



# MEETING AGENDA

## KELSO STORMWATER ADVISORY COMMITTEE

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DATE: February 24, 2016

TIME: 4:00 pm – 5:00 pm

LOCATION: Kelso City Hall, Suite 203

### Old Business

- 1) Meeting minutes for 07/29/2015

### New Business

- 1) Presentation by Otak on the Stormwater and LID Code and Manual Update



Kelso Stormwater Advisory Committee Meeting  
February 24, 2016 @ 4:00 p.m.  
City Hall Conference Room 203  
203 S. Pacific Ave.

Attendees:

1. Gloria Nichols
2. Van Melby
3. Jay Foderus
4. Dan Howell
5. Steffanie Taylor
6. Vina Gaudy
7. [Signature]
8. Tris Zimin
9. Tim KRATZ
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_



## Engineering Department

203 S. Pacific Avenue, PO Box 819 Kelso, WA 98626



### Stormwater Advisory Committee Meeting

July 29, 2015

#### Call to Order:

Gloria called the meeting to order at 4:04 p.m., at City of Kelso City Hall, 203 S. Pacific Ave. - Conference Room 203

#### Those present were as follows:

##### **Advisory Committee Members:**

Gloria Nichols  
Gary Fredricks  
Tim Wines  
Erik Olson  
Steffanie Taylor

##### **Staff:**

Van McKay, City of Kelso  
Nina Caulfield, Recording Secretary

##### **Excused Absences:**

Dan Howell

##### **Unexcused Absences:**

Alexandria Barg

#### Approval of Minutes:

Gary made the motion, seconded by Tim to approve the minutes of January 28, 2015 and the non-quorum open discussion notes of April 29, 2015. Motion carried, all in favor.

#### Open Discussion:

##### **1. KSAC President/Vice-President Vote**

Due to the meeting schedule this year, the elections for new chairs are late and halfway through the current terms. Officers need to be elected to fulfill the remaining terms. Gloria made a motion to nominate Gary for Chair. Steffanie seconded. Motion carried, all in favor. Gary made a motion to nominate Tim for Vice Chair. Gloria seconded. Motion carried, all in favor.

##### **2. Behavior Change Education Program: Target Audience and BMP – Group Discussion**

The current permit requires education about stormwater behavior change. The group needs to select a target audience and decide what they will have them do. Van provided examples. Discussion followed. A favorite target audience among the group were students at all levels of schooling. Tim questioned how this was going to be funded. Van explained that the City has applied for several grants, and while the majority of the funds will be used to implement code changes, there will be some left over for the education program. The



## Engineering Department

203 S. Pacific Avenue, PO Box 819 Kelso, WA 98626



City is also looking into collaborative efforts with other jurisdictions to reduce the costs of the educational outreach.

### 3. LID Code Update Process

OTAK drafted an LID code manual update and checklist. It provides a recommended schedule and process for code updates. Van provided handouts of the checklist and update plans. The City will need to convert to state standards. Local standards will be removed entirely. Discussion followed regarding the removal of the acre threshold replaced by a new 2000 sq. ft. impervious threshold. Other topics regarding stormwater requirements were discussed, such as the new street width standards. Gloria shared a WSU Master Recycler Composters of Lewis County handout on hugelkultur, a German composting method that improves water retention.

#### Next Meeting:

Committee discussed and agreed the next meeting shall be held October 28, 2015.

Gary made a motion to adjourn the meeting, Gloria seconded, with all in favor the meeting adjourned at 4:58 pm.

Approved:

  
Gary Fredricks, Chairperson

  
Nina Caulfield, Recording Secretary

# LID Code and Manual Update

## City of Kelso

Otak Project No. 17854

February 1, 2016

### Project Understanding

The City of Kelso is subject to requirements of the National Pollutant Discharge Elimination Systems (NPDES) Western Washington Phase II Municipal Stormwater Permit (permit), issued by Washington Department of Ecology (Ecology). The current permit requires the City to update its program for controlling runoff from new development, redevelopment, and construction sites. The primary objectives of the update are: 1) to make low impact development (LID) the preferred and commonly used approach to site development and 2) to adopt and enforce standards for stormwater control that are equivalent to Appendix 1 of the permit.

In 2014, Otak wrote a project plan for accomplishing these objectives in Kelso.

The required process for meeting the objective of making LID the preferred and commonly used approach to site development is described in detail in *Integrating LID into Local Codes: A Guidebook for Local Governments*, which is referenced by the permit. This process entails intensive municipal staff involvement. This scope of work describes a collaborative effort between Otak and various City staff to achieve the requirements of the permit. Generally, Otak plans, leads, coordinates, participates in, and creates final deliverables for tasks. City staff participates by using their unique knowledge of local land development standards and practices to compare them with LID practices.

Stormwater engineering standards will be updated by adopting either the 2014 *Stormwater Management Manual for Western Washington* (SWMMWW) or the *Clark County Stormwater Manual* (CCSM).

The permit-required deadline for updating the City's codes and practices is June 30, 2017.

### Task I: LID Code Review

#### Task I.1: LID Gap Analysis

Otak will review the City's land development codes to identify opportunities to incorporate LID principles into the City's development standards. We will review:

- Title 12 – Streets
- Title 13 – Public Services
- Title 15 – Building and Construction
- Title 16 – Subdivisions
- Title 17 – Planning and Zoning
- Title 18 – Environment

## Scope of Work Continued

- Kelso Engineering Design Manual
- Standard Plans and Specifications

We will produce a gap analysis that lists Kelso standards that prohibit or impede the application of LID principles by analyzing 12 topic areas that play a role in the creation of impervious surfaces, loss of native vegetation, and stormwater management. The review process will closely follow the process described in *Integrating LID into Local Codes: A Guidebook for Local Governments*.

### Deliverables

- Initial LID Gap Analysis

### Task 1.2: Assemble and Train City Staff

Otak will work with the City's project manager to identify staff with responsibilities for setting and enforcing the City's land use, engineering, public safety, and critical areas policies. These staff will be requested to participate in the process. City team members will provide substantive review and feedback during the project. A smaller subset of City leaders will provide guidance and decisions based on recommendations.

Otak will host a 3 or 4-hour kickoff meeting and training session for City team members. This meeting may also include KSAC members.

### Deliverables

- PowerPoint presentation
- 3 or 4-hour kickoff meeting and training session
- List of recommended additional reading for staff and KSAC

### Task 1.3: Gap Analysis Review

We have found that the LID Gap Analysis can identify hundreds of opportunities for incorporating LID principles and removing barriers to use of LID BMPs. Therefore, City staff will need to review and give feedback on the initial analysis. Otak will divide the initial LID Gap Analysis (Task 1.1) into sections for targeted review by City team members. City staff will review the initial LID Gap Analysis and give feedback on local circumstances and likelihood of City/community support of potential changes.

Feedback will be gathered at the initial kickoff meeting and training session, through written communications, and through additional group meetings.

Otak will record and summarize staff review and feedback and will update the LID Gap Analysis.

### Deliverables

- Initial LID Gap Analysis divided for targeted review by staff
- Up to three group meetings of 2 hours each
- Memo summarizing discussions and feedback received

- Updated LID Gap Analysis

#### Task 1.4: Prioritization and Selection

Based on team feedback, stakeholder feedback, and experience, Otak will narrow down and prioritize the list of topics or code titles to address in the LID code update and begin to develop concepts for how to update the selected standards.

##### Assumption

- City leaders will review and approve the recommendation or provide additional feedback

##### Deliverable

- Written recommendation and concept-level ideas for selected topics or standards

#### Task 2: Manual Reviews

We will review and compare the suitability, including advantages and disadvantages, of both the SWMMWW and the CCSM to meet Kelso's stormwater regulatory needs and provide a recommendation. If requested, we will review and recommend customizations to WSDOT's *Highway Runoff Manual* for use on public linear projects. [Note: the HRM's infeasibility criteria for low impact development best management practices are not allowed for use by other agencies, requiring some degree of customization to use the manual.]

We will review Chapters 1, 2, 3 and 4 of the Kelso Engineering Design Manual (KEDM) to identify updates needed to comply with the permit. The question of maintaining, changing, or deleting the City's local stormwater facility design criteria will be addressed with the City's project manager and through public involvement (see Task 6).

##### Assumption

- Feedback from the SAC and KSAC on local facility design criteria will occur early in the stakeholder outreach process (Task 6).

##### Deliverables

- Written recommendation on selection of a manual or manuals for adoption
- Written recommendation for updates to KEDM needed to comply with SWMMWW and other updates to address the City's priorities for local stormwater facility design criteria

#### Task 3: Municipal Code and Manual Update

After approval of concepts and recommendations from Tasks 1 and 2, Otak will draft updates to the City's development codes, engineering standards, standard drawings/details, and enforceable documents as needed to incorporate LID principles and LID BMPs and to bring stormwater engineering standards into compliance with the 2014 SWMMWW.

The extent of this task is dependent on the scope and degree of LID code updates recommended and approved in Task 1.

## Scope of Work Continued

The City team will continue to be involved as reviewers. We will provide two rounds of review for each updated document or drawing.

### Deliverables

- Draft and final updated codes, engineering standards, standard drawings/details
- Strikeout and underlined versions of the final text-based documents

### Assumptions

For the purpose of budgeting this project, we have developed some assumptions about the degree of effort for the LID code update. These assumptions may change as needed to accommodate the City's priorities as discovered through the process.

- Text update to 6 code titles or chapters, or agreed equivalent, where one title/chapter is approximately 30-50 pages (i.e. updates to approximately 300 pages of original material)
- Revision to or production of up to 10 drawings (standard plans or details)

## Task 4: Adoption

This task will include briefing elected officials on LID and the KEDM update, presenting proposed revisions, and following the formal adoption process.

### Task 4.1: City Council

We will address City Council on three different occasions. Near the beginning, we will present at a workshop to introduce Council members to the concepts of LID and the update process and will obtain policy direction to use in the review of the initial LID Gap Analysis and recommendation of updates. After final drafts of updates have been produced, we will present at a second workshop to inform City Council of the proposed changes. Finally, we will be present at a public hearing for adopting new codes and standards.

### Deliverables

- 3 PowerPoint presentations
- Presentation at 2 Council workshops
- Attendance at one Council public hearing

### Task 4.2: Planning Commission

We will present proposed changes to development codes to the Planning Commission on two occasions. We will present recommended and concept-level updates to obtain feedback before drafting updates. After amended development codes have been finalized, we will present and facilitate a Planning Commission meeting.

For this task, we will use PowerPoint presentations developed for City Council

### Deliverables

- Presentations at two Planning Commission meetings



### Task 4.3: Outside Reviews

Proposed updates will require review under the State Environmental Policy Act (SEPA) and may require review by the Department of Commerce. Otak will complete the SEPA Checklist and provide it to the Planning Department for action with a Determination of Non-Significance (DNS). If needed, Otak will assist the City in submitting a complete packet of materials for a 60-day review by Department of Commerce prior to adoption.

#### Deliverables

- SEPA Checklist draft and final
- Completed DNS form
- Draft code updates suitable for Department of Commerce Review

### Task 5: Implementation

The City will need to ensure its staff that is responsible for land use planning, plan review, engineering review, inspection, enforcement, and maintenance of stormwater infrastructure are trained on new standards and methods. The City may also need to develop or modify internal policies and procedures.

#### Task 5.1: Staff Training and Tools

Otak will develop tools as needed for City staff to accept, review, permit, and inspect, and maintain low impact developments and LID BMPs. Otak will also provide training to staff.

Preparation topics may include:

- Updated site plan submittal requirements
- New required site assessments and tests, especially for geotechnical site investigations and infiltration testing
- Updated road standards (e.g. permeable pavements on roads)
- New types of stormwater facilities
- Additional inspection requirements
- Updated maintenance standards

We will provide a variety of tools, depending on needs, including:

- Flow chart / decision tree
- Application completeness checklist
- Reviewer checklist
- Inspection forms

#### Deliverables

- One 4-hour training session for permit review staff
- One 2-hour training for operations staff
- Other deliverables (tools) to be determined

Scope of Work  
Continued

### **Task 5.2: Community Training**

We will provide training and tools for the development, building, and real estate communities to introduce them to new development codes and stormwater engineering standards.

Topics may include:

- Site planning using LID principles
- Hiring qualified engineers, sub-contractors (e.g. landscaping professionals), and other professionals to meet requirements
- Performing new required assessments and tests, especially for geotechnical site investigations and infiltration testing
- Using new design specifications for compost, permeable paving materials, bioretention soil mix, and native plants
- Finding trained installers for permeable pavements and bioretention
- Installing and maintaining permeable pavements and bioretention
- Recognizing and understanding LID BMPs and other stormwater management facilities during real estate transactions

We will provide a variety of tools, depending on needs and City priorities, including:

- LID sizing tool
- Simplified submittal forms for small sites
- Brochures
- FAQs
- Design checklist

#### **Deliverables**

- One 4-hour training session for developer/builder/real estate community
- Other deliverables (tools) to be determined

### **Task 6: Public Involvement**

The project will involve substantial public involvement, including formation of a non-permanent Stakeholder Advisory Committee (SAC) and continuous involvement of the Kelso Stormwater Advisory Committee (KSAC). Public involvement will begin early, and public input will be used in the steps to recommend development code updates, develop concepts for updates, review and update the local stormwater facility requirements, and prepare final code and manual updates.

#### **Task 6.1: Stakeholder Advisory Committee**

Otak will work with the City project manager to identify potential SAC members and to coordinate and lead the SAC. Otak will prepare a committee invitation, solicit members, plan

and coordinate meetings, develop a committee charter, create meeting agendas, facilitate meetings, and take notes.

The SAC will meet five or six times during an 18-month period. Otak will provide materials, such as memos and drafts, to members in advance of each meeting. If meetings are to be advertised to the public, City staff will take the necessary steps to advertise each meeting. Otak will make presentations at and will facilitate SAC meetings.

#### Deliverables

- Committee invitation and charter
- Meeting schedule
- Meeting agendas and notes
- Drafts and materials for meetings
- Meeting notes

#### Assumptions

- The City will make the final selection of committee members
- SAC meetings will be held at a City facility

### Task 6.2: Kelso Stormwater Advisory Committee

KSAC will be an integral component of the public involvement effort, and the committee may meet as often as monthly during the course of the project, depending on workload. At a minimum, the committee will meet quarterly on its typical schedule.

KSAC input will be invited and considered during each step of the process. KSAC will consider the initial LID Gap Analysis, the updated LID Gap Analysis, LID update recommendations and concepts, stormwater manual adoption recommendation, and drafts of updated codes, manuals, and standard drawings and plans.

At the first KSAC meeting after start of the project, Otak will present an introduction to LID and the stormwater and code update process (similar to the presentation anticipated to introduce City Council to these concepts). Members will also be invited to attend the kickoff meeting and training session discussed in Task 1.2.

At each subsequent meeting, Otak will present an update and lead a discussion. Otak will provide materials for review by KSAC members in advance of each meeting.

#### Deliverables

- One PowerPoint presentation
- Drafts and materials for meetings
- Meeting notes

### Task 6.3: Community Communications

We will assist the City in informing the general public about this process.

## Scope of Work Continued

Otak will provide brief posts including text and illustrations for placement on the City's website or social media sites.

Otak will present at and facilitate one or two Open Houses geared toward the general public. The community will be invited through posts on the City's web site and possibly using other means.

### Deliverables

- Six website or social media posts each comprising no more than 300 words and two photos or illustrations
- Four Open House display boards
- Comment cards
- Open House summary(ies)

### Task 6.4: Public Involvement Tracking and Summary

Throughout the public involvement process, Otak will capture public comments from the general public in a log. Comments from SAC and KSAC will be summarized in meeting notes.

We will describe the public involvement effort and review the public comments received in a summary report. Appendices will include original public input materials, such as comment cards, correspondence, and meeting notes.

### Assumptions

- For public comment received directly by City staff or through the City's social media accounts, if used, City staff will forward data to Otak.

### Deliverables

- Public comment log
- Public Involvement Summary, draft and final

### Task 7: Project Management

Otak will plan, manage, and execute the tasks described in this scope of work in accordance with the schedule, budget, and quality expectations that are established. Otak will coordinate regular meetings with the City's team and will document decisions and action items as they arise.

Otak will prepare a summary of the results of the review and revision process as outlined in Section S5.C.4(f)(ii) of the City's municipal stormwater permit.

### Deliverables

- Coordinate monthly status meetings
- Create and keep a log of decisions and implementation status

- Prepare a summary of the results of the review and revision process
- Submit monthly progress reports with billings

### **Task 8: Contingency: Management Reserve**

Task 8 is a management reserve to be used only with written authorization, including e-mail, from an authorized City representative.





City of Kelso  
Stormwater and LID Code and Manual Update Plan

January 30, 2015





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## Abbreviations and Acronyms

BMP	Best Management Practice
CWA	Clean Water Act
Ecology	Washington Department of Ecology
Guidebook	<i>Integrating LID Into Local Codes: A Guidebook for Local Governments</i>
KEDM	Kelso Engineering Design Manual
KSAC	Kelso Stormwater Advisory Committee
LID	Low Impact Development
MS4	Municipal separate storm sewer system
NPDES	National Pollutant Discharge Elimination Systems
Permit	2013-2018 NPDES Western Washington Phase II Municipal Stormwater Permit
Plan	City of Kelso Stormwater and LID Code and Manual Update Plan
SEPA	State Environmental Policy Act
SWMMWW	Stormwater Management Manual for Western Washington
Team	Code review team
Toolkit	<i>Low Impact Development Code Update and Integration Toolkit</i>
WSDOT	Washington State Department of Transportation



## Section I—Introduction

The City of Kelso Stormwater and LID Code and Manual Update Plan (Plan) is a detailed outline for the City of Kelso to follow to incorporate Low Impact Development (LID) standards and practices into the City’s municipal code, the Kelso Engineering Design Manual (KEDM), and the Standard Plans and Specifications.

This process encompasses updating the City’s stormwater code as well as reviewing the ways in which site development impacts surface water health through various mechanisms, such as clearing native vegetation, grading, compacting the soil, and adding impervious surfaces. The Plan gives the City a framework to evaluate the ways in which its existing development codes encourage or prevent use of site development techniques that retain native vegetation, reduce site disturbance, reduce compaction, and reduce effective impervious cover. The described process then gives City decision-makers the opportunity to change some or all of those development codes.

The Plan includes code review, code update, and implementation. It also includes a public involvement plan for 2015-2017.

### Regulatory Requirements

The City of Kelso operates a municipal separate storm sewer system (MS4) that discharges stormwater to Waters of the State. Washington Department of Ecology (Ecology) regulates discharges from the MS4 under the Clean Water Act (CWA), allowing discharge only under certain conditions permitted in a National Pollutant Discharge Elimination System (NPDES) permit, called the Western Washington Phase II Municipal Stormwater Permit (Permit). This Permit usually has a 5-year cycle, and the current cycle is effective from August 1, 2013 through July 31, 2018. The current Permit includes more requirements than the previous cycle.

The City’s Permit requires the City to regulate stormwater runoff from new development, redevelopment, and construction site activities. Local regulations must include thresholds, minimum requirements, design standards, and maintenance requirements found in the Permit and in the *Stormwater Management Manual for Western Washington* (SWMMWW) or an equivalent manual approved by Ecology\*. For example, Clark County is developing a stormwater manual that the City and Kelso Stormwater Advisory Committee (KSAC) may elect to adopt. In addition, the City must revise or create local codes to help make low impact development (LID) the preferred and commonly-used approach to site development.

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\* Note: The Permit requires adoption of the SWMMWW or an equivalent manual. In the interest of brevity, this Plan often omits the words *or an equivalent manual* when using phrases such as *adopting*, *complying with*, *equivalent to*, and *in accordance with* the SWMMWW. It should be assumed that the phrases mean the SWMMWW or an equivalent unless otherwise noted.

## Section I—Introduction

### Continued

In many ways, the minimum requirements, design standards, and maintenance requirements are similar to those currently applied to sites in Kelso disturbing greater than one acre. Under new requirements, these will apply to sites disturbing less than one acre that meet thresholds.

The inclusion of development-related codes that support LID principles, techniques and BMPs could affect a variety of City codes regulating subdivision standards, street design, parking standards, and landscaping standards.

Permit section S5.C.4 requires the City to implement and enforce a program to reduce pollutants in stormwater runoff by regulating new development, redevelopment, and construction sites.

### Stormwater Standards

Stormwater standards must be revised in accordance with the Permit and the SWMMWW, including:

- Applicability thresholds
- Site planning requirements
- BMP selection, design, limitations, and infeasibility criteria
- Legal authority to review, approve, inspect and enforce listed standards
- Programs to inspect most sites before, during, and after construction
- Requirements for long-term maintenance of treatment and flow control facilities
- A program to annually inspect private treatment and flow control facilities and for enforcing maintenance standards

Key differences to Kelso's existing standards include:

- Applicability of Minimum Requirements to projects disturbing less than one acre
- LID is required on most sites, unless infeasible
- More inspections will be required before, during, and after construction on more sites
- Regulated private treatment and flow control facilities constructed in accordance with the SWMMWW will be subject to an annual maintenance inspection by the City

To meet these requirements, City staff will write code to adopt SWMMWW-equivalent standards and to update the Kelso Engineering Design Manual (KEDM), standard details, and specifications. The City will also need to determine if existing local requirements will continue, with modified thresholds, or will be updated or eliminated. See Section 2 – Project Plan for additional details.

## Section I—Introduction

Continued

### Low Impact Development Codes

Permit section S5.C.4.f requires the City to review, revise and make effective other land-use and development-related codes and standards to incorporate and require LID principles and BMPs. The purpose is to make LID the preferred and commonly-used approach to site development.

Primary LID principles include:

- Retaining native vegetation and soil
- Minimizing land disturbance
- Minimizing impervious surfaces
- Managing stormwater close to its source

Examples of related standards include land use, street widths, parking minimums, and landscaping standards. These, and others, must be reviewed for potential to incorporate support of LID principles. To meet these requirements, City staff may review land-use and development-related codes such as Title 12 – Streets, Sidewalks and Public Places, Title 15 – Building and Construction, Title 16 – Subdivisions, and Title 17 – Planning and Zoning.

### Process

The City will carry out a project to both adopt new thresholds and standards for stormwater management and to review and update codes for inclusion of LID principles.

The project plan includes a process of considering LID following guidance in *Integrating LID into Local Codes: a Guidebook for Local Governments*. This plan also includes a Public Involvement Plan to ensure that the community is adequately informed and can participate in this process.

The project is planned to extend over two years, culminating with implementation of new codes and standards beginning on July 1, 2017 as required by the Permit. The project schedule uses quarters (3-month periods) counted from the beginning of the project; accordingly the two-year project spans eight quarters. The project schedule is presented on page 14.

## Section I—Introduction

Continued

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## Section 2—Project Plan

The project plan encompasses both an update of stormwater-specific codes and standards equivalent to the SWMMWW and review of local codes to incorporate LID principles following guidance in *Integrating LID into Local Codes: a Guidebook for Local Governments*.

The Project Manager is the City’s Senior Stormwater Engineer, Van McKay.

### Task I: LID Code Review

LID Code Review will engage a team of City staff to look for areas of Kelso Municipal Code (KMC) that could be revised to incorporate LID principles and BMPs.

This task will include:

- Assembling and training a code review team (team)
- Identifying existing codes and standards to review
- Reviewing applicable codes and standards
- Selecting codes and standards to update

#### Task IA: Assemble and Train the Team

Representatives from key departments with responsibilities for setting and enforcing the City’s land use, engineering, public safety, and critical areas policies will be selected for participation in the LID code review process. Team members will conduct the actual work of reviewing existing codes using their subject matter expertise in areas of land use, critical areas, engineering, and public safety. The team will be trained to reach a common level of understanding of LID.

Expected duration:  
two months

#### Team Selection

Staff selections will be made by the Project Manager and will be approved by affected department directors. The City will request participation from an individual from the Cowlitz 2 Fire and Rescue; permission will be requested from the Fire Marshall.

Table I: Recommended Project Team

Department	Name	Subjects
<b>Community Development - Engineering</b>	Van McKay, Senior Stormwater Engineer	Stormwater Standards, Street Standards, TESC, Inspections, Enforcement
<b>Public Works</b>	Randy Johnson, Public Works Superintendent	Maintenance, Landscape Standards, Sewer Utility
<b>Community Development – Planning</b>	Stephanie Helem, Planning Assistant	Subdivisions, Zoning, Critical Areas, Landscape Standards
<b>Community Development – Building</b>	City of Longview contracted staff	Roofs, Foundations, Inspections

## Section 2—Project Plan

Continued

Department	Name	Subjects
Cowlitz 2 Fire and Rescue [for review of drafts only]	Jeremy Huff, Deputy Fire Marshall	Street Standards, Landscape Standards
City Attorney	Janean Parker, City Attorney	Covenants, Easements, Enforcement

### Team Training

To ensure the team has a common understanding of the principles of LID, the first meeting will include a training presentation and assignment of reading material. The Project Manager will show a video and introduce essential LID concepts and code review techniques. The Project Manager will assign a reading/watching list to team members and facilitate a discussion at the second meeting.

Table 2: Recommended Material for Initial Training

Title	Location	Topics
Reduce Runoff – Slow It Down, Spread It Out, Soak It In [8 mins] - EPA	<a href="http://water.epa.gov/polwaste/green/upload/epa_lid_video.mp4">http://water.epa.gov/polwaste/green/upload/epa_lid_video.mp4</a>	LID Introduction
Catching Rain: Low Impact Development – Protecting Our Waters – Ecology, WSU Extension	<a href="http://www.ecy.wa.gov/programs/wq/stormwater/municipal/LID/Resources/CR1LID.pdf">http://www.ecy.wa.gov/programs/wq/stormwater/municipal/LID/Resources/CR1LID.pdf</a>	LID Introduction, Required BMPs, Reducing Impervious Surface, Plan View Example
Why are we Doing Low Impact Development? – Association of Washington Cities	<a href="http://www.awcnet.org/portals/0/documents/lid/TalkPointsWhyDoingLID0513.pdf">http://www.awcnet.org/portals/0/documents/lid/TalkPointsWhyDoingLID0513.pdf</a>	Regulatory Introduction

Table 3: Recommended Additional Reading and Watching

Title	Location	Topics
LID Technical Guidance Manual for Puget Sound, Chapter 1 excerpt – Puget Sound Partnership, WSU Extension	Enclosed CD	Hydrology, Impacts of Urbanization, Current Stormwater Management, LID
Integrating LID into Local Codes: a Guidebook for Local Governments, Step 2 excerpt – Puget Sound Partnership	Enclosed CD	Overview of the types of land use activities and municipal codes that can be altered to include LID
What’s in the Building Soil Manual? – Building Soil Foundation for Success	<a href="http://www.buildingsoil.org/tools/Soil_BMP_Summary.pdf">http://www.buildingsoil.org/tools/Soil_BMP_Summary.pdf</a>	BMP T5.13 – Post Construction Soil Quality and Depth
EPA’s Bioretention Fact Sheet	<a href="http://water.epa.gov/polwaste/npdes/swbmp/Bioretention-Rain-Gardens.cfm">http://water.epa.gov/polwaste/npdes/swbmp/Bioretention-Rain-Gardens.cfm</a>	Bioretention applicability, siting, and design
Catching Rain: Pervious Pavement [video – 12 minutes] -Ecology	<a href="https://www.youtube.com/watch?v=ySENRIpBbnc">https://www.youtube.com/watch?v=ySENRIpBbnc</a>	Pervious Pavement specs, installation, maintenance



## Section 2—Project Plan Continued

### Task 1B: Identify Codes & Standards to Review

After reaching a common level of understanding, the team will discuss and identify local land use and development codes and standards that affect site planning, retention of native plants and soil, and creation of impervious surfaces. The team will select which local codes and standards to review.

Expected duration:  
one month

The City may consider the following codes as a starting point:

- Title 12 – Streets, Sidewalks and Public Places
- Title 15 – Building and Construction
- Title 16 – Subdivisions
- Title 17 – Planning and Zoning
- Title 18 – Environment

The team may identify additional codes and standards during the task.

A complete list of the types of potential codes, standards and topics for review, excerpted from *Low Impact Development Code Update and Integration Toolkit*, is available in Section 4 – Resources.

### Task 1C: Review Existing Codes and Standards

The team will review Kelso’s existing codes and standards in selected topic areas. The Project Manager will assign topics to members.

Expected duration:  
five months

To facilitate review of specific topics, additional readings are recommended. Team members should select readings and videos from the following list based on assigned topics for review.

Table 4: Code Review Education Materials

Title	Location	Topics
Low Impact Development Code Update and Integration Toolkit, subtopic focus sheets	Enclosed CD	Subtopics for Site Planning and Assessment, Healthy Soils, Landscaping / Vegetation, Hard / Impervious Surface, Bulk & Dimension, Clearing & Grading, Streets, Parking, Design Guidelines, Maintenance, Subdivisions, Critical Areas

## Section 2—Project Plan

Continued

Title	Location	Topics
Eastern Washington LID Manual: Medium & High Density Site Planning Strategies Examples of Code and Ordinance Language for Better Site Design, excerpts – James River Association	<a href="http://www.wastormwatercenter.org/332-medium-high-density-site">http://www.wastormwatercenter.org/332-medium-high-density-site</a> Enclosed CD	Strategies for reducing impervious surface (applicable to western WA) Street and right-of-way widths, parking ratios and codes, setbacks, sidewalks, driveways, clearing and grading
Managing Wet Weather with Green Infrastructure - EPA	<a href="http://water.epa.gov/infrastructure/greeninfrastructure/upload/gi_munichandbook_green_streets.pdf">http://water.epa.gov/infrastructure/greeninfrastructure/upload/gi_munichandbook_green_streets.pdf</a>	Code and implementation hurdles and solutions for street widths, bioretention, permeable pavement, and tree retention/planting
Model Ordinance examples – Puget Sound Partnership	<a href="http://www.psp.wa.gov/LID_GLG.php">http://www.psp.wa.gov/LID_GLG.php</a>	Model ordinances for: grading/clearing, off-street parking, planned unit development, site assessment
LID Cost Analysis Report [video – 33 minutes] – Washington Stormwater Center	<a href="https://www.youtube.com/watch?v=hjJoVQ3zV2I">https://www.youtube.com/watch?v=hjJoVQ3zV2I</a>	Costs of LID under 2012 Manual

Team members will fill out the *Review Form for Integrating LID into Local Code*, excerpted from the *Toolkit*, for their selected topic areas to identify potential gaps, or areas where LID principles are not supported by Kelso’s existing codes and standards. Samples of the review form are included in Section 4 – Resources.

In this step, no changes are proposed. The team simply identifies the existing language, or lack of existing language, that could impede the application of LID principles.

### Deliverables

- Completed review forms for selected subtopics

### Task ID: Selection

The team will bring identified code language, or areas where new codes could be written, to the Community Development and Public Works department directors and the City Manager for consideration. Directors and the City Manager will select some, or all, areas for potential update based on City Council policy guidance. Those selected code areas approved by the department directors and City Manager will be updated in Task 2.

*Expected duration:  
one month*

Deliverables

- Memorandum from the code review team documenting identified code sections and standards
- Memorandum from Community Development and Public Works department directors and the City Manager approving selected code sections and standards for update

**Task 2: Municipal Code Update**

After selection and agreement of code areas to amend, the team will draft updates or new codes and standards to incorporate LID principles. In addition, the Project Manager will draft code language adopting the SWMMWW and updates of the standards for stormwater management on development, redevelopment, and construction sites.

*Expected duration:  
six months*

Municipal codes and standards to be updated include:

- Land use and other codes selected and approved for update in Task 1D
- KMC 13.09, Stormwater Management
- Kelso Engineering Design Manual (KEDM)
- Standard drawings (standard details)
- Adoption of SWMMWW or equivalent

The City may also need to determine if Washington State Department of Transportation’s (WSDOT’s) Highway Runoff Manual, current edition, will be allowed for linear projects.

Deliverables

- Draft of Updated Codes
- Final Updated Codes
- Draft of revised Kelso Engineering Design Manual
- Final revised Kelso Engineering Design Manual
- Draft standard drawing (standard details)
- Final standard drawing (standard details)

**Task 3: Adoption**

This task will include briefing elected officials on LID, presenting proposed revisions, and following the formal adoption process.

## Section 2—Project Plan

Continued

### Task 3A: Preparation

The Project Manager will facilitate a workshop with City Council in Q1 of the project. A proposed workshop agenda is given in Section 3 – Public Involvement Plan.

*Expected duration:  
three months*

### Task 3B: Final Adoption

Final adoption includes preparation of environmental review documentation, an additional workshop with City Council, and public hearings.

*Expected duration:  
six months*

The goal is to adopt new regulations 60 to 90 days prior to their effective date. The Permit requires new codes for LID and stormwater control to be effective on July 1, 2017. The goal for City Council adoption is April 4, 2017.

### SEPA Review

The State Environmental Policy Act (SEPA) requires Washington jurisdictions to consider environmental consequences before taking actions. The Project Manager will complete the SEPA checklist and provide it to the Planning Department for action with a Determination of Non-Significance. The SEPA will be posted for public review and comment for at least two weeks.

The SEPA documentation will be provided to the City Council in the final workshop.

### Assumptions

- The SEPA checklist will result in a Determination of Non-Significance.

### City Council Workshop

Staff will hold a workshop with City Council in Q6 to review results of the process, summarize proposed updates, and provide SEPA review documentation.

A proposed workshop agenda is given in Section 3 – Public Involvement Plan.

### Planning Commission Hearing

Staff will facilitate a Planning Commission Hearing on proposed updates, if any, to zoning and land use policies.

A proposed hearing agenda is given in Section 3 – Public Involvement Plan.

### Public Hearing for Adoption

City Council will hold a Public Hearing, tentatively scheduled for April 2017 (Q6) to adopt proposed changes.

### Task 4: Implementation

Implementation includes all those tasks necessary to prepare existing staff and the community for new codes, standards, updates to KEDM, and use of SWMMWW.

*Expected duration:  
six months*

Staff will need training and tools for accepting, reviewing, permitting, inspecting, and maintaining facilities using new codes and standards. Preparation topics include:

- Different thresholds
- Different design standards
- New and updated standard details
- Updated site plan requirements
- New required tests
- New types of facilities
- Additional inspection requirements
- Updated maintenance standards

The community may need training and tools for a variety of situations, including:

- Developing site plans
- Hiring the right professionals to meet requirements
- Using newer design standards and specifications for compost, permeable paving materials, bioretention soil mix, and native plants
- Finding trained installers
- Protecting LID BMPs during construction
- Maintaining new types of facilities

### Task 4A: Develop Staff Tools

The Project Manager will work with Community Development review staff to develop tools such as procedures, flow charts, checklists, and cheat sheets for accepting and reviewing stormwater site plans.

The Project Manager will work with Community Development inspection staff to develop tools such as procedures, timeline requirements, tracking forms, and checklists for pre-construction inspection, inspection during homebuilding, inspection for protecting LID facilities during construction, and post-construction inspection.

## Section 2—Project Plan

Continued

### Task 4B: Develop Community Tools

The Project Manager will develop tools for the development, building, and maintenance communities. Ideas for tools include:

- Cheat sheet or flow chart describing when to consult KEDM and when to consult SWMMWW
- Update Grading Permit Worksheet
- Update Building Permit Checklists for residential, commercial, and industrial to include stormwater requirements
- Update Excavation & Grading Supplemental form
- Update Site Plan Submittal Requirements
- Update Site Plan - Typical Example to show LID site planning and best management practices (BMPs)
- Create or improve City maps that include existing available site-specific information on landslides, septic systems, soil infiltration rate tests, and known areas with deep soil contamination
- Create a small projects guide for single-family residences that trigger on-site stormwater management requirements
- Develop a list of local suppliers for compost, native plants, and concrete and asphalt batch plants with expertise in permeable product mixes
- Develop a list of trained local installers for permeable pavements and bioretention plants
- Develop a list of soil scientists and engineers with expertise to evaluate soil infiltration rates on small projects
- Develop a list of trained landscaping contractors for maintenance of bioretention

### Task 4C: Staff Training

The Project Manager will train Community Development staff on review and inspection using new thresholds and requirements in the weeks prior to the effective date.

The Project Manager will train Public Works Operations and Parks staff on maintenance of permeable pavement and bioretention in the right-of-way or on public property after the effective date.

## Section 2—Project Plan

Continued

### Task 4D: Community Training

The Project Manager will develop and hold one training session for developers, engineers, and construction contractors just before or just after the effective date. The training will cover:

- New thresholds for stormwater management
- Relationship of KEDM to SWMMWW
- Site planning and soil testing requirements for LID
- Meeting Minimum Requirement #5, including:
  - Using List 1 and List 2
  - Meeting the LID Performance Standard
- Introduction to LID BMPs, including:
  - Post-Construction Soil Quality and Depth
  - Dispersion, including Full Dispersion, Downspout Dispersion, Sheet Flow Dispersion, and Concentrated Flow Dispersion
  - Bioretention and Rain Garden
  - Permeable Pavement

If possible, City of Kelso will collaborate with Longview and Cowlitz County in presenting this training. The training may be developed and held by a qualified consultant.

### Project Schedule

The active phase of the project is expected to span approximately 24 months, or eight quarters, measured from the beginning of the project.

The Project Manager will spend some preparatory time prior to project kick-off that is not represented in this timeline. In addition, there may be additional implementation and outreach tasks that are ongoing or arise after the close of this project. For example, the Senior Stormwater Engineer will need to summarize the process of reviewing codes for inclusion of LID principles and BMPs for the annual report due March 31, 2018.

This project schedule ends three months after effective date of new codes.

A project schedule is given on the following page.

## Section 2—Project Plan

Continued

Table 5: Draft Project Schedule

Task Name	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
<b>LID Code Review</b>								
• Assemble and Train the Code Review Team	■							
• Identify Codes to Review	■							
• Review Existing Codes and Standards		■	■					
• Select Codes and Standards for Update			■					
<b>Municipal Code Update</b>								
• Draft Amendments to Existing Codes and Develop New Codes				■	■			
• Draft Updates to KEDM				■	■			
• Internal Reviews					■			
• Final Drafts					■			
<b>Adoption</b>								
<u>Preparation</u>								
• Council Workshop	■							
<u>Final Adoption</u>								
• Prepare SEPA					■			
• Council Workshop						■		
• Planning Commission Hearing						■		
• City Council Hearing (Adoption)						■		
• Waiting Period before Effective Date							■	
<b>Implementation Deadline July 1, 2017</b>								★
• Effective Date								■
<b>Implementation</b>								
• Develop Staff Tools							■	■
• Develop Community Tools							■	■
• Staff Training for Review & Inspection							■	■
• Community Training							■	■
• Staff Training for Maintenance								■
<b>Public &amp; Stakeholder Involvement</b>								
• Identify and Outreach to Stakeholders	■							
• LID- SAC Meetings		■	■	■	■	■	■	
• Present at KSAC Meetings	■	■	■	■	■	■	■	■

A detailed project plan is included in Section 4 – Resources.



## Section 3—Public Involvement Plan

To be successful, the LID and stormwater code update project will include substantial public involvement and City Council interactions. Primary means of public information and involvement will include formation of an LID Stakeholder Advisory Committee (LID-SAC), presentations at Kelso Stormwater Advisory Committee (KSAC), web updates, and an e-mail distribution list. Staff will hold an early workshop with City Council. For adoption, City Council will hold a Public Hearing.

As part of this plan, all meetings will be public and subject to Chapter 42.30 RCW, Open Public Meetings Act. Meetings other than hearings will be noticed in *The Daily News* at least one week in advance. Hearings will be noticed following the procedure set by the City.

The Public Involvement Plan will be led by the Project Manager with assistance from the City Manager's office.

### LID Stakeholder Advisory Committee

The City will invite stakeholders to participate in the project. The Mayor will convene the committee and appoint members under powers established in KMC 2.03.

The goal of the LID-SAC will be to learn about the City's process, provide input on the process, voice community concerns on technical and practical implementation, bring ideas, and provide feedback on work products and deliverables.

The LID-SAC will also provide an opportunity for the City to educate community members about LID.

Invited LID-SAC members will include one KSAC member; representatives from affected special districts; neighboring agencies and jurisdictions; environmental advocates; members of the local realty, engineering and contracting business communities; and representatives of local affected stormwater and LID supplier business communities (e.g. native plant suppliers, cement batch suppliers, etc.).

Note: it may be beneficial to invite KSAC to nominate one member to sit on the committee.

## Section 3—Public Involvement Plan

Continued

Table 6: Potential Stakeholders

Agency / Company	Name	Subjects
City of Kelso	Randy Johnson, Operations Superintendent	Sewer & Water Utility, Landscape Standards, Maintenance
Kelso Stormwater Advisory Committee (KSAC)	Gloria Nichols	Environmental Advocate
CDID#1	Ken Cachelin, District Engineer	Water Balance, Receiving Waters
Cowlitz County, CDID#3 & DID #1	Susan Eugenis, Diking Engineer	Water Balance, Receiving Waters
Cowlitz County Health & Human Services	Chris Bischoff, Environmental Health Manager	Public Health, Water Re-Use Systems
Brian L. Hewitt Engineering	Brian Hewitt, Owner & Engineer	Soil Science
Gibbs & Olson	Cindy Gower	Stormwater Site Plans
Lower Columbia Contractors Association	Jeanette Scibelli, Executive Director	Construction
K.L. Ferguson Construction	Keith Ferguson, Certified Pervious Concrete Technician	Pervious Concrete Installation
CalPortland	Longview Ready Mix Plan Manager	Concrete Mix Supply
Lower Columbia Association of Realtors	Val Tinney, Government Affairs Director	Long Term Maintenance, Educating Property Owners
Kelso Longview Chamber of Commerce	Bill Marcum, President	Business Interest
Cowlitz Economic Development Council	Alice Dietz, Director of Programs	Business Interests, Recreation
Cowlitz County Title Company	Bianca Lemmons	Easement and Access
Lower Columbia Estuary Partnership	Debrah Marriott, Executive Director	Water Quality
Watershed Garden Words	Scott Edwards, Owner	Native Plants
WSU Extension	Gary Fredricks, County Director	Sustainable Development, Community Education
City of Longview	Steve Warner, Stormwater Technician	Regional Cooperation
Cowlitz County	Patrick Harbison, Stormwater Engineer	Regional Cooperation
Port of Longview	Josh Johnson, Stormwater Engineer	Regional Cooperation, Stormwater LID and Site Plans

The City may wish to invite other stakeholders including underground utility providers, such as Comcast.

## Section 3—Public Involvement Plan

Continued

The City will identify and invite stakeholders in Q1 of the project. Invitations will include a brief description of the regulatory requirements, estimated length of commitment and meeting schedule, and a list of meeting topics.

### Proposed LID-SAC Role

The purpose of the LID-SAC is to gather public opinion to advise the directors of Community Development and Public Works departments on matters relating to compliance with Permit Section S5.C.4 – controlling runoff from new development, redevelopment, and construction sites. The committee will review and comment on policy and procedural issues related to compliance and on proposed updates to municipal codes and standards.

LID-SAC will be established as a temporary body that will disband when the municipal codes and standards under review have been adopted by City Council.

The committee will engage in dialogue with staff but will not direct staff.

### Proposed Organization and Rules of Procedure

LID-SAC will be established as a group of peers with an informal organizational structure. Discussion to obtain consensus will be the prevailing procedure used at meetings. LID-SAC will not be decision-making body.

Members will provide input orally or in writing during scheduled meetings of the committee. Member discussion and input will be summarized by City staff in meeting notes. Comments submitted in writing will be attached to the notes. Notes will be made available to the directors of Community Development and Public Works, the City Manager, and City Council.

The City's Senior Stormwater Engineer, Van McKay, will schedule meetings and act as staff liaison. The Community Development Engineering Assistant will attend meetings and prepare meeting notes for distribution.

### Proposed LID-SAC Meeting Schedule and Topics

LID-SAC will meet five or six times from Q2 through Q6 of the project. Meetings will be quarterly and will begin in Q2. Recommended meeting time is 4 PM – 6 PM on the last Tuesday of the month in February, May, August, and November.

The Project Manager will e-mail a meeting agenda and materials at least 10 days in advance of each meeting.

## Section 3—Public Involvement Plan

Continued

Recommended content of each meeting follows.

### Meeting #1

The first meeting is proposed to take place in February 2016 (Q2). Meeting topics could include:

- Committee member introductions
- Committee rules and expectations
- Overview of the process
- Regulatory background
- Current stormwater management and LID practices in Kelso
- Technical Education: effects of urbanization and LID introductory presentation
- Policy Issue: City Council direction (from Workshop in Q1)
- List codes identified for LID review by the code review team
- Stakeholder feedback
- Public comment

### Meeting #2

The second meeting is proposed to take place in May 2016 (Q3). Meeting topics could include:

- Where we are in the process
  - LID code review
  - Prepare to update KEDM
- Stakeholder communications<sup>†</sup>
- Technical Education: focus on minimizing impervious surfaces
- Update from code review team
  - Summary of findings of the review of existing codes and standards
- Policy Issue: Introduction to thresholds from Appendix 1 / SWMMWW
- Stakeholder feedback
- Public comment

### Meeting #3

The third meeting is proposed to take place in August 2016 (Q4). Meeting topics could include:

- Where we are in the process
  - Drafting updates to codes for LID & stormwater
- Stakeholder communications

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<sup>†</sup> “Stakeholder communications” appears in subsequent agendas and is the Stakeholders’ opportunity to relay feedback from their peers or community groups that Stakeholders may have gathered since the previous meeting.

## Section 3—Public Involvement Plan

Continued

- Technical Education: focus on applicability of Minimum Requirement #5
- Update from code review team
  - Preliminary code updates for LID (e.g. landscaping, parking, street widths)
  - Preparing for updates to KEDM and adoption of SWMMWW
- Policy Issue: Changes for single-family residential applicants
- Stakeholder feedback
- Public comment

### Meeting #4

The fourth meeting is proposed to take place in November 2016 (Q5). Meeting topics could include:

- Where we are in the process
  - SEPA
  - Informing City Council and Planning Commission
- Stakeholder communications
- Update on City Council feedback (from Workshop in Q5)
- Technical Education: focus on rain garden and bioretention
- Update from code review team
  - Draft code updates for LID (e.g. landscaping, parking standards, street widths, etc.)
  - Draft updates to KEDM
- Policy Issue: public safety and convenience using new standards (parking, street widths, etc.)
- Stakeholder feedback
- Public comment

### Meeting #5

The fifth meeting is proposed to take place in February 2016 (Q6). Meeting topics could include:

- Where we are in the process
  - Adoption
  - Preparing for implementation
- Stakeholder communications
- Technical Education: focus on post-construction soil quality and depth and tree retention
- Policy Issue: Update on Planning Commission feedback (from Workshop in Q6)
- Implementation planning
- Stakeholder feedback
- Public comment

## Section 3—Public Involvement Plan

Continued

### Optional – Meeting #6

The SAC could elect to meet a sixth time to review tools and process that staff will develop for implementation of new codes and standards. Meeting topics could include:

- Where we are in the process
  - Implementation
- Stakeholder communications
- Technical Education: focus on permeable pavement
- Policy Issue: Costs of LID implementation – City and community
- Draft examples of community tools
- Draft community and staff training materials
- Stakeholder feedback
- Public comment

### Kelso Stormwater Advisory Committee (KSAC)

The Project manager will regularly present progress reports at the quarterly KSAC meetings. These updates will focus on progress of the project and will briefly summarize the policy and technical topics. LID-SAC members will be invited to attend KSAC as audience or presenters.

### Community Communications

The Project Manager will keep other community members informed by posting periodic updates on the process on both the City website's News & Events page and its Stormwater page.

### City Council Workshops

City staff will facilitate two workshops with City Council in advance of the adoption process.

#### Workshop #1

The first workshop will take place in October or November 2015 (Q1). Staff will alert City Council to the regulatory changes spurring the process, outline the project plan, summarize the outreach plan, and list the policy and technical issues. Staff will request direction from Council on policies.

A recommended workshop agenda includes:

- Regulatory background
  - Phase II NPDES Permit

## Section 3—Public Involvement Plan

- Incorporating LID Throughout City Codes and Standards
  - Thresholds for Stormwater Management
- Overview of the Process
- Outreach Plan
- Policy Issues
  - Projects Triggering Minimum Requirement #5
  - Projects Triggering Minimum Requirements #6-9
  - Potential Changes to Street, Parking, and Landscaping Standards
  - Legal Authority to Inspect and Maintain
  - Enforcement
  - Costs
  - Regional Considerations
- Technical Issues
  - Infiltration
  - Construction Sequencing, Erosion, and Compaction
  - Materials and Specifications
  - BMP Maintenance
- Public Comment
- Council Direction

### Workshop #2

The second workshop will take place approximately two months prior to the public hearing on adopting proposed codes, standards, and manuals to ensure City Council is comfortable with the results of the process. This workshop is tentatively scheduled for February 2017 (Q6).

A recommended workshop agenda includes:

- Regulatory Refresher
- Summary of Proposed Changes (Drafts available upon request)
- Summary of Public Involvement (LID-SAC, KSAC, other)
- Public Comment
- Council Direction

### Planning Commission

City staff will attend one Planning Commission Hearing, tentatively scheduled for February 2017 (Q6).

The Planning Commission will hold a public hearing on proposed updates, if any, to zoning and land use policy and code to accommodate LID. The Planning Commission will also be informed of related updates to street, parking, landscaping, and other standards, if any, to

## Section 3—Public Involvement Plan

Continued

accommodate LID, and will be notified about updates to thresholds for stormwater management in accordance with the SWMMWW.

### Adoption

City Council will hold a Public Hearing tentatively scheduled for April 2017 (Q7), to discuss and adopt proposed changes to City Code, including adoption of the SWMMWW and updates to KEDM.

Adoption proceedings are recommended to be held approximately three months in advance of the Permit deadline for the effective date of required thresholds and standards, which is July 1, 2017. This allows the community and staff to prepare for implementation of new standards with certainty as to the content of the requirements.

### Community Training

City staff will provide one 4-hour training on LID and thresholds and standards for the development and construction business community during, or just after, the waiting period of the project plan (Q7 or Q8). This training is described in Task 4d of the project plan in Section 2.



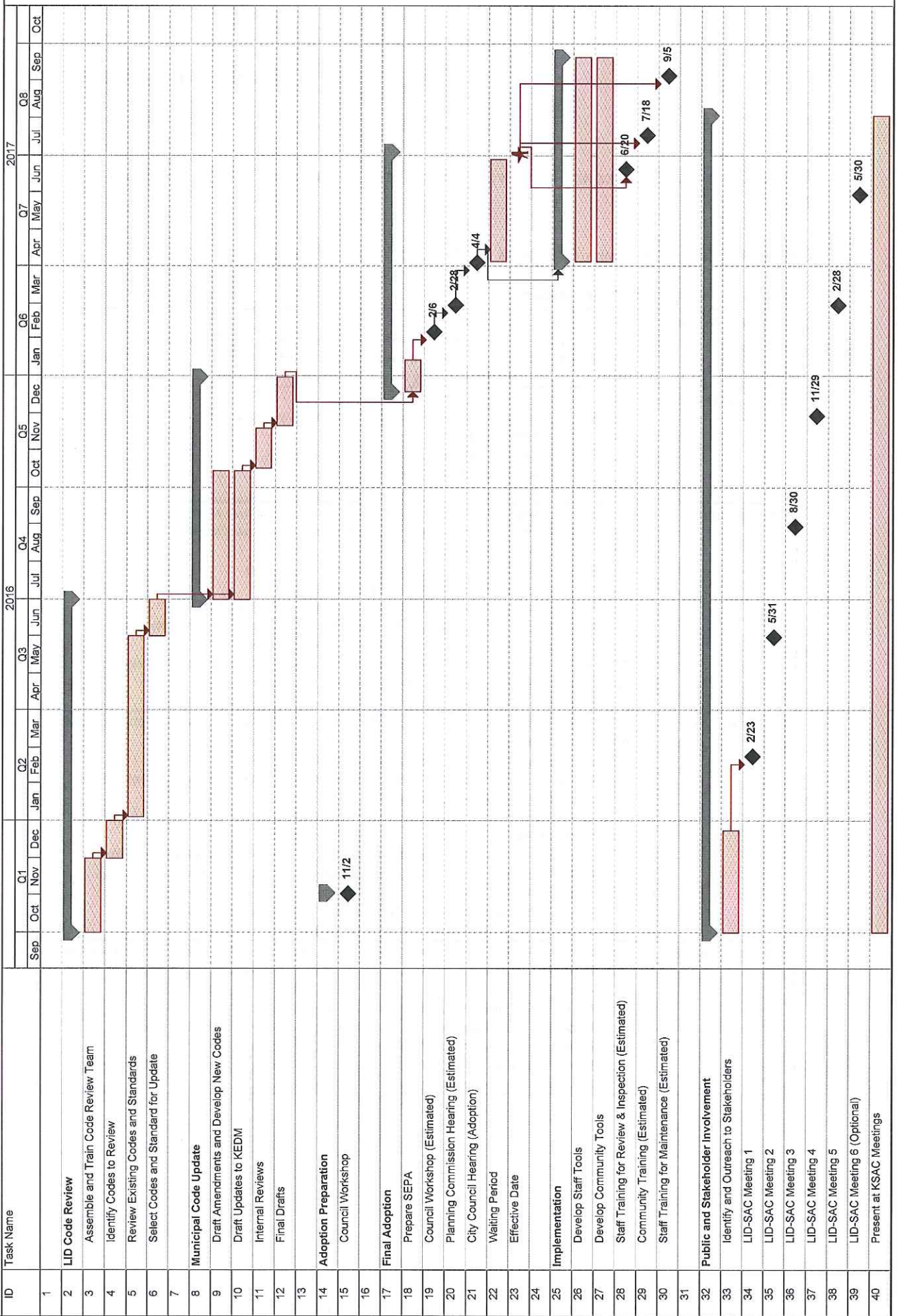
## Section 4—Resources

The recommended topics and the review form example templates are derived from the *Toolkit*.

Table 7: Recommended Topics to Address in LID Code Review (from *Toolkit*)

Document Name	LID Considerations
<b>Comprehensive or Planning Documents</b>	<ul style="list-style-type: none"> <li>- Goals and policies should promote LID</li> <li>- Goals and policies that present barriers to LID should be modified or removed</li> <li>- Policies that support dual use of landscaping or open space and LID should be added</li> <li>- Policies should support minimizing impervious areas</li> </ul>
<b>Subdivision Code</b>	<ul style="list-style-type: none"> <li>- Allow or require use of LID, where feasible</li> <li>- Include measures to preserve on-site natural features, native vegetation, open space, sensitive environmental areas</li> <li>- Encourage clustering and minimizing impervious areas</li> <li>- Require applicants to conduct LID Site Analysis</li> <li>- Include soil testing for individual facility design</li> </ul>
<b>Zoning Code</b>	<ul style="list-style-type: none"> <li>- Include native vegetation retention standards based on land use and density</li> <li>- Include plant lists, replanting standards, management plan specifications, and maintenance requirements for vegetation</li> <li>- Include tree protection, conservation, and planting standards</li> <li>- Promote preservation of open space where possible</li> <li>- Include impervious surface standards for a range of zoning classifications</li> <li>- Include building footprint, height limits, and setbacks that help meet density goals</li> <li>- Site Plan Review Code should include LID site analysis components</li> <li>- Parking Code should allow permeable/pervious surfaces in parking areas and should look for opportunities to reduce the number and/or size of parking spaces</li> <li>- Encourage clustering development</li> </ul>
<b>Engineering and Street Standards</b>	<ul style="list-style-type: none"> <li>- Outline construction sequencing methods, phasing, and/or bonding for protecting LID BMPs during construction</li> <li>- Include maintenance responsibilities for any LID BMPs</li> <li>- Include provisions for including LID on small residential sites where flow control and/or treatment of stormwater may not be required</li> <li>- Eliminate requirement for approval of variances or deviations to accommodate LID in the public right-of-way</li> <li>- Should not present a barrier to LID (for example, require curb and gutter on all streets)</li> <li>- Include standard to minimize impervious surface and provide opportunity to manage stormwater using LID techniques</li> <li>- Should not conflict with other goals or code (such as International Fire Code, native vegetation retention, minimizing site disturbance)</li> </ul>
<b>Standard Details</b>	<ul style="list-style-type: none"> <li>- Include street sections that shows LID facilities, parking lanes, driving lanes, and sidewalks</li> <li>- Include cul-de-sac plan that includes pervious sidewalks and bioretention islands or other LID facilities</li> <li>- Include details for curb cuts, vertical curb with breaks</li> <li>- Include location of hydrants and other utilities within an LID road right-of-way</li> <li>- Include landscape planting templates for sidewalks and curb extensions,</li> <li>- Include plans and details for LID facilities incorporated into curb extensions, bioretention facilities, swales, permeable pavement, and other LID facilities</li> </ul>

# City of Kelso Stormwater and LID Code and Manual Update Plan



# Review Form Example Template

Name \_\_\_\_\_ of \_\_\_\_\_

Reviewed: \_\_\_\_\_

**Purpose of Review Form:** The purpose of this review form is to provide a template for tracking the review process for integrations. Integrations are identified under each of the major topic categories. Refer to the **Subtopic Focus Sheets** for more information on the impact of integrations on the City of Arlington during their review processes. This form is not required to be used for permit compliance and can be modified.

Step 1

## Step 2—{WHAT}

## Step 3—{WHERE}

WHAT topics did you review?

WHERE are the gaps?

Topic/Sub Topics

Topic Reviewed

Conflict/Gap Identified

Section/Page Reference

### Topic: Landscaping, Native Vegetation, and Street Landscaping

Tree preservation	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	
Screening	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	
Landscaping requirements for street frontages	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	
Landscaping requirements for parking lots	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	

Additional Notes:

# Section 4—Resources

Continued

## Review Form Example Template

Name \_\_\_\_\_ of \_\_\_\_\_

Reviewed: \_\_\_\_\_

**Purpose of Review Form:** The purpose of this review form is to provide a template for tracking the review process for integrations. Integrations are identified under each of the major topic categories. Refer to the **Subtopic Focus Sheets** for more information on the impact of integrations on the City of Arlington during their review processes. This form is not required to be used for permit compliance and can be modified for other uses.

Step 1

### Step 2—{WHAT}

### Step 3—{WHERE}

WHAT topics did you review?

WHERE are the gaps?

Topic/Sub Topics

Topic Reviewed

Conflict/Gap

Identified

Section/Page Reference

### Topic: Parking

Minimum/maximum parking ratios	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	
Use of permeable paving	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	
Parking stall dimensions	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	
Driving aisle dimensions	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	
Off-street parking regulations	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply	

Additional Notes: