



City of Tigard Tigard Workshop Meeting - Agenda

**TIGARD CITY COUNCIL AND CITY CENTER
DEVELOPMENT AGENCY**

Revised 2/10/2011 - Item 6 set over to 4/19/2011

MEETING DATE AND TIME:

February 15, 2011 - 6:30 p.m.

MEETING LOCATION:

City of Tigard - Town Hall - 13125 SW Hall
Blvd., Tigard, OR 97223

PUBLIC NOTICE:

Times noted are estimated.

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Replay Schedule for Tigard City Council Workshop Meetings - Channel 30**

- Every Sunday at 11 a.m.
- Every Monday at 6 a.m.
- Every Tuesday* at 2 pm (**Workshop meetings are not aired live. Tuesday broadcasts are a replay of the most recent workshop meeting.*)
- Every Thursday at 12 p.m.
- Every Friday at 3 a.m.

SEE ATTACHED AGENDA



City of Tigard

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6:30 PM

1. WORKSHOP MEETING
 - A. Call to Order- City Council & City Center Development Agency
 - B. Roll Call
 - C. Pledge of Allegiance
 - D. Council Communications & Liaison Reports
 - E. Call to Council and Staff for Non-Agenda Items
2. UPDATE THE CITY CENTER DEVELOPMENT AGENCY WITH THE 2010 ANNUAL REPORT OF THE CITY CENTER ADVISORY COMMISSION **6:30 pm (Time is estimated)**
3. PRESENTATION ON MAIN STREET PARKING OPTIONS FOR THE MAIN STREET/GREEN STREET RETROFIT PROJECT **7:15 pm (Time is estimated)**
4. BRIEFING ON THE ECONOMIC OPPORTUNITIES ANALYSIS **8:00 pm (Time is estimated)**
5. UPDATE ON CODE COMPLIANCE PROGRAM AND DISCUSSION OF ADDITIONAL ADMINISTRATIVE CODE OPTIONS **8:15 pm (Time is estimated)**
6. ~~REVIEW OF THE RECYCLED WATER FEASIBILITY STUDY~~ **Set over to the April 19, 2011 Workshop Meeting.**
7. NON AGENDA ITEMS
8. COUNCIL LIAISON REPORTS

9. EXECUTIVE SESSION: The Tigard City Council may go into Executive Session. If an Executive Session is called to order, the appropriate ORS citation will be announced identifying the applicable statute. All discussions are confidential and those present may disclose nothing from the Session. Representatives of the news media are allowed to attend Executive Sessions, as provided by ORS 192.660(4), but must not disclose any information discussed. No Executive Session may be held for the purpose of taking any final action or making any final decision. Executive Sessions are closed to the public.

10. ADJOURNMENT **9:00 pm (Time is estimated)**

AIS-272

Item #: 2.

Workshop Meeting

Date: 02/15/2011

Length (in minutes): 45 Minutes

Agenda Title: 2010 Annual Report of the City Center Advisory Commission

Submitted By: Sean Farrelly
Community Development

Item Type: Joint Meeting-Board or Other Juris. **Meeting Type:** City Center
Development
Agency

ISSUE

The purpose of the joint meeting is to update the City Center Development Agency on the City Center Advisory Commission's activities, including its 2010 Annual Report and 2011 goals. The meeting will also allow both bodies an opportunity to ask questions and provide information to one another.

STAFF RECOMMENDATION / ACTION REQUEST

Review and discuss the City Center Advisory Commission 2010 Annual Report and 2011 Goals with members of the Commission.

KEY FACTS AND INFORMATION SUMMARY

The City Center Advisory Commission (CCAC) makes recommendations on Urban Renewal policy, budget, and implementation measures to improve Tigard's Downtown area. CCAC by-laws call for an annual report which describes the key activities of the Commission. For the past three years, the CCAC has met with the City Center Development Agency (CCDA) to discuss the report and the progress of urban renewal. The 2010 Annual Report was previously provided in the December 3, 2010 Council Newsletter (to comply with the CCAC by-laws). Please see Attachment 1.

The CCAC addressed a range of issues throughout the year associated with developing and implementing its 2010 goals.

On January 18, 2011 the CCAC held its third annual retreat where it developed its 2011 goals. These goals will be finalized at their February meeting and presented at the joint meeting.

As part of the discussion with the CCDA, the CCAC would like to talk about its role in implementing Downtown urban renewal; what has been successful, and what can be improved.

OTHER ALTERNATIVES

Not applicable

COUNCIL GOALS, POLICIES, APPROVED MASTER PLANS

- Council Goal 2: Implement Downtown and Town Center Redevelopment Opportunities
- City Center Urban Renewal Plan

DATES OF PREVIOUS COUNCIL CONSIDERATION

The CCAC meets at least annually with the CCDA. The last meeting was February 16, 2010.

Attachments

2010 CCAC Annual Report

Alexander B. Craghead
12205 SW Hall Boulevard
Tigard, OR 97223

November 30, 2010

Craig Dirksen, Mayor
Nick Wilson, Council President
Gretchen Buehner, Councilor
Marland Henderson, Councilor
Sydney Webb, Councilor

Re: Tigard City Center Advisory Commission

Mr. Mayor and Members of the City Council:

Accompanying this correspondence is the 2010 Annual Report of the Tigard City Center Advisory Commission to the Tigard City Center Development Agency. It is submitted in accordance with Section 11 of the CCAC Bylaws.

We look forward to the opportunity to meet with you at the annual joint meeting of the CCDA and the CCAC on February 22, 2011. In the interim, if I can provide additional information about the CCAC's activities, please contact me.

Very truly yours,



Alexander B. Craghead, CCAC Chair

**2010 Annual Report of the City Center Advisory Commission
to the
City Center Development Agency**

December 1, 2010

In February, 2010, the CCAC presented to the City Center Development Agency its goals for the year 2010. A copy of those goals is attached to this report as Attachment A. The agenda for the CCAC for the balance of 2010 was largely devoted to developing and implementing those goals. This report is organized around that framework. Unless otherwise noted, all dates occurred within calendar year 2010.

Goal No. 1 – Project Infrastructure

Main Street/Green Street.
Burnham Street completion.
Pacific Highway/Greenberg/Hall.
Plaza site.
Lower Fanno Creek.
Transit Center redevelopment.

Capital construction projects have taken up a significant amount of the CCAC's attention during 2010. Beginning in July, the CCAC provided (and continues to provide) citizen oversight and input for the Main Street/Green Street project, working with staff and consultants to shape matters pertaining to parking and street design. This process will continue into 2011.

The CCAC also monitored the progress of the Burnham Street project and the Pacific Highway/Greenberg/Hall/Main improvements. These projects may continue into early 2011, and the CCAC will continue to provide oversight.

Work on the re-meander in lower Fanno Creek Park was largely put off for the year due to budget constraints. Some limited work was undertaken near City Hall, but the bulk of the project has been postponed.

Members of the CCAC were active in providing input to the Parks and Recreation Advisory Board as the latter body shaped a parks bond measure for the November, 2010 ballot. The CCAC successfully advocated for 10% of this \$17 million bond (\$1.7 million) to be dedicated to the downtown area. (This bond measure passed on November 2, 2010.) This money is specifically dedicated to parks land acquisitions, however, and will not fund the re-meander project in lower Fanno Creek Park.

Examination of the Transit Center redevelopment determined that the idea was not currently feasible. Difficulties surrounding the location of the plaza remain unresolved.

Goal No. 2 – Development

Explore incentives including developer outreach, financial incentives, and land assembly/direct development options.

The CCAC was highly active in advocating for development opportunities within downtown during 2010. The commission prompted staff to investigate multiple possible property acquisitions. While no specific property was purchased for development by the CCDA or City of Tigard during 2010, the agency is actively investigating potential property purchases.

Staff prepared a number of site development studies during the year. These studies, conducted with the assistance of real estate and development consultants, were utilized as a tool for engaging downtown property owners in discussions about the future of their properties.

On Hunziker and Hall, the Knoll development of Community Partners for Affordable Housing continues to progress. This facility, with approximately 50 units of elder-focused low-income housing, is anticipated to open in early 2011 and will be the first significant new structure in the downtown redevelopment area.

CCAC members also attended numerous developer events, including events sponsored by the International Council of Shopping Centers, the Urban Land Institute, and the Rail~Volution conference.

Goal No. 3 – Façade Improvement Program

Implementation of Phase 1 (approved businesses).
Continue to promote, expand, refine program.

Response to this program has been exceptional, with 11 applications as of November, 2010. The first recipient of the Façade Improvement Program, the Tigard Liquor Store, was completed in July. The resulting structure has been very well received and served as a fine example of the program's potential. In addition to this location, the City approved funding of two other matching grants during 2010. Four other business have received architectural design assistance and are considering future projects.

This program will continue into 2011.

Goal No. 4 – Circulation Plan

Review for final adoption.

One of the biggest achievements of the CCAC for the year was the completion of the Circulation Plan for the downtown. The commission provided commentary and analysis of the draft plan produced by the city's consulting team. The resulting plan was streamlined for cost-effectiveness and ranked. This plan was endorsed by the CCAC in September, 2010. In addition, the CCAC has advocated for the inclusion of specific elements of this plan as part of the City's CIP process.

Goal No. 5 – Branding/Marketing of Downtown

- Determine role of CCAC in the branding and marketing of downtown.
- Encourage development of brand identity for downtown.
- Liaise with City Event Coordinator on event strategies.

The CCAC provided oversight and input on gateway designs to be used at main points of entry throughout downtown. The commission also discussed the need for clarifying the city's role in marketing issues. Plans to develop an event strategy were set aside due to budget cuts eliminating the city's Events Coordinator position.

Goal No. 6 – Communication

- Liaise with other boards, committees, Council, staff.

The CCAC has strengthened its relationships with other portions of the City. Commissioners regularly attended meetings of the Parks and Recreation Advisory Board and the Tigard Transportation Advisory Committee. The commission also conducted a joint meeting with the City Council/CCDA in February to discuss the CCAC's 2009 Annual Report. Several commissioners have attended City Council meetings, and the commission chair has attended executive sessions of the City Council pertaining to downtown issues.

Long-Term Goals

- Improve internal CCAC processes.
- Increase awareness of impact of CCAC's work on the community.

The CCAC continues to maintain its improved internal processes. The commission has made its retreat an annual event and a part of another of its internal improvements, the establishment of an annual goal setting process. The commission's executive committee, consisting of the chair and vice-chair, meet monthly with staff to set meeting agendas and discuss process matters. CCAC goals are reviewed every quarter. A remaining goal on internal processes is the development of a regular calendar to assist in the production of agendas and the timeliness of completing routine responsibilities.

Activities surrounding CCAC projects have received significant press during 2010, especially the Burnham Street project and the Façade Improvement Program. In addition, CCAC members have engaged the public directly at numerous open house events over the course of the year.

The Future

The CCAC will continue its goal-setting process in early 2011. Projects certain to carry over include the Main Street Green Street project, the Façade Improvement Program, and the planned improvements to lower Fanno Creek Park.

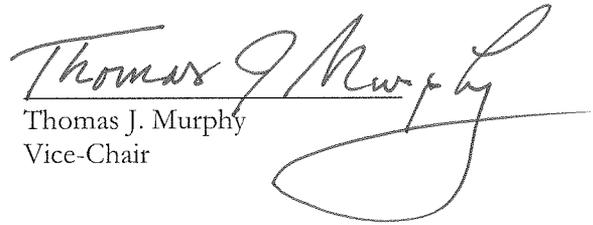
In addition, the year 2011 will mark the fifth year of the urban renewal district in Tigard. 2011, then, will prove a good time to pause and reflect upon the program's successes and remaining challenges, and consider the future direction of downtown policies and projects.

The CCAC looks forward to further progress in the year to come.

On behalf of the CCAC,



Alexander B. Craghead
Chair



Thomas J. Murphy
Vice-Chair

Workshop Meeting**Date:** 02/15/2011**Length (in minutes):** 45 Minutes**Agenda Title:** Presentation on Main Street Parking Options for the Main Street/Green Street Retrofit Project**Prepared For:** Kim McMillan**Submitted By:** Ted Kyle
Public Works**Item Type:****Meeting Type:** Council Workshop Mtg.**ISSUE**

The Council is asked to listen to a presentation and provide input on parking options for the Main Street/Green Street Retrofit project. Staff is seeking Council direction to proceed with a parking layout and to develop a parking management strategy.

STAFF RECOMMENDATION / ACTION REQUEST

Staff recommends the Councilors participate in the presentation and direct staff to proceed with the preferred parking layout and to develop a parking management strategy.

KEY FACTS AND INFORMATION SUMMARY

- The Main Street/Green Street Retrofit project, funded by a combination of a Metropolitan Transportation Improvement Program grant and City resources, will rebuild Main Street to incorporate “green street” elements, like stormwater planters, LED street lights, and additional pedestrian amenities.
- Two of the City's consultants, Rick Williams and Gary Alfson, will attend the presentation. Mr. Williams, of Rick Williams Consulting, specializes in parking management and operations. Mr. Alfson is with Harper Houf Peterson Righellis Inc. (HHPR), the firm that's been hired to design and construct the project.
- Parking was identified early on as a major design issue because it will impact all other design elements.
- Parking is critical to the vitality of every business along Main Street and is a major concern to business owners. Public Works and Community Development staff members met with a group of downtown business owners over the last several months to better understand parking issues from their perspective. Staff presented two parking alternatives to the business owners:

1. All parallel parking

This option offers fewer parking spaces, with 12-foot sidewalks.

2. **Preferred Option** - Angled and parallel parking

This option is similar to the existing layout and offers more parking spaces, with 8-foot sidewalks in most areas. There are, however, some areas that are currently wider than 8 feet, namely in front of some of the restaurants.

HHPR was able to design green street planters for either alternative. There won't be a reduction in existing sidewalk widths under either option.

- The business owners support option 2. They have clearly said that their customers find angled parking easier to use.
- Our consultant's experience has shown that angled parking is desirable on downtown main streets.
- The City Center Advisory Commission is also considering this issue and will be finalizing their recommendation on February 9. The Commissioners will present their recommendation at this workshop.
- As a next step, a parking management strategy will need to be developed. This strategy will establish policies that result in the most efficient use of parking resources. In short, a parking management strategy will determine the "who, what, when, where and how" of downtown parking, with the ultimate goal being that sufficient parking is available for customers and employees. This strategy will be developed as the design is finalized and will be implemented in phases.

OTHER ALTERNATIVES

The Council could conclude that the proposed parking layouts are not in the community's best interest and could direct staff to continue to develop other parking options.

COUNCIL GOALS, POLICIES, APPROVED MASTER PLANS

2011 City Council Goal #2, "Implement Downtown and Town Center Redevelopment Opportunities"

Adopted Plans:

Tigard Downtown Streetscape Design Plan (2006)

City Center Urban Renewal Plan (2005)

DATES OF PREVIOUS COUNCIL CONSIDERATION

This is the first time this issue has come before the Council.

Fiscal Impact

Fiscal Information:

This project is funded by a combination of a \$2.5 million grant from Metro and City resources. In the Adopted 2011-2015 Capital Improvement Plan(CIP), the City is providing \$839,000 from the Gas Tax Fund as well as an additional \$200,000 from the Water Fund during the current and next fiscal years. The Gas Tax resources will be used for the City's portion of Design and Engineering, Construction, Construction Management, and Project Management. The Water Fund resources will be used for water line work that will be done during the construction phase of this project. Of the City's share \$650,000 is budgeted in the current 2011 Fiscal Year (FY 2011), with the remaining \$389,000 scheduled to be spent in FY 2012. The Adopted CIP anticipates that most of the grant funds will be used during FY 2012.

There is no significant design cost difference between the two parking options. Parking design, including the green street features, is included in the project budget of \$650,000 for fiscal year 2010-2011. Of the \$650,000 project cost, \$450,000 is derived from gas tax funds and \$200,000 is derived from the water fund for water infrastructure work associated with the project.

Attachments

PowerPoint Presentation

City of Tigard

Main Street

Green Street

Down on Main Street

Presented to Tigard City Council

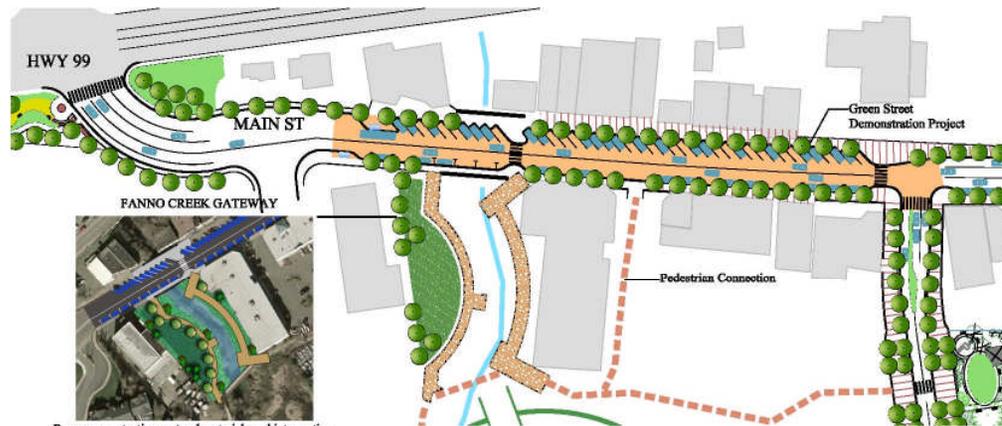
FEBRUARY 15, 2011



www.tigard-or.gov/mainstreet

Planning Phase...
By Others

Street Design Concept
MAIN: GREEN STREET PLAN



Resource protection, natural materials and interpretive art/signage will complement the Green Street concept

STORMWATER PLANTERS



Visible, functional

CURBLESS DESIGN OPTION



Sidewalk sales, vendors, street fairs, pedestrian activity are "green"



Shared space for vehicles and pedestrians. However, increases in traffic volume may negate this potential benefit.

Project Description

Main Street can continue to demonstrate commitment to sustainable development. Burnham Street to Maplewood Drive could be funded as a Green Street demonstration project featuring stormwater management. Green elements could be:

- Flow through stormwater planters
- Street trees in landscaped tree wells rather than grates
- Visual and functional connections to Fanno Creek Public Area
- Interpretive signage and/or public art
- A curbless cross-section

The demonstration project would likely require approximately 4,000 - 4,500 square feet of planter area. The remainder of Main Street would be treated with mechanical measures such as StormFilter cartridges, providing improved water quality with less sidewalk/curb extension space required.

Implementation

Regional funding sources for Green Street demonstration projects such as Metro and Clean Water Services should be explored.

Potential Phasing

Green Street improvements could be a stand-alone project for developing the Green Heart of Tigard. Potential phasing of an overall Main Street improvement plan should be coordinated with street improvement projects between Burnham Street and Scoffins Street.

Coordination with Other Projects

Opportunities to share project costs and/or achieve maximum functional benefits at the most reasonable cost:

- Fanno Creek Regional Trail and Public Area
- Major redevelopment project(s)
- Future realignment of Tigard Street to Burnham Street

Additional Green Street Budget: \$220,000

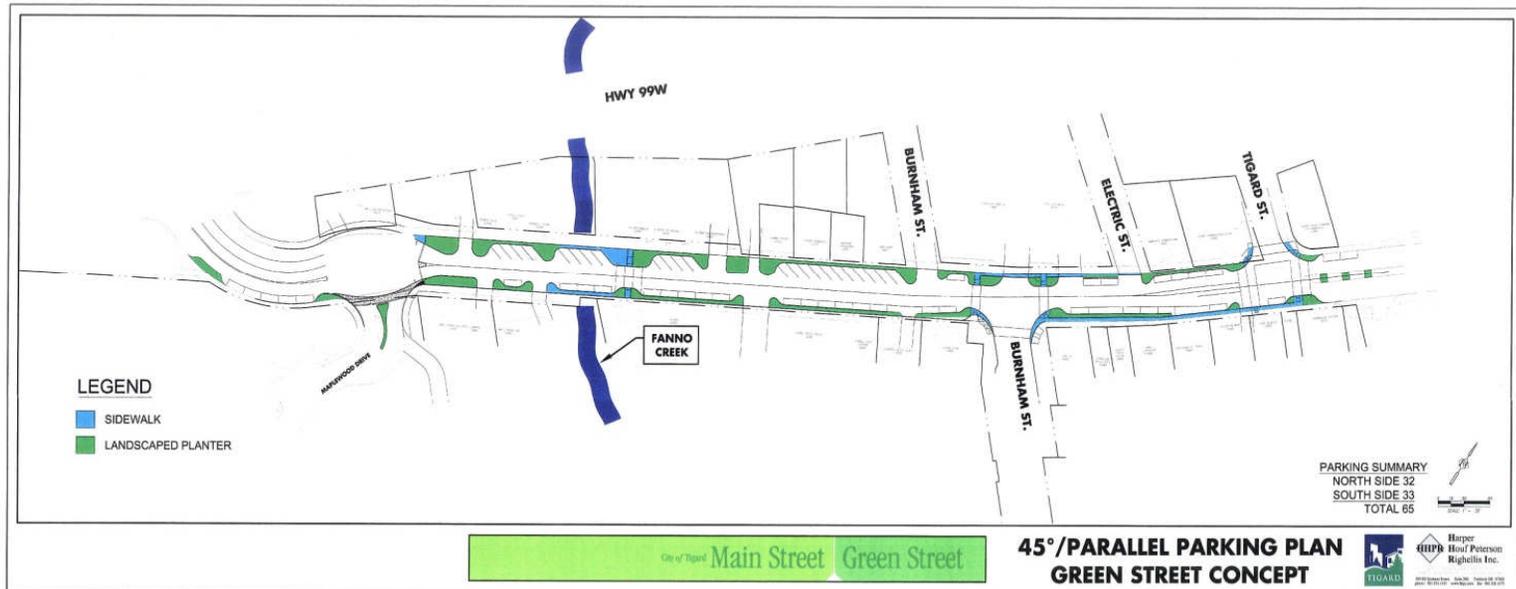
Current Angle
Parking



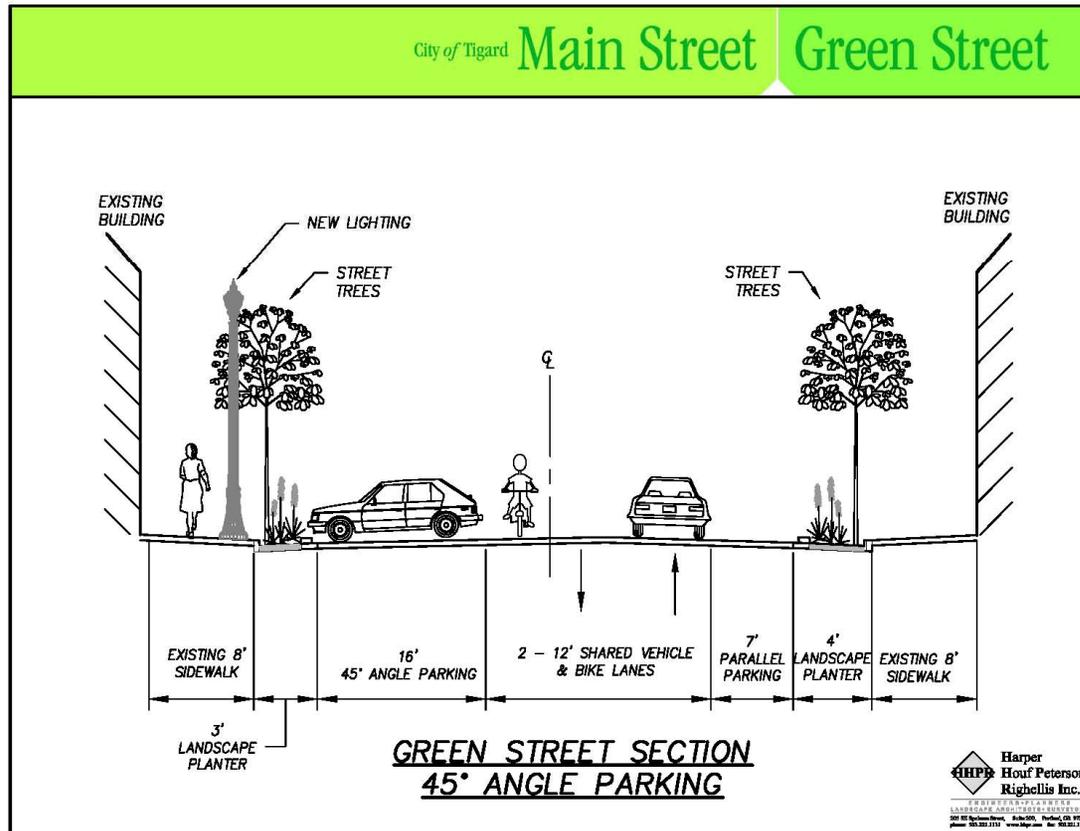
Conceptual
Angle Parking



Project Area Parking
and Green Street
Elements



Conceptual
Elevation



Thor is still under contract
on Burnham.

Penny is the liaison for Main
Street



**Harper
Houf Peterson
Righellis Inc.**ENGINEERS ♦ PLANNERS
LANDSCAPE ARCHITECTS ♦ SURVEYORS205 SE Spokane Street, Suite 200, Portland, OR 97202
PHONE: 503.221.1131 www.hhpr.com FAX: 503.221.1171

February 11, 2011

Kim McMillan
City of Tigard
13125 SW Hall Blvd
Tigard, Oregon 97223Re: Alternative Analysis Report
Tigard Main Street – Green Street
RR xing to 99W
ODOT Project Key #15600

Kim

The Main Street project received funding through the Metro Transportation Priorities 2008-11 Program / Green Street Demonstration: Retrofit Application. The key points in the application states that the project be in accordance with the concept design developed through the Tigard Streetscape Design project. The Tigard Streetscape Design and the application list the widening of sidewalks to create a pedestrian friendly environment and green street components to treat, infiltrate, and detain storm water prior to discharge into Fanno Creek as pertinent features. The application also states that impervious surface area is to be reduced through the green street treatments by up to 10,000 square feet.

The existing configuration of the roadway, with building faces at the back of the sidewalk in several locations, prevents roadway or sidewalk widening for a majority of the project length. See the attached existing conditions strip map and section drawing. The 70 foot wide roadway section consists of two lanes of traffic, with parking on both sides of the street, and sidewalks typically 8' wide. The travel lanes are 13' wide adjacent to the 8' wide parallel parking, and 17' wide adjacent to the 16' angled parking. Incorporating wider sidewalks and green street treatments will require the reduction in the roadway travel lane widths and/or parking widths between the curbs.

The alternative analysis effort listed in the WOC included the preparation of strip maps and sections for three (3) project alternatives with Green Street Streetscape Improvements including the following alternatives:

1. Current Roadway Section.
2. Roadway Section with no angled parking and added bike lane.
3. Roadway Section with no angled parking and increased pedestrian corridor.

The alternative analysis also included analysis of roundabout at the south west end of Main Street, at Maplewood Drive. The task included preparation of sketches and evaluation of the various options for the roundabout configuration including mini, urban compact and urban single, and the various locations available. From this initial analysis a preliminary plan will be developed of the proposed configuration including the following considerations:

1. ODOT design parameters related to 99W intersection.
2. City design parameters related to circulation and access.



3. Traffic analysis for the PM Peak hour utilizing the NCHRP report 572 method and analysis procedure manual (Ch 7, section 7.3.6) to determine the most efficient roundabout configuration.
4. Traffic analysis using Synchro/Sim traffic for the 99W/Main Street intersection to analyze intersection operations (v/c) and 95th percentile queuing as it pertains to its interaction with the roundabout.
5. Access to adjacent properties.
6. Pedestrian and bicycle accessibility requirements.
7. Downtown entrance landscape treatment possibilities.

Alternative Main Street Configurations

Alternative configurations were prepared with variations in the parking configuration, sidewalk widening, landscape treatment, and traffic lanes, with the goal to impact the total parking count as little as possible while meeting the requirements of the Trimet application and the vision from the Tigard Streetscape Design. Widening of the roadway footprint is not proposed with this project. Preliminary plans were developed with 60°, parallel, and 45° parking configurations, 0 to 4' sidewalk widening, linear and bulb out green street treatments, two lanes of vehicular traffic, and the elimination of the center left turn lane at Burnham Street. The results of the various configurations were presented to the City Center Advisory Committee and at Open Houses for review and comment from the CCAC commissioners, business owners, and the general public. The City also established a Parking Discussion Group to review the alternative configurations for their input.

The various options discussed below all include the median treatment at Maplewood.

Green Street Treatments

The initial step in the alternative analysis is to add green street treatments to the existing roadway configuration. The landscape features of a Green Street add to the aesthetics of the street as well as provide for treatment of storm water runoff from the street and sidewalks. The runoff needs to be intercepted in the gutter before it flows into the catch basins and enters the pipe system. In order to provide treatment the facility needs to either be long and narrow or short and wide. A linear facility works best when retrofitting a street with existing slopes and curbs. The linear landscape features described below will provide the primary area for storm water runoff treatment facilities for the street and sidewalks. The bulb out landscape features at driveways, intersections and crosswalks are not ideally suited for treatment; however they will reduce the impervious area and provide enhanced aesthetics. These facilities also provide speed control by narrowing the vehicular lanes and improve pedestrian safety by reducing the crosswalk length. The linear and bulb out green street features were incorporated into the street section with the various parking configurations listed below.

Parking Configurations

The existing parking configuration for Main Street from the RR to 99W consists of 27 parallel parking stalls on the south side and a mix of 11 parallel and 39 angled parking stalls on the north side, for a total of 77 stalls per the Downtown Parking Existing Conditions Analysis. The angled parking stalls are at 60 degrees to the curb. Sixteen additional parallel stalls exist on Tigard, Electric and Burnham Streets adjacent to the project. Additional on street parking on Burnham may be available when the street is completed. The 285 off street public and private parking stalls were not affected by this analysis.

Option #1: Current 60° Parking with Green Street Streetscape

The current roadway section, with two lanes, 60° angled parking on the north side and parallel parking on the south, will provide a single 2.5' wide sidewalk widening by tightening the lane widths. Bulb out components were added at the intersections of Tigard, Burnham and Maplewood, and at the proposed crosswalks at Tigard, Burnham, Fanno Creek, and east of Maplewood. A landscape strip was also installed at the west end of the parking strip on the south side of the road.



This configuration does not provide for treatment of storm water with landscape planters. Treatment will need to be provided with filter catch basins. This option does not achieve the sidewalk widening or green street goals listed in the application or the Tigard Streetscape Design. Therefore this option is not feasible and a strip map was not prepared. See the attached street section for dimensions. This option is a basis for comparison of the various configurations for parking, sidewalks, and storm water treatment. This impacts the parking by eliminating 3 stalls from the existing 60° configuration with the new bulb outs for green street treatments. It is assumed that the current pull out bus stops will be moved into the travel lanes and be replaced with parking stalls, and the center turn lane at Burnham will be removed. See the attached street section for dimensions.

Option #2: Bike Lanes with No Angled Parking and Green Street Streetscape

Designated bike lanes are typically 6' wide lanes between the parking and travel lanes. The width of bike lanes with the two 12' wide through lanes totals 36' wide, leaving 18' for parking, sidewalk widening, and lineal treatment facilities. Parallel parking on each side leaves only 2' for green street treatments. Combining the bike lanes with the travel lanes for a shared configuration reduces the 18' lane to 15' wide. This provides for 4' wide green street treatments on both sides. However the lack of sidewalk widening does not meet the goal listed in the application. We propose that due to the low speed of the traffic with the proposed improvements; bicyclist can merge with the vehicular traffic safely, eliminating the need for designated bike lanes. A strip map for this plan was not developed further. See the attached street section for dimensions.

TIGARD MAIN STREET GREEN STREET - Alternative Matrix Table

Component	Green Street Treatment with			Maximum Parking Count
	Current Configuration	Bike Lanes	Increased Pedestrian Corridors	
Landscape Area	2500 sf	4000 sf	7000 sf	9000 sf
Storm Water Treatment	No	Yes	Yes	Yes
Sidewalk Width	8'	8'	12'	8'
Sidewalk Furniture	No	No	Yes	No
On Street Parking South Side	31 Parallel	33 Parallel	33 Parallel	33 Parallel
On Street Parking North Side	43 Angled 60°	27 Parallel	27 Parallel	32 Angled 45°
Total Parking	74	60	60	65
Bike Lanes	No	Shared	No	No
Speed Control	Yes	No	Yes	Yes
Crosswalks	Yes	Yes	Yes	Yes

Option #3: Increased Pedestrian Corridor with Dual Parallel Parking and Green Street Streetscape

This option widens the existing 8' wide sidewalks to 12' wide to meet the concept design developed through the Tigard Streetscape Design project. The width of two travel lanes plus 8' parallel parking



and 4' sidewalk widening on both sides, leaves 6' for green street treatments and curbs. This width can be enhanced to 8' wide for two linear treatment planters by reducing the parallel parking to 7' wide. The parallel parking stalls need to allow for the passenger in the vehicle to get out of the car safely when parked against the curb. Therefore the top of the curb is widened to 18" wide to allow for passengers to exit the car and walk to the landscape strip crossing. The 18" wide curbs against the parallel stalls leaves 30" for the available width of the linear treatment facility, the minimum amount. This option was enhanced with the addition of bulb outs at most driveways, increasing the total green street area, and improving the driveway transition, and improving speed control. This option reduces the Option #1 current parking by 14 stalls. This option is the recommended configuration for dual parallel parking. See the attached street section for dimensions.

Option #4: Maximum Parking with 45°/Parallel Parking with Green Street Streetscape

In order to maximize the parking we prepared a plan with 45° angled parking on the north side, leaving the parallel parking on the south side. This configuration adds 5 stalls to Option #3 dual parallel parking. To achieve this the sidewalk widening is eliminated on both sides of the road and the linear green street facility is reduced on one side from 4' to 3' including the curb. The increase in total green street landscape area is due to the deeper stall depth of parallel vs. angled parking, creating wider bulb outs. This option reduces the Option #1 current parking by 9 stalls. This option is the recommended configuration for angled parking. See the attached street section for dimensions.

Roundabout (Median Treatment) Purpose

The primary purpose of the proposed roundabout is to provide a turnaround at the southwest end of Main Street. There are no intersecting streets or blocks that provide a u-turn for circulation on this end of Main Street. Vehicles which desire to return back on Main Street for a destination in the opposing direction are required to use private properties or travel across 99W for a legal turn around. The secondary benefits of the roundabout are to provide an area for downtown Tigard signing and an entrance treatment, improve the safety of the Maplewood intersection, and slow traffic through the downtown area. A similar roundabout / turnaround will be considered for the opposite end of Main Street in the future.

Roundabout Optional Configurations

The Maplewood intersection is the logical location for a roundabout. Moving it closer to 99W will impact storage capacity for the westbound Main Street traffic. Moving it to the east would either put it closer to the bridge or create an offset configuration for the Maplewood access and impact more business access on both sides of Main Street. The proposed location will likely require the closure of one of two accesses to the property to the north which is impacted by losing five parking stalls. An access drive to the south is proposed to be relocated into the Maplewood Drive access as it is too close to the roundabout exit lane.

The configuration of the roundabout needs to provide a 20 mph route through the curves for through traffic, provide access to the apartments on Maplewood, and allow a turnaround for all vehicles typically present on Main Street. The outer curb radius of a mini roundabout is typically less than 80 feet. A traffic lane inside this circle will reduce the inner curb radius too much to allow a 180 degree turn by trucks. The foot print of the entire roundabout is smaller however the lack of providing a u-turn negates this.

A compact urban roundabout is slightly larger with an outside radius of 80 feet to 100 feet. We have completed a conceptual layout for this type of roundabout and have concluded that it will provide the necessary turn around and access capabilities, and provide a center island for landscaping. A WB-40 moving van will be able to make the necessary turns into and out of the apartment complex in all directions.

A standard single lane roundabout uses an outside curb radius of more than 100 feet. It will improve the turning radius for u-turns and truck access; however it will require a larger footprint, impacting adjacent properties more with minimal benefit and increase speeds.

The location of the compact urban roundabout was selected with the least amount of impact onto adjacent properties. The proposed location places the outer radius of the roundabout tangent to the current curb returns at Maplewood Drive. Moving the roundabout to the south will require substantial reconstruction of the access into the apartment complex and parking area due to the sharp curvature of the access just into the site. Shifting the roundabout to the north increases the impact to the parking lot for the property, likely requiring total acquisition of the property. The proposed location will reduce the parking for the north property from 10 to 5 stalls which is appropriate for the size of the building, and will limit the amount of reconstruction to the Maplewood access. See the attached concept plan.

Roundabout Traffic Analysis

The proposed roundabout location was evaluated to determine if it impacted the 99W traffic signal to the west. ODOT reviewed the analysis and expressed concerns on the possibility of vehicles turning left from the Maplewood intersection, blocking the east bound Main Street traffic. Based on the chance that this could create a back up onto 99W the roundabout was revised into a median treatment as discussed below.

Median Treatment

The configuration of the roundabout transformed into a median treatment to lessen the possibility of backing westbound traffic up and to improve the flow of Main Street traffic through the intersection. Traffic exiting Maplewood is proposed to remain as a stop controlled movement and the Main Street left turn and u turn movement is proposed as a yield controlled movement. The installation of the median in Main Street at the Maplewood intersection will not adversely affect the 99W intersection as the 99W and Maplewood intersections will function similar to the current operation. The vehicle queue for the Main Street west bound left, through and right turning vehicles is not reduced. The delay for vehicles wishing to make the new u-turn or make a left turn into or out of Maplewood will have the same delay as they have today. The benefits of providing a u-turn throughout the day will allow better use of parking from one side of the street to the other. The median will reduce traffic speeds and provide aesthetic enhancements for the downtown businesses. See the attached concept plan.

Roundabout Impacts

The accessibility of pedestrians and bicycles has not been impacted by the median treatment. Sidewalks with ADA accessibility are provided continuously through the median treatment and along Main Street. A cross walk has been integrated into the layout just east of the roundabout to facilitate a safe crossing of Main Street. With the upgrade of the ADA ramps and installation of the cross walk, the pedestrian accessibility has been improved. The length of the pedestrian route has increased slightly but will not deter or create a short cut potential. Bike facilities are not currently provided and designated lanes are not proposed. The median treatment provides 15' wide lanes to allow for shared usage of vehicles and bikes.

Vehicle safety will be increased by providing a safe refuge for a vehicle making the left or u-turn on the west and east end of the median. Safety will also be improved by reversing the flow of traffic in the loop around the brew pub and the Karate center and by combining this access with the apartment access.

Recommended Main Street Configuration

The dual parallel parking configuration meets the long range goal stated in the Tigard Streetscape Design report better than the 45° parking option, however, the CCAC and the Parking Discussion group favor the 45 degree parking configuration. The primary difference between the two options is

the 5 parking stalls gained with the 45° parking configuration, offset by the addition of sidewalk widening on both sides of the street from Burnham to Maplewood with the dual parking configuration. Storm drain treatment can be achieved in either configuration. The convenience of maneuvering into and out of a 45° parking stall is easier than a parallel stall, only if there is only one parallel stall available. The 70% usage of the parking spaces from the parking study indicates that there will be adequate parking capacity with the dual parking configuration. The improved usage of off street parking through better signage as presented by the parking consultant will reduce the need for on street parking.

The median treatment will provide the desired u turn capability without impacting the 99W traffic signal capacity. The impacts from the median treatment include acquisition of a sliver of right of way and 5 parking stalls from the acupuncture business, a sliver of right of way across the frontage of the access to the apartment complex, and revisions to the loop drive around the brew pub and Karate businesses. The median treatment will create an island in the center of the street which can be enhanced to provide a landscape entrance feature. The costs associated directly with the median treatment are approximately \$100,000. We recommend the installation of the median to enhance the Main Street circulation, as a location for downtown Tigard signage, and for entry treatment aesthetics.

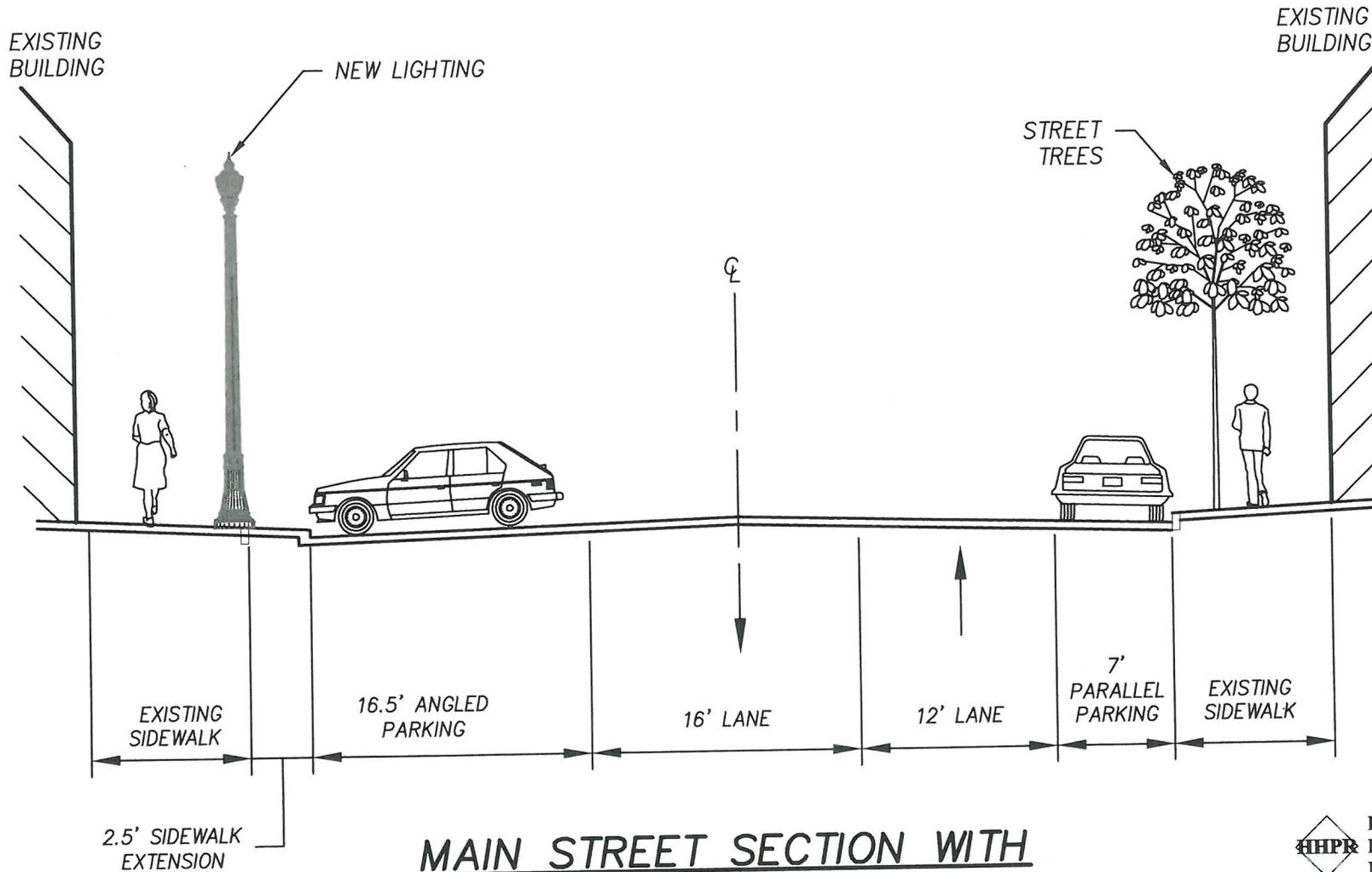
Sincerely,
HARPER HOUF PETERSON RIGHELLIS, INC.



Gary Alfson, PE
Associate Principal

City of Tigard **Main Street** **Green Street**

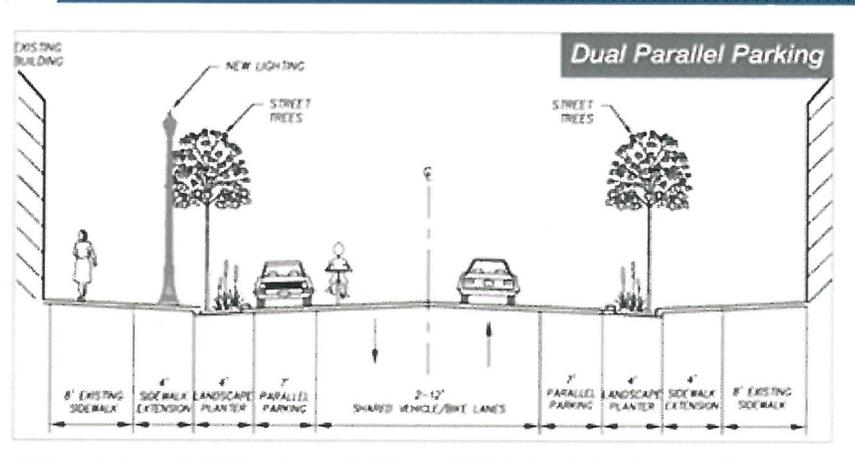
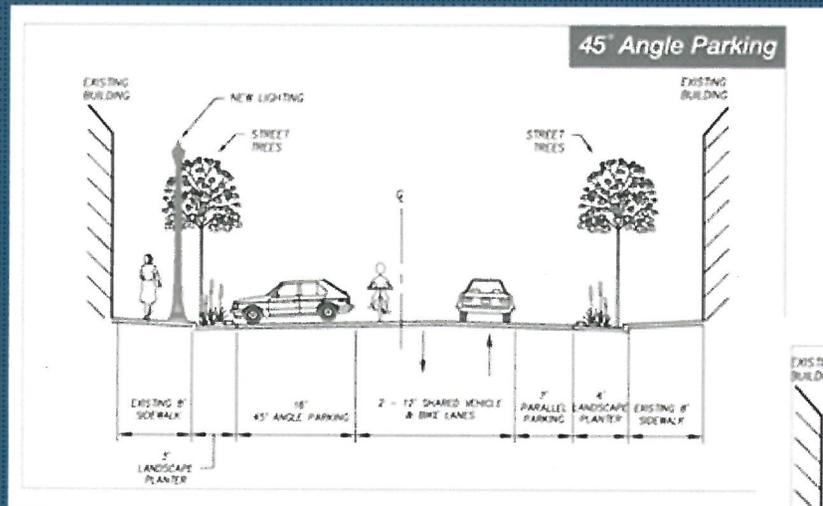
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**MAIN STREET SECTION WITH
60° ANGLED PARKING**

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205 SE Spokane Street, Suite 200, Portland, OR 97202
phone: 503.221.1131 www.hhpr.com fax: 503.221.1171

Tigard, Oregon Main Street Parking



— February 15, 2011 —

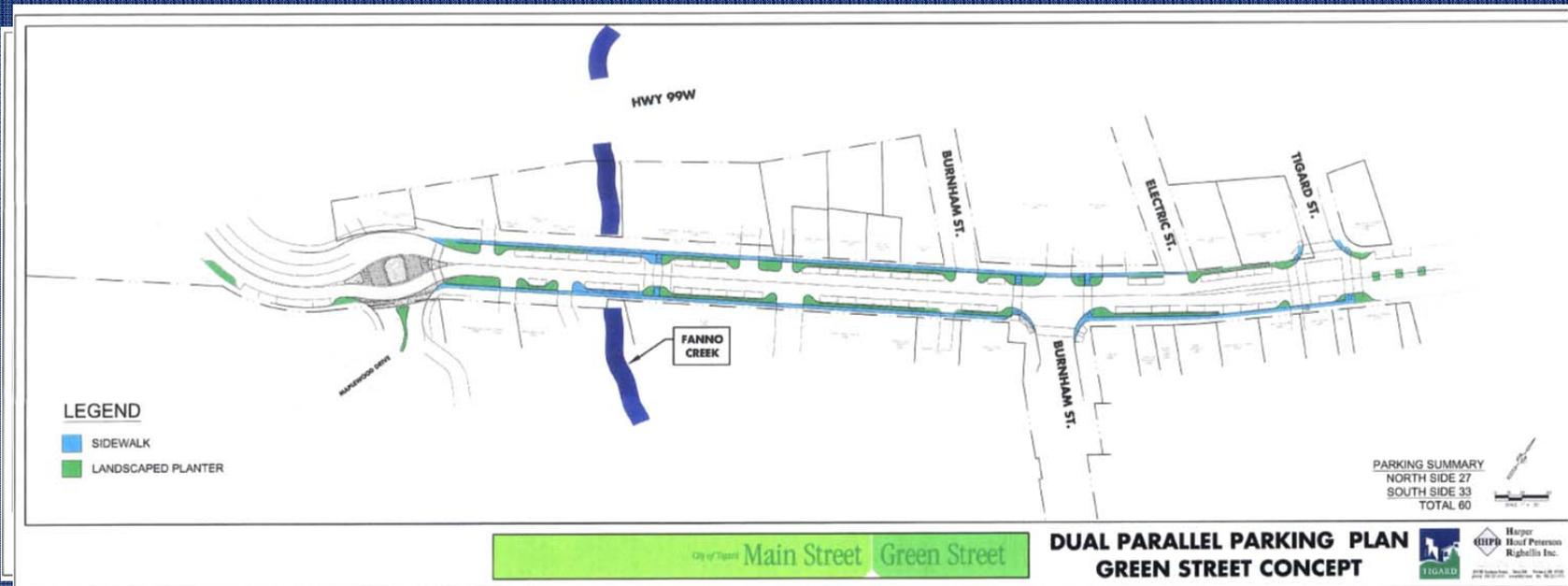
Creating Change

Main Street is Unique

- ✓ Support a “*messy vitality*” - vital, active and interesting urbanizing environment
- ✓ Slow down traffic through the corridor
- ✓ Convenient parking for visitors and customers
- ✓ Reasonable and safe parking for employees and long-term visits
- ✓ A clear sense of movement to parking options
- ✓ Integrated system on and off-street (parking & pedestrians)
- ✓ Integrating alternative modes (particularly bike for Tigard)
- ✓ Ensure that parking in district is for users of the district – mitigate park & ride



Parking Supports “Main” Street



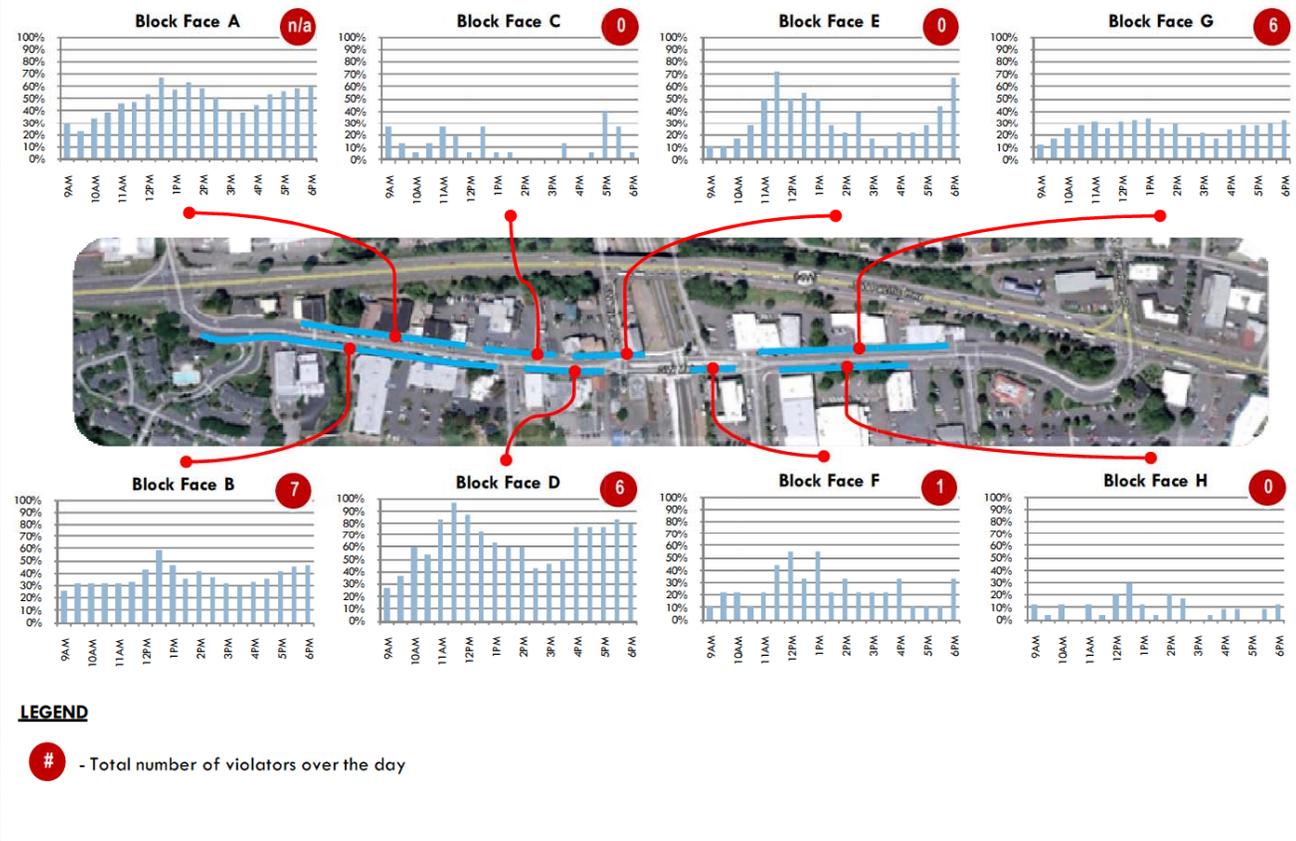
Any parking plan must support this vision.

The Benefits of On-street Parking Management

1. Getting the right people to park in the right place
2. Preserves parking for users of the district (residents, employees, visitors/customers) and reduces/eliminates parking for those who would use the district as a “park & ride.”
3. More efficient use of a limited resource
4. Creates order and certainty – reduces angst
5. Maximizes turnover, where turnover is needed – increased vehicle volume of customers to retail curb space, resulting in increased retail sales.
6. A means to support mode goals for transit, biking and walking (coordinating “capacity” strategically)
7. If there is a plan, it can react, calibrate and adapt to change.

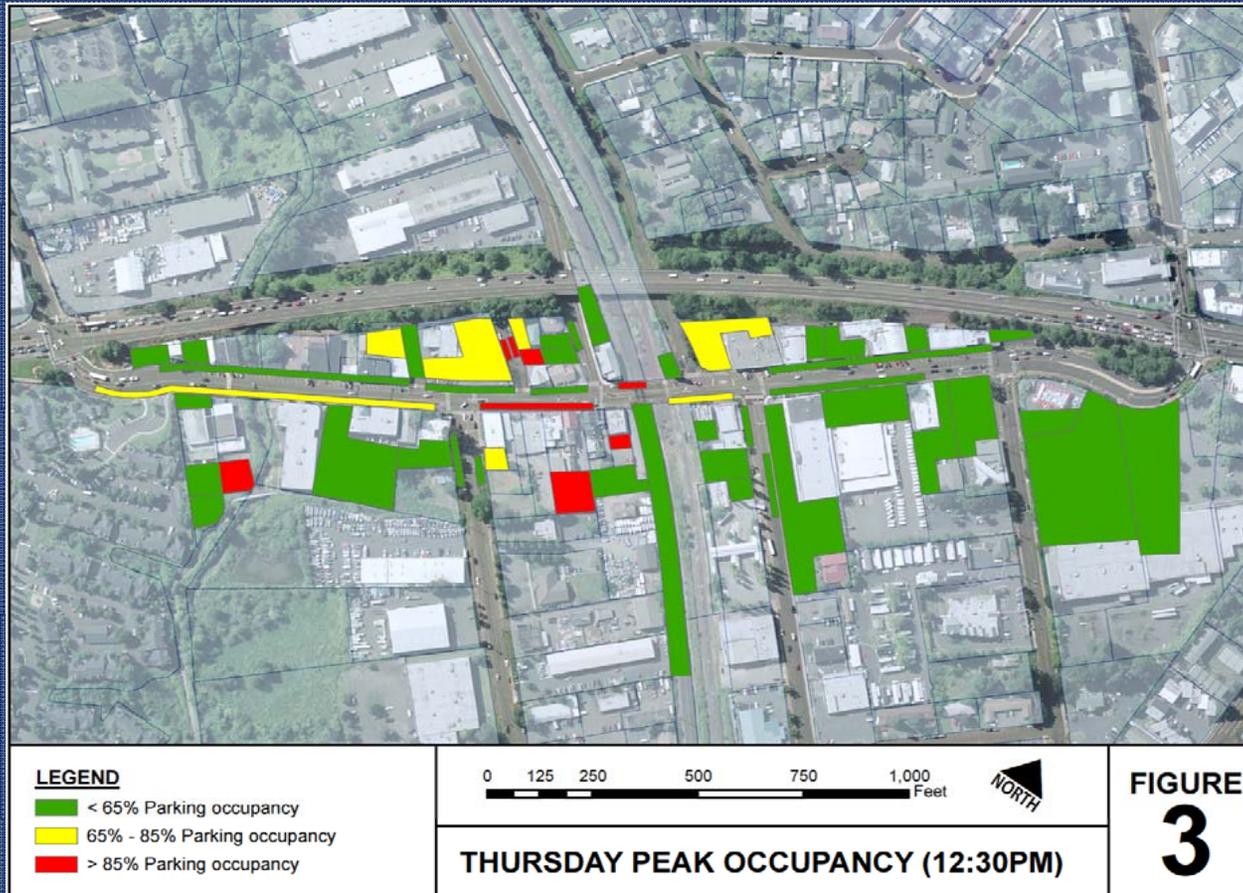
Current Conditions

Figure 13: Block Face Utilization Averaged for All Three Survey Days by Time of Day



- General On-street peak occupancy about 58%
- General Off-street peak occupancy about 52%

Current Conditions



- Pockets of high activity on and off –street.
- Overall availability of parking
- Focus on direction and guidance first

Use Parking Management Best Practices

✓ Strategy complements policy & priorities – create a framework for decision making

- Provide for efficient use of on-street parking
- Encourage turnover of on-street parking
- Focus short-term parking nearest to businesses
- Standard time stays - messaging
- Identify long-term locations – wayfinding / branding
- Use the 85% Rule
- Enforcement



If your employee isn't walking, your customer is

- ✓ Main Street requires on-street parking dedicated to customer use.
- ✓ Employee locations need to be off-street and “proximate”
 - Safe and secure
 - Well designed
 - Well lit
 - Quality landscaping and connectivity
 - Wayfinding from right of way to site
 - Unified “brand”



What other small cities are doing

- ✓ Customer First Programs
- ✓ Shared use agreements – private lots
- ✓ Standardized time stays - on-street
- ✓ Common branding
- ✓ Employees off-street or w/ permits



SUMMARY

Principles for Success

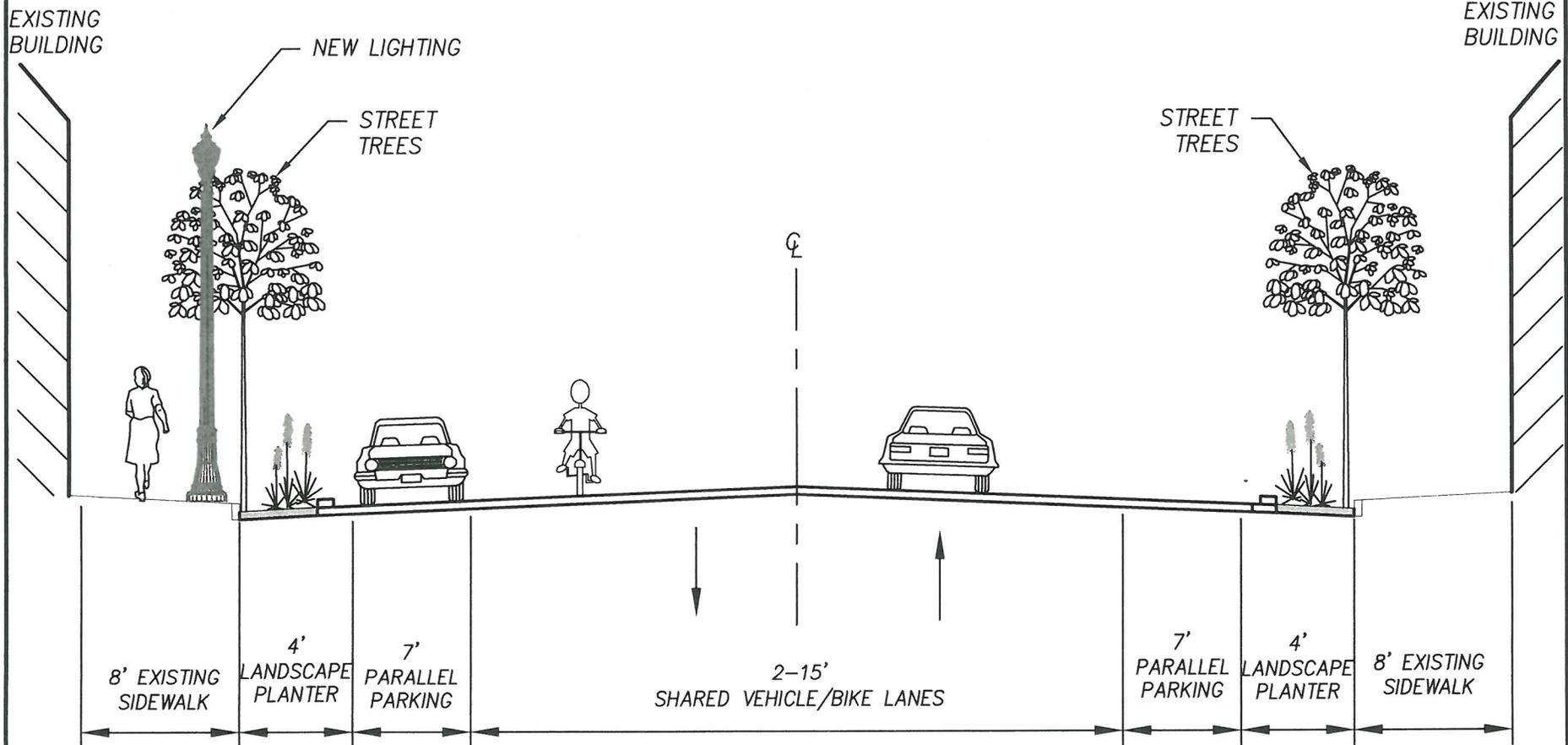
- ✓ Clarify
- ✓ Organize
- ✓ Enhance



YOUR QUESTIONS?

City of Tigard **Main Street** **Green Street**

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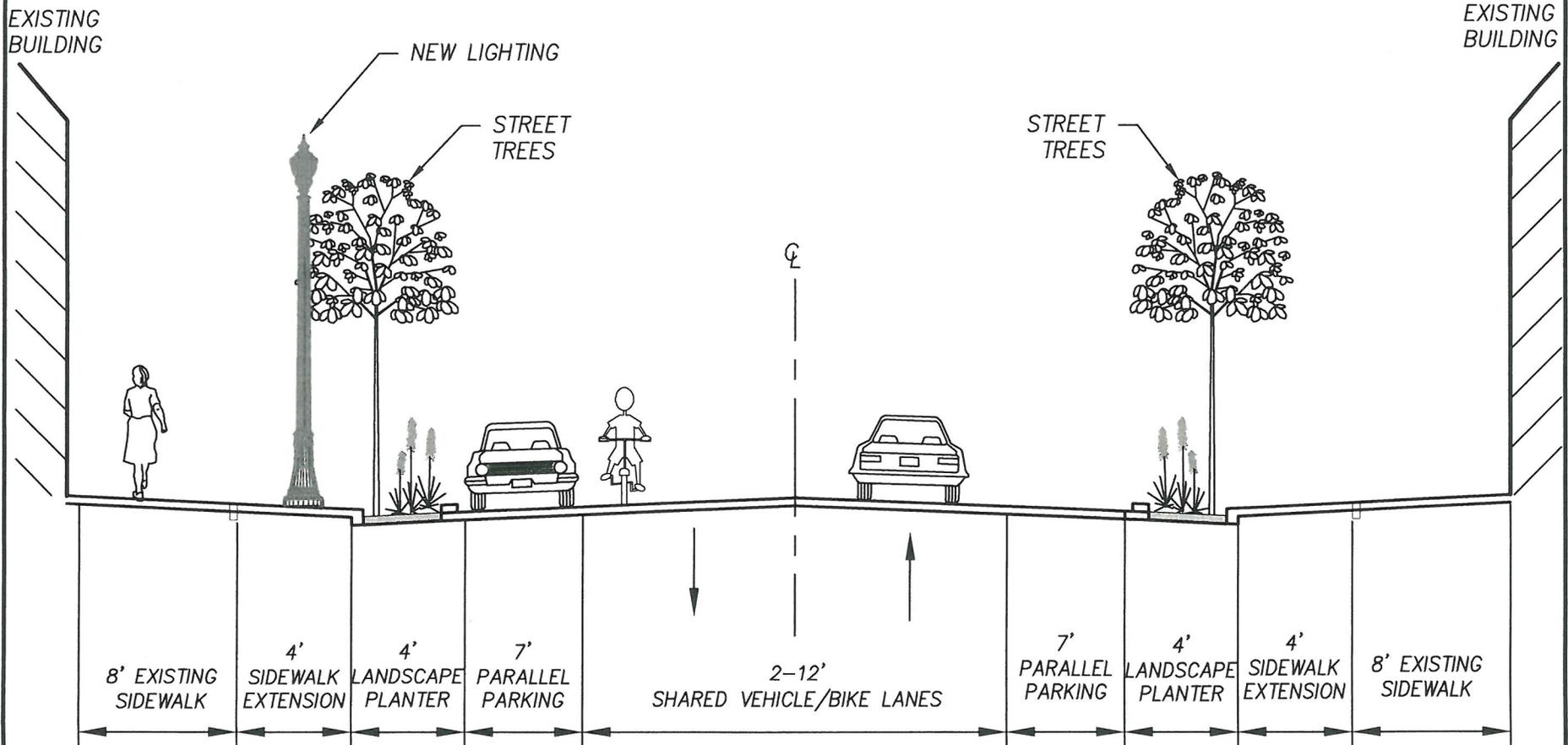


GREEN STREET SECTION
WITH BIKE LANES AND
DUAL PARALLEL PARKING

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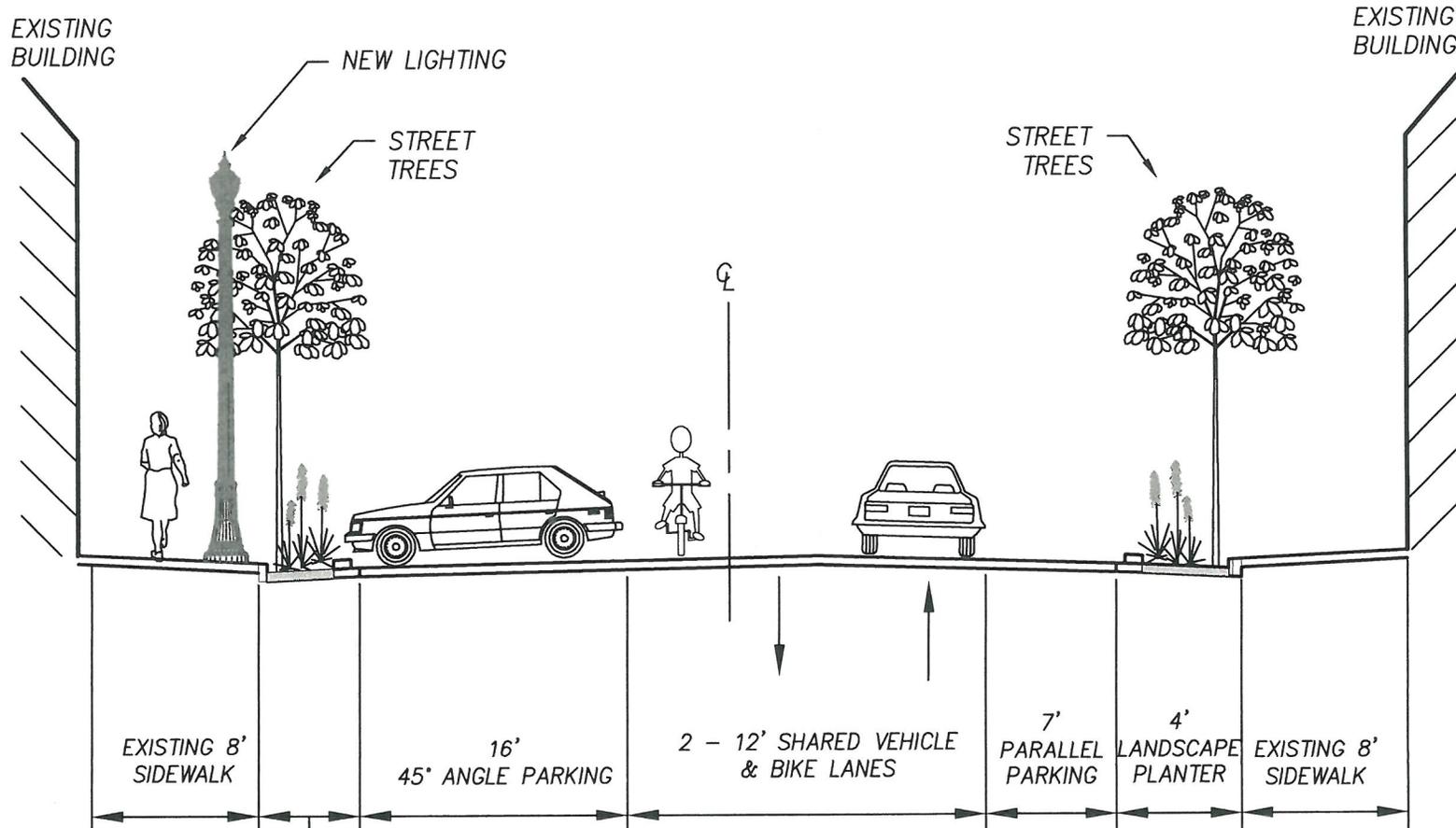
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GREEN STREET SECTION
DUAL PARALLEL PARKING

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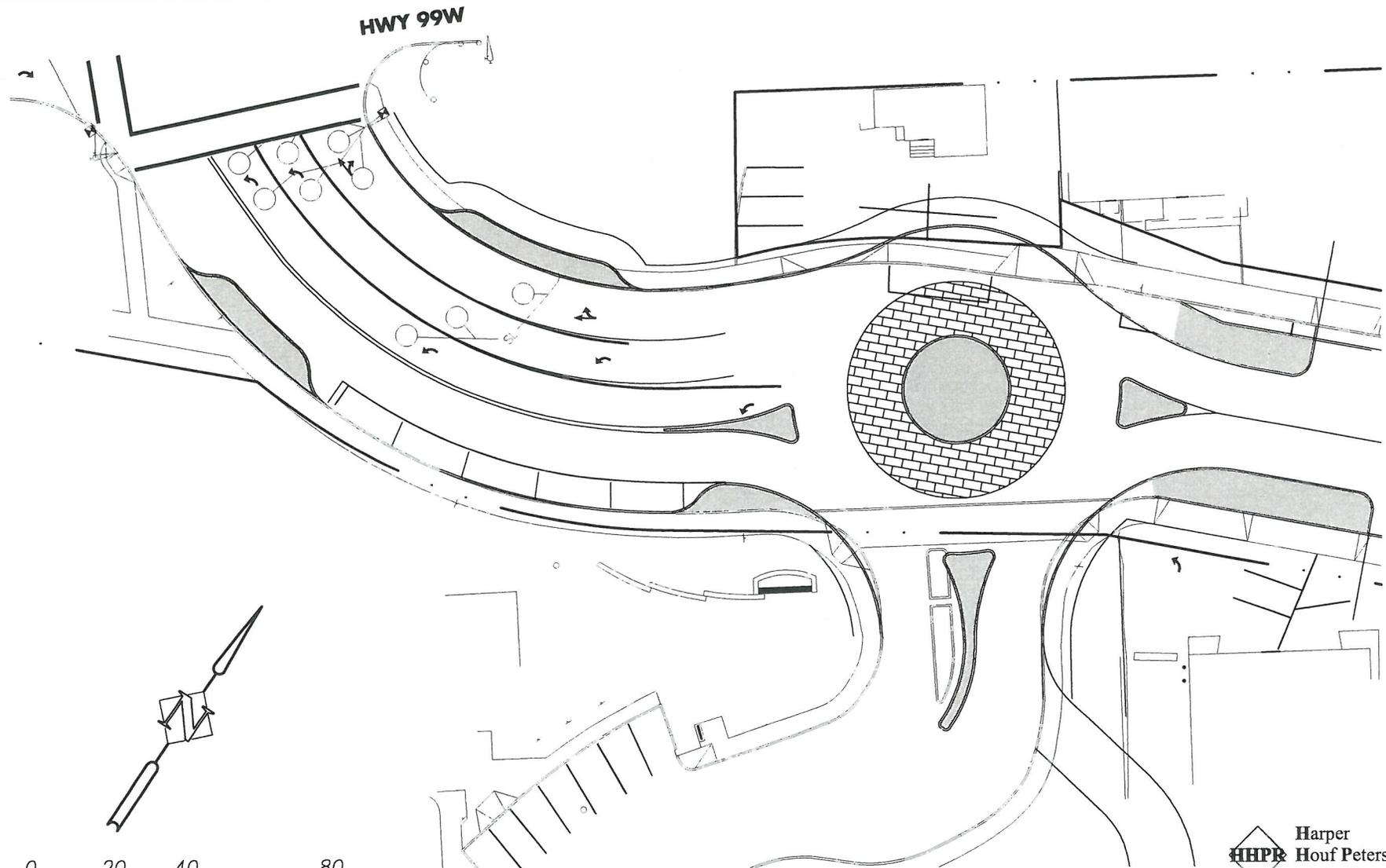
GREEN STREET SECTION
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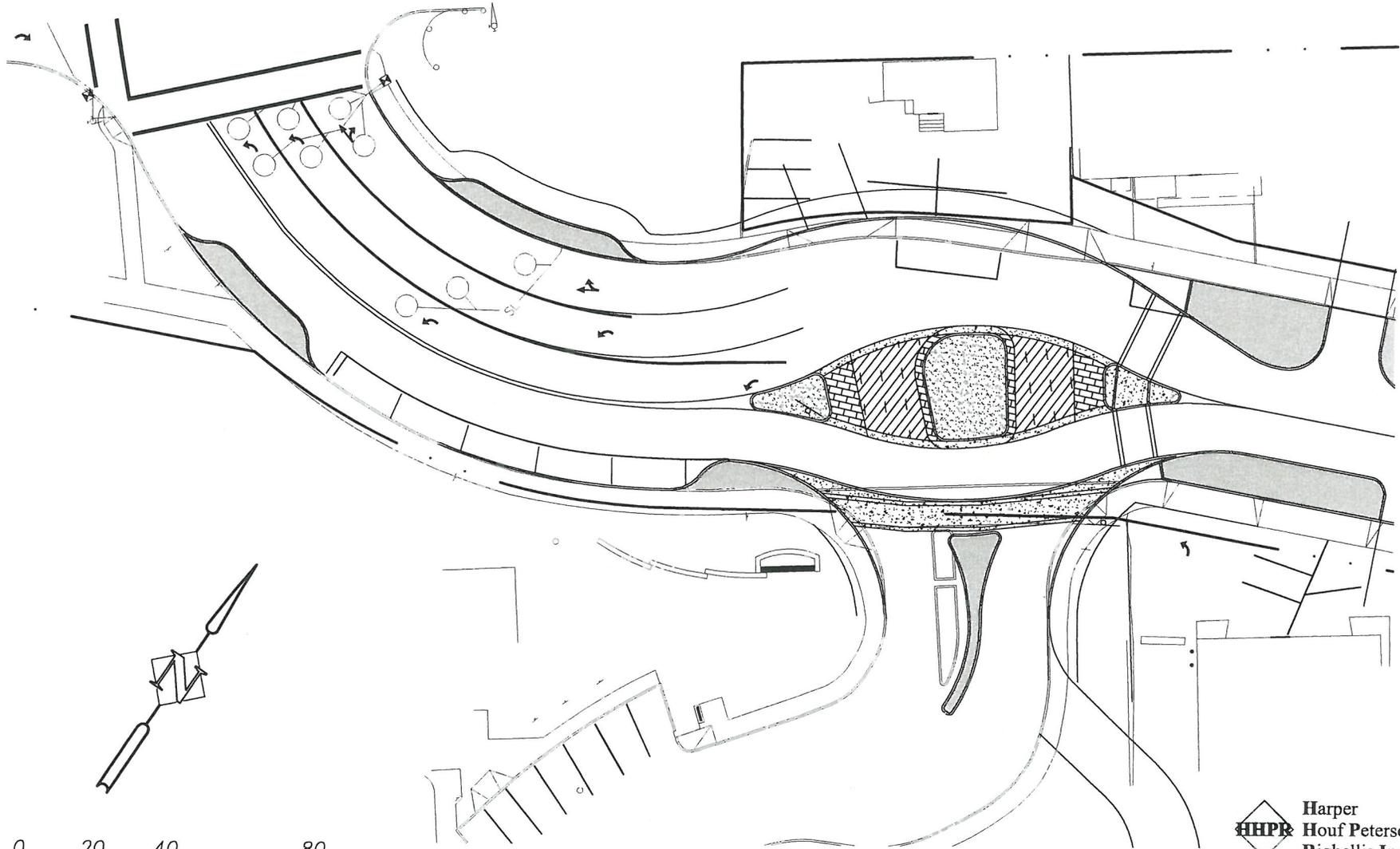
ROUNDABOUT OPTION

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HWY 99W



PROPOSED MEDIAN TREATMENT

HHPR Harper Houf Peterson Righellis Inc.

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205 SE Spokane Street, Suite 200, Portland, OR 97202
phone: 503.221.1131 www.hhpr.com fax: 503.221.1171

Workshop Meeting

Date: 02/15/2011

Length (in minutes): 15 Minutes

Agenda Title: Briefing on the Economic Opportunities Analysis

Submitted By: Darren Wyss
Community Development

Item Type: Update, Discussion, Direct Staff

Meeting Type:

Council
Workshop Mtg.

ISSUE

Receive briefing on the Economic Opportunities Analysis (EOA) project being done to comply with state-required Periodic Review.

STAFF RECOMMENDATION / ACTION REQUEST

Receive briefing from staff.

KEY FACTS AND INFORMATION SUMMARY

The City of Tigard is conducting an Economic Opportunities Analysis (EOA) as part of state required Periodic Review of the Comprehensive Plan. An EOA is a specific task in our Periodic Review work program. The City received grant funds from the Department of Land Conservation and Development (DLCD) for consultant assistance to complete this task.

The EOA must be developed in compliance with OAR 660 Division 9 (Goal 9), and is a technical study that compares the projected demand for industrial and other employment land to existing land supply. The process helps communities implement their local economic development objectives and informs the industrial and other employment development policies in the Comprehensive Plan.

The Planning Commission has acted as the advisory committee for the project, reviewing each task during the process to complete the EOA. The anticipated outcomes of the project are: 1) An understanding of the characteristics of Tigard's employment lands and their adequacy to accommodate future economic activity; 2) proposed updated economic development policies and action measures as a basis to plan for a supply of appropriately zoned land necessary for existing businesses to expand and to accommodate future economic activities.

The project consists of the following six tasks (see also Attachment 1):

Task 1: Project Preparation & Community Economic Development Objectives (Attachment 2)

Task 2: Trends Analysis

Task 3: Site Suitability Analysis (Demand)

Task 4: Inventory of Suitable Sites (Supply)

Task 5: Assessment of Potential (Reconciliation of Demand vs. Supply)

Task 6: Implementation

All of the tasks have been completed and reviewed by the Commission. This included analyzing three different "land need" scenarios. Each scenario identified an appropriate amount of future employment, commercial, and industrial lands to accommodate projected job growth. It is anticipated that the "land efficient" scenario is appropriate for the City of Tigard. This scenario would not require any rezoning of vacant property at this time and its selection can be based on the following findings:

- The City has a limited supply of vacant industrial and employment lands.

- The City is currently limited in its ability to expand its boundary to increase its industrial/employment land base.
- The City has a good supply of properties meeting the definition of "high redevelopment potential."
- The City's strategy is to redevelop Downtown Tigard, the Tigard Triangle, the Washington Square Regional Center, and the Pacific Highway Corridor.
- The City has a future opportunity to jump start redevelopment with the arrival of high capacity transit.

Task 6 included a review of existing economic development policies and recommended action measures found in the recently updated Tigard Comprehensive Plan. The Planning Commission and City Council did a thorough job during the update and clearly outlined the City's vision in the policy language, which is consistent with the EOA findings. It is anticipated that the Commission will recommend some minor changes to the language to reaffirm the City's vision.

The consultant team is in the process of completing the draft Economic Opportunities Analysis. The next steps in the process include:

- March 7, 2011 - Planning Commission review of draft Economic Opportunities Analysis
- March 22, 2011 - City Council briefing on draft Economic Opportunities Analysis
- April 4, 2011 - Planning Commission public hearing on draft Economic Opportunities Analysis
- May 10, 2011 - City Council public hearing on draft Economic Opportunities Analysis
- May 31, 2011 - End of grant contract

OTHER ALTERNATIVES

N/A

COUNCIL GOALS, POLICIES, APPROVED MASTER PLANS

1. Implement Comprehensive Plan
2. Implement Downtown and Town Center Redevelopment Opportunities

DATES OF PREVIOUS COUNCIL CONSIDERATION

August 8, 2010 - Periodic Review Update

Fiscal Impact

Cost: \$35,000
Budgeted (yes or no): Yes
Where Budgeted (department/program): CD - Long Range Planning

Additional Fiscal Notes:

The cost of the professional services is included in the FY 2011 Budget. The Oregon Department of Land Conservation and Development committed \$35,000 from its Periodic Review Grant program to fund and Economic Opportunities Analysis. The City hired Cogan Owens Cogan to perform the work. The City is not required to provide matching funds, but provides in-kind contributions of staff time and materials to aid in completing the project.

Attachments

Attachment 1 - Process Graphic

Attachment 2 - Task 1: Project Preparation and Community Economic Development Objectives

City of Tigard - Economic Opportunities Analysis

Task 1: Preparation

- Community Economic Development Objectives (CEDO's)



Task 2: Trends Analysis

- Forecast Job Growth by Sector
- Identify Employment Clusters that Align with CEDO's



Task 3: Site Suitability Analysis (Demand)

- Floor Space Needed to Accommodate Growth
- Vacant Land Needs



Task 4: Inventory of Suitable Sites (Supply)

- Buildable Lands Analysis
- Redevelopment Potential



Task 5: Assessment of Potential

- Reconciliation of Demand vs. Supply
- Land Needs Scenario



Task 6: Implementation

- Recommendation on Policies and Strategies



Economic Opportunity Analysis City of Tigard

Task 1: Project Preparation and Community Economic Development Objectives

Identifying Community Economic Development Objectives (CEDOs) is an important first step in the development of an Economic Opportunities Analysis (EOA). The CEDOs are based on interviews with City staff and a review of Tigard's economic development vision, goals and policies contained in the Tigard Comprehensive Plan. The CEDOs also incorporated comments from the Planning Commission and interviews conducted with key stakeholders, including state and regional agencies, the Chamber of Commerce, Tigard Central Business District Association, and local employers and developers. The CEDOs were used as guidance through the remaining tasks to complete the EOA.

The City of Tigard Community Economic Development Objectives:

1. Encourage businesses that provide family-wage jobs to start-up, expand, or locate in Tigard.
2. Develop industry clusters, and preserve jobs, through the retention, expansion, and recruitment of industries that already have a presence in Tigard.
3. Promote well-designed and efficient development and redevelopment of vacant and underutilized industrial and commercial lands.
4. Ensure the City's land use and other regulatory practices are flexible and adaptive and that adequate public facilities and infrastructure exist to support a diverse and stable economic base.
5. Focus significant employment growth in Tigard's designated centers and corridors and support the development of efficient regional multi-modal transportation systems.
6. Limit the development of retail and service uses in Tigard's designated industrial areas to preserve the potential of these lands for industrial jobs. Support neighborhood commercial uses to meet smart growth goals.
7. Encourage businesses that are environmentally and economically sustainable.

Workshop Meeting**Date:** 02/15/2011**Length (in minutes):** 45 Minutes**Agenda Title:** Update on Code Compliance Program and Discussion of Additional Administrative Code Options**Submitted By:** Susan Hartnett
Community Development**Item Type:** Update, Discussion, Direct Staff**Meeting Type:** Council Workshop Mtg.**ISSUE**

Receive information and provide feedback to staff regarding potential code amendments to create administrative code enforcement measures including abatement, warrants, liens, and fees.

STAFF RECOMMENDATION / ACTION REQUEST

Receive information, discuss options, and direct staff to proceed with development of Tigard Municipal Code amendments to add a suite of administrative actions that will enhance the Code Compliance Program options.

KEY FACTS AND INFORMATION SUMMARY

During the July 27, 2010 meeting, City Council received an update on changes that were underway in the Code Compliance Program as the result of earlier budget reductions. Staff proposed, and Council discussed, adding administrative, non-judicial options for certain code enforcement actions. At the conclusion, City Council directed staff to investigate administrative abatement options that can be used to enhance delivery of code compliance activities, particularly as they relate to nuisance complaints. Council also requested that staff provide information about potential fees related to non-compliance, and mechanisms to collect those fees, including real property liens.

Over the last several months, staff has gathered information from both best practices and other Oregon cities about code compliance approaches in general, and the use of administrative actions and fees in particular. Attachment 1 - An Overview of Code Compliance and Administrative Options - provides more detailed results of that effort. A Report Summary follows the Report Highlights below, which outlines by section where additional information can be found in the report. Specific issues/questions that staff would like Council to consider are provided at the conclusion of this section.

Report Highlights

- Section I provides the report introduction and asks why cities' provide code compliance services.
- Section II discusses best practices themes—cities select a compliance approach matching community values and customized operations; coordinate across departments involved in compliance; find value in investing in staff skills; and note the importance of consistent application of municipal code. It also examines Tigard's current practices.
- Section III looks at the functions of administrative code compliance options.
- Section IV examines local compliance programs and discusses the high degree of customization and significant differences stemming from their preferred approach, efficiency strategies, available code options, and fee structures.
- Section V provides an overview of Tigard's past and current Code Compliance Program, and the current efforts to streamline operations, maximize efficiencies, and identify further improvements.
- In Section VI, the report conclusions are provided along with staff's recommendation to add administrative code options, including abatement, warrants, liens, and complementary fees.

Report Summary

Like most cities, Tigard's approach to code compliance reflects the community's values; has evolved over time; varies in scope based on budget/resources availability; and has been impacted by the budget challenges of the recent economic downturn.

Tigard's last round of budget cuts resulted in the elimination of the only remaining staff position dedicated to code compliance. As a result, the program activities have been assigned to several staff members in the Community Development Department, all of whom have other primary responsibilities. Recent efforts have focused on creating and implementing new tools to increase efficiency and effectiveness.

A significant portion of code compliance cases are simple nuisance violations where the property owner is cooperative and wants to achieve compliance quickly. Those situations can generally be resolved with limited staff effort and generally do not require an elevation of the city's response. In other cases, the nature of the violations is more complex, or the property owner is uncooperative or absent. When those cases arise, the current Tigard Municipal Code (TMC) is limited in the range of options available. Except in cases where an imminent threat to public health or safety exists, the Code Compliance Program must rely on judicial proceedings as the next step to escalate enforcement efforts. When an imminent threat exists, the TMC provides for immediate abatement. However, imminent threat is a rare circumstance, especially with nuisance violations.

Staff's review of code compliance programs in nine Oregon cities reveals that all of them include judicial options and many also have and utilize administrative tools for abatement, warrants, liens and fees. (Judicial options require involvement of municipal judge or court, while administrative options can be pursued without court involvement through authority assigned to the City Manager or his designee.) Based on the findings from this research, staff recommends the addition of these options to the TMC.

In the area of administrative fees, staff believes incorporating a broad range of administratively implemented options provides flexibility and makes the tool most useful, effective, and efficient. The range of fee options could include: 1) duplicating the daily escalating judicially imposed fine option to be applied at the discretion of the City Manager or his designee; 2) allowing an administrative overhead fee, particularly in cases where the city uses administrative abatement or significant staff time is required, also applied at the discretion of the City Manager or his designee; and 3) establishing a non-discretionary flat fee that is applied periodically (monthly or quarterly) for non-compliance that extends beyond a certain time and for repeating the same violation within a certain time period (9-12 months).

Staff seeks Council's specific direction on the following questions:

1. Should options for administrative abatement, warrants, and liens be added to the TMC?
2. Should administrative code compliance fees be added to the TMC? If so, which options - daily escalating fees, overhead/cost recovery fees, monthly flat fee - should be included?

OTHER ALTERNATIVES

1. Do not proceed with TMC amendments to add some or any of the administrative code compliance actions.
2. Direct staff to collect additional information for further discussion by the Council.

COUNCIL GOALS, POLICIES, APPROVED MASTER PLANS

1. Implement Comprehensive Plan

The Code Compliance Program contributes to many of the Comprehensive Plan's goals and policies related to the community's livability and vitality.

DATES OF PREVIOUS COUNCIL CONSIDERATION

July 27, 2010

Fiscal Information:

Prior to the two rounds of budget cuts that began in 2008, the City budgeted approximately \$215,000 annually for 2 FTE devoted to code compliance activities. These positions were augmented by additional staff resources in the Community Development Department to assist with Tree and Development Code violations. Presently, both dedicated positions have been eliminated; one in 2008 and the second in 2010.

In FY 2010/11, the Community Development budget included \$50,000 in Professional/Contractual Services for on-call contracts to provide a minimal level of code compliance services. In addition, the budget included \$2,000 for abatement services and \$8,500 for improvements to the permit tracking software, which enabled code compliance requests to be received via the web.

When the department was unable to locate contractors who offered code compliance services, alternative ways to provide the services were pursued. As part of the budget adjustment approved in Sept 2010, \$32,500 was transferred from the Professional/Contractual Services to Personal Services to cover the costs associated with increasing the department staffing by 0.2 FTE, paying a “work out of class” percentage, and hiring a temporary employee. The Code Compliance Program does not have any dedicated resources and all of the employees assigned to process requests and pursue cases have other primary assignments.

The proposal to add administrative tools – abatement, warrants, liens and fees – is expected to broaden the methods available to the program and should increase its efficiency and effectiveness once dedicated resources become available. However, the revenue stream from the administrative fees is expected to be insignificant to the General Fund and the overall cost of providing these services. These fees, like the fines that can be levied through the judicial process, provide leverage to help bring about compliance in a timely manner. Even with administrative options, cost recovery for a program of code compliance services is never more than a very small percentage, although cost recovery for particular cases can be much higher. This is primarily due to the fact that a very high percentage of cases reach compliance before fees (or fines) are applied but required City resources to achieve that outcome nonetheless.

Attachments

[Attachment 1: Overview of Code Compliance and Administrative Options](#)

[PowerPoint Presentation](#)

An Overview of Code Compliance and Administrative Options



City of Tigard

Community Development Department

February 15, 2011

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INTRODUCTION

This report presents information on enhancing the City of Tigard's Code Compliance Program by adding administrative enforcement options to the Tigard Municipal Code (TMC). These options are being examined to determine if they offer enhancements that improve service delivery and increase program efficiency, with specific focus on violations of the nuisance standards. This is a particularly timely discussion because of recent cuts to the staff resources available for Tigard's code compliance efforts.

While a series of budget cutbacks between 2007 and 2010 eventually led to the elimination of all positions dedicated to code compliance activities, the program's resources were always constrained and the staff often struggled to keep up with service demands. The current program staffing is cobbled together by assigning portions of the work to staff that have other primary duties. By redistributing the workload and making operational adjustments, the Community Development Department has been able to provide a minimal level of service. Staff with code compliance assignments has met service demands by streamlining processes, finding operational efficiencies, developing standard operational procedures for common cases, and shifting some complaint intake tasks to the public. The current program objectives are to improve operational efficiency so that when budget constraints ease and dedicated staff resources are restored, service levels will exceed those of the past with similar staffing levels.

In previous discussions, Tigard City Council members expressed interest in the development of administrative code options and fees as a possible means of increasing service delivery options. Many cities with a similar compliance approach have administrative abatement, warrants, liens, and fees to complete their suite of code options. (Judicial options require involvement of municipal judge or court while administrative options can be pursued without court involvement through authority assigned to the City Manager or his designee.) Research confirms that administrative code options are a positive addition to compliance operations and it appears that adding administrative tools to the TMC will enhance compliance operations and can be used to achieve limited cost recovery.

While this report focuses on nuisance code compliance, the staff recommended TMC amendments would apply to all Type I Civil Infractions. Most code infractions are resolved without using the existing judicial remedies. However, when other efforts fail to gain compliance, the only option currently available to leverage or force action requires court involvement. New tools that are administratively applied offer another route to expedite compliance and can also recover administrative costs and support the new streamlined complaint intake processes. The staff recommended administrative fees are geared toward recovering a portion of the costs associated with the Code Compliance Program, especially in those circumstances where the required level of service exceeds the "typical" circumstances.

The next steps to implement the recommendations in this report would entail preparation of amendments to the TMC, adding administrative remedies to the existing judicial remedies. These

amendments would allow flexibility to utilize whichever option – administrative or judicial – appeared most likely to achieve the desired result – compliance – at the least cost, and as quickly as possible. Along with the code changes, the Master Fees and Changes Schedule would be amended to set fee amounts where they are not included in the code language directly. Completing this work in time to utilize these new tools during the upcoming “tall weeds and grass” season could enhance service delivery.

This report provides an overview of why Tigard does code compliance, how to maximize compliance services under constrained resources, how administrative code options support streamlined compliance, and how fees can incentivize violators and off-set the costs of providing services.

Highlights of Report Sections

- Section II discusses best practices themes—cities select a compliance approach that matches community values and customize operations, coordinate across departments involved in compliance, find value in investing in staff skills, and note the importance of consistent application of municipal code. It also examines Tigard’s current practices within those areas.
- Section III looks at the functions of administrative code compliance options.
- Section IV examines local compliance programs and discusses the high degree of customization and significant differences stemming from their preferred approach, efficiency strategies, available code options, and fee structures.
- Section V provides an overview of Tigard’s past and current Code Compliance Program and the current efforts to streamline operations, maximize efficiencies, and identify further improvements.
- In Section VI, the report conclusions are provided along with staff’s recommendation to add administrative code options, including abatement, warrants, liens, and complementary fees.

Why Provide Compliance Services?

The City of Tigard has a rich history of working together with citizens to build a livable community. Over the years, City Council and staff have worked with citizens and interest groups to identify which characteristics the citizens of Tigard value most in maintaining their community. Safety and attractiveness rank highly among the characteristics that Tigard values.

Tigard’s code compliance activities include:

- Providing education about code related standards
- Addressing complaints about violations
- Assisting violators bring their property or business back into compliance
- Enforcement actions where violators will not come into compliance



72nd & Varns Street – Before Compliance



72nd & Varns Street – After Compliance

Tigard’s City Council has crafted the TMC to establish standards that match the values of the community. The City has operated formal code compliance activities to enforce these standards for over twenty years; however the approach and specific code compliance operations have varied over time. Program changes have aimed to support the City’s commitment to maintaining the standards set forth in the TMC, to evolve to meet new challenges as they arise, and to facilitate compliance.

Code compliance provides a valuable and desired service to citizens, business owners, developers, and other community partners, and benefits from an ongoing effort to improve service delivery.

BEST PRACTICES IN CODE COMPLIANCE

Municipalities share and rely upon professional best practices to identify practical, successful service delivery methods, and ways to stretch limited resources. This section briefly examines national trends in compliance practices that communities identify as successful. Four key themes emerged and are used to identify strategies that may improve Tigard’s code compliance efforts. They are:

- Matching the code compliance program to the community’s preferred approach
- Making compliance a multi-departmental effort
- Training staff as a good investment
- Applying code consistently

These themes provide a mechanism to evaluate current program activities and identify ways to increase efficiencies and stretch resources in a period of reduced resources. They can also provide guidance for implementing program changes and enhancements as budgeted resources improve over time.

Theme 1 - Match Program to Approach

Local government code compliance programs are not one-size or one-style fits all. Each city customizes their code compliance approach to match the values, priorities, and budgets of their community. While generalizations were difficult given customization of programs, a key distinction emerged around the basic approach of the program.

The following questions provide a framework from which a preferred or primary approach may be determined:

- Is the program primarily proactive or reactive?
- Does the city focus on enforcement of code or facilitating compliance?
- Do fees, fines, or penalties demonstrate orientation toward deterrence, punishment, or cost recovery?
- Does the city consider education and outreach necessary for prevention, or do they orient education toward violators after identifying existing violations?

Applying the framework, we find that approaches to local code compliance generally fall into two categories: the enforcement and livability approaches.

- Enforcement Approach: those that are often situated organizationally in law enforcement (or work closely with police) and are generally proactive, relying primarily upon judicial processes. The orientation of this program approach aims to enforce the rules set forth in city code. Fines tend to be punitive, but may also provide incentive or leverage violators who wish to avoid the cost of penalties for breaking the rules.
- Livability Approach: those that are often situated in community development, public works, or an administrative department, and are primarily reactive, relying on administrative processes, but retaining the option to utilize a judicial process when appropriate. The orientation of this program approach aims to facilitate violators to reach compliance. Fees tend to aim at partial cost recovery and can also provide leverage to encourage compliance before additional community resources are consumed.

Tigard Prefers the Livability Approach

Tigard is currently operating from a Livability Approach and locates the Code Compliance Program in the Community Development Department. This approach is consistent with the community's priorities by focusing on complying with standards rather than enforcement or punishment for their violation. Tigard also administers code compliance activities in a reactive mode to match budgeted resources. While recent budget cuts eliminated the remaining dedicated Code Compliance position, the program's resources were never sufficient to utilize a proactive approach. The current program staffing is cobbled together by assigning portions of the work to staff that have other primary duties.

The Livability Approach means staff's primary focus is assisting violators to reach compliance. One-on-one communication, negotiation, site visits, email, and phone calls are tools that complement a livability approach. Without dedicated staffing, strategies that involve personal contact have to be curtailed. Instead, staff is using email and template letters and avoids utilizing judicial remedies unless absolutely necessary. The current program objectives are to improve operational efficiency so that when the budget constraints ease, and dedicated staff resources are restored, service levels may exceed those of the past.

Theme 2 - Multi-Department Coordinated Compliance

Many of the recommendations found in best practices research fall into the category of multi-departmental communication and coordination. Informal multi-departmental compliance is common, but formal coordination is also incorporated into regular departmental meeting schedules. Departments that are commonly involved in compliance include:

- Police
- Community Development/Planning
- Public Works
- City Administration/Mayor's Office

Case studies show that when code compliance staff routinely meet and plan their work together, efficiencies can be realized. Collaboration identifies pre-existing systems or processes that can be copied, borrowed, or tapped into, by other departments. Interactions also raise awareness and keep code compliance on the minds of staff in the field. Coordination enables managers to discuss how to adapt and capitalize on what is already in place, working, and budgeted, so that efficiencies can be created among departments.

Coordination Practices in Tigard

Generally, Tigard's code compliance efforts are not routinely an interdepartmental effort, although multi-departmental compliance activities occur sporadically, typically on an "as necessary" basis. Examples of recent cross department activities include assistance by the Code Compliance Officer to the Commercial Crimes Division in pursuing a contractor who was suspected of defrauding his customers and was also operating without proper City permits, and a recent sweep by the Public Works Department to remove political signs after the last election.

There is room for improvement in coordination among departments who handle portions of code compliance in Tigard. Regular meetings to facilitate planning and problem-solving is a reasonable first step to finding efficient solutions to resource constraints. Over time, coordinated operations such as sweeps to remove illegal signs posted within the public right-of-way could become routine cross-departmental efforts. However, until more resources are available, any additional activities, no matter how beneficial, will be very difficult, if not impossible, to implement.

Theme 3 - Training Code Compliance Staff

Professional code compliance requires a variety of skills. Easily implemented and cost-effective options for training are particularly attractive alternatives. Finding staff that have a complete and custom suite of skills that a particular city may require is not always possible or affordable. Professional training promotes a broad base of knowledge within existing staff.

Participation in non-profit and professional compliance related associations is a good investment. One membership can be stretched through information sharing among staff and rotation of meetings and training opportunities. Some cities utilize cross training by rotating compliance personnel operating out of different departments. For example, police and planning departments perform ride-alongs, training each other on the particulars of their area of compliance and problem solving. Creating opportunities where staff learns from practitioners who use a slightly different set of skills, or a different approach, enhances their capacity to handle a variety of compliance issues.

Training Practices in Tigard

Tigard has previously paid annual membership fees for the Code Compliance Officer to participate in the Oregon Code Enforcement Association. However, with the elimination of that position, no staff is currently utilizing that resource. Addressing how to reconnect current staff with this association is under consideration.

Compliance staff believes that providing opportunities to discuss strategies and operations with other cities would be a good investment, but are currently constrained by limited staff time. Better strategies can be developed to connect case processors with a community of compliance professionals. There are relatively low cost options for professional development when staff time becomes available. Some cities, such as Lake Oswego and Portland, are collecting performance data that might inform improvements in Tigard's compliance activities. Others, such as Gresham, have undertaken code enforcement review and revision processes which could also provide ideas for Tigard's program. These information sources should be pursued when additional resources become available.

Theme 4 - Consistent Application of Code

Consistency in application of city code is foundational. It supports fairness in the community and also helps mitigate legal exposure. Enforcement often occurs in multiple departments, and where overlap occurs i.e. more than one department monitors and manages compliance using the same code, staff may process compliance cases differently.

For example, in law enforcement patrolling neighborhoods is a routine activity. Given that the officer is on-site, they may approach a violator immediately and negotiate compliance on the spot. However, if a similar complaint comes in to the city through an online intake system, perhaps within the same city's community development department, a different process may be applied. Safeguards should be in place to make sure these discrepancies are only process-oriented, not substantively

different or perceived as unfair by complainants or violators.

Code Application Practices in Tigard

Tigard's code compliance efforts currently suffer most from the lack of adequate resources, but the lack of a comprehensive program design predates the current resource crunch. Presently, the majority of compliance activities are administered by staff from different Divisions within the Community Development Department, each of whom has other primary duties. Continuing this diffused approach may lead to more inconsistency in how the TMC is applied. This potential problem could grow until sufficient resources are available to allow for a structured program and dedicated staff. Regular meetings among Community Development staff with code compliance assignments are helping to keep these discrepancies to a minimum. Standard operating procedures and workflows, which are being developed as time permits, will also help with this concern.

The themes discussed above are complementary and could be combined to provide cost effective improvements in code compliance, but the constraints on staff availability will limit the progress that can be made with current resources. A list of future actions to improve the program might include:

- Complete formal Standard Operating Procedures and process flowcharts, particularly for routine circumstances
- Return to utilization of personal contact tools when staffing levels permit
- Reestablish membership in professional organizations and staff training efforts
- Initiate and maintain regular multi-department coordination meetings, with an eye toward increasing multi-department compliance efforts

ADMINISTRATIVE CODE OPTIONS

Before turning to a comparison of local area compliance programs, it is important to describe the basic functions of the administrative tools that staff recommends adding to the TMC.

How Administrative Abatement & Warrants Work

Administrative code options provide alternatives to court processes. Administrative abatement by the city is the act of removing, repairing, or taking other steps as may be necessary in order to correct a violation using administrative processes that do not require action through the municipal court. Administrative abatement authorizes the City Manager, or his designee, to abate a nuisance without a court process or needing to establish that an imminent public danger exists.

Administrative abatement usually includes provisions that require the property owner to reimburse the city for the expenses incurred in the abatement action, and sometimes includes a fee for overhead costs.

If the property owner agrees to let the city abate the nuisance and gives permission to the city to enter the property, the city proceeds with abatement. It typically bills the property owner for the cost of abatement, plus some form of administrative fee to offset a portion of administrative

overhead. An administrative warrant could still be obtained if prudent.

If the property owner is unavailable, or refuses to abate the problem themselves, the city can proceed to obtain a warrant, which is initiated through an administrative process and signed by a judge, to proceed with abatement without the owner's agreement.

Usually the violator is given 30 days to pay the total costs or make arrangements for full payment of the abatement costs billed by the city. An option to appeal the accuracy of the total costs is usually provided either through an administrative or judicial process.

How Administrative Liens Work

An administrative lien is an official claim or charge against property for payment of a debt or an amount owed for services rendered that can be initiated and pursued through administrative processes (as opposed to using judicial means). Responsibilities to track the total costs for abatement are typically assigned to finance, or an administrative department. Costing can be complex and requires adequate staffing or the option of tapping into existing systems to perform cost tracking.

In most cities, the process of filing a real property lien for abatement or other code compliance costs moves forward if the bill is not paid within 30 days. City codes vary, but the total cost of abatement often adds an administrative overhead cost, and some include other fees related to establishing or correcting the violation. Interest on the unpaid costs can be added to the lien amount on a periodic basis (monthly or quarterly).

An administrative lien process can be established and performed without creating entirely separate or duplicative processes. Cities typically have an existing lien process in place, although liens for compliance related costs often can only be initiated judicially. An efficient administrative process could dovetail into existing lien filing, tracking, and collection processes.

Whereas monies recovered in lien payments or collections through judicial processes are often routed into court funds, administrative abatement collections may be fully directed back to the General Fund, or a portion may be directed into an Abatement Fund for future abatement needs.

How Administrative Fees Can Be Used

Administrative compliance fees are usually designed to provide full or partial cost recovery for circumstances where code compliance activities exceed what is considered an appropriate level for routine or regular city services and to provide incentive for quick action. As discussed above, an administrative abatement option usually adds an overhead fee in addition to the actual costs incurred to correct the violation. Some cities are also using flat fees to generate revenue to support provision of basic compliance services.

Typically, a property owner responds to an informal notification that a violation exists by complying voluntarily. However, negotiating with uncooperative violators and leveraging them to reach compliance, as well as responding to repeat violations at the same location within a given period of

time, cost the community additional resources. These violators place a disproportionate burden on limited staff time and consume more resources than the typical circumstances. A flat, periodic administrative fee that is applied when a violation persists beyond a certain amount of time, e.g. more than 30 days, or when a specific violation reoccurs at the same location within a certain time period, e.g. 9 to 12 months, can be used to offset the costs incurred for compliance cases beyond the typical.

In most city codes, judicial fines or penalties can be levied when compliance efforts turn into enforcement actions. These fines can typically be levied from the date the property owner is first notified that a violation exists, are applied for each code violation, and compound on a regular basis; often daily. Given that most cases involve violations of more than one code section and have persisted for many days before a compliance matter is elevated to the judicial arena, fines in the thousands or tens of thousands of dollars could be levied. However, based on observations of Tigard's practice, it is very rare that the fine or penalty imposed comes anywhere close to these levels. Nonetheless, most cities that include administrative fees provide an option very similar to that afforded the court. Generally, the desire to avoid these escalating fees or fines provides the violator additional incentive to achieve compliance quickly.

The basic descriptions of the administrative tools covered in this section provide a backdrop for next look at the code compliance and enforcement programs utilized in other cities.

LOCAL CODE COMPLIANCE

An examination of how other local municipalities deliver code compliance services can be informative. Nine cities—Beaverton, Gresham, Hillsboro, Lake Oswego, Oregon City, Portland, Tualatin, West Linn, and Wilsonville—were surveyed to identify the general characteristics of their code compliance activities, their use of administrative code options, including compliance fee structures, and any program or budget changes they made in service delivery as a result of the recent economic downturn. Table 1: Comparison of Code Compliance Tools & Activities in Nine Oregon Cities (p 17) identifies the approach, code options, and basic budget impact information for each of the comparison cities. A brief overview of the results is provided here.

Customized Approaches

Each of the surveyed cities has customized their approach to code compliance to fit the community's values and priorities, city characteristics, and budget capacity for supporting code compliance. A city's approach toward code compliance determines a great deal about their program. The Livability and Enforcement Approaches, which were described in Section II, provide program staff with a framework from which they can select strategies that align with community priorities.

Adding Tigard to the group reveals that seven of ten cities primarily use a Livability Approach to compliance, and three primarily use the Enforcement Approach. Of the smaller cities with populations of 50,000 or less, four use the Livability Approach.

Primary Approach Preference	
<i>Total of 10 cities (including Tigard)</i>	
Enforcement Approach	Livability Approach
30%	70%

Approach Preference by City Size	
<i>Total of 10 cities (including Tigard)</i>	
Population under 50,000 (6 cities)	Population over 50,000 (4 cities)
Enforcement – 33%	Enforcement – 25%
Livability – 67%	Livability – 75%

The cities that organizationally situate their code compliance programs in law enforcement departments (Enforcement Approach) likely contain staffs that are routinely involved in some judicially related activities and are familiar with using systems that the department relies upon for criminal violations. They find that judicial processes are easily adapted to fit compliance case management by utilizing existing law enforcement infrastructure.

Those cities that initiate code compliance in community development, administrative departments, or public works (Livability Approach) do not usually interface regularly with law enforcement and judicial processes. They are administrative by design, and prefer to rely upon administrative processes that can be performed expeditiously within their own departments. If necessary, they utilize a judicial process in order to reach compliance when a case develops characteristics that require the full force of the legal system.

Local Cities Gaining Efficiencies

The economic downturn continues to impact local governments and code compliance activities have been a frequent target of budget cuts and staff reductions. A few of the common responses include:

- Code revisions – adding or changing compliance tools
- Program revisions – staff reductions, reassigning duties, or elimination of some activities
- Technology enhancements – increasing use of software, web, and e-based tools
- Education improvements – using outreach and education in an effort to prevent violations

The ability to gain efficiencies varies across the nine cities' programs. Some efforts focus on internal program improvements such as reducing costs or staff time, and others focus externally to improve compliance. Most cities have increased their reliance on the web. Several cities have undergone a sequence of code changes in an attempt to find the right balance between addressing nuisance compliance, and stretching resources.

Operations are Supported by Code Options

Most nuisance code is written to support standardized treatment of the most common cases, with additional code developed to address exceptional circumstances or to close loopholes. This allows cities to use their limited resources to gain the most compliance possible by choosing to address violations that are straightforward and can be processed according to standard operations.

Comparison of city codes and programs confirmed that all cities have judicial enforcement options that include Citation/Summons, Judicial Warrants, Judicial Liens, and Judicial Fines/Penalties. Six of the nine cities reviewed have added some form of administrative options to their municipal code. All six of those cities have administrative abatement as one of the options included in their city code.

When asked about their implementation of the codified administrative abatement, fees, or lien processes, the range of responses revealed some key factors:

- **Incentive/Deterrence:** Informing violators that administrative abatement options could be quickly implemented makes the violator more likely to take action.
- **Administrative Capacity:** Administrative fee structures can be overly complex and tax limited staff resources.
- **Fees and Program Funding:** Cost recovery and other fees can offset some expenses of the compliance program, but significant General Fund support is still necessary.
- **Collectability:** Fee structures that escalate to exorbitant totals may not be collectable.

If the codified administrative procedures or fees are overly complex they may not be implemented as designed. Cities that choose to develop and implement their administrative code options use them to streamline case processing, increase leverage toward compliance, or off-set program costs. If, instead, implementation causes hardships for violators or consumes excessive program resources relative to the benefits of implementation, the tools will not be utilized.

When they add administrative options, most cities maintain the option of judicial processes and court imposed remedies. Judicial processes are necessary when cases are especially complex or require interactions with particularly difficult or uncooperative violators. Processing difficult cases requires more skill, time, and resources. Complex cases often trigger resource and staffing challenges. Difficult cases can require staff to shuffle priorities or defer the attention paid to simpler cases and other primary duties. Some case management costs can be mitigated by providing alternative administrative processes through changes in city code, but particularly difficult cases are often best handled by sending them through a judicial process.

Local Administrative Fee Comparisons

The following discussion provides a limited snapshot of how municipalities in the metro area are structuring their code compliance fees and penalties. Table 2: Fees for Nuisance Code Violations in Nine Oregon Cities (p. 18) provides more details.

There are several general types of fee structures associated with either administrative and/or judicial processes and some fees are a hybrid: assigning a combination of more than one fee type as a single charge. Because of this diversity, simple summaries are somewhat challenging but an examination of the administrative fees in the cities' codes reveals that six of nine have some sort of administratively imposed fees.

Types of Fee Structures

- *Percentage based fees* – those that must be calculated as a percentage of a total sum which varies by what the city includes in its costing processes (Example: 40% of staff costs associated with a case)
- *Flat rate fees* – A set amount that is applied 1) once or periodically, e.g. monthly or quarterly, and/or 2) for repeating occurrences of the violation(s) within a given time period, e.g. 9 to 12 months
- *Ranked fees* – Fees that vary by the number of units, or under subsequent violations, or based on another variable (Example: 1-2 units = \$, 3-4 units = \$\$)
- *Cost-plus fees* – These fees tend to be related to abatement, not violations. They are attempts to recover some level of administrative overhead consumed throughout the abatement process. They can be flat fees or percentages tacked onto the costing for abatement. (Example: Cost of Abatement plus \$15 or 15%, whichever is greater)

In addition, cities set minimum and maximum levels related to various fee types and, in some cases, the various types of fees can be combined at the discretion of the designated city official. A diversity of administrative fee types and structures provide flexibility for cities to impose the right fee for a given situation.

Administrative Capacity Needed to Implement Fees

It is important to match fee types to the city's administrative capacity to implement the fees. The staff must have the resources and ability to collect, track, and manage the processes required to administer the type of fees put in place.

In some cities there are discrepancies between the fees codified in city code, and those utilized in daily practice. Complex fee structures are identified as the main area where this problem can appear. The more complex the fee structuring, the less likely the fees will be applied when staffing and other resource challenges are present.

After implementation, some cities reported that complex or mandatory fees grew into exorbitant totals over the duration of a violation. In some cases even legitimate delays in compliance (due to family crises) could trigger large accumulated fees & fines. These circumstances illustrate the importance of placing discretion and flexibility into the code, with administrative authority to adjust the amount to fit the circumstances. Administrative fee options are usually applied based on general criteria and the particular circumstances of a case.

Generally, simple flat rate fees can be easily applied. Standards for when a fee will be applied must be clearly spelled out. Setting the fee amount requires consideration of three key factors:

- The purpose of the fee: deterrence, punishment, and/or cost recovery
- The degree to which the fee is expected to recover costs associated with a case or to create a revenue stream to fund program service delivery
- The availability of existing processes that could efficiently be adapted or tapped into to support compliance fee collection

TIGARD'S CODE COMPLIANCE

A recap of Tigard's recent compliance resource history will demonstrate how budget cut-backs led to operational changes and a focus on efficiencies that can be gained through case management, streamlined operations, and code revisions.

Resource History

Tigard's Code compliance has never had "Cadillac" level funding; in fact it would be fair to say that the program has operated with a "used-Chevy" level for many years. Given the recent cut-backs in staffing, the program is now more like a "clunker" vehicle that cannot be reliably effective at achieving more than severely limited compliance.

Before the recent economic downturn, compliance activities were staffed with two fulltime staff positions (2 FTE) dedicated to code compliance. One position was fully funded by the General Fund and focused on nuisance and development code compliance. The focus for the second position was split between the Building Code and Housing Code compliance activities, and the position funding was shared between the Building Fund and the General Fund. Additional Community Development staff often assisted with compliance activities, particularly for development and tree code related work. This was a somewhat inefficient and patchwork way to manage code compliance, and resources to develop and implement proactive approaches were very limited. Staff often struggled to keep abreast with demand during seasonal peak periods of compliance activities.

Because of the resource limitations, compliance activities were typically managed to limit the processes and operations that would be needed to reach case resolution. Activities centered on:

- Receiving a call from a complainant
- Determining whether to make a site visit to confirm a violation
- Calling or meeting with the violator/property owner
- Delivering a formal Notice of Violation
- Defining a course of action to reach compliance
- Offering a verbal or formal Compliance Agreement
- Delivering a Citation/Summons into court as a last resort

Limited budget resources constrained the department from developing a more robust and comprehensive approach.

Budget Impacts Current Operations

Tigard's last round of budget cuts resulted in the elimination of the only remaining staff position dedicated to code compliance. As a result, the program activities have been assigned to several staff members in the Community Development Department, all of whom have other primary responsibilities. Recent efforts have focused on creating and implementing new tools to increase efficiency and effectiveness. Process efficiencies and “as best we can” service has provided a limited level of code enforcement throughout most of the last year.

Coordination among staff with code compliance assignments has been increased through regular meetings, but there are concerns that seasonal peaks will present a greater challenge in 2011. When development activities increase in Tigard, the Community Development Department will have difficulties meeting both the increased land use review levels, and demands for compliance services. Staff recognizes that they will need to rely even more heavily on case selection, case management efficiencies, and perhaps new administrative code options to maintain this limited service level.

Gaining Efficiencies

Under current resource constraints, efficiencies that could be realized have already been accomplished. The following operational reductions and implementation strategies summarize how compliance staff is achieving results under difficult economic circumstances:

- Transfer a portion of case management to the public through online complaint system
- Spread compliance responsibilities among staff
- Adjust (reduce) service standards, and lower compliance priority
- Increase efficiencies by reducing case handling, limiting contact time, using template letters
- Increase reliance on the community to monitor and report on compliance efforts, or lack thereof

Under current program practices, a compliance case is opened in the City's permit tracking software when a citizen uses the online complaint intake process. This reduces staff time needed for this task; however, staff time is still required to track and manage cases as they move toward reaching compliance. Nuisance case processors rarely make site visits and instead rely on complainants to upload sufficient information to pursue the case, typically evaluating the validity of complaints based on the complainant's description. Template letters have replaced most other forms of communication and there is a significant reduction in service calls and meetings with both violators and complainants. Due to staff time limitations, rather than personal contact, general communication and instructions are conveyed to violators and complainants through template letters and email.

If compliance is not achieved through these methods, or if the owner refuses to allow abatement, and no imminent danger exists, the only option is to initiate judicial proceedings.

Adding Administrative Options

If administrative options are added to the TMC, difficult cases could still be referred to court when a judicial approach is most effective - and administrative and judicial processes may not always be mutually exclusive. When conditions develop in a case that render an administrative option no longer adequate, staff will be able to shift a case into a judicial process; however, administrative enforcement options would provide ways to escalate the efforts without having to utilize the judicial options. Many cities reported that the ability to administratively pursue abatement, impose fees, and establish property liens, provided leverage to gain compliance, even though the options were not exercised very frequently. Staff believes administrative options may be less costly to pursue than judicial remedies, and may achieve compliance more rapidly; this is especially true with administrative abatement.

Administrative fees are an essential component of the suite of administrative options. Staff believes incorporating a broad range of administratively implemented options provides flexibility and makes the tool most useful, effective, and efficient.

The range of fee options could include: 1) duplicating the daily escalating judicially imposed fine option to be applied at the discretion of the City Manager or his designee; 2) allowing an administrative overhead fee, particularly in cases where the city uses administrative abatement, or significant staff time is required, also applied at the discretion of the City Manager or his designee; and 3) establishing a non-discretionary flat fee that is applied periodically (monthly or quarterly) for non-compliance that extends beyond a certain time and for repeating the same violation within a certain time period (9-12 months).

Each of these fees serves a somewhat different purpose. The first is more punitive in nature and geared toward leveraging action. The second allows discretionary cost recovery for situations that take extra resources to reach compliance, especially when abatement is used. The third would also leverage quick action and could begin to create a small revenue stream to support the compliance program.

In cases where compliance has not been reached within 30 days of the initial notification to the property owner, staff suggests that Council consider implementing a flat fee in the range of \$100 - \$250 applied each month until compliance is achieved. This fee would also be applied automatically in cases where repeat instances of the same violation occur at the same location within a specific period, such as 9 to 12 months. The monthly non-compliance fee could also be applied in these cases if compliance was not achieved within 30 days.

Imposition of these fees could lead to a minor reduction in the program's dependence on the General Fund. The fee may also add deterrence for repeat offenses, and may prompt quicker action in other cases. This approach, applied around the recommended levels and frequency, should not

result in exorbitant fees that appear to be punitive and unfair.

Consultation with the Finance Department confirmed that they can create and administer this kind of fee within the City's billing system. Given that these fees are expected to occur fairly infrequently, Finance believes they can administer them using the Special Assessment module, without unacceptable demands on their operations or staff. The billing system supports separate billing of the fee and provides significant flexibility. Finance also confirmed they can set up a lien docket for administrative liens, and systems are in place to utilize external collection vendors when appropriate.

CONCLUSIONS AND RECOMMENDATIONS

This report provides the context for staff's conclusion that administrative tools would be a useful and helpful addition to the City's code compliance efforts. The report reviewed why Tigard does code compliance, ways to manage code compliance efforts under constrained resources, how administrative code options support streamlined compliance activities, and how fees can incentivize violators and off-set the costs of providing services. Code compliance provides a valuable and desired service to citizens, business owners, developers, and other community partners. The current Code Compliance Program operates as efficiently as possible, and continues to look for opportunities to improve operations. Staff believes administrative options—abatement, warrants, liens, and fees—can improve program efficiencies and effectiveness and recommends the Council direct staff to draft code revisions to incorporate the administrative tools outlined in this report.

Staff seeks Council's specific direction on the following questions:

1. Should options for administrative abatement, warrants, and liens be added to the TMC?
2. Should administrative code compliance fees be added to the TMC? If so, which options - daily escalating fees, overhead/cost recovery fees, and monthly flat fee - should be included, and at what levels?

Table 1: Comparison of Code Compliance Tools and Activities Used in Nine Oregon Cities

✓ = Yes / ✗ = No	Beaverton	Gresham	Hillsboro	Lake Oswego	Oregon City	Portland	Tualatin	West Linn	Wilsonville
Population	86,860	101,015	90,380	36,755	30,710	582,130	26,130	24,400	18,020
Primary Approach	Livability	Livability	Enforcement	Livability	Enforcement	Livability	Enforcement	Livability	Livability
Basic Compliance Tools									
Letters	✓	✓	✓	✓	✓	✓	✓	✓	✓
Calls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Inspection	✓	✓	✓	✓	✓	✓	✓	✓	✓
Notice of Violation	✓	✓	✓	✓	✓	✓	✓	✓	✓
Judicial Remedies									
Citation Summons	✓	✓	✓	✓	✓	✓	✓	✓	✓
Judicial Warrant	✓	✓	✓	✓	✓	✓	✓	✓	✓
Judicial Lien	✓	✓	✓	✓	✓	✓	✓	✓	✓
Judicial Civil Penalties	✓	✓	✓	✓	✓	✓	✓	✓	✓
Administrative Remedies									
Administrative Abatement	✓	✓	✗	✗	✗	✓	✓	✓	✓
Administrative Warrant	✗	✓	✗	✗	✗	✓	✓	✗	✓
Administrative Lien	✓	✓	✗	✗	✗	✓	✓	✓	✓
Administrative Flat Fee	✗	✓	✗	✗	✗	✓	✗	✗	✗
Chronic Violation Remedies									
Chronic Nuisance Code	✓	✓	✓	✗	✓	✓	✓	✗	✗
Economic Downturn Impacts									
Reductions or Other Staff Reorganization	✓	✓	✓	✓	✓	✓	✓	✓	✓
Curtailed of Compliance Activities	✓	✓	✓	✓	✓	✓	✓	✓	✓

Table 2: FEES FOR NUISANCE CODE VIOLATIONS IN NINE OREGON CITIES

Flat Type	Amount	Process that Fee, Fines, or Cost Recovery are attached to	Administrative or Judicial Process? ** Related to Abatement, Fee, or Penalty?
Gresham	Unless otherwise specified...\$1000 per day/per violation	CODE: Fines, Penalties, and Other Enforcement Tools	Administrative – PENALTY
Portland	\$324	Nuisance Work Order Inspection Fee (1 st & 2 nd is free, 3 rd and subsequent are \$324)	Administrative - FEE
Portland	\$200	Search Warrant Abatement Fee	Administrative - ABATEMENT
Portland	Varies (see Property Maintenance Fee Schedule)	Monthly Enforcement Fee	Administrative - FEE
Cost Plus Type	Amount	Process that Fee, Fines, or Cost Recovery are attached to	Administrative or Judicial Process? ** Related to Abatement, Fee, or Penalty?
Beaverton	Cost of Abatement, minus salvage value of removed abatement items, plus 20% administrative overhead cost	Administrative Liens for Administrative Abatement	Administrative – ABATEMENT
Portland	Auditors administrative fee is 10% of costs of abatement (plus any additional fees)	Auditors Administrative Fee	Administrative – ABATEMENT
Tualatin	Cost of Abatement plus \$15 or 15%, whichever is greater	Abatement Administrative Overhead Charge	Administrative – ABATEMENT
West Linn	Cost of abatement plus overhead (unspecified amount) as determined by City Mgr.	Abatement costs plus overhead recovery	Administrative – ABATEMENT
Percentage-based Type	Amount	Process that Fee, Fines, or Cost Recovery are attached to	Administrative or Judicial Process? ** Related to Abatement, Fee, or Penalty?
Portland	50% of cost of abatement (min. \$178)	Administrative Penalty attached to abatement by city	Administrative – ABATEMENT
Portland	40% of cost of abatement (min. \$216)	Administrative Fee attached to abatement by city	Administrative – ABATEMENT
Wilsonville	20% of abatement costs & materials for administrative overhead	Administrative Overhead Charge	Administrative – ABATEMENT
Ranked Types	Amount	Process that Fee, Fines or Cost Recovery are attached to	Administrative or Judicial Process? ** Related to Abatement, Fee, or Penalty?
Gresham	1 st - \$250, 2 nd - \$500, 3 or more \$720 (per violation -potentially may be separate fine per day-per violation)	Civil Penalty – attached to General Nuisance Violation	Administrative - PENALTY
Portland	\$216-\$540 per month, per unit	Code Enforcement Fees – Ongoing related to multi-residential	Administrative – FEE
Portland	\$116	Reinspection Fee – Ongoing related to multi-residential dwellings	Administrative – FEE
Portland	\$500 First Occurrence, \$1000 Additional Occurrences	Chronic Offender Fees	Administrative - FEE

Judicial Civil Penalties	Amount	Process that Fee, Fines, or Cost Recovery are attached to	Administrative or Judicial Process? ** Related to Abatement, Fee, or Penalty?
Beaverton	\$50-Class 1, \$250-Class 2, \$250-Class 3 (per day)	Civil Infraction Penalty	Judicial - PENALTY
Gresham	Not to exceed: Misdemeanor Citation – A) \$6,250; B) \$2,500 Violation Citation – A) \$720; B) \$360	Class A & B – Misdemeanor Class A & B – Violation	Judicial – FINE Judicial - FINE
Hillsboro	Up to \$500 max. (per occurrence/per day)	General Nuisance Penalty	Judicial- PENALTY
Hillsboro	Up to \$500 max. (per occurrence/per day)	Chronic Nuisance Civil Penalty	Judicial- PENALTY
Lake Oswego	Maximum \$1000 (per day/per violation)	Civil Violation Fine	Judicial - FINE
Oregon City	Maximum \$300 (per day/per violation)	Civil Penalties – Imposed by Court	Judicial- PENALTY
Oregon City	Up to \$250 (per day/per violation)	Chronic Nuisance Civil Penalty	Judicial- PENALTY
Oregon City	Up to \$1000 (per day/per violation)	Civil Penalty – Imposed by Hearings Officer following order to comply-Abatement & repair	Judicial- PENALTY
Oregon City	Up to \$300 (per day/per violation)	Civil Penalties – Imposed by code hearings officer	Judicial- PENALTY
Portland	\$356	Civil Penalty for Nuisance Abatement	Judicial - PENALTY
Portland	Up to \$1000	Civil Penalty	Judicial- PENALTY
Tualatin	1st offense (\$10-\$50), 2nd & further (\$25-\$500) (per violation/per day)	Civil Infraction Penalty	Judicial- PENALTY
West Linn	\$500-Class A, \$250-Class B, \$150-Class C, \$50-Class D (per day/per violation)	Civil Infraction Penalty	Judicial- PENALTY
Wilsonville	Shall not exceed \$1000 (per day)	Civil Infraction Penalty	Judicial- PENALTY
<p>** Administrative - fee, fine, or other charges which are imposed and collected without any court involvement Judicial - fees which can only be imposed and collected with involvement of municipal judge or court</p>			

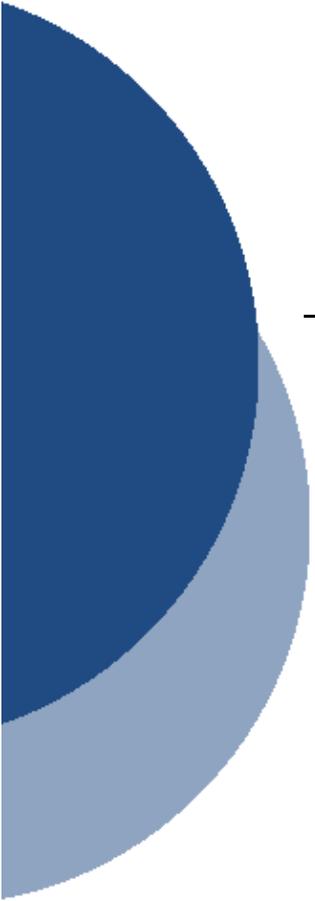
Achieving Compliance: Process Changes and Code Revisions



Before

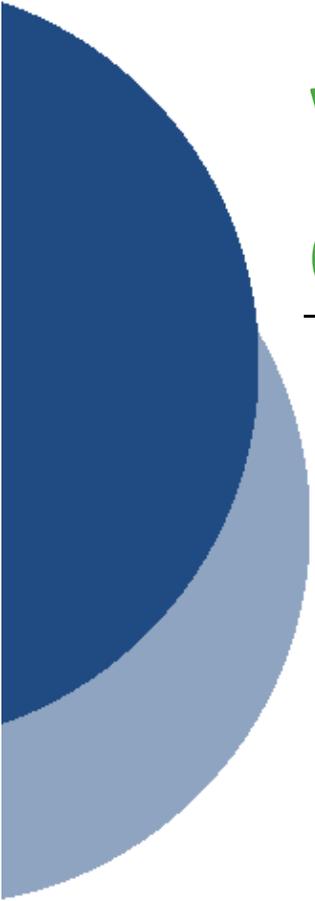


After



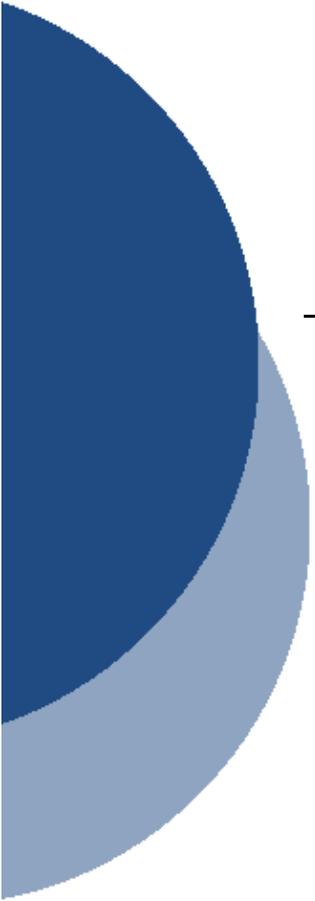
Presentation Outline

- Why Provide Code Compliance Services
- Best Practices
- Tigard's Code Compliance
- Local Code Comparisons
- Administrative Code Options
- Council Feedback & Discussion



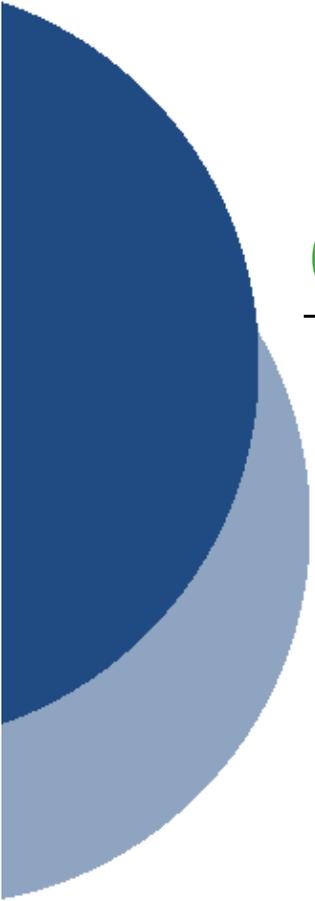
Why Provide Code Compliance Services

- Create and maintain a safe and attractive community
- Establish and maintain community standards
- Educate and inform
- Bring violations into compliance



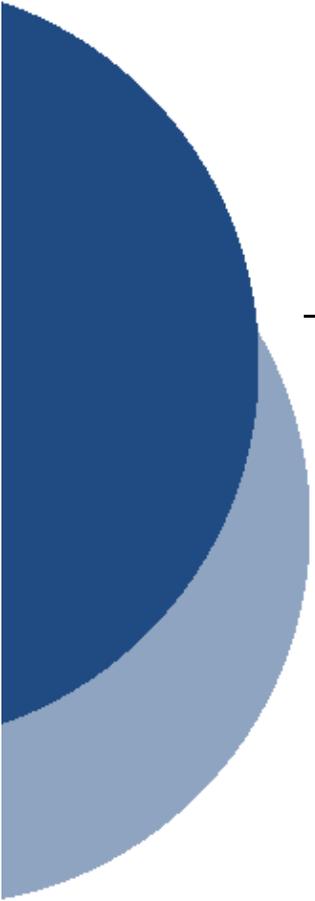
Best Practices

- Match program to approach
- Make it a multi-departmental effort
- Training staff is critical
- Consistent application of code



Clarify Purpose & Approach

- Compliance/Enforcement
- Reactive/Proactive
- Prevention/Deterrence/Punishment
- Education
- Priorities and Desired Outcomes



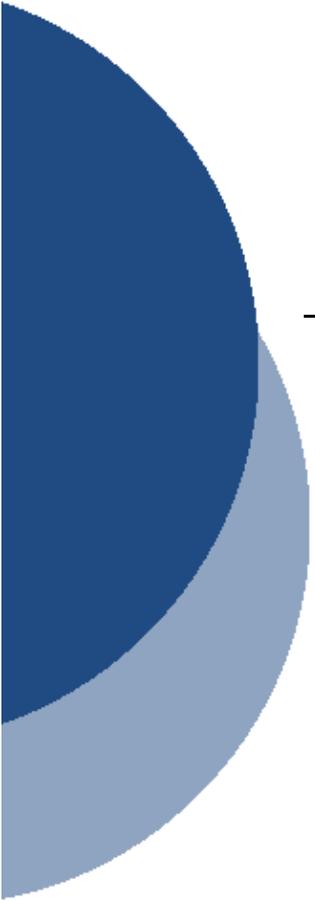
Different Approaches

Livability

- Community Development
- Reactive
- Administrative Remedies
- Facilitate Compliance

Enforcement

- Police
- Proactive
- Judicial Remedies
- Punitive Penalties



Tigard's History & Practices

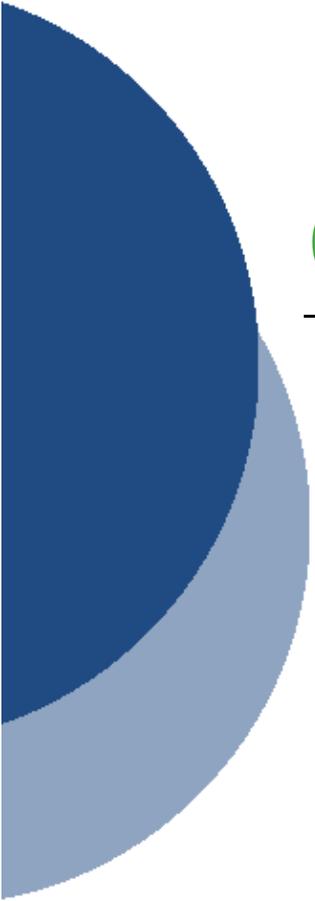
- Livability Approach
- Past Practices
 - Intake via phone, email, counter visit, letters
 - Site visits to verify violation/compliance
 - Significant personal contact with complainant and violator
 - Summons to Court only enforcement “stick”
 - Compliance rate nearly 100% when pursued
 - Limited resources required some case selection/prioritization

How Cases Were Addressed

Cases		Situational Condition	
		Simple	Complex
Respondent's Attitude	Cooperative	<p><u>Case Type 1 = 50%</u></p> <ul style="list-style-type: none"> •Site Visit •Letter/Phone Call/Meeting <ul style="list-style-type: none"> •(Verbal Agreement) •(Notice of Violation) •(Summons) 	<p><u>Case Type 2 = 20%</u></p> <ul style="list-style-type: none"> •Site Visit •Letter/Phone Call/Meeting <ul style="list-style-type: none"> •Verbal Agreement •(Notice of Violation) •(Summons)
	Uncooperative	<p><u>Case Type 3 = 20%</u></p> <ul style="list-style-type: none"> •Site Visit •Letter/Phone Call/Meeting <ul style="list-style-type: none"> •Formal Agreement •(Notice of Violation) •(Summons) 	<p><u>Case Type 4 = 10%</u></p> <ul style="list-style-type: none"> •Site Visit •Letter/Phone Call/Meeting <ul style="list-style-type: none"> •Formal Agreement •Notice of Violation •(Summons)

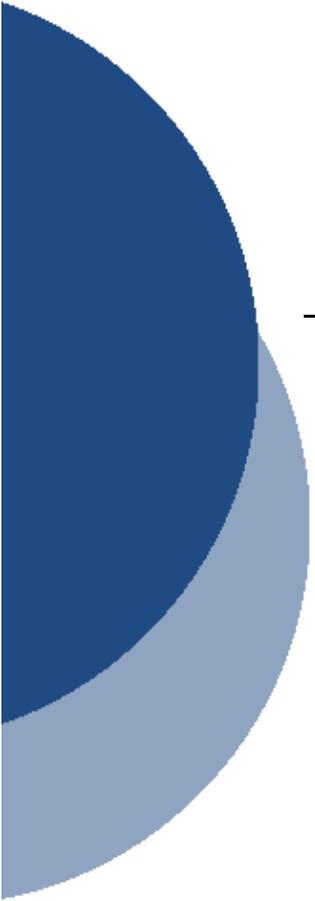
Resource History

	Where We Started	After 1 st Cuts	After 2 nd Cuts
Nuisance & Development	<ul style="list-style-type: none"> ○ 1 FTE ○ 100% General Fund 	<ul style="list-style-type: none"> ○ 1 FTE ○ 100% General Fund 	<ul style="list-style-type: none"> ○ Position Eliminated ○ Duties transferred to other staff ○ Service reduced
	Additional staff resources from current planning staff for Development & Tree Code violations		<p>Currently: All Code Compliance services being performed by staff with other primary assignments</p>
Housing & Building	<ul style="list-style-type: none"> ○ 1 FTE ○ Split between General Fund and Building Fund 	<ul style="list-style-type: none"> ○ Position Eliminated ○ Duties transferred to other staff ○ Service reduced 	



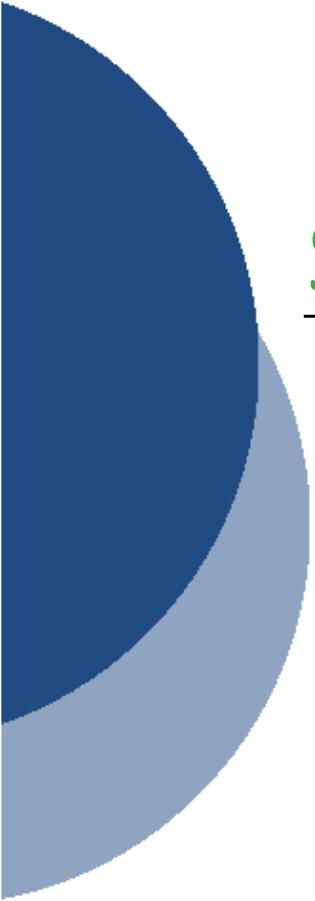
Operations After Reductions

- Transfer portion of case management to the public
 - Online intake started in July 2010
 - System automatically opens cases in permit software; stores information on case
- Spread compliance among staff with other primary assignments
- Compliance priority lowered



Pulling a Team Together

- Nuisance Case Processor
 - 0.2 FTE funded in fall budget adjustment
- Development Code Violations
 - Assigned to Current Planning staff
- Additional staff resources from Development Services-Planning and Building Divisions respond to Tree Code and Housing Code violations as needed
- Management oversight



Strategies

- Increase Efficiencies
 - Reduce case handling
 - Limit contact time
 - Use form letters
- Compliance “as best we can”

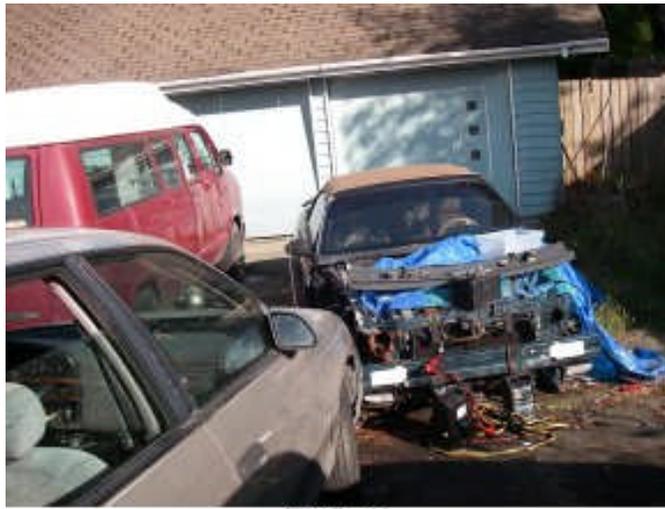
How Cases Were Addressed

Cases		Situational Condition	
		Simple	Complex
Respondent's Attitude	Cooperative	<p><u>Case Type 1 = 50%</u></p> <ul style="list-style-type: none"> •Letter/Phone Call/Meeting <ul style="list-style-type: none"> •Site Visit •(Verbal Agreement) •(Notice of Violation) •(Summons) 	<p><u>Case Type 2 = 20%</u></p> <ul style="list-style-type: none"> •Letter/Phone Call/Meeting <ul style="list-style-type: none"> •Site Visit •Verbal Agreement •(Notice of Violation) •(Summons)
	Uncooperative	<p><u>Case Type 3 = 20%</u></p> <ul style="list-style-type: none"> •Letter/Phone Call/Meeting <ul style="list-style-type: none"> •Site Visit •Formal Agreement •(Notice of Violation) •(Summons) 	<p><u>Case Type 4 = 10%</u></p> <ul style="list-style-type: none"> •Letter/Phone Call/Meeting <ul style="list-style-type: none"> •Site Visit •Formal Agreement •Notice of Violation •(Summons)

How Cases Are Addressed Now

Cases		Situational Condition	
		Simple	Complex
Respondent's Attitude	Cooperative	<p><u>Case Type 1 = 50%</u></p> <ul style="list-style-type: none"> •Online Complaint •Template Letters •Phone Call/Meeting <ul style="list-style-type: none"> •Site Visit •(Verbal Agreement) •(Notice of Violation) <ul style="list-style-type: none"> •(Summons) 	<p><u>Case Type 2 = 20%</u></p> <ul style="list-style-type: none"> •Online Complaint •Template Letters •Phone Call/Meeting <ul style="list-style-type: none"> •Site Visit •Verbal Agreement •(Notice of Violation) <ul style="list-style-type: none"> •(Summons)
	Uncooperative	<p><u>Case Type 3 = 20%</u></p> <ul style="list-style-type: none"> •Online Complaint •Template letters •Phone Call/Meeting <ul style="list-style-type: none"> •Site Visit •Formal Agreement •(Notice of Violation) <ul style="list-style-type: none"> •(Summons) 	<p><u>Case Type 4 = 10%</u></p> <ul style="list-style-type: none"> •Online Complaint •Template letters •Phone Call/Meeting <ul style="list-style-type: none"> •Site Visit •Formal Agreement •(Notice of Violation) <ul style="list-style-type: none"> •(Summons)

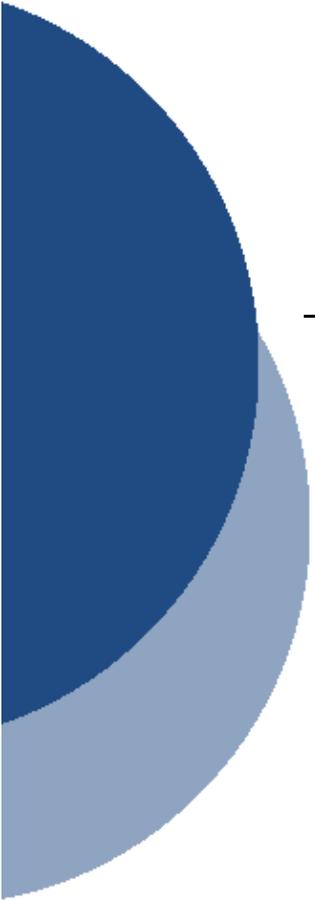
Local Comparisons



Before

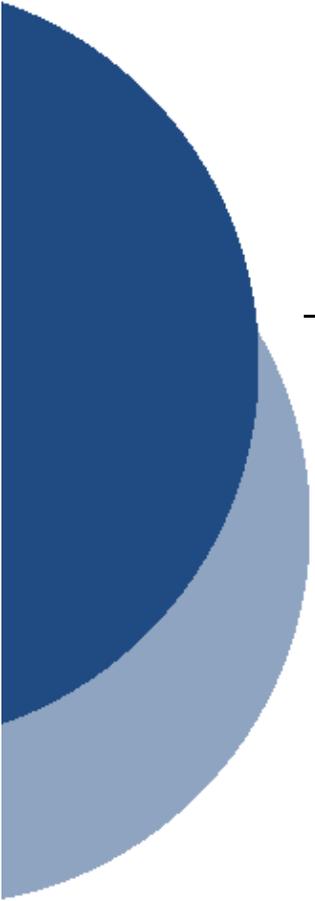


After



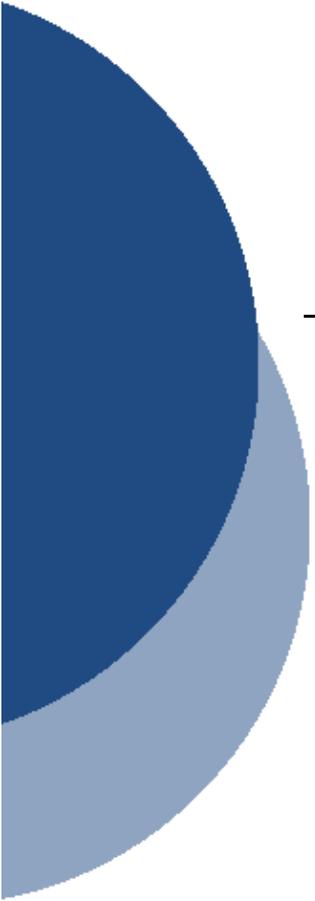
Similarities

- Selective focus based on budget, community priorities & program structure
- Customization of activities or program
- Economic downturn has reduced services
- Cities seek to increase efficiencies
 - Code & program revisions, reassign duties
 - Increasing use of web



Major Differences

- Organizational placement
- Program Structure
- Community's Priorities

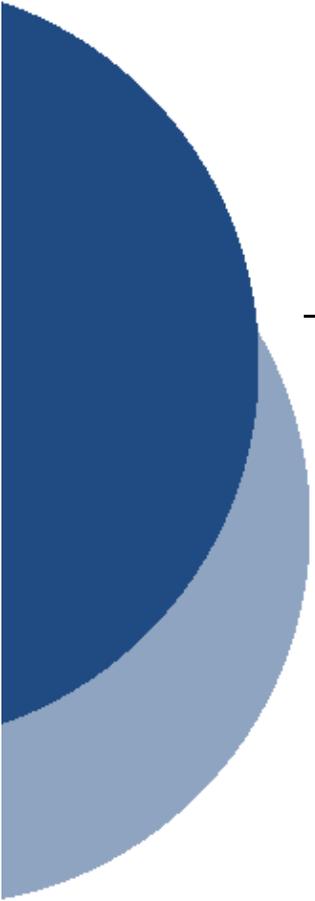


Expanding Options

- Administrative Abatement
 - Provides additional carrot & stick
- Administrative Warrant
 - Expedient & saves resources
- Administrative Lien
 - Could adapt to existing finance lien process
- Administrative Fees
 - Recuperate partial administrative costs

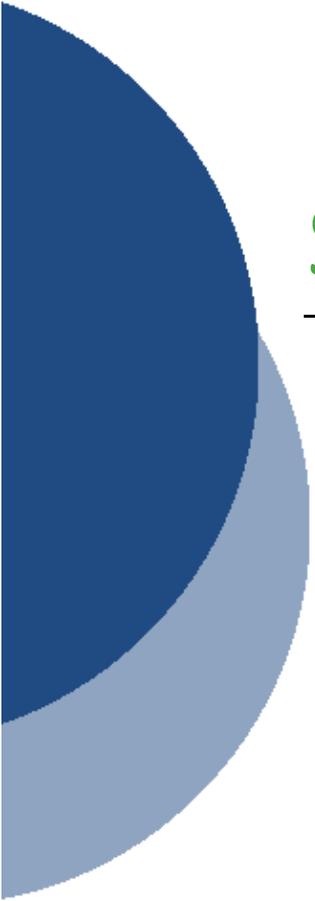
How Abatement Helps

Cases		Situational Condition	
		Simple	Complex
Respondent's Attitude	Cooperative	<p><u>Case Type 1 = 50%</u></p> <ul style="list-style-type: none"> •Online Complaint •Template Letters •Phone Call/Meeting <ul style="list-style-type: none"> •Site Visit •(Verbal Agreement) <p>(Administrative Abatement)</p> <ul style="list-style-type: none"> •(Notice of Violation) •(Summons) 	<p><u>Case Type 2 = 20%</u></p> <ul style="list-style-type: none"> •Online Complaint •Template Letters •Phone Call/Meeting <ul style="list-style-type: none"> •Site Visit •Verbal Agreement <p>•Administrative Abatement</p> <ul style="list-style-type: none"> •(Notice of Violation) •(Summons)
	Uncooperative	<p><u>Case Type 3 = 20%</u></p> <ul style="list-style-type: none"> •Online Complaint •Template letters •Phone Call/Meeting <ul style="list-style-type: none"> •Site Visit •Formal Agreement <p>•Administrative Abatement</p> <ul style="list-style-type: none"> •(Notice of Violation) •(Summons) 	<p><u>Case Type 4 = 10%</u></p> <ul style="list-style-type: none"> •Online Complaint •Template letters •Phone Call/Meeting <ul style="list-style-type: none"> •Site Visit •Formal Agreement <p>•(Notice of Violation)</p> <ul style="list-style-type: none"> •(Summons) <p>•(Administrative Abatement)</p>



Administrative Fees

- Duplicate judicial fine approach (discretionary; per violation; daily application)
- Administrative overhead fee (discretionary; abatement cases; cases requiring significant staff time to resolve)
- Flat fee (non-discretionary; per violation; applied periodically and for repeating same violation within specified time)



Seeking Council Direction

- Should TMC be amended to add administrative remedies - abatement, warrants, and liens?
- Should TMC be amended to add administrative fees?
 - If so, which options – daily/per violation, overhead/cost recovery, flat fee – should be included; at what levels and frequency?

AIS-303

Item #: 6.

Workshop Meeting

Date: 02/15/2011

Length (in minutes): 30 Minutes

Agenda Title: Review of the Recycled Water Feasibility Study

Prepared For: Ted Kyle

Submitted By:

Ted Kyle
Public Works

Item Type:

Meeting Type:

Council
Workshop Mtg.

ISSUE

The Council is asked to review the Recycled Water Feasibility Study and give staff direction on whether to continue to pursue the use of recycled water in downtown Tigard at this time.

STAFF RECOMMENDATION / ACTION REQUEST

Staff recommends the City discontinue its efforts to use recycled water in downtown Tigard.

KEY FACTS AND INFORMATION SUMMARY

Background

- The term “recycled, reclaimed, or reused water” refers to wastewater that has been treated to meet stringent Department of Environmental Quality standards.
- Recycled water is not drawn from the drinking water system and is acceptable for uses where drinking water is not required. It is currently used to irrigate Cook Park, Tigard High School, and several local golf courses.
- Located near the intersection of Durham Road and 85th Avenue, Clean Water Services’ Durham Advanced Wastewater Treatment Facility produces recycled water during the irrigation season, from May to October.
- In 2008, the Council met with representatives from Clean Water Services (CWS) to discuss the use of recycled water in downtown Tigard.
- CWS and the City obtained a grant which provided partial funding for a Recycled Water Feasibility Study.
- There have been a number of proposed uses for recycled water in downtown Tigard. Suggestions included using recycled water as a supply for:
 - A water feature, such as a fountain
 - A man-made urban creek
 - Landscape irrigation
 - Toilets/urinals (requires dual plumbing systems)
 - Street cleaning
- Suggested reasons for using recycled water include:
 - Reducing demands on the drinking water supply
 - Increasing flows in and offsetting irrigation withdrawals from Fanno Creek
 - Recharging groundwater to Fanno Creek
 - Sustainability
 - Wetlands enhancement and creation
 - Recreational and aesthetic enhancement

Current Issue

- The Recycled Water Feasibility Study evaluated the feasibility of constructing a recycled water line, or a “purple pipe,” from the Durham Advanced Water Treatment Facility to downtown Tigard, and ultimately to the Portland Golf Club. The study also considered the regulatory issues, costs, and potential funding sources for this new water system.

- Capital costs for a pump station and pipeline are approximately \$2.7 million. This cost does not include the cost of distribution infrastructure, easements, land acquisition or the potential cost incurred by CWS to produce the additional recycled water. This cost estimate is based on the lowest cost option which would deliver three million gallons per day of recycled water to the downtown.

Conclusions and Basis for the Staff Recommendation

- The volume of reclaimed water which could currently be used does not justify the expense of the capital projects and on-going operating and maintenance costs that would be required for a recycled water system.
- Due to CWS's current need to discharge treated effluent to the Tualatin River to meet water quality concerns, it is not feasible that recycled water volumes could be increased to the point that the product would be economically viable.
- Current regulatory and permitting issues limit the uses of recycled water and several proposed uses are not permitted.

Given the study's findings, the cost/benefit analysis, and lack of funding, implementing a recycled water system in downtown Tigard is not economically feasible at this time.

OTHER ALTERNATIVES

The Council could direct staff to continue to pursue the use of recycled water in downtown Tigard.

COUNCIL GOALS, POLICIES, APPROVED MASTER PLANS

None

DATES OF PREVIOUS COUNCIL CONSIDERATION

The Council first discussed this topic in March of 2008.

In June 2009 the Council approved a grant agreement with Oregon Water Resources Department to partially fund the feasibility study and an intergovernmental agreement for grant administration with CWS.

The Council received an update on this topic in a March 5, 2010 memo from City Engineer Ted Kyle.

Fiscal Impact

Fiscal Information:

Should the Council decide to pursue the project, capital costs for a pump station and pipeline are approximately \$2.7 million. This cost does not include the cost of distribution infrastructure, easements, land acquisition or the potential cost incurred by CWS to produce the additional recycled water. According to the study, the additional distribution system pipelines would increase the project's capital costs to between \$5.4 and \$8.1 million. This cost estimate is based on the lowest cost scenario which would deliver three million gallons per day of recycled water to the downtown.

Attachments

Final Recycled Water Feasibility Report

CITY OF TIGARD
RECYCLED WATER FEASIBILITY STUDY
TECHNICAL MEMORANDUM NO. 1
FINAL DRAFT
October 2010



CITY OF TIGARD
RECYCLED WATER FEASIBILITY STUDY
TECHNICAL MEMORANDUM
NO. 1

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RECYCLED WATER FEASIBILITY STUDY

1.0 INTRODUCTION

The City of Tigard (City) hopes to redefine its downtown area through a sustainable open space network that directly connects daily life to the natural environment. The effort focuses on the restoration of Fanno Creek Park and the development of a public plaza between downtown and the community's unique natural resource - Fanno Creek. The public plaza was conceived in the City's 2008 *Fanno Creek Park and Plaza Master Plan* as having a man-made urban creek - a visual representation of the community's commitment to sustainability. The man-made urban creek was conceived as a way to convey cleaned storm water from Tigard to the Lower Park and Fanno Creek.

There is also interest in the City to reduce demands on its potable water supply through a more sustainable approach to water usage and water recycling. Usage of recycled water for landscape irrigation, toilet/urinal flushing, downtown fountains, street cleaning and other uses would all reduce the demand on the potable supply.

This analysis evaluates the opportunities, constraints and costs of using recycled water - to be supplied by Clean Water Services (District) - to help the City meet its goals of restoring Fanno Creek flows, enhancing the Fanno Creek riparian corridor, more sustainable use of water, and creating public amenities and/or recreational opportunities that help connect the public to the natural environment.

2.0 REGULATIONS PERTAINING TO USAGE OF RECLAIMED WATER

Oregon Administrative Rules (OAR 340-055-0005 to 340-055-0030) prescribe requirements for the use of recycled water for beneficial purposes. This section summarizes these requirements, as amended in 2008. A copy of the current Oregon recycled water regulations is attached in Appendix A.

Changes in the adopted rules from the 2008 amendment include:

- Reducing the number of restrictions on "unrestricted use" water. The State now regulates highly treated recycled water similarly to non-potable irrigation water.
- Allowing highly treated recycled water to be used for artificial groundwater recharge. Class A recycled water can be used for artificial groundwater recharge by surface infiltration methods or by subsurface injection in accordance with OAR Division 340, Chapter 44. Direct injection into an underground source of drinking water is prohibited. This discharge to the groundwater will be contingent upon successful demonstration that the reclaimed water will not adversely impact the long-term quality of the existing groundwater.

- Streamlining the approval process within the state's regulatory agencies.
- Greater consistency with other states regarding treatment requirements and usage constraints.

2.1 Recycled Water Classification and Usage

The Oregon Administrative Rules define five classes of recycled water - Class A through D, plus non-disinfected reclaimed water. The treatment and water quality requirements for Class A recycled water are the most stringent, and the treatment and water quality requirements for non-disinfected reclaimed water are the least stringent. To protect public health with all classes of recycled water, the constraints on usage increase as water quality and treatment requirements decrease. Non-disinfected reclaimed water has a lower water quality, but the regulations place greater constraints on the use of the water in order to protect public health. Class A has the highest water quality and therefore requires few constraints on usage to protect public health. Table 1 presents a summary of treatment and monitoring requirements for each of the five classes of recycled water.

Class A water can be used for a wide range of beneficial uses as outlined in Table 2.

**Table 1 Treatment and Monitoring Requirements for Use of Reclaimed Water
Reclaimed Water Feasibility Evaluation
Clean Water Services and City of Tigard**

Requirement	Reclaimed Water Classification				
	A	B	C	D	Non-Disinfected
Treatment Processes					
Oxidized	X	X	X	X	X
Disinfection	X	X	X	X	-
Filtration	X	-	-	-	-
Effluent Only					
Total Coliform (organisms/100 ml)					
Two consecutive samples	No Limit	240	240	No Limit	Per Permit
7-Day Median	2.2	2.2	23	No Limit	Per Permit
30-day Log Mean	No Limit	No Limit	No Limit	123	Per Permit
Maximum/sample	23	23	No Limit	406	Per Permit
Sampling Frequency	1 per day	3 per week	1 per week	1 per week	Per Permit
Turbidity (NTU)					
24-Hour Mean	2	No Limit	No Limit	No Limit	No Limit
5% of Time During 24-Hour Period	5	No Limit	No Limit	No Limit	No Limit
Maximum/sample	10	-	-	-	-
Sampling Frequency	1 per hour	-	-	-	-
Application					
Public Access	Notify that water used is recycled	No direct contact during irrigation cycle	No direct contact during irrigation cycle	Controlled (Signs, rural, or nonpublic lands)	Prevented
Setback Distances					
From a water supply source for human consumption	No Limit	50 ft	100 ft	100 ft	150 ft
Surface	No Limit	No Limit	10 ft	10 ft	Site specific
Spray	No Limit	10 ft	70 ft	100 ft	Site specific

**Table 2 Allowed Beneficial Use of Reclaimed Water by Classification
Reclaimed Water Feasibility Evaluation
Clean Water Services and City of Tigard**

Requirement	Treatment Level				
	A	B	C	D	Non-Disinfected
<i>Irrigation</i>					
Fodder, fiber, and seed crops not for human digestion	Yes	Yes	Yes	Yes	Yes
Firewood, ornamental nursery stock, Christmas trees	Yes	Yes	Yes	Yes	No
Sod	Yes	Yes	Yes	Yes	No
Pasture for animals	Yes	Yes	Yes	Yes	No
Processed Food Crops	Yes	Yes	Yes	No	No
Orchards or Vineyards if an irrigation method is used to apply recycled water directly to the soil	Yes	Yes	Yes	No	No
Golf courses, cemeteries, highway medians, industrial or business campuses	Yes	Yes	Yes	No	No
Any agricultural or horticultural use	Yes	No	No	No	No
Parks, playgrounds, schoolyards, residential landscapes, other landscapes accessible to public	Yes	No	No	No	No
<i>Industrial, Commercial, or Construction</i>					
Industrial cooling	Yes	Yes	Yes	No	No
Rock crushing, aggregate washing, mixing concrete	Yes	Yes	Yes	No	No
Dust control	Yes	Yes	Yes	No	No
Nonstructural fire fighting using aircraft	Yes	Yes	Yes	No	No
Street sweeping or sanitary sewer flushing	Yes	Yes	Yes	No	No
Stand alone fire suppression systems in commercial and residential buildings	Yes	Yes	No	No	No
Non-residential toilet or urinal flushing, floor drain trap priming	Yes	Yes	No	No	No
Commercial car washing	Yes	No	No	No	No
Fountains where the water is not intended for human consumption	Yes	No	No	No	No

Table 2 Allowed Beneficial Use of Reclaimed Water by Classification Reclaimed Water Feasibility Evaluation Clean Water Services and City of Tigard					
Requirement	Treatment Level				
	A	B	C	D	Non-Disinfected
<i>Impoundments or Artificial Groundwater Recharge</i>					
Water supply for landscape impoundments including, but not limited to, golf course water ponds and non-residential landscape ponds	Yes	Yes	Yes	No	No
Restricted recreational impoundments	Yes	Yes	No	No	No
Water supply for landscape impoundments including, but not limited to, recreational lakes, water features accessible to the public, and public fishing ponds	Yes	No	No	No	No
Artificial groundwater recharge	Yes	No	No	No	No

2.2 Other Requirements and Constraints on Usage of Class A Recycled Water

A wastewater treatment system owner may not provide any recycled water for distribution, use, or both until a recycled water use plan meeting the requirements of OAR 340-055-0025 has been approved in writing by the Oregon Department of Environmental Quality. The recycled water use plan for Class A recycled water must include 1) a description of the treatment methods used to achieve Class A recycled water; 2) the estimated quantity of water to be provided, the frequency of usage, and the beneficial purpose; 3) a description of the contingency procedures to ensure the requirements of the rules are met; and 4) monitoring, sampling, notification, and reporting requirements.

Additionally, if Class A recycled water is to be used for the beneficial purpose of artificial groundwater recharge, the recycled water use plan must also include the following:

- Groundwater monitoring plan;
- Determination if the recharge will be to drinking water protection area;
- Description of the soils and characteristics;
- Distance from the recharge area to the nearest point of withdrawal and the retention time in the aquifer until the time of withdrawal; and

- Verification from the Oregon Water Resources Department that a request for authorization for this use has been initiated.

Although discharge of recycled water to waters of the state is not prohibited, any discharge of recycled water to waters of the state will require an NPDES permit issued by the Department of Environmental Quality (DEQ) pursuant to OAR Chapter 340 Division 45. The term “waters of the state” includes, but is not limited to, the following wetlands:

- Enhanced or restored wetlands;
- Existing natural wetlands; and
- Wetlands created as mitigation for loss of wetlands under the Clean Water Act, Section 404.

Any wetlands receiving recycled water would have to be constructed on non-wetland sites and managed for wastewater treatment. Such treatment wetlands are not considered waters of the state for water quality purposes and are exempt from the rules pertaining to recycled water.

The approval of use of recycled water in riparian areas would likely require delineation of existing wetlands in the riparian corridor to assure that they are protected from the potential impacts of recycled water usage.

Constructed landscape, and restricted and non-restricted recreational impoundments approved for use under the rules of this division are not considered waters of the state for water quality purposes; recycled water can be discharged to these impoundments subject to the constraints and requirements established in the rules.

In addition, the use of reclaimed water in a public pool, spa, or bathhouse and for direct human consumption is prohibited unless authorized in writing by the DEQ and with written approval from the Oregon Department of Human Services. Such approval is considered very unlikely.

3.0 USING RECYCLED WATER TO MEET CITY’S OBJECTIVES

Recycled water could be used in a number of ways to meet the City’s goals of restoring flows in Fanno Creek, creating wetlands and recreational water features in the Fanno Creek corridor and downtown areas, reducing demands on the potable water supply, and improving the sustainability of the community. This analysis assumes recycled water would be available from Clean Water Services’ (District’s) Durham Advanced Wastewater Treatment Facility (AWWTF), as discussed further in Section 4.

3.1 Fanno Creek Flow Restoration in Tigard’s Downtown Corridor

3.1.1 Discharge to Increase Fanno Creek Flow

It would be a difficult permitting challenge to modify the District’s NPDES permit to allow discharge of recycled water to Fanno Creek or other existing waters of the state (including existing wetlands)

in the Fanno Creek riparian corridor. The Durham AWWTF currently discharges water of the same quality to the Tualatin River and must meet very stringent permit limits. Fanno Creek is even more sensitive than the Tualatin River to the impacts of discharging recycled water. The most significant permitting concerns would be the potential impacts on the temperature of Fanno Creek, nutrient loadings, and the lack of available water for mixing. Further treatment of the recycled water would likely be required, including cooling, before the DEQ would consider allowing discharge of recycled water into Fanno Creek. This would greatly increase the cost of producing recycled water at the Durham AWWTF.

Although obtaining regulatory approval is considered unlikely, if recycled water is used for direct flow restoration in Fanno Creek, it would have to be discharged west of Highway 99W for it to effectively increase flows through the downtown area.

3.1.2 Recycled Water to Offset Fanno Creek Irrigation Withdrawals

Irrigation withdrawals upstream significantly impact flows in Fanno Creek during the summer and early fall months. One viable option is to use recycled water for irrigation and maintain natural creek flows by converting upstream irrigation water rights to instream water rights. This option would have the greatest benefit to the health of Fanno Creek.

Figure 1 shows significant water rights on Fanno Creek. In order for Fanno Creek flows to be restored, it would be necessary to use recycled water to offset irrigation withdrawals upstream of the Tigard downtown area. As shown in Figure 1, the only significant opportunities are along Fanno Creek upstream of the Scholl's Ferry Road crossing. Water rights below this point are either too small to have a significant impact, or too far downstream to impact flows between Main Street and Hall Boulevard in the City's downtown area.

The most significant opportunity to restore flows in Fanno Creek would be to use recycled water to offset irrigation withdrawals at the Portland Golf Club, located just northeast of the intersection of Scholl's Ferry Road and SW Allen Boulevard. The Portland Golf Club has a 1.4 cubic foot per second (cfs) (0.9 mgd) water right with a 1923 priority date. The Portland Golf Club uses Fanno Creek water for irrigation of the golf course, but often, during the summer months, does not have enough water to meet their irrigation demands and must use potable water to meet their needs. Representatives from the Portland Golf Club have previously approached the District with interest in using recycled water to irrigate the golf course.

Summer flows in Fanno Creek through Tigard can be as low as 1-2 cfs. At 1.4 cfs, the Portland Golf Club water right is one of the largest on Fanno Creek; keeping this flow in the creek could have a significant impact during summer low flows. Of more importance to maintaining stream flows is the 1923 priority date for the Portland Golf Club water right. Downstream of the club, only two water rights exist with older priority dates, totalling 0.16 cfs. This means that if the Portland Golf Club water right is converted to an instream water right while maintaining the 1923 priority date, the water will remain in the creek and not be withdrawn through other downstream water

rights. This provides greater assurance that the water in the creek will reach the Tigard downtown area.

3.1.3 to Increase Groundwater Recharge to Fanno Creek

The recent changes in the Oregon Administrative Rules pertaining to water recycling allow recycled water to be used to recharge groundwater. The concept would be to irrigate Greenway Park, owned by the Tualatin Hills Parks and Recreation District (THPRD), as well as the Fanno Creek riparian corridor, as it flows through Tigard, with recycled water. The recycled water would be applied at rates that could increase recharge of stream flows. Irrigation application rates would have to be limited to prevent overland flow of recycled water from reaching Fanno Creek.

The effectiveness of irrigating with recycled water to increase Fanno Creek flows is dependent upon soil conditions and groundwater hydrology in the riparian corridor. Understanding the effectiveness will require a more detailed investigation and analysis beyond the scope of this evaluation. In addition, the District would have to clearly demonstrate that such application of recycled water would not increase the movement of contaminants to groundwater and would not adversely impact groundwater quality.

Because this usage of recycled water was only recently allowed, there is little or no precedence in the State of Oregon and it is uncertain what regulatory hurdles may exist.

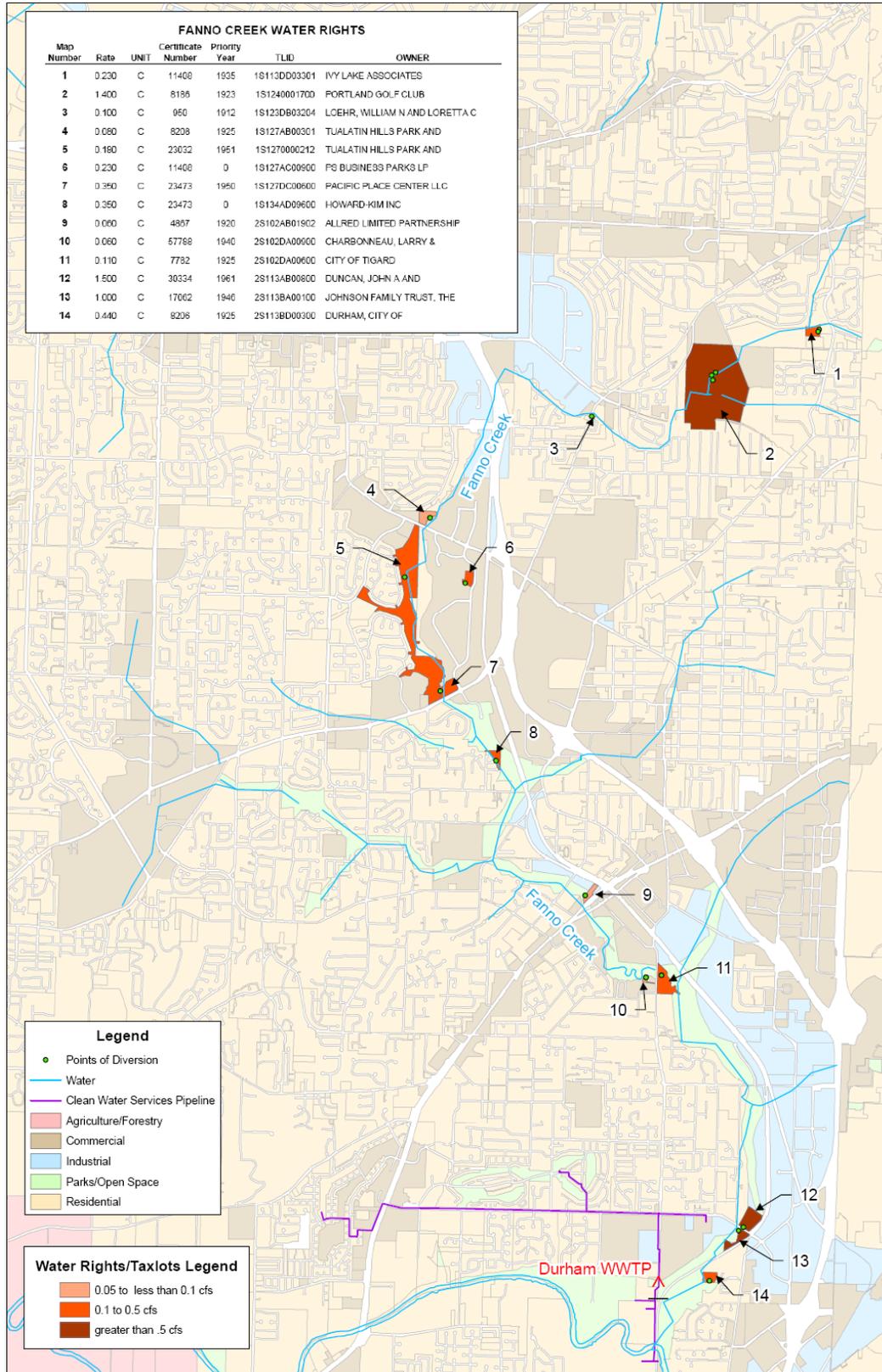


Figure 1 Fanno Creek Water Rights

3.2 Wetlands Enhancement and Creation

Wetlands creation and/or existing wetlands enhancement were key components of the City's 2008 *Fanno Creek Park and Plaza Master Plan*. As discussed above, any discharge of recycled water to existing wetlands would require a modification of the District's NPDES permit. Gaining regulatory approval for such a modification is very unlikely.

Recycled water could be used to supply water to a constructed wetland on a non-wetlands site. Such a constructed wetland would not be considered waters of the state for water quality purposes and would be exempt from the NPDES permit requirements of OAR Chapter 340, Division 45.

Unless the constructed wetlands is hydraulically connected to Fanno Creek, the demand for recycled water in the wetlands may be limited to the initial filling of the wetlands and restoring water lost from the wetlands due to evapotranspiration and infiltration. A hydraulic connection between the constructed wetlands and "waters of the state", the definition of which includes other existing wetlands, would require an NPDES permit modification.

3.3 Reducing Potable Water Demand

Summer season irrigation puts a significant demand on the potable water supply. Peak day demands and peak month potable water demands are driven by usage of water for landscape irrigation during the summer and early fall. Widespread usage of recycled water for irrigation has the potential to significantly reduce the demands on the potable water supply. If a distribution system is built, recycled water could then be used for a wide range of uses, as shown in Table 2.

Recognizing that recycled water is suitable for a wide range of uses and can reduce the demand on the potable water supply, some communities have developed, or are in the process of developing, the infrastructure necessary for the distribution of recycled water to be used for irrigation, toilet and urinal flushing, street cleaning, downtown fountains, and other uses.

Communities must address several issues in order to find political and ratepayer support for using recycled water in the community:

- The cost of the recycled water distribution infrastructure typically results in recycled water having a higher cost than potable water. This is because the cost of the distribution infrastructure for potable water has been shared by many generations of ratepayers whereas the cost of the distribution infrastructure for recycled water typically is borne by only the current and future ratepayers. As a result, most communities that have implemented extensive "purple pipe" networks to distribute recycled water have done so because they are 1) willing to pay a premium to be more sustainable, 2) because they are being driven to recycled water usage by regulatory requirements, or 3) because they have very expensive or limited options to expand their potable supply and recycled water becomes cost competitive.

- Using recycled water will reduce the demands on the potable water supply which can have a significant impact on revenue for the water utility supplying the potable water. It is important to recognize potential impacts on revenue and develop a pricing strategy that will maintain the viability of the potable water supply utility.
- Although recycled water is widely used in more arid parts of the country, public concerns regarding the widespread usage of recycled water and its potential impacts on public health remain. Most cities with successful recycled water programs have made significant investment in public education and building public support for recycled water usage.

3.4 Recreational and Aesthetic Enhancement Opportunities

A number of communities have created recreational impoundments using recycled water. Because Class A water would be used, there would be no restrictions on access and usage of the recreational impoundment. Beyond the potentially attractive aesthetics of a lake, communities have created such impoundments to allow opportunities for boating, bird watching, and other recreational activities.

Fanno Creek is prone to flooding during the wet season. Creating an impoundment out of recycled water within the 100-year flood plain could potentially reduce available flood storage capacity within the floodplain and result in the potential for increased flooding.

An unrestricted recreational impoundment outside of the floodplain would have less impact on the capacity of the floodplain and be easier to gain regulatory acceptance.

4.0 POTENTIAL SOURCES OF CLASS A RECYCLED WATER

4.1 Durham AWWTF

The District's Durham AWWTF, located near the intersection of Hall Boulevard and Durham Road, was designed to produce Class A recycled water. Consistent with the requirements of the Oregon Administrative Rules for Class A recycled water, the recycled water is oxidized, filtered and disinfected and meets the numeric criteria related to turbidity and disinfection.

The Durham AWWTF currently supplies recycled water on a seasonal basis to three golf courses, two schools, and a city park. Golf courses being irrigated with recycled water from the Durham AWWTF are the King City Golf Course, the Summerfield Golf and Country Club, and the Tualatin Country Club. The District also supplies recycled water on a seasonal basis to Cook Park, Tigard High School and the Durham Elementary School.

The plant currently has all the facilities to supply Class A recycled water; however, additional minor modifications are likely necessary to produce additional recycled water during the irrigation season. Furthermore, if the District is to supply recycled water on a year-around basis, as would be necessary to support non-irrigation uses such as toilet flushing, the District would likely have to construct and operate a separate, smaller capacity treatment train for recycled water production

since the Durham AWWTF does not currently produce recycled water from fall until late spring each year.

This analysis does not include costs for additional facilities to produce Class A recycled water beyond the current production. Additionally, no costs have been included for any increases in operating and maintenance costs associated with producing and distributing additional recycled water.

Current recycled water distribution infrastructure is limited and the existing pipelines are not located such that they can be used to help deliver recycled water to downtown Tigard. Recycled water distribution pipelines extend north from the Durham AWWTF to Durham Road and then west along Durham Road to the King City Golf Course and east along Durham Road to the adjacent Durham Elementary School. A distribution pipeline has also been constructed south across the river to the Tualatin Country Club. This pipeline also has a tee serving Cook Park.

4.2 Satellite Water Recycling Facility

An alternate source of recycled water would be to construct a satellite membrane treatment facility closer to the Tigard downtown core. Flow would be diverted from the Fanno trunk sewer to the satellite treatment facility. A satellite membrane bioreactor facility would be capable of producing Class A recycled water for widespread use as nonpotable water within the City of Tigard.

Carollo Engineers recently developed a conceptual design for a satellite membrane bioreactor treatment facility for production of recycled water in Bend, Oregon. The estimated total project cost for a 1.0-mgd satellite membrane bioreactor treatment facility in the City of Bend was \$19 million. A similar project cost could be anticipated for a similar facility in the City of Tigard. Given the high cost of a satellite membrane treatment facility relative to the cost of treatment at the District's Durham AWWTF and conveyance of recycled water to Tigard, this alternate source of recycled water was not given further consideration.

5.0 BASIS OF PLANNING LEVEL COST ESTIMATES

All cost estimates prepared as a part of the planning effort are order of magnitude estimates as defined by the American Association of Cost Engineers (AACE). An order of magnitude estimate is one that is made without detailed engineering data, and uses techniques such as cost curves and scaling factors for similar projects. The overall expected level of accuracy of the cost estimates presented is +50 percent to -30 percent, meaning that actual costs can be expected to fall within a range of 50 percent over the estimate to 30 percent under the estimate for each project. This is consistent with the guidelines established by the AACE for planning level studies.

The cost estimates in this report are based on our perception of current conditions in the Washington County area. Carollo Engineers has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies, and therefore does not

warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented in this report.

5.1 Estimated Construction Costs

Preliminary cost estimates are presented in this memorandum for the various infrastructure components of a recycled water system. The cost estimates assume that a new pump station will have to be constructed at the Durham AWWTF and distribution pipelines will convey recycled water from the pump station to a single, central point within Tigard and at the Portland Golf Club.

The estimated construction cost does not include the cost of a recycled water distribution system which must be separate from the existing potable water distribution system. It should be noted that this additional cost to distribute 2-3 mgd of recycled water to points of use within the downtown area could require construction of another 200,000 to 400,000 lineal feet of small diameter pipe throughout central Tigard.

While the cost of the distribution infrastructure is dependent upon the planned usage and is beyond the scope of this evaluation, the smaller diameter pipe network needed to distribute the water may more than double the estimated costs of recycled water infrastructure presented herein.

5.1.1 Construction Costs

For cost estimating purposes, it is assumed that the Durham AWWTF will be the source for any recycled water used by the City, i.e. any new recycled water pipelines to service the City would originate at the Durham AWWTF.

The pipeline costs assume PVC C900 "Purple Pipe". Pipeline costs were determined by assuming that pipe will be installed in an open-cut trench with a depth of 5 to 8 feet. This depth assumes a minimum of 3 feet of cover above the crown of the pipe and a minimum 6-inches of pipe bedding.

Estimated pipeline construction costs include surface stripping of vegetation or pavement, trench excavation, backfill with imported materials for the pipe bedding, and native materials above the pipe bed, disposal of excess spoils, surface restoration, pipe installation, and an allowance for pipe fittings, plus the following indirect costs:

- Contractor general conditions - 10 percent.
- Contractor overhead and profit - 15 percent.

Pipeline construction costs are significantly impacted by the location of the project. Installation of pipelines in urban areas that require traffic routing, paving, confined excavation, and excavation protection will cost more than pipelines constructed in open country. For planning purposes, it is assumed that any distribution pipelines will be constructed in the street right-of-way. Construction in riparian areas may have significantly higher cost or may not be permitted by regulatory agencies. The construction costs do not include dewatering, or potential river/creek crossings. All

of these elements will be considered separately once the preferred pipeline alignments are determined.

Based on these assumptions, the average construction cost of 8-12 inch diameter recycled water pipeline is \$100/LF.

5.1.2 Station Construction Costs

Estimated pump station costs include the pumps, motors, pump station structure, an allowance for electrical and instrumentation, and an allowance for mechanical support facilities required for the two different pumping scenarios. Pumping requirements for delivering reclaimed water to the downtown area were estimated to require three 15-horse power (hp) pumps (assuming 3 mgd, with approximately 30 feet of head). Pumping requirements for delivering reclaimed water to the Portland Golf Club were estimated to require three 50-hp pumps (assuming 3 mgd with approximately 100 feet of head). Cost estimates for both pump stations include the following indirect costs:

- Contractor general conditions - 10 percent.
- Contractor overhead and profit - 15 percent.

5.1.3 and Wetland Construction Costs

Wetland costs are highly variable dependent upon size, local topography, the need for lining, hydraulic management requirements, and other factors. Consistent with the City of Tigard's *2008 Fanno Creek Park & Plaza Master Plan*, it is assumed that any constructed wetlands or impoundments would be relatively small, with surface areas less than 2 acres. For planning purposes, construction costs are assumed to be \$200,000 per acre for small wetlands or impoundments without benefit of economies of scale.

5.2 Total Project Costs

Total project costs for recycled water alternatives are calculated by multiplying the sum of the estimated construction costs by factors to account for contingencies, and engineering, legal, and administrative (ELA) costs. A 30 percent contingency is assumed, which is consistent with conceptual level planning estimates. A 25 percent ELA multiplier is used to calculate the total project cost. Total project costs do not include:

- Escalation to midpoint of construction;
- State and local sales/use tax;
- Potential cost increases due to unknown historical or cultural impacts to construction;
- Potential costs associated with the identification and mitigation of hazardous waste; and/or
- Easement and/or land acquisition costs.

6.0 ESTIMATED PLANNING LEVEL PROJECT COSTS FOR POTENTIAL RECYCLED WATER SCENARIOS

6.1 Recycled Water Delivery to Downtown Tigard

The base cost for delivering recycled water to downtown Tigard includes a new pump station at the Durham AWWTF, a new recycled water pipeline that is routed north within the Hall Boulevard right-of way, then northwest along Burnham Street approximately to the intersection with Main Street at the upper end of the proposed Fanno Creek Plaza area, a distance of approximately 12,600 ft.

The City could then further develop recycled water distribution infrastructure as desired for landscape irrigation, toilet/urinal flushing, fountains, and other uses within the downtown area.

In addition to those excluded items outlined above, the estimated cost does not include any treatment improvements needed at the Durham AWWTF, additional O&M costs incurred by the District to produce additional recycled water, or the cost of additional distribution infrastructure within the downtown Tigard area. As such, the estimate in Table 3 can be regarded as a base cost estimate for point of delivery costs to downtown Tigard.

It is assumed that the potential future demand within the Tigard area is less than 3 mgd, requiring a recycled water pipeline 10 inches in diameter or less.

Table 3 Estimated Cost of Base Planning Scenario Reclaimed Water Feasibility Evaluation Clean Water Services and City of Tigard	
Project Element	Cost
Pump Station	\$ 400,000
Pipeline	\$ 1,260,000
Estimated Construction Cost	\$ 1,660,000
Contingency @ 30%	\$ 500,000
Subtotal	\$ 2,160,000
Engineering, Legal and Administration @ 25%	\$ 540,000
Total Project Cost	\$ 2,700,000⁽¹⁾
<u>Notes:</u>	
(1) Cost estimate does not include costs for distribution infrastructure, production of additional 3 mgd of recycled water, easements or land acquisition.	

6.2 Scenario 2 - Recycled Water Delivery Extended to Portland Golf Club

In addition to the base cost scenario to deliver water to the City of Tigard, this scenario would extend the recycled water pipeline all the way to the Portland Golf Club. The benefit of this scenario is that it would allow for a significant increase in flow in Fanno Creek during the dry

season without discharging recycled water directly to Fanno Creek. It is assumed that a 10-inch diameter pipeline would be constructed from the Durham AWWTF to the Tigard city center and an 8-inch diameter pipeline would be constructed from that point to the Portland Golf Club. This would allow for the same uses within the City of Tigard as in the base scenario, but also allow stream flows to increase by offsetting upstream irrigation withdrawals.

The total length of the pipeline would be approximately 36,000 feet. The cost estimate for this scenario is shown in Table 4.

Table 4 Estimated Cost of Planning Scenario 2 Reclaimed Water Feasibility Evaluation Clean Water Services and City of Tigard	
Project Element	Cost
Pump Station	\$ 570,000
Pipeline	\$ 3,600,000
Estimated Construction Cost	\$ 4,170,000
Contingency @ 30%	\$ 1,250,000
Subtotal	\$ 5,420,000
Engineering, Legal and Administration @ 25%	\$ 1,360,000
Total Project Cost	\$ 6,780,000⁽¹⁾
<u>Notes:</u>	
(1) Cost estimate does not include costs for distribution infrastructure, production of additional 3 mgd of recycled water, easements or land acquisition.	

6.3 Scenario 3 - Recycled Water Delivery to Downtown Tigard with Wetland or Recreational Impoundment

This scenario would include delivery of recycled water to downtown Tigard as well as development of a wetlands or recreational impoundment to enhance the proposed Fanno Creek Plaza between Main Street and Hall Boulevard. The cost estimate for this scenario is shown in Table 5. This estimate assumes the same pumping and pipe delivery requirements as Scenario 1, and does not include land acquisition costs for the wetlands area.

Table 5 Estimated Cost of Planning Scenario 3 Reclaimed Water Feasibility Evaluation Clean Water Services and City of Tigard	
Project Element	Cost
Pump Station	\$ 400,000
Pipeline	\$ 1,260,000
2-acre Constructed Wetlands	\$ 400,000
Estimated Construction Cost	\$ 2,060,000
Contingency @ 30%	\$ 620,000
Subtotal	\$ 2,680,000
Engineering, Legal and Administration @ 25%	\$ 670,000
Total Project Cost	\$ 3,350,000⁽¹⁾
<u>Notes:</u>	
(1) Cost estimate does not include costs for distribution infrastructure, production of additional 3 mgd of recycled water, easements or land acquisition.	

7.0 SUMMARY

This analysis evaluates several opportunities for using reclaimed water for meeting the City's goals of improving Fanno Creek, and making use of a more sustainable water source. Direct discharge of recycled water to Fanno Creek is considered infeasible due to the challenging regulations associated with discharging directly to waters of the state. Three scenarios were identified as the most feasible uses of recycled water for the City. Table 6 provides a summary of the three scenarios evaluated, the estimated construction costs, and how well they meet the City's goals.

Both the District's Durham AWWTF and a new satellite treatment plant were considered as sources of Class A recycled water. The Durham AWWTF is the most economical source in the area by a considerable margin. The Durham AWWTF produces a high quality water product on a seasonal basis. This recycled water is already being used to irrigate three golf courses, two school grounds and a city park.

The lowest cost option, delivering up to 3 mgd of recycled water to the downtown area, is estimated to cost approximately \$2.7 million. This cost includes the capital costs of a pump station and a pipeline, but does not include the cost of additional water distribution infrastructure, easements, land acquisition, or the potential additional costs incurred by the District in producing an additional 3 mgd of recycled water.

Depending upon the planned usage, the cost of the additional distribution system pipelines to distribute 2-3 mgd of water to customers or uses within Tigard on a year-around basis will likely result in total program capital costs 2-3 times the capital costs presented herein, which are limited

to producing and delivering the water to a single point in downtown Tigard, only during the irrigation season.

If the City needs water at times of the year when the Durham AWWTF is not producing water suitable for water recycling (fall to late spring), the District would have to construct and operate a separate treatment train for year-around production of recycled water. The cost of this treatment train is not included in the scenario cost estimates.

The recycled water delivered to the City's downtown area could be used for landscape irrigation, toilet/urinal flushing, street cleaning, and other uses of Class A recycled water as listed in Table 2.

Recycled water would be produced by the District at its Durham AWWTF, located near the intersection of Hall Boulevard and Durham Road. A 10-inch pipeline could convey up to 3 mgd of recycled water to the approximate location where Fanno Creek crosses Main Street. The pipeline would be routed north along Hall Boulevard and then northwest on Burnham St. This route would be less expensive and easier to permit than trying to construct the forcemain in the Fanno Creek riparian corridor.

It is unlikely that this baseline, lowest cost scenario, would result in any improvement in Fanno Creek flows. It is considered unlikely that the District could gain regulatory approval from the DEQ to allow discharge of recycled water to Fanno Creek.

If the City wants to restore Fanno Creek flows during the dry weather season, one potential option is to use recycled water to offset irrigation withdrawals from Fanno Creek. The Portland Golf Club has a 1.4 cfs water right with a priority date of 1923. Supplying recycled water to the Portland Golf Club and converting their water right to an instream water right would likely result in a significant increase in Fanno Creek flows during the dry season. Extending a recycled water pipeline to the Portland Golf Club would increase the cost to nearly \$7 million. However, little additional distribution infrastructure would be needed at the golf course, limiting additional costs.

The City of Tigard 2008 *Fanno Creek Park & Master Plan* envisioned water impoundments, wetlands, and fountains in the plaza area along Fanno Creek. Recycled water could be used to fill those features and keep them recharged. A planning level estimate for building a two-acre wetland with recycled water was also developed, resulting in an overall project cost of \$3.4 million.

Given the costs of each scenario relative to the potential benefits that recycled water would have on the downtown area and to improving Fanno Creek flows, the additional anticipated costs of recycled water distribution infrastructure in the downtown area to achieve a significant demand for recycled water, and the lack of year around recycled water production at the Durham AWWTF, both the District and the City have agreed that further development of this project is not warranted at this time.

Table 6 Comparison of Recycled Water Scenarios Reclaimed Water Feasibility Evaluation Clean Water Services and City of Tigard			
	Scenario 1	Scenario 2	Scenario 3
Description	Recycled Water Delivered to Downtown Tigard	Recycled Water Delivered to Portland Golf Club	Recycled Water Delivered to Downtown Tigard with Constructed Wetlands or Recreational Impoundment
Required Infrastructure	Pump Station, 13,000 LF of Piping, Distribution Infrastructure	Pump Station, 36,000 LF of Piping, Distribution Infrastructure	Pump Station, 13,000 LF of Piping, Wetlands or Recreational Impoundment
Estimated Project Cost	\$2.7M ⁽¹⁾	\$6.8M ⁽²⁾	\$3.4M ⁽³⁾
Recycled Water Goals			
Restores Fanno Creek Flows?	No	Yes	No
Additional Public Amenities and/or Recreational Opportunities?	No	No	Yes
Reduces potable water?	Yes	Yes ⁽⁴⁾	No
Feasible Regulatory Requirements?	Yes	Yes	Yes
Notes:			
(1) Cost estimate does not include costs for distribution infrastructure, production of additional 3 mgd of recycled water, easements or land acquisition.			
(2) Cost estimate does not include costs for production of additional 3 mgd of recycled water.			
(3) Cost estimate does not include costs for production of additional 3 mgd of recycled water, easements, or land acquisition.			
(4) May reduce the Portland Golf Club's use of potable water for irrigation as a supplement to Fanno Creek water rights.			