-area Plan.

- **Recommendation 1:** Build market-based mechanisms to unleash the creativity and innovation that will deliver cost-effective emission reductions.
- **Recommendation 2:** Set up reporting systems to measure, track and acknowledge progress in emission reductions.
- **Recommendation 3:** Analyze greenhouse gas emissions and mitigation options early in decision-making, planning processes and development projects.
- **Recommendation 4:** Invest in worker training for the emerging clean economy to ensure having a skilled work force and meaningful employment opportunities throughout the state.
- **Recommendation 5:** Build and continue to redesign communities that offer real and reliable alternatives to single occupancy vehicles.
- **Recommendation 6:** Ensure Washington has vehicles that are as efficient as possible and use non-carbon or lower carbon intensity fuels developed sustainably from regional resources.
- **Recommendation 7:** Focus investments in Washington's transportation infrastructure to prioritize moving people and goods cleanly and efficiently.
- **Recommendation 8:** Design, build, upgrade, and operate new and existing buildings and equipment to maximize energy efficiency.
- **Recommendation 9:** Deliver energy from lower or non-carbon sources and more efficient use of fuels.
- **Recommendation 10:** Restore and retain the health and vitality of Washington's farms and forest lands to increase carbon sequestration and storage in forests and forest products, reduce the releases of greenhouse gas emissions, and support the provision of biomass fuels and energy.
- **Recommendation 11:** Reduce waste and Washington's emissions of greenhouse gasses through improved product choices and resource stewardship.
- **Recommendation 12:** Allocate sufficient state resources to maintain Washington's leadership role regionally and nationally and to fulfill its responsibilities for structuring and guiding implementation of emission reduction strategies.

The next stage for the Governor's team is to develop implementation strategies for the policy options in their recommendations—including funding strategies. These will likely include incentives for improved community planning and for improved design and construction (third-party sustainability, green, and energy efficiency building certification programs) in the private and non-state public sectors. These incentives could become an important driver in the development of the Highway 99 Sub-Area.

Clark County should watch for news from the Department of Ecology and CTED regarding: climate change programs.

Another climate change bill Senate Bill 6580 entitled "Local Solutions to Global Warming" also passed the legislature this year and will soon be signed by the Governor. Under the bill, a local government global warming mitigation and adaptation program is set up and run by CTED. Up to three counties and up to six cities will be chosen through a competitive process to participate in the program and receive technical and financial assistance from the department. The bill also directs CTED to provide cities and counties with a tool to inventory, measure and estimate land use related greenhouse gas emissions.

Clark County should consider identifying sustainable pilot projects in the Highway 99 Sub-Area; this bill should be examined to see if its funding opportunities could serve the plan.

Watch for New Legislation at the Federal Level

At the Federal level, the New Partners for Smart Growth Conference, held in Washington, DC this year, helped focus attention on including transit and land use provisions in the momentous climate bill that is underway in the US Congress and on potential Complete Streets legislation in the US Senate.

Clark County should keep a close ear to the ground for funding measures it may potentially utilize in the Highway 99 Sub-Area.

Policy Recommendations

1. Develop a Local Redevelopment Authority

Two local case studies are similar to the Highway 99 project area: Interstate Avenue (close and parallel to I-5) and 82nd Avenue (close and parallel to I-205). Both in Portland—offer contrasting examples of revitalization—one heading in the direction that Team 99 wants to go, the other continuing as an auto-oriented strip. Lessons from these two roads lead to the first policy recommendations: Develop a local redevelopment authority with ability to control land, set policy, create incentives and allocate funds.

Case Study: Interstate Avenue: With its urban renewal area designation (3,744 acres), a development commission that both owns lands and offers financial incentives and grants, has a green building policy for developers seeking to use development commission funds and/or land and finally, a light rail line running its length, Interstate Avenue is beginning to see the kind of pedestrian and transit-oriented development that is heading it towards sustainability.

Case Study: 82nd Avenue: Although business leaders are seeking an image change from 82nd Avenue's "fast food, prostitutes and car dealerships" reputation, without the same advantages as Interstate Avenue described above, the kind of redevelopment 82nd Avenue is attracting is largely auto-oriented shopping centers such as Eastport Plaza and the Chinese Fubonn. With the exception of a 335-unit housing complex at the corner of 82nd Avenue and NE Sandy Boulevard, most of 82nd Avenue's new development is not aimed at changing its auto-orientation. The city is making some effort at increasing pedestrian safety along 82nd Avenue after some pedestrian deaths there, but most redevelopment effort seems to be led by a portion of its business community.

2. Use Green Neighborhood Development Standards

LEED for Neighborhood Development: There are other systems for rating neighborhood design[1], but LEED for Neighborhood Development, a rating system being developed by the US Green Building Council, is likely to become the national standard for neighborhood development/redevelopment when it becomes available as a rating system in 2009[2]—just as other LEED rating systems have become national standards for individual buildings. (US Green Building Council webpage at http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148)

Already the Illinois legislature approved the Green Neighborhood Grant Act, which is intended to give three LEED-ND projects state grants covering up to 1.5 percent of their costs.

Clark County should consider working with the State of Washington to develop a similar LEED-ND grant program as part of its climate change legislation.

LEED for Neighborhood Development aims include:

- encourage smart growth and new urbanist best practices
- promote the location and design of neighborhoods that reduce vehicle miles traveled—communities where jobs and services are accessible by foot or public transit
- promote more efficient energy, water and materials use
- prevent degradation of biodiversity

Credits toward certification are awarded under several categories: smart location and linkage, neighborhood pattern and design, green construction and technology, and innovation and design process. There are several ways Clark County can use LEED for Neighborhood Development as a tool to promote sustainability:

Basis to evaluate current policies and practices

[1] Links to other rating systems may be found in the article by urban designer, Laurence Aurbach, "Why Rate Neighborhood Design?" http://pedshed.net/?p=150

[2] The LEED for Neighborhood Development program is currently being piloted with nearly 240 projects from 39 states and 6 countries, using the LEED for Neighborhood Development Pilot Rating System. These projects are in the process of gathering documentation based on the rating system which they will submit to USGBC in order to become certified. The information learned during the pilot program will be used to make further revisions to the rating system and certification process, and as such, the rating system is likely to change somewhat. The resulting draft rating system will be posted for public comment before it is submitted for final approvals and balloting. The full LEED for Neighborhood Development program will launch for public use in 2009.

Clark County should, as part of its CTED codes grant, compare its development practices to the LEED-ND rating system. This will help you better identify zoning obstacles which may currently make it difficult, costly, or impossible to undertake some aspects of sustainable development in the county.

Basis for structural incentives

Clark County should consider adopting structural incentives such as density and height bonuses, expedited and fast-track permitting, and conditioning of the sale of publicly owned land.

Basis for financial incentives

Clark County should consider adopting financial incentives such as grants, tax credits or abatements, reduced permitting fees, revolving loan funds, lower impact fees, free technical assistance, "feebates," and Tax Increment Financing.

In its *"Green Building Incentives That Work"* research report, Yudelson Associates found that "*Developers are concerned with the bottom line and interested in possible offsets to their costs. Cities and counties currently have the budgets to support small incentive programs, but they are much more drawn to non-monetary incentives such as publicity and awards, faster permit processing and greater density bonuses".* The U.S. Green Building Council had a further discussion of why and how to use LEED-ND in its "*Guidance to Local and State Governments: Using LEED® for Neighborhood Development as a Policy Tool to Encourage Sustainable Development – 2008"* (See Appendix A).

3. Evergreen Sustainable Development Standard

Another tool to help achieve the kind of sustainable development that participants in the Highway 99 plan are calling for is CTED's Evergreen Sustainable Development Standard. It will apply to projects that apply to the Housing Trust Fund (HTF) after July 1, 2008 and the Low Income Housing Tax Credit (LIHTC) Program beginning in 2009. (Evergreen Sustainable Development Standard webpage at http://www.cted.wa.gov/site/1027/default.aspx.)

Not only do green building practices improve the economics of managing affordable housing while enhancing quality of life for residents, but the criteria in the state's standard work together to help produce green affordable housing that:

- Results in a high-quality, healthy living environment;
- Lowers residents' and owners' utility costs;
- Enhances residents' connection to nature;
- Protects the environment by conserving energy, water, materials and other resources;
- Prevents degradation of local and regional ecosystems; and,
- Promotes the local economy.

Clark County can encourage developers to utilize states' Low-Income Housing Tax Credit program and the Housing Trust Fund to fund a portion of the homes in its

mixed-use developments through education and incentives. Development review staff should be trained in the Evergreen Sustainable Development Standard and the Low-Income Housing Tax Credit program enough to suggest it as an option to developers. The same kind of incentives mentioned for LEED-ND could also be applied to ESDS.

4. Hold Community Charrettes to Develop Highway 99 Form-Based Zoning

While LEED-ND and Evergreen Sustainable Development Standard can help Clark County go a long way towards sustainability, to achieve excellence in urban design, places where people will *prefer* to walk rather than drive and the kind of certainty for developers that will have them competing to build, Clark County must work with its residents and businesses to develop a form-based code.[3]

Rather than go into a lengthy definition of form based zoning or codes, this paper will give the reader a brief description of one that has been in operation since 2004, along with some of the impressive results it is already beginning to achieve. A more detailed description of form-based zoning can be found in Technical Report 10 Form-Based Zoning.

Case Study: Columbia Pike, Arlington, Virginia. The Columbia Pike Form Based Code (CPFBC) is an optional development approval process (with incentives) designed to make Columbia Pike development decisions simple and the process short as well as predictable.

The CPFBC is made up of three parts: 1.) Property location, 2.) Building form and use; and 3.) Architecture (the dress code). The CPFBC can be found at this web link http://www.arlingtonva.us/Departments/CPHD/forums/columbia/current/CPHDForumsColumbia CurrentCurrentStatus.aspx

Property Location: The CPFBC includes Regulating Plans that are maps of each of the Columbia Pike Revitalization Districts. The maps indicate what type of building can be built on any location within a district. Each map also provides information such as where to find the Required Building Line (the place at which the front of the building must be placed) and shows tree and streetlight lines as well as the minimum parking set-back.

Building Form and Use: The Building Envelope Standards in the CPFBC include specifications for height, fenestration, siting and use for a building on any given piece of property in a Revitalization District. Stories rather than feet determine height.

Architecture: The Architectural Standards are, most simply put, the dress code for Columbia Pike. They deal with recommended materials and configuration of building walls, roofs and parapets, doors and windows. They indicate where and how high street walls should be. They include guidelines for signage, lighting and the placement of mechanical equipment. They do not demand a particular architectural style. The Streetscape Standards cover trees, landscaping, sidewalk dimensions, civic squares and greens, open space and such.

Developers who choose to use the CPFBC as their development process can expect an expedited approval process between 30 and 60 days. Developers who opt for use

[3] An excellent definition can be found in Wikipedia at http://en.wikipedia.org/wiki/Form-based_codes

of the CPFBC within a Revitalization District are eligible for significant county investment through the Columbia Pike Economic Incentives to bridge feasibility gaps that may exist on Columbia Pike.

Although the Columbia Pike form-based code has only been in practice since 2004, projects seeking to fulfill the county's goals under the code are impressive: an old strip shopping center is being redeveloped into 235 residential units and 7,544 square feet of retail space and an old Safeway site into 188 residential units, 32,604 square feet of retail space and 14,603 square feet of office space. For the full list see: http://www.arlingtonvirginiausa.com/index.cfm/5231#columbia.

In contrast to traditional zoning, a form-based code for Clark County will permit a wider range of *uses* of a property but restrict the *design* of buildings more specifically. In this way, Clark County can promote streetscapes that encourage walking and discourage crime, while giving developers more flexibility in mixing residential and commercial uses. Form-based codes focus on building type, dimensions, façade features, and the location of parking. They also pay special attention to the width of streets and the design of public spaces.

Once the form-based code is developed, Clark County should train its planners and development review staff in the code so that they will be able to determine compliance—or at least to recommend it as an option if it is not mandatory.

5. Hold Community Charrettes to Develop Street Standards and Parking Requirements

The community process of developing a form-based code involves creating new street standards and parking requirements.

Clark County should consider developing new street standards and parking requirements, regardless of whether it adopts a form-based code for the Highway 99 Sub-Area.

Since revised street and parking standards will be so critical in moving the sub-area, and especially Highway 99 itself, towards sustainability, they are covered in some depth here. The Healthy General Plan Toolkit[4] describes some of the most important steps the county should take below.

Street Standards: Existing wide streets can be narrowed by creating medians, widening sidewalks, adding planting strips between sidewalk and curb and adding on-street parking and bike lanes. Both the medians and the planting strips can double as bio-retention swales for the treatment of stormwater.

Network and connectivity standards: Low street connectivity leads to traffic bottlenecks and congestion, and discourages walking. Establishing standards for better connectivity can improve walkability and encourage pedestrian activity.

Multimodal streets (or complete streets) provide facilities for all users –cars, trucks, bicycles, transit, and pedestrians. The extent to which each is emphasized can vary from street to street (and along a corridor), but all should include safe facilities for a variety of modes. All should also, at a minimum, include safe pedestrian facilities such as pedestrian crossings and sidewalks separated from the

[4] Produced by Planning for Healthy Places and Raimi & Associates in partnership with The California Endowment http://www.healthyplanning.org/toolkit_healthygp.html.

street.

Context Sensitive Street Design (CSSD) is an approach to roadway planning, design, and street operation intended to meet regional transportation goals (such as the movement of traffic) while respecting and enhancing neighborhood quality. CSSD respects traditional street design objectives for safety, efficiency, capacity, and maintenance while integrating community objectives and values relating to land use compatibility, livability, sense of place, urban design, cost, and environmental impacts such as stormwater runoff.

Parking requirements: Existing off-street parking throughout the Highway 99 Sub-Area, helps to create an environment that is very unfriendly to the pedestrian and transit user.

Clark County should consider the following parking strategies outlined in the Healthy GP Toolkit.

- **Reduce parking requirements** in the codes, especially for infill and transit-oriented development, where requirements are applied with consideration to specific geographic and demographic factors that affect parking demand at a particular location.
- **Set parking maximums,** limiting the maximum amount of parking capacity allowed at particular sites or within a particular area, particularly in growing commercial centers.
- **Allow for shared parking arrangements** where parking spaces are shared by more than one user or use.
- **Provide or encourage commuter financial incentives**, for example, parking cash-outs where commuters who are offered subsidized parking are also offered the cash equivalent if they use alternative modes of transportation.
- **Allow on-street parking in pedestrian-rich areas** instead of off-street parking in surface lots (on-street parking encourages lower traffic speeds on the street).
- **Locate surface parking behind or on the side of buildings** to maintain a pedestrian-friendly streetscape. Together the above actions will help to encourage walking, biking, and transit, to reduce car use without a negative impact on commerce.

6. Give Stormwater Treatment a Major Role in Redevelopment of Highway 99

Just as the form-based code recommended above must take into account what level of urbanism a community wants to achieve in a given location,

Clark County should consider developing stormwater management strategies for the sub-area that take into account various levels of urbanism.

Members of the Congress for New Urbanism have developed a draft matrix of stormwater techniques and technologies (see http://www.cnu.org/node/1209 and choose Light Imprint Matrix; (see Appendix B) for different levels of urbanism (transects).

Although all levels of development—from most urban to least—can use Low Impact Development, the most urban have a more limited palette to achieve water quality and quantity protection results. Once redeveloped, the lower portion of Highway 99 would likely be considered the General Urban Zone (T-4) and the Urban Center Zone (T-5),

Clark County should consider integrating strategies in those columns into the form-based code as it is developed.

Develop Public Infrastructure First

In terms of public infrastructure to support redevelopment,

Clark County should consider developing rain-gardens along Highway 99 and nearby portions of adjoining streets (such as NE 78 Street, NE 88th Street, NE 99 Street, and NE 117th Street) wherever soil conditions and other factors within the public right-of-way allow.

Such Low Impact Development/Light Imprint New Urbanism treatment could also help the county to meet other principles of Team 99 for Unique Attributes, Open Spaces, Public Spaces, and Conservation. It could greatly increase both the aesthetic as well as ecological value as well thereby leading to more sustainable economic development.

Amend Draft LID Ordinance

Designs should follow the requirements in the Stormwater Management Manual for Western Washington (revised 2005) http://www.ecy.wa.gov/biblio/0510029.html. The Low Impact Development Best Management Practices (BMPs) recommended for Inclusion in Clark County's own Proposed LID Ordinance in Technical Memo #6 http://www.co.clark.wa.us/water-resources/SWMP/soup_docs.html include 1) Bioretention Raingarden, 2) Pervious Pavement/Pavers, 3) Dispersion, 4) Amended Construction Site Soils, 5) Reverse Sloped Sidewalks, and 6) Planters should be amended to include green roofs, native plant landscaping and structural cells for trees in heavily trafficked areas (see example at http://www.deeproot.com /) in order to include more options for the transition from suburban to urban development.

Develop Shared Facilities Agreements

Over the long term, Clark County will want to require that a property undergoing major redevelopment along Highway 99 meet the county's new standards of its LID Ordinance. Clark County should also encourage stormwater retrofits of already developed private properties. One way to do this is to encourage shared private facilities. To facilitate such sharing, Clark County could develop private-private shared facilities agreements. Appendix D includes a draft example agreement.

Pursue Incremental Improvement

In the near term the county should review King County's study (done in conjunction with EPA and Costco) titled *"Model Low Impact Development Strategies for Big Box Retail Stores"* as it describes low impact development (LID) methods for designing stormwater systems for "big box" retail stores. This work could suggest policies and programs to achieve incremental improvement today.

http://dnr.metrokc.gov/wlr/stormwater/low-impact-development.htm

7. Mitigate Excessive Noise and Visual Pollution

Acoustics is an integral part of sustainable design. People are a valuable resource and their efficiency, comfort and productivity are affected by the acoustic environment.

Clark County should review Title 40 standards to assure that development within the sub-area, especially that development close to I-5, avoids excessive noise pollution.

Limiting visual pollution is another integral part of sustainable design.

Clark County should consider partnering with an organization such as Scenic America and their campaign against visual pollution such as glaring signage and overhead utility wires.

Scenic America works with local communities to craft good on-premise sign ordinances and design review standards that preserve and enhance community character while helping local merchants remain competitive. Scenic America also works with communities and utility companies to reduce the visual impact of utility lines and poles. Benefits include saving scenic beauty, improving safety, reducing utility disruptions, and increasing property values.

8. Combine Historic Preservation and Sustainability Emphases

"The link between tradition and sustainability is starting to find strong resonance in the US, as narrower definitions of technological sustainability give way to deeper thinking about local heritage and embodied resources." Michael Mehaffy of Pro-Urb

The National Trust for Historic Preservation's new sustainability initiative aims to help people better understand preservation's value in fostering development that is environmentally, economically and socially sustainable. The Trust's website will serve as a "best practices" resource for employing green technology in the reuse and rehabilitation of historic structures. On February 27 at a lecture in the Pacific Northwest, Executive Director Richard Moe announced the National Trust's intention to establish a Green Lab in the Pacific Northwest to research such technology. (Web page http://www.nationaltrust.org/green/)

9. Adopt a Green Building Program

Clark County has already started elements of a green building program.[5] Its joint Vancouver/Clark County project, funded by a CTED grant, to eliminate any disincentives for green building in its development codes is a critical first step.

The County's Public Service Center building is LEED certified and The Columbian's LEED Gold headquarters sets another prominent example. The Building Industry Association of Clark County has established a Green Building Committee and is a member of the Built Green Washington Coalition.

[5] The American Institute of Architects 2008 report Local Leaders in Sustainability reviews the green building programs of a number of cities throughout the nation www.aia.org/SiteObjects/files/LLinSustain(full)_final.pdf.

A green building program starts with a law or regulation that mandates or offers incentives for the construction of green buildings within a community. It can focus on public, residential, and/or commercial buildings. Some jurisdictions have found the need to address climate change and dwindling resources so compelling that they have developed a mandate for all buildings, public and private to build green.

Pursue Program Development

Whatever Clark County decides, it should borrow some GreenTools from another county in Washington, such as King County. This web site offers tools for commercial buildings, residential buildings, incentives and grants, construction recycling and site improvements. It also offers examples of administrative tools such as ordinances and training programs as well as its own Green Building Program 5-Year Strategic Plan and Green Building Program Annual Report. An excellent place to start would be King County's Green Tools Suburban City Toolkit recommended below under Educational Strategies. (King County web page http://www.metrokc.gov/dnrp/swd/greenbuilding/)

Clark County should consider how it might offer similar policies to support green building, training, financial incentives/grants and project review with technical assistance.

Consider Groundbreaking Strategies

Clark County should consider adding additional groundbreaking strategies being pioneered by King County.

One strategy King County is pioneering is the introduction of legislation that would allow the county to reject or modify development projects because of their effect on global warming. Another legislation proposal seeks to reduce the number of homes that can be built in rural areas by one-fourth by encouraging the market-based transfer of development rights to urban areas.

Clark County should consider adopting a TDR strategy to direct growth into more urban development along Highway 99.

As Clark County's staff develops more sophisticated knowledge in green building, the county should study some of Seattle's targeted programs. Seattle's Water Smart Technology Program offers financial assistance for technical research and installation of water saving strategies and devices. Seattle's Lighting Design Lab offers free design and technical assistance to projects, especially day lighting modeling.

Consider a Feebate Program

Clark County should consider adopting a carbon tax and feebate policy for both commercial and residential building.

In order to address its city council's climate change policy to reduce greenhouse gases, Portland, Oregon is in the process of adopting such a policy to accelerate its green building program. Besides addressing the need to cut greenhouse gases as rapidly as possible through its building policy, Clark County would gain a source of funds to further develop its program and make regulations more uniform throughout the region—something often sought by the development community. Its proposed commercial program can be found at

http://www.portlandonline.com/osd/index.cfm?c=45879&a=185918 and its proposed residential at http://www.portlandonline.com/osd/index.cfm?c=45879.

10. Complete and Commit to the Implementation Matrix

Each county department dealing with land use or community development must be involved if the Highway 99 Sub-Area is to become a model for sustainable development in the future. Just as the green building design process requires teamwork to achieve an integrated design approach, sustainable development at the county scale will take a highly integrated interdepartmental approach.

A matrix of PlanGreen's various recommendations is contained in Table 1 below. County staff should be involved in filling in the matrix, which includes activity/lead, description, schedule, budget, funding source and comments. PlanGreen has identified some County offices that should be involved in the work plan to implement its sustainability recommendations:

- County Board of Commissioners
- County Administrator
- Community Planning Department
- Public Works with its various divisions and programs – Environmental Services, Transportation, Engineering, Parks, Operations and Maintenance
- Community Development with its Building Safety, Code Enforcement, Development Services, and Engineering Services
- Public Health with its Environmental Public Health units (Consumer Protection and Resource Protection)
- Community Services with its Community Development Block Grant Program and Housing
- County GIS (Assessors Office)
- Public Information and Outreach including the Neighborhood Outreach Program
- Office of Budget
- Information Service
- County Endangered Species Act Program
- County Weed Management Program

Representatives from the above County offices need to be involved in refinement of the matrix and further development of that work plan. It should be understood that no matter what the agency of the lead implementer, she/he will need the cooperation of multiple other county agencies—and often outside organizations as well.

Continue and Expand Involvement Strategies

Clark County's new NPDES permit expands county stormwater management requirements over the next one- to two-years and includes new rules for development projects, building projects to reduce stormwater impacts on streams, increased stormwater facility maintenance, and expanded education and outreach.

Since such a critical part of the sustainable redevelopment of the Highway 99 sub-area includes stormwater management, planning should work closely with the county's Clean Water Program Education and Outreach Coordinator.

Clark County actively participates in the Regional Coalition for Clean Rivers and Streams and should use this participation to promote elements of the sub-area plan.

This could give planners access to stormwater education messages in major newspaper ads, ads in weekly papers, Tri-Met and C-Tran bus "tailboards", and interior bus cards in the Portland-Vancouver area. Since the Coalition also creates a radio advertisement to run on local stations, Clark County should utilize this avenue of outreach as well. More information is available at the internet site: http://www.cleanriversandstreams.org.

Clark County might work with its local Oregon/SW Washington ULI District Council to offer UrbanPlan at Skyview and/or Columbia River High Schools—or other schools within the planning area.

Develop Educational Strategies for All Players

UrbanPlan is a realistic, engaging, and academically challenging program of the Urban Land Institute in which high school juniors and seniors learn the roles, issues, trade-offs, and economics involved in urban development.

Clark County should consider developing educational strategies to bring all players up to speed regarding whatever smart growth and green building recommendations it chooses.

Strategies need to reach all players--from county officials and county administrative departments to construction teams to landscapers to maintenance workers to realtors to county-based architectural, engineering, planning and legal firms to developers themselves.

To develop its green building message, PlanGreen recommends that Clark County start with King County's GreenTools Suburban City Toolkit. King County's toolkit it includes GreenTools for Governments with a sample staff training plan: http://www.metrokc.gov/dnrp/swd/greenbuilding/toolkit/pages/governments.html.

For the smart growth aspect of its training program, Clark County should consider adapting the smart growth modules of the State of Massachusetts Smart Growth/Smart Energy Toolkit found at the following web link http://www.mass.gov/envir/smart_growth_toolkit/pages/SG-modules.html

Table 1 | PlanGreen Implementation Recommendation Matrix

Activity	Description	Schedule	Estimate Budget	Funding Source	Comments
Implementation Matrix Lead:	Secure inter-agency involvement in filling in this matrix.				An integrated process in moving towards sustainability is extremely important and all county agencies should be given a role.
Green Neighborhood Standards - Adoption with incentives Lead:	Create training for and about incentives for the use of LEED-ND and Evergreen Sustainable Development Standard				Monitor State of WA programs
Form-Based Code Lead:	Hold at least 6 professionally facilitated charrettes with stakeholder input to develop code.				There are people in the region who can help with this task.
Update Street & Parking Standards Lead:	Hold at least 6 professionally facilitated charrettes with stakeholder input to develop "Complete and Green Street" Standards				This task is greatly reduced or eliminated if a form-based code is developed.
Local Redevelopment Authority Lead:	Create LRA in order to set separate Green Building standards and to purchase, hold and sell land.				Precedent is Camp Bonneville LRA
LID Ordinance Review and Revisions Lead:	Review Light Imprint Matrix. Consider adding LID strategies important to urbanizing areas as recommended.				This should be done ASAP, before passage of a LID ordinance.
Shared LID Facilities Lead:	Explore a public-private shared facilities agreement to get existing building owners to use LID to treat stormwater.				Portland is developing a precedent. See their shared facilities agreement in Appendix C
Highway 99 "Complete and Green Street" Infrastructure Lead:	Develop recommended "Complete and Green Street" infrastructure along Highway 99				Should be done in conjunction with district heating if county is willing to implement.
Highway 99 District Heating Lead:	Explore uses of sewer heat for utilization in new development/redevelopment along Highway 99.				Should be done in conjunction with complete and green streets infrastructure.
Metro Model Ordinance for Protection of Ecosystem Services Lead:	Adapting this ordinance would assure that sustainability measures for the entire planning area are implemented. It especially addresses water quality				Metro recently had an "integrating Habitats" competition to promote the policies in the model ordinance in actual development projects.

Green Rehabilitation of Historic Structures Lead:	Watch the National Trust's sustainability website for technologies and programs.	National Trust's Green Lab is being established in the Pacific Northwest.
Sustainability/Green Building Police for Clark County Lead:	Explore Montgomery County, MD and King County, WA as models.	Ultimately, this is what you are aiming at.
Pilot Project Identification Lead:	Determine goals for the project, secure land and put out an RFP.	May be dependent on development of a local redevelopment authority.
Green Collar Jobs Program Lead:	Utilize Governor's Green Collar Jobs Program in making "complete and Green Streets" improvements to Highway 99 and other public projects in the sub-area.	A local redevelopment authority may be in the best position to fully utilize this program - along with Public Works.

Glossary

Best Management Practice (BMP) - a schedule of activities, prohibitions of practices, physical structures, maintenance procedures, and other management practices undertaken to reduce or prevent increases in runoff quantity and pollution.

Bioretention - a stormwater management system, often termed a rain garden, that uses soil and plants to reduce the volume of surface water runoff and to capture pollutants. Bioretention systems with liners and under drains may more properly be called bio-detention, since they may not retain a significant fraction of the runoff.

Charrette - In urban planning, the charrette has become a technique for consulting with all stakeholders. Such charrettes typically involve intense and possibly multi-day meetings, involving municipal officials, developers, and residents. A successful charrette promotes joint ownership of solutions and attempts to defuse typical confrontational attitudes between residents and developers.

Light Imprint New Urbanism (LINU) - LINU is a comprehensive approach development technique which aims to lie lightly on the land by coordinating sustainable engineering practices and New Urbanist design techniques, offering different solutions for different transect zones. The strategy significantly lowers construction and engineering costs, and allows for additional focus on conservation and environmental efficiency without compromising design priorities such as connectivity and the public realm.

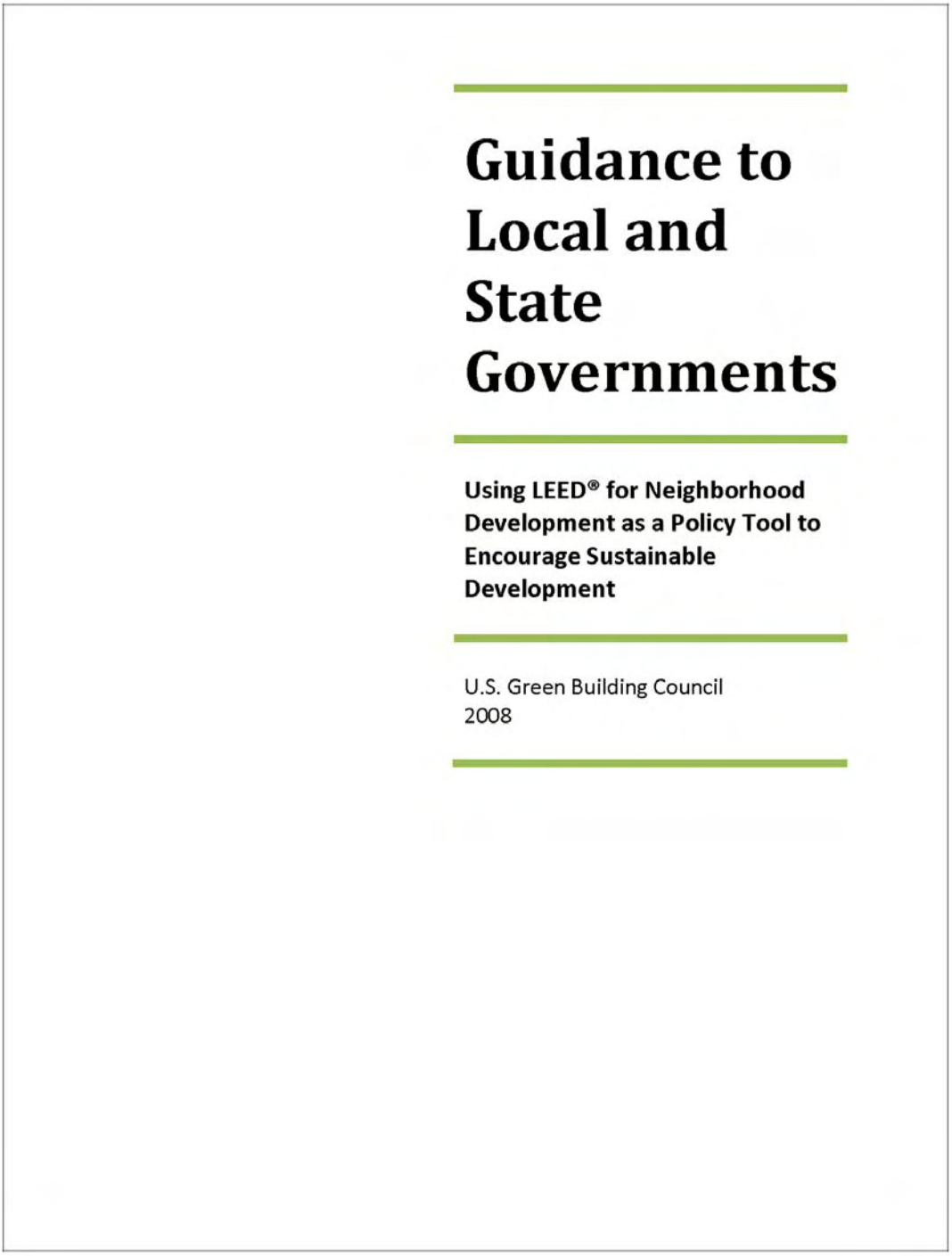
Low Impact Development (LID) - the use of site design and onsite Best Management Practices (BMPs) for the purpose of limiting surface water runoff and pollutant generation from a development site in order to more closely mimic the flow regime and water quality parameters found on an undisturbed site.

New urbanism -an American urban design movement that arose in the early 1980s. Its goal is to reform all aspects of real estate development and urban planning, from urban retrofits to suburban infill. New urbanist neighborhoods are designed to contain a diverse range of housing and jobs, and to be walkable.

NPDES - As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. It is typically administered by states.

Transects - New Urbanist town planners use the term transect to refer to the varieties of land use from an urban core to a rural boundary.[3] General New Urban transect classifications (from highest to lowest density) are: urban core, urban center, general urban, suburban, rural, and natural.

APPENDIX A GUIDE TO LOCAL AND STATE GOVERNMENTS


Guidance to Local and State Governments
Using LEED® for Neighborhood Development as a Policy Tool to Encourage Sustainable Development
U.S. Green Building Council
2008

Part I.

Background

There are currently 12 federal, 26 state and 103 local policies in place that encourage the use of LEED. To date, the vast majority of these policies have referenced the LEED for New Construction rating system, but there are increasing numbers of policies which involve other LEED rating systems as well, such as LEED for Existing Buildings and LEED for Core and Shell.

We have also already begun to see government policies involving LEED for Neighborhood Development at both the local and state level. For example, in 2006, Sarasota County, Florida approved a Green Development Incentive Resolution that provides fast-track permitting for residential and commercial green developments. Such incentives apply to projects pursuing LEED for Neighborhood Development. Additionally, in 2007, the Governor of the State of Illinois signed "The Green Neighborhood Grant Act," which creates state-level incentives for LEED for Neighborhood Development. The Act directs the Department of Commerce and Economic Opportunity to fund up to 1.5% of total development costs for up to three applicable projects per year. Applicable neighborhood developments will have achieved LEED for Neighborhood Development certification.

Benefits of LEED for Neighborhood Development

LEED for Neighborhood Development recognizes, through certification, development projects that successfully protect and enhance the overall health, natural environment, and quality of life of our communities. The rating system encourages smart growth and new urbanist best practices, promoting the location and design of neighborhoods that reduce vehicle miles traveled and communities where jobs and services are accessible by foot or public transit. It promotes more efficient energy and water use—especially important in urban areas where infrastructure is often overtaxed. All of these benefits contribute to the overall character and appeal of a community. As the population ages, and energy costs rise, there is increasing demand for communities that are both walkable and energy efficient. By improving efficiency, contributing to economic development, protecting the natural environment, strengthening energy independence, supporting climate protection, building healthier communities, and enhancing the quality of live in your community, LEED for Neighborhood Development certified projects will be contributing to your community's triple bottom line—economic development, environmental protection, and increased equity.

How to Use this Written Guidance

This guidance has been developed for local, regional, and state governments who wish to use LEED for Neighborhood Development[1] as a policy tool to promote sustainable

[1] The LEED for Neighborhood Development program is currently being piloted with nearly 240 projects from 39 states and 6 countries, using the LEED for Neighborhood Development Pilot Rating System. These

2

communities. Careful consideration should be applied when deciding which, if any, policies to employ.

This resource has been developed by the U.S. Green Building Council in collaboration with members of the LEED for Neighborhood Development Core Committee, representatives from local and state governments and stakeholder associations which represent these entities. It is expected that this guidance will be revised and expanded for the post-pilot version of LEED for Neighborhood Development.

There are many ways in which LEED for Neighborhood Development can be used as a tool to promote more sustainable communities, but most fall into the following broad categories:

- it can be used to evaluate current policies and practices;
- it can be used as a basis for structural incentives;
- it can be used as a basis for financial incentives;

Each of these is discussed in more detail below, as are some of the policy limitations inherent to LEED for Neighborhood Development.

Part II.

Evaluation of Current Policies and Practices

LEED for Neighborhood Development can be used to analyze whether existing development regulations, such as zoning codes, development standards, landscape requirements, building codes, or comprehensive plans are "friendly" to sustainable developments. By comparing your locality's development practices to the LEED for Neighborhood Development rating system, your public officials and planning department can better identify obstacles in your zoning which may currently make it difficult, onerous, costly, or impossible to undertake some aspects of sustainable development in your community. Some common examples include required high parking ratios and zoning that prevents residential areas from being built near shops and services. Reducing code barriers, such as those that prohibit solar panels or require vehicle-oriented streets, will help facilitate greener developments.

LEED for Neighborhood Development is also helpful in achieving other goals some communities may have already articulated for themselves, such as promoting infill, redevelopment, or transit-oriented development (TOD). LEED for Neighborhood

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projects are in the process of gathering documentation based on the rating system which they will submit to USGBC in order to become certified. The information learned during the pilot program will be used to make further revisions to the rating system and certification process, and as such, the rating system is likely to change somewhat. The resulting draft rating system will be posted for public comment before it is submitted for final approvals and balloting. The full LEED for Neighborhood Development program will launch for public use in 2009.

Development encourages these strategies through the rating system's various prerequisites and credits and complements other tools such as Transfer of Development Rights (TDR) programs or designation of revitalization zones.

Finally, LEED for Neighborhood Development can be used to inform macro-level land use planning. When considering applying LEED for Neighborhood Development to your locality or state, if it is apparent that no lands are eligible, this may be an indication that in order to achieve sustainability goals, your locality or state has larger strategic investments that need to be made in order to shift current development patterns. For example, development or expansion of transit service can make additional areas eligible for LEED for Neighborhood Development.

Structural Incentives

Structural incentives are those that can be incorporated into existing local and state government policies and regulations. Such incentives include density and height bonuses, expedited and fast-track permitting, and conditioning of the sale of publicly-owned land.

Density and height bonuses can be used to permit developers to increase the number of units allowed on a piece of property if they meet certain requirements such as a commitment to LEED for Neighborhood Development certification.

Expedited and fast-track permitting policies can be used to help streamline and coordinate the review and issuance of permits for projects which meet LEED for Neighborhood Development requirements. This allows projects that are performing better with regard to sustainability outcomes to move forward more quickly than conventional projects.

The sale of publicly-owned land or publicly-funded projects in your locality can also be conditional upon LEED for Neighborhood Development certification of any projects built on that land in order to promote sustainable development.

Financial Incentives

Financial incentives leverage market forces to encourage sustainable development. Such incentives include grants, tax credits or abatements, reduced permitting fees, revolving loan funds, lower impact fees, free technical assistance, "feebates," and Tax Increment Financing.

Tax credits or abatements could be given to projects that meet LEED for Neighborhood Development criteria in order to encourage projects to pursue more sustainable development.

Reduced permitting fees work much the same way, except permitting fees are either reduced or waived entirely if a project meets specific criteria, such as a commitment to LEED for Neighborhood Development certification.

"Feebates" are a way of utilizing economic incentives to support activities which a locality deems desirable and to discourage activity which a locality deems harmful. With this mechanism, localities and states can attach a fee to undesired activity and a rebate to desired activities, such as LEED for Neighborhood Development certification.

Tax Increment Financing (TIF) is predicated on the fact that increased tax revenues result from investment and subsequent increased site value of an area. As investment creates more taxable properties, this increased revenue is used to finance debt used to pay for the project. Municipalities first establish assessed property values for a baseline year in a delineated TIF district and then apply any incremental increase in property assessments and tax revenues *after* the baseline year for construction financing within the area. LEED for Neighborhood Development certification could be used as the criteria for obtaining TIF district status.

Limitations

Careful consideration of the LEED for Neighborhood Development rating system should be employed by states and localities thinking of using LEED for Neighborhood Development as a potential policy tool. Localities should be aware of the content of the rating system, especially the prerequisites related to location. Not all locations in a given locality will necessarily be able to meet these prerequisites requirements, and as such, straightforward mandating of the LEED for Neighborhood Development rating system for all projects in a locality is not encouraged.

Additionally, because LEED for Neighborhood Development is a national program, on some topics addressed in the rating system such as stormwater regulation, some local governments may have more stringent regulations than LEED for Neighborhood Development. LEED for Neighborhood Development is not designed to override or replace these more stringent regulations, but rather to set a minimum baseline that will encourage projects in localities with weaker regulations to conform to a higher standard.

Finally, LEED for Neighborhood Development is not a replacement for comprehensive planning by the municipality, county, region, or state. It was not designed to rate public plans but rather aims at individual project development plans as the main target for certification.

Resources

General Resources

- Playbook: http://www.greenplaybook.org
- ICLEI Star Community Index: http://www.iclei.org/index.php?id=7250

Current Government Policy Databases

- U.S. Green Building Council public policy database: http://www.usgbc.org/PublicPolicy/SearchPublicPolicies.aspx?PageID=1776
- U.S. Green Building Council policy tools for schools and governments: http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1780
- EPA Smart Growth Policy database: http://cfpub.epa.gov/sgpdb/search.cfm

Zoning Code Reform

- Article, "Overcoming Obstacles to Smart Growth through Code Reform. An Executive Summary of Smart Growth Zoning Codes: A Resource Guide": http://www.lgc.org/freepub/PDF/Land_Use/sg_code_exec_summary.pdf
- Presentations, Smart Growth Zoning Codes: http://www.lgc.org/events1/land_use/past/sg_zoning_codes04.html

Development Standards

- LEED rating systems: http://www.usgbc.org/leed

Building Codes

- Building Codes Assistance Project: http://www.bcap-energy.org/home.php
- Article, "Breaking Down the Barriers: Challenges and Solutions to Code Approval of Green Building": http://www.resourcesaver.org/file/toolmanager/O16F24735.pdf
- State Energy Alternatives: "Energy Codes and Standards": http://www.eere.energy.gov/states/alternatives/codes_standards.cfm

Parking

- EPA Publication, "Parking Spaces/Community Places: Finding the Balance through Smart Growth Solutions": http://www.epa.gov/piedpage/pdf/EPAParkingSpaces06.pdf
- Presentation, "Reforming Parking Requirements: Less Traffic, Better Places": http://www.lgc.org/freepub/land_use/presentations/siegman_sgzc_oak04/index.htm

Form-Based Coding

- Article, "Form-Based Coding": http://www.fairfaxcounty.gov/planning/tod_docs/fbcodes.pdf
- Publication, Form Based Codes: http://scholar.lib.vt.edu/theses/available/etd-05122004-113700/unrestricted/BurdetteFINALmajorpaper.pdf

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Infill Redevelopment

- HUD Regulatory Barriers database: http://www.huduser.org/rbc/search/rbcresults.asp?query=+AND+TopicID+in+%287%29&RecordsPerPage=10&Page=3
- Publication, Municipal Resources Service Center, "Infill Development: Strategies for Shaping Livable Neighborhoods": http://www.mrsc.org/Publications/infill1.pdf
- Presentation, "Infill, Mixed Use and Compact Development": http://www.lgc.org/freepub/land_use/presentations/zykofsky_denver02/index.htm
- Publication, Maryland Department of Planning, "Models and Guidelines for Infill Development": http://www.mdp.state.md.us/mgs/infill/InfillFinal_1.pdf
- Model Ordinance for Infill Development: http://www.dca.state.ga.us/intra_nonpub/Toolkit/ModelOrdinances/ModOrdInfl.pdf
- EPA "The Transportation and Environmental Impacts of Infill Versus Greenfield Development: A Comparative Case Study Analysis": http://www.epa.gov/dced/pdf/infill_greenfield.pdf
- Northeast-Midwest Institute and Congress for New Urbanism: "Strategies for Successful Infill Development": http://www.nemw.org/infillbook.htm

Transit-Oriented Development (TODs)

- Center for Transit Oriented Development "Preserving and Promoting Diverse Transit-Oriented Neighborhoods": http://www.cnt.org/repository/diverseTOD_FullReport.pdf
- Reconnecting America "Realizing the Potential: Expanding Housing Opportunities Near Transit": http://www.reconnectingamerica.org/public/reports

Transferable Development Rights (TDRs)

- American Planning Association "Model of Transferable Development Rights (TDR) Ordinance": http://www.planning.org/smartgrowthcodes/pdf/section46.pdf
- Smart Communities: http://www.smartcommunities.ncat.org/landuse/transfer.shtml
- Paper on "Transfer of Development Rights Programs": http://government.cce.cornell.edu/doc/html/Transfer%20of%20Development%20Rights%20Programs.htm

Density or Height Bonuses

- American Planning Association "Model Affordable Housing Density Bonus Ordinance": http://www.planning.org/smartgrowthcodes/pdf/section44.pdf
- HUD Regulatory Barriers Clearinghouse: http://www.huduser.org/rbc/newsletter/vol2iss4more.html

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Expedited or Fast-Track Permitting

- Austin Housing Finance Corporation: http://www.ci.austin.tx.us/ahfc/smart.htm

Reduced Permitting Fees

- Gainesville, Florida Permit Fee Reduction Incentive: http://www.usgbc.org/ShowFile.aspx?DocumentID=1979

Technical Assistance

- Portland, Oregon: http://www.portlandonline.com/osd/index.cfm?c=41481
- Seattle, Washington: http://www.seattle.gov/dpd/greenbuilding/

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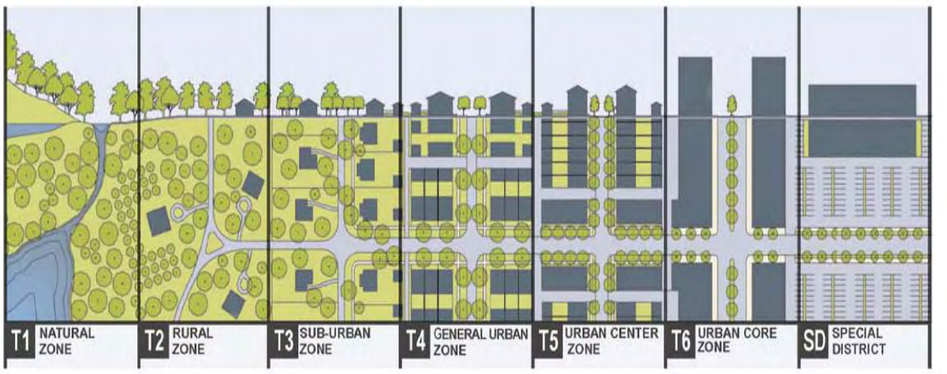
APPENDIX B LIGHT IMPRINT STORM DRAINAGE MATRIX

DRAFT

LIGHT IMPRINT STORM DRAINAGE

Note: All requirements in this Table are subject to calibration for local context.



	T1 NATURAL ZONE	T2 RURAL ZONE	T3 SUB-URBAN ZONE	T4 GENERAL URBAN ZONE	T5 URBAN CENTER ZONE	T6 URBAN CORE ZONE	SD SPECIAL DISTRICT	
a. PAVING								
Compacted Earth	■	■						$
Wood Planks	■	■						$$$
McAdam Stone/Tar		■	■					$
Plastic Mesh/Geomat		■	■	■				$$
Crushed Stone/Shell		■	■	■				$
Cast/Pressed Concrete Paver Block			■	■				$$
Grassed Cellular Plastic			■	■				$$$
Grassed Cellular Concrete			■	■				$$$
Pervious Asphalt			■	■	■			$$$
Asphalt			■	■	■	■		$$
Concrete			■	■	■	■		$$$
Stamped Asphalt			■	■	■	■		$$
Stamped Concrete			■	■	■	■		$$$
Pea Gravel				■	■			$
Stone Paving Blocks				■	■	■		$$$
Wood Paving Blocks on Concrete					■	■		$$$
Asphalt Paving Blocks					■	■		$$
b. CHANNEL								
Natural Creek	■	■						$
Terracing	■	■						$
Vegetative Swale	■	■	■					$
Drainage Ditch	■	■	■					$
Stone/Rip Rap Channels		■	■					$$
Vegetative/Stone Swale			■	■				$
Grassed Cellular Concrete			■	■				$$$
Grassed Cellular Plastic			■	■				$$$
Soakaway Trench			■	■				$$$
Slope Avenue			■	■				$$$
French Drain			■	■				$
Concrete Pipe			■	■	■	■		$$
Gutter			■	■	■	■		$$
Masonry Trough			■	■	■	■		$$$
Planting Strip Trench				■	■			$
Canal				■	■	■		$$$
Sculpted Watercourse, ie cascades					■	■		$$$
Concrete Trough					■	■		$$
Shallow Channel Footpath/Rainwater Conveyor					■	■		$$$
Archimedian Screw					■	■		$$$
c. STORAGE								
Irrigation Pond		■	■					$
Retention Basin with Sloping Bank		■	■					$
Retention Basin with Fence		■	■	■				$$
Retention Hollow			■	■				$
Detention Pond			■	■				$
Vegetative Purification Bed			■	■				$
Flowing Park			■	■	■			$$$
Retention Pond			■	■	■			$
Landscaped Tree Wells				■	■			$$
Pool/Fountain				■	■	■		$$$
Grated Tree Wells					■	■		$$$
Underground Vault/Pipe/Cistern-Corrugated Metal					■	■		$$
Underground Vault/Pipe/Cistern-Precast Concrete					■	■		$$$
Underground Vault/Pipe/Cistern-Cast in Place Concrete					■	■		$$$
Underground Vault/Pipe/Cistern-Plastic					■	■		$$
Paved Basin					■	■		$$$
d. FILTRATION								
Wetland/Swamp	■	■						$
Filtration Ponds	■	■						$$
Shallow Marsh	■	■	■					$
Surface Landscape	■	■	■	■				$
Natural Vegetation	■	■	■	■	■	■		$
Green Finger		■	■					$$
Bio-Retention Swale		■	■					$$
Purification Biotope		■	■	■				$$$
Roof Garden		■	■	■	■	■		$$$
Rain Garden			■	■				$$
Detention Pond			■	■				$
Grassed Cellular Concrete			■	■				$$$
Grassed Cellular Plastic			■	■				$$$
Waterscapes				■	■	■		$$$

APPENDIX C CITY OF PORTLAND DRAFT SERVICE PROVIDER AGREEMENT

City of Portland, Oregon
Cover Letter for Draft Service Provider Agreement

Nature of Document
This is an agreement outline for a private party who is willing to provide stormwater management services for stormwater runoff from right-of-way for which the City has accepted drainage responsibilities and/or other City-owned properties. The agreement requires facility operation in a manner that meets the requirements of the 2001 Stormwater Management Manual produced by the City of Portland, Bureau of Environmental Services. The Stormwater Manual is designed to comply with City code section 17.38. This agreement does not address issues relating to conveyance across a public right-of-way; a separate service agreement must be used if conveyance across a public right-of-way is involved. Parties desiring to cross a public right-of-way should contact the Office of Transportation for further requirements.

This outline is in draft form for consideration only. The City and the Stormwater Advisory Committee hope that interested properties will contact the City to test the usefulness of this agreement outline. The City hopes to experiment with at least 2 pilot projects that use this agreement outline. To make comments on a section of this agreement, please contact Dawn Hottenroth, in the City's Bureau of Environmental Services at (503) 823-7767 or dawnh@bes.ci.portland.or.us. This agreement deviates from current requirements of the Portland City Code, and cannot be implemented unless the City Council authorizes execution of the agreement as a pilot project.

Background
Allowing private management of stormwater runoff from public properties may be environmentally beneficial in some situations. Facility sharing is a tool that may assist the City in addressing existing development by managing discharges from private property, public property and public right-of-way, in a combined facility. This could be an oversized new facility or a redevelopment or retrofit of an existing facility. The facility could be on property from which stormwater runoff originates, on an adjacent property, or at a location downstream from where the runoff originates.

Purpose
The purpose of this outline is to describe the proposed relationship between the City and a private party providing stormwater management services for runoff the City would otherwise manage using its own facilities.

Facilities designed to manage stormwater runoff from various private properties are addressed by a separate facility sharing agreement. Private property drainage going to public facilities is currently covered by the service provision requirements of City code.

Main Elements of this Agreement
Any agreement providing for private management of stormwater the City would otherwise manage in public facilities must cover the following issues:

A. **Nature of the Relationship**: the City shall retain review and approval authority over all operations linked to stormwater management for runoff from City properties or rights-of-way managed by the City. The private party shall operate as a service provider for the City, complying with requirements governing facility operations, maintenance and related activities.

B. **Financing:** The agreement must address the financial relationship between the City and the service provider. Financing for facility construction, facility maintenance, minor facility repair, and major facility repair and replacement must be addressed.

C. **Risk Management**: The City and the service provider must agree on allocation of responsibility for site liabilities including spills, flooding, materials disposal and facility malfunction or failure.

City Roles

The City will retain its governmental regulatory role, which cannot be compromised by contractual limitations. This includes inspection and enforcement activities to assure stormwater management facilities comply with their recorded operations and maintenance plan agreement.

DRAFT SERVICE PROVIDER AGREEMENT

This Service Provider Agreement (SPA) is entered into by and between the City of Portland (CITY**)** acting by and through its Bureau of Environmental Services, hereafter called BES and _____ (enter private property owner's name) as service provider for stormwater management services

This SPA is authorized pursuant to City of Portland Ordinance No. _____ and becomes effective upon full execution of this document.

PURPOSE

The City and the Service provider desire to work together to provide stormwater flow rate, flow volume and pollution reduction for runoff from the public right-of - way or other publicly held properties. This Agreement defines the roles and responsibilities of BES and Service provider for operating, maintaining, repairing and replacing a stormwater management facility that treats drainage from public right-of-way or other publicly held properties. The facility shall be maintained in a manner that limits impacts to the environment from stormwater runoff and protects private properties and public health.

By this SPA, Service provider agrees to provide stormwater management services according to the recorded facility operations and maintenance plan.

GENERAL PROVISIONS

1) Definitions

Facility Residuals Management Plan - an operational plan describing the removal, characterization, monitoring or other testing protocols need to evaluate materials for appropriate disposal. This plan shall describe procedures for all materials removed from stormwater management facilities, including sediment spoils, ditch spoils, trash and other debris of both an organic or inorganic nature.

Repair - to correct deficiencies in the operations of the facility. **Minor Repair -** those corrections needed for facility operations that affect less than 50% of the facility capacity or area and require no machine operated excavation. These corrections are primarily to surface facility components. **Major Repair -** those corrections needed for facility operations that affect greater than 50% of the facility capacity or area and/or require excavation or underground facility component removal.

Replacement - to completely remove and then rebuild a new facility. Replacement occurs when a facility can not be repaired to the minimal level of facility operation.

2) Project Descriptions

Describe facility location, facility components, facility drainage area, facility function and general facility maintenance characteristics. Describe sources and nature of flow and methods of flow conveyance, including documenting property rights associated with the conveyance.

3) Duration and Nature of Agreement

This agreement shall continue in perpetuity. This agreement is intended to and does attach to and run with the land affected herein. This agreement is binding on the undersigned

agreement partners. It is the intent of parties to create a continuing obligation and right on the part of themselves and subsequent owners of the subject lands. This agreement shall be recorded in the deed records for _____ County, Oregon.

4) Roles of Service provider

Service provider is responsible for all activities and functions concerning general operations and maintenance of the stormwater management facility as specified in the recorded facility operations and maintenance plan (see Attachment A).

Service provider shall also have a role in assessing facility condition and determining when facility repair or replacement is needed.

5) Repair Requests

Minor repair shall be provided by Service provider at no additional cost to the City. The City shall retain the right to assess need for and determine adequacy of minor repairs. Major repair needs, including work needing excavation, subsurface component replacement or structural failure of a facility component, shall be reported to the City within 30 days of Service provider discovering the need for major repairs. Repair request shall state the nature of the repair, the remedy sought and the estimated cost of repair. The City shall inspect all repair proposals and then approve work if City concludes the proposal is appropriate and in the public interest. The City may choose to use its own staff and resources to complete major repair or replacement work. Costs for major repairs shall be borne by both parties based on the percentage of flow that contributes to the facility (See section 10 for the billing formula). Major repairs resulting from spills, accidents or other emergency conditions shall be the financial burden of the party responsible for causing the emergency.

6) City Roles

The City of Portland, Bureau of Environmental Services, retains regulatory authority over all facilities covered by facility sharing agreements. City monitors stormwater management facilities for compliance with City Code requirements (PCC § 17.38) applicable administrative rules. City retains the following rights:

A) The right to amend City Code and stormwater management rules, including amendments that alter the substantive responsibilities of persons operating stormwater treatment facilities;

B) The right to review and approve all facility sharing agreements that are proposed as a method of satisfying regulatory requirements;

C) The right to inspect the facility during reasonable working hours;

D) The right to impose penalties against Service provider, as provided in City Code and administrative rules, for inoperative facilities or for failure to abide by recorded operations and maintenance plans;

E) The right to assess fees, liens, or other penalties for failed facilities that revert to the City for maintenance, pursuant to procedures described in the administrative rules for the Stormwater Enforcement Code (PCC § 17.39); and

F) The right to receive notification of any change of use or change of discharge from Service provider, and to approve or reject such proposed changes, prior to modifications taking effect.

G) To require an easement to the facility property to assure maintenance and inspection access and allow for reversion of the facility to the City in cases of facility failure.

7) Materials Disposal

Service provider shall submit a facility residuals management plan for City review and approval. The plan must detail a cradle to grave materials tracking system. Service provider shall use a hauling and disposal service provider whose program adequately addresses and describes elements relating to: a materials inventory and tracking program, materials sorting, materials characterization, various options for materials disposal that relate to pollutant loadings in residual materials, an approved ODOT and/or EPA transport license, and use of a licensed disposal facility. The City reserves the right to approve or reject use of particular contractors, based upon its determination of qualifications and proposed methods for materials disposal.

8) General Site Liability

The facility shall be used for the purposes described in this agreement. Service provider shall not use or allow the use of the property or any part thereof for any unlawful purpose or in violation of any certificate of occupancy, and certificate of compliance, any other permit or any law. Service provider shall not permit waste of the facility or any act to be done or any condition to exist on the property or any part thereof which may be hazardous, which may constitute a nuisance, or which may void or make voidable any policy of insurance in force with respect to the property. Service provider may use the property only for the uses and activities allowed in this agreement and for no other uses or activities without City's prior written consent.

The service provider shall provide adequate documentation of insurance, bonding or other surety to assure financial ability to meet the requirements of this agreement.

9) Consideration and Billing

City shall reimburse Service provider for costs associated with treating the public right-of-way runoff portion of the flow being managed by the facility, based on the following formula: [insert formula that specifically identifies the costs that will be reimbursed and the method for allocating those costs between public water and private water]. Cost allocation shall be based on the percentage of the entire facility drainage area that is City controlled impervious surface. Billing for City's share of the costs shall be processed as follows: [describe invoice and payment details].

10) Access to Records

Both parties and their duly authorized representatives shall have access to the books, documents, papers, and records which are pertinent to this agreement for the purpose of audits, examinations, studies and any other lawful purpose.

11) Facility Non-Performance

The City of Portland may require agreement parties to remedy facilities that need maintenance, or to retrofit facilities to properly operate in compliance with the recorded operations and maintenance plan. If facility remains out of compliance with operations and maintenance plans that City shall have the authority to declare the site a nuisance, and take remediation steps necessary to abate the nuisance. A lien against the property may be levied to cover abatement costs. Remedies shall not be exclusive. If all parties withdraw from the agreement or no parties are left to assume maintenance, the City shall apply authorities within the facility easement document and in this agreement to assume ownership of the facility which shall become part of the public sewer system.

12) Termination

This Agreement shall continue in perpetuity. This Agreement is intended to and does attach and run with the land affected herein. This Agreement is binding on the undersigned parties. It is the intent of the City to create a continuing obligation and right on the part of it and subsequent owners of the subject land.

13) Dispute Resolution / Agreement Modification

Any part wishing to dispute or amend this agreement or its required actions shall provide 30-day notice to the other party. The dispute resolution request shall specify the financial, operational and/or other reasons for disputing or requesting modification of this agreement. The recipient party shall be allowed 15 days to formulate a response to the party calling for dispute resolution or requesting agreement modification, including offers to resolve the dispute. If the matter remains unresolved, either party has 30 days to request mediation over the dispute.

14) Indemnification and Liability for Accident, Spill or Illegal Dumping

Service provider shall take all reasonable precautions to protect itself and its employees, service providers, consultants, contractors and the public from exposure to any hazardous materials of which Service provider has actual or constructive knowledge or objective reasons to expect while performing its obligations under this Agreement. The term, “Hazardous Materials", shall include substances defined as hazardous or toxic by any local, state or federal law or regulation. Service provider's obligations pursuant to this indemnity shall survive for the duration of this Agreement. .

Service provider agrees to indemnify and defend City and its officers, employees, service providers and representatives from and against all expenses, judgments, claims, demands, penalties, interest, and causes of action of any kind or character relating to or arising from this agreement including the use, generation, storage, release, disposal or exposure to Hazardous Materials on or about the property on which the facility is located. The Service provider shall also indemnify the City from the cost of defense, attorney fees arising in favor of any person on account of personal injury, death or damage to property and arising out of or resulting from the negligent or other legally culpable acts or omissions of Service provider, its employees, service providers, subcontractors or representatives.

Within the limits of Oregon Law, City agrees to indemnify and defend Service provider and its officers, employees, service providers and representatives from and against all claims, demands, penalties and causes of action of any kind or character relating to or arising from this agreement, including the cost of defense, attorney fees arising in favor of any person on account of personal injury, death or damage to property and arising out of or resulting from the negligent or other legally culpable acts or omissions of the City, its employees, service providers, subcontractors or representatives.

15) Severability

If any of the provisions contained in this agreement are held invalid or unenforceable, the enforceability of the remaining provisions shall not be impaired. All provisions concerning the limitation of liability, indemnity and conflicts of interest shall survive the termination of this agreement for any cause.

16) Oregon Law and Forum

This agreement shall be construed according to and governed by the laws of the State of Oregon. Any litigation, arbitration or other dispute resolution procedure concerning this agreement shall occur in an appropriate forum in Portland, Oregon. Both parties shall comply with all federal, state, and local laws, regulations, executive orders and ordinances applicable to the roles defined in this agreement.

Without limiting the generality of the foregoing, parties expressly agree to comply with: (I) Title VI of Civil Rights Act of 1964; (ii) Section V of the Rehabilitation Act of 1973; (iii) the Americans with Disabilities Act of 1990 and ORS 659.425; (iv) all regulations and administrative rules established pursuant to the foregoing laws; and (v) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations. Both party's performance under this is conditioned upon either parties compliance with the provisions of ORS 279.312, 279.314, 279.316, 279.320, and 279.555, which are incorporated by reference herein.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on _____

_____
SERVICE PROVIDER

By:_____

Title:_____

_____
CITY REPRESENTATIVE

By:_____

Title:_____

STATE OR OREGON
County of _____

The above instrument was subscribed and sworn to before me this_____ day of _____

By _____

As_____ of _____

_____
Notary Public - State of Oregon

My commission expires:_____

APPENDIX D CITY OF PORTLAND DRAFT PRIVATE FACILITY SHARING AGREEMENT

City of Portland, Oregon
Cover Letter for Draft Private Facility Sharing Agreement

Nature of Document
Private parties may propose to co-mingle their stormwater runoff within combined or otherwise shared stormwater management facilities. The City has developed an outline for such agreement proposals. The outline covers facility use to meet requirements of the 2001 Stormwater Management Manual produced by the City of Portland, Bureau of Environmental Services to comply with City code section 17.38. This agreement does not address issues relating to stormwater conveyance across a public right-of-way - a separate service agreement must be used. Parties desiring to cross public right-of-way should contact the Office of Transportation for further requirements.

This agreement outline is in draft form for consideration only. The City hopes to experiment with at least 2 pilot projects to test the usefulness of this agreement outline. The City and the Stormwater Advisory committee hope that interested properties will contact the City to volunteer to try out this agreement outline. To make comments on a section of this agreement or to volunteer to pilot test this agreement between you and other interested property owners, please contact Dawn Hottenroth, in the City's Bureau of Environmental Services at (503) 823-7767 or dawnh@bes.ci.portland.or.us

Background
Allowing for joint use and responsibility over one stormwater management facility may be environmentally beneficial in some situations. Facility sharing may help address local water quality issues by managing discharges from existing development, through a new, redeveloped or retrofit facility construction.

Purpose
The purpose of this agreement outline is to explain the relationship between private parties who share a stormwater management facility for private property drainage.

This agreement does not address private facilities managing drainage from the public right-of-way or public property. Private property drainage going to public facilities is currently covered by the service provision requirements of City code. Public property drainage managed on another public agency property is managed through interagency or intergovernmental agreements.

Main Elements of this Agreement
The agreement must address all the following issues:

D. ***Liability:*** The parties to this agreement must be jointly and severally liable

E. ***Nature of the Relationship Between Partners***: Are the partners a board, a limited liability corporation, or a simple legal partnership? Describe the type or legal and financial arrangement between partners.

F. ***Decision-Making:*** How will decisions regarding project management or specific site responsibilities be made (E.g., single party is authorized to make certain decisions; managing board makes decisions; concurrence of all parties required to make decisions). This section must describe the responsible party for each of the components of the agreement, described below.

G. ***Dispute Resolution***: Describe what method or mediation or voting will be used to settle disagreements or disputes. Methodology may vary depending dependent on the nature of the legal relationship.

H. ***Financing:*** Include land dedication, capital construction, monitoring costs, maintenance costs, repair/replacement/upgrade costs. Describe how insurance coverage for spill clean up, illicit discharge clean up and general liability shall be provided. Describe how financial allocations and responsibilities will be reviewed or revised when agreement parties change or withdraw or when a site changes uses or nature of its discharge. Include specific methodologies and allocations for costs - based on impervious area, pollutant load, equal share or other methodology. Include evaluation and reevaluation triggers, such as loss of a party, change of use, or refusal to pay.

Example: If cost is allocated depending on pollutant load expected in flow, if the industrial partner leaves and is replaced by an office building, how will costs be reallocated?

I. ***Facility Construction:*** Who will be the responsible party for overseeing construction? Who will be submitting plans and taking out permits?

J. ***Facility Maintenance***: Include responsible party, contractor (if used), who will be the emergency contact. Include appropriate contact name and phone numbers. Will this be the same party responsible for facility repair and replacement? Example: Maintenance is contracted out to a private service provider, but property B who has 24 hour operation is responsible for oversight and contacting that maintenance contractor. A specific fund is set aside to pay the contractor for maintenance and repair activities.

K. ***Risk Management***: Who will be the responsible party for investigation, remediation and determining cost allocation? For spill, illicit discharge, and general facility operational liability? Example: An insurance policy is purchased to cover all risk-related claims. Costs of the policy premium are allocated based on this agreement.

L. ***Change of Parties***: The City Bureau of Environmental Services must receive notification and approve modifications to the agreement for any change of use, change of discharge or change of agreement partners. New owners must accept legal responsibility for property obligations. Agreement standards must run with the land and updates must be recorded with the City and County.

M. ***Loss of Party***: Describe what will happen if a facility/property owner becomes insolvent, refuses to pay or abandons the site. Methods may include reallocation to remaining parties, use of a surety, etc.

N. ***Change of Use/Change of Discharge***: Describe what method will be used to adjust financial responsibilities when a property covered by the agreement changes the nature of its activity or discharge.

City Roles

The City will retain its regulatory authority over all shared facilities. This includes inspection and enforcement activities to assure stormwater management facilities comply with their recorded operations and maintenance plan agreement.

***DRAFT* Facility Sharing Agreement**
(Italicized Exact Language in Required Sections)

Declaration of Stormwater Management Facility Agreement and Covenant to Record Future Easement with Binding Restrictions

RECITALS

1. Describe Property owner A - legal title of company/owner and real property description (lot & block or metes & bounds), including description of individual lots or portions of property included in this agreement.
2. Describe Property owner B - legal title of company/owner and real property description (lot & block or metes & bounds), including description of individual lots or portions of property included in this agreement.
3. Describe Property owner C - legal title of company/owner and real property description (lot & block or metes & bounds), including description of individual lots or portions of property included in this agreement.
4. Describe other properties that will participate in the agreement. (lot & block or metes & bounds), including description of individual lots or portions of property included in this agreement.
5. Describe the stormwater management facility. Real property location (lot & block or meets & bounds) and legal facility owner(s). Describe basic goal and function of the facility (i.e. to manage stormwater flow rate, flow volume and pollutant loads).
6. Describe the purpose of the agreement with respect to responsibilities for facility easements, operations and maintenance, and liability.
7. Describe nature of the legal relationship.

AGREEMENT

1. Purpose of the Agreement

This agreement covers the joint use of the described stormwater management facility. The purpose of this agreement is to describe roles and responsibilities for providing stormwater management for the participating parties, including delivery of stormwater to the facility.

The parties to this agreement acknowledge that the facility is only compliant with the stormwater management regulations in place at the time this agreement is initially accepted by the City of Portland. The parties acknowledge that the City of Portland may enhance or otherwise modify requirements, and that the City's regulatory discretion is not constrained by this agreement.

2. Project Descriptions

Describe the facility location, facility components, facility function and general facility maintenance characteristics. Describe sources and nature of flow and methods of flow conveyance, including documenting property rights associated with the conveyance. Describe portions of participating properties that drain to the facility. Describe general methods of materials disposal.

3. Duration and Nature of Agreement

This agreement shall continue in perpetuity. This agreement is intended to and does attach to and run with the land affected herein. This agreement is binding on the undersigned parties and on their successors and assignees. It is the intent of parties to create a continuing obligation and right on the part of themselves and subsequent owners of the subject lands. This agreement shall be recorded in the deed record for _____ County.

4. Roles of Agreement Partners

Generally describe rules of the relationship between the parties. Parties must be jointly and severally liable. Parties are financially and legally liable for the continued operation of the facility. Issues that must be covered include: decision-making; dispute resolution; financing; facility construction; facility maintenance; risk management; change of parties; loss of a party; and change of use/change of discharge.

5. City Role

The City of Portland, Bureau of Environmental Services, shall have regulatory authority over all facilities covered by this agreement. The City will determine whether stormwater management facilities comply with City Code requirements (PCC ♣ 17.38) administrative rules, and other appropriate requirements. City retains the following authority:

A. The authority to amend City Code and stormwater management requirements as the City deems necessary, including amendments that alter the substantive responsibilities of persons operating stormwater management facilities;

B. The authority to review and approve of all facility sharing agreements;

C. The authority to inspect the facility during reasonable working hours;

D. The authority to impose penalties against the parties for inoperative facilities or for failure to abide by recorded operations and maintenance plans;

E. The authority to intervene in partner disputes to advocate for actions that support the City interest;

F. The authority to assess fees, liens, or other penalties for failed facilities that revert to the City for maintenance, pursuant to procedures described in the administrative rules for the Stormwater Enforcement Code; and

G. The authority to receive notification of any change of use, change of discharge, or change of agreement partners prior to modifications taking affect.

6. Facility Non-Performance

The City of Portland may require agreement parties to remedy facilities that need maintenance, or to retrofit facilities to properly operate in compliance with the recorded operations and maintenance plan or to comply with new laws and regulations. If parties fail to meet their obligations under this agreement, City is authorized to remedy the deficiency by means of nuisance abatement. Costs of nuisance abatement will be assessed as liens against properties served by the facility.

7. Indemnification

Property owners agree to indemnify and defend City and its officers, employees, agents and representatives from and against all claims, demands, penalties and causes of action of any kind or character relating to or arising from this Agreement, including the cost of defense, attorney fees arising in favor of any person on account of personal injury, death or damage to property and arising out of or resulting from the negligent or

other legally culpable acts or omissions of property owners, their employees, agents, subcontractors or representatives.

The limits of the Oregon Law, City agrees to indemnify and defend property owners and their officers, employees, agents and representatives from and against all claims, demands, penalties and causes of action of any kind or character relating to the negligent or other legally culpable acts or omissions of the City, its employees, agents, subcontractors or representatives.

8. Notice

Identify contact person for each party and how different contact persons or addressed will be designated.

9. Consideration

This agreement is entered into for the mutual benefit of the parties and to establish compliance with the City of Portland regulatory requirements. The City of Portland is not a part to this agreement, but is a third party beneficiary by virtue of this agreement's function of establishing compliance with the City's regulatory requirements. The City acknowledges that this agreement is executed in part to comply with Stormwater Management Requirements of City Code (PCC ♣ 17.38). Individual parties participating in this agreement are acknowledged as complying with stormwater management requirements for their properties as specified at the time this agreement becomes effective. Nothing in this agreement precludes the City from requiring additional stormwater management efforts from the parties to meet new or otherwise modified stormwater management requirements.

10. Termination

This agreement constitutes a permanent covenant that runs with the land and cannot be amended or revoked without City prior written consent.

11. Oregon Law and Forum

This agreement shall be construed according to and governed by the laws of the State of Oregon. Any litigation, arbitration or other dispute resolution procedure concerning this agreement shall occur in an appropriate forum in Portland, Oregon. All parties shall comply with all federal, state, and local laws, regulations, executive orders and ordinances applicable to the roles defined in this SPA. Without limiting the generality of the foregoing, parties expressly agree to comply with: (I) Title VI of Civil Rights Act of 1964; (ii) Section V of the Rehabilitation Act of 1973; (iii) the Americans with Disabilities Act of 1990 and ORS 659.425; (iv) all regulations and administrative rules established pursuant to the foregoing laws; and (v) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations. All parties to this agreement shall comply with the provisions of ORS 279.312, 279.314, 279.316, 279.320, and 279.555, which are incorporated by reference herein.

Approved as to form by City of Portland

Witnessed

Notarized

Enter into this _____ day of _____, _____

_____
Party 1

_____
Party 2

_____
Party 3