



Home of the Tualatin River National Wildlife Refuge

Planning Commission Meeting Packet

FOR

March 24, 2015

Work Session at 6 PM

Planning Commission at 7 PM

**Sherwood City Hall
22560 SW Pine Street
Sherwood, Oregon**



**City of Sherwood
PLANNING COMMISSION**

**Sherwood City Hall
22560 SW Pine Street
Sherwood, OR 97140**

March 24, 2015

6:00 PM Work Session

7:00 PM Planning Commission Meeting

6 PM Work Session Agenda

- 1. Medical Marijuana Dispensary Draft Language**
- 2. Housing Needs Analysis regulatory framework**

7 PM Planning Commission Agenda

- 1. Call to Order/ Roll Call**
- 2. Consent Agenda**
 - a. January 13, 2015 Planning Commission Minutes
 - b. February 24, 2015 Work Session Minutes
 - c. March 10, 2015 Work Session Minutes
- 3. Council Liaison Announcements (Council President Robinson)**
- 4. Staff Announcements (Brad Kilby)**
- 5. Community Comments**
- 6. New business**
 - a. Public Hearing – PA 15-01 Water System Master Plan Update (Brad Kilby)**

The City of Sherwood is updating the City's Water System Plan to address short and long-term community service needs. The proposed amendments provide an inventory of existing assets and conditions, and identifies strategies to ensure that the City can maintain and expand the existing water system to meet future demand.

For information and to view the draft documents go to the City's website at www.sherwoodoregon.gov/publicworks

- 7. Planning Commissioner Announcements**
- 8. Adjourn**



Home of the Tualatin River National Wildlife Refuge

Memorandum

City of Sherwood
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Mayor
Krisanna Clark
Council President
Sally Robinson

Councilors
Linda Henderson
Dan King
Jennifer Kuiper
Jennifer Harris
Beth Cooke

City Manager
Joe Gall, ICMA-CM

Assistant City Manager
Tom Pessemier, P.E.



2009 Top Ten Selection



2007 18th Best Place to Live

Sherwood

2006

All-America City Finalist

DATE: March 17, 2015
TO: PLANNING COMMISSION
FROM: Michelle Miller, AICP, Senior Planner
SUBJECT: PA 15 -02 Medical Marijuana Dispensaries

Attached please find the Draft Code amendments for Medical Marijuana Dispensaries.

Overall, the proposed changes:

- Add regulations for Medical Marijuana Dispensaries under the “Special Use” chapter within the Sherwood Zoning and Development Code
- Add relevant definitions to Chapter 16.10
- Adds a new category for processing Medical Marijuana Dispensaries under a Type II land use process; and
- Adds Medical Marijuana Dispensaries as a special permitted use with restrictions under the Commercial and Industrial land use categories tables

Under Chapter 16.38 (Special Uses), the proposed language reflects the land use process for permitting dispensaries and identifies location restrictions and other site restrictions for operating a medical marijuana dispensary in the City of Sherwood. The amendments also reinforce the rules established by the Oregon Health Authority under the Oregon Medical Marijuana Program.

Medical Marijuana Dispensaries

Plan Amendment -**DRAFT CODE LANGUAGE**

March 17, 2015

Additions are in BLUE

Add to Section 16.10- DEFINITIONS

MEDICAL MARIJUANA DISPENSARY: A retail facility registered by the Oregon Health Authority that is allowed to receive marijuana, immature marijuana plants or usable marijuana products (such as edible products, ointments, concentrates or tinctures) and to transfer that marijuana, immature plants, or usable project to a person with a valid Oregon Medical Marijuana Program card (a patient or the patient's caregiver).

MOBILE VENDOR: A service establishment operated from a licensed and moveable vehicle that vends or sells food and/or drink or other retail items processed or prepared on-site to walkup customers.

EXISTING Definitions (for reference purposes)

Public Park: A park, playground, swimming pool, reservoir, athletic field, or other recreational facility which is under the control, operation or management of the City or other government agency.

Educational Institution: Any bona-fide place of education or instruction, including customary accessory buildings, uses, and activities, that is administered by a legally-organized school district; church or religious organization; the State of Oregon; or any agency, college, and university operated as an educational institution under charter or license from the State of Oregon. An educational institution is not a commercial trade school as defined by Section 16.10.020.

Add to Land uses tables of Chapter 16.22.10 and 16. XX tables with footnotes to see Special Uses

Chapter 16.22 Commercial Land Use Districts

16.22.020 - Uses

A. The table below identifies the land uses that are permitted outright (P), permitted conditionally (C), and not permitted (N) in the Commercial Districts. The specific land use categories are described and defined in Chapter 16.88 Use Classifications and Interpretations.

B. Uses listed in other sections of this code, but not within this specific table are prohibited.

C. Any use not otherwise listed that can be shown to be consistent or associated with the uses permitted outright or conditionally in the commercial zones or contribute to the achievement of

the objectives of the commercial zones may be permitted outright or conditionally, utilizing the provisions of Chapter 16.88 Use Classifications and Interpretations.

D. Additional limitations for specific uses are identified in the footnotes of this table.

COMMERCIAL USES	OC	NC	RC	GC
COMMERCIAL				
General Retail - sales oriented				
<ul style="list-style-type: none"> General retail trade, not exceeding 10,000 square feet of gross square footage. 	P	P	P	P
<ul style="list-style-type: none"> General retail trade greater than 10,000 square feet of gross square footage 	N	P	P	P
<ul style="list-style-type: none"> Medical Marijuana Dispensary, not exceeding 5,000 square feet of gross square footage 	<u>N</u>	<u>N</u>	<u>P⁹</u>	<u>P⁹</u>

[9. See Special Criteria for Dispensaries under Chapter 16.38.020 .](#)

CHAPTER 16.31 INDUSTRIAL LAND USES

16.31.020 - Uses

A. The table below identifies the land uses that are permitted outright (P), permitted conditionally (C) and not permitted (N) in the industrial zoning districts. The specific land use categories are described and defined in Chapter 16.88

B. Uses listed in other sections of this code, but not within this specific table are prohibited.

C. Any use not otherwise listed that can be shown to be consistent or associated with the uses permitted outright or conditionally in the commercial zones or contribute to the achievement of the objectives of the commercial zones may be permitted outright or conditionally, utilizing the provisions of Chapter 16.88

D. Additional limitations for specific uses are identified in the footnotes of this table.

INDUSTRIAL USES	LI	GI	EI
COMMERCIAL			
<ul style="list-style-type: none"> Commercial Trade Schools, commercial educational services and training facilities 	N	P	P
Entertainment/recreation			
<ul style="list-style-type: none"> Country clubs, sports and racquet clubs and other similar clubs. 	C	C	C
<ul style="list-style-type: none"> Indoor recreation facilities such as arcades, mini-golf, or bounce house facilities^{2,3} 	C	C	C
<ul style="list-style-type: none"> Medical Marijuana Dispensary, not exceeding 5,000 square feet of gross square footage 	<u>P</u>	<u>P</u>	<u>N</u>

[10. See Special Criteria for Dispensaries under Chapter 16.38.020 .](#)

Add Medical Marijuana Dispensary to Category Type II Land Use Procedures for Processing Development Permits.

CHAPTER 16.72 Procedures for Processing Developing Permits

16.72.010 - Generally

A. Classifications

Except for Final Development Plans for Planned Unit Developments, which are reviewed per Section 16.40.030, all quasi-judicial development permit applications and legislative land use actions shall be classified as one of the following:

2. Type II

The following quasi-judicial actions shall be subject to a Type II review process:

a. Land Partitions

- b. Expedited Land Divisions - The Planning Director shall make a decision based on the information presented, and shall issue a development permit if the applicant has complied with all of the relevant requirements of the Zoning and Community Development Code. Conditions may be imposed by the Planning Director if necessary to fulfill the requirements of the adopted Comprehensive Plan, Transportation System Plan or the Zoning and Community Development Code.
- c. "Fast-track" Site Plan review, defined as those site plan applications which propose less than 15,000 square feet of floor area, parking or seating capacity of public, institutional, commercial or industrial use permitted by the underlying zone, or up to a total of 20% increase in floor area, parking or seating capacity for a land use or structure subject to conditional use permit, except as follows: auditoriums, theaters, stadiums, and those applications subject to Section 16.72.010.4, below.
- d. "Design Upgraded" Site Plan review, defined as those site plan applications which propose between 15,001 and 40,000 square feet of floor area, parking or seating capacity and which propose a minimum of eighty percent (80%) of the total possible points of design criteria in the "Commercial Design Review Matrix" found in Section 16.90.020.4.G.4.
- e. Industrial "Design Upgraded" projects, defined as those site plan applications which propose between 15,001 and 60,000 square feet of floor area, parking or seating capacity and which meet all of the criteria in 16.90.020.4.H.1.
- f. Homeowner's association street tree removal and replacement program extension.
- g. Class B Variance
- h. Street Design Modification
- i. Subdivisions between 4—10 lots
- [j. Medical Marijuana Dispensary permit](#)

16.38 SPECIAL USES

16.38.010 GENERAL PROVISIONS

Special uses included in this Section are uses which, due to their effect on surrounding properties, must be developed in accordance with special conditions and standards. These conditions and standards may differ from the development standards established for other uses in the same zoning district. When a dimensional standard for a special use differs from that of the underlying zoning district, the standard for the special use shall apply.

16.38.020 MEDICAL MARIJUANA DISPENSARIES

A. CHARACTERISTICS: Medical marijuana dispensaries are defined in Section § 16.10. For purposes of this Code, medical marijuana dispensaries must be registered by the Oregon Health Authority. A dispensary or facility not registered by the Oregon Health Authority is not permitted in any zone.

B. APPROVAL PROCESS: Where permitted, medical marijuana dispensaries are subject to approval under § 16.72.010A.2a, a Type II land use process.

C. STANDARDS

1. Hours of Operation: Dispensaries shall operate between the hours of 10 am to 6 pm Sunday through Thursday; and 10 am to 8 pm Friday and Saturday. An individual dispensary may set hours within those specified, but may not be open outside those parameters.

2. Security Measures Required

a. Landscaping must be continuously maintained to provide clear lines for sight from public rights of way to all building entrances.

b. Exterior lighting must be provided and continuously maintained.

c. Any security bars installed on doors or windows visible from the public right of way must be installed interior to the door or window, in a manner that they are not visible from the public right of way.

3. Co-location prohibited.

a. A dispensary cannot be located at the same address as a marijuana manufacturing facility, including a grow operation.

b. A dispensary cannot be located at the same address with any facility or business at which medical marijuana is inhaled or consumed by cardholders.

4. Mobile Vendors Prohibited

A dispensary may not operate as a mobile vendors as defined in Chapter 16.10.

5. Drive-through marijuana dispensaries are prohibited

6. Proximity Restrictions

A dispensary must not be located within 1,000 feet of any of the uses listed below. For purposes of this paragraph, the distance specified is measured from the closest points between property lines of the affected properties:

a. Educational Institution: public or private elementary, secondary, or career school that is attended primarily by children under 18 years of age.

b. Other medical marijuana dispensaries.

c. Public Parks and plazas

Consent Agenda

City of Sherwood, Oregon
Planning Commission
January 13, 2015

Planning Commission Members Present: Staff Present:

Chair Jean Simson	Julia Hajduk, Community Development Director
Vice Chair Russell Griffin	Bob Galati, Civil Engineer
Commissioner James Copfer	Brad Kilby, Planning Manager
Commissioner Beth Cooke	Michelle Miller, Senior Planner
Commissioner John Clifford	Kirsten Allen, Planning Dept. Program Coordinator

Planning Commission Members Absent:

Commissioner Lisa Walker

Council Members Present:

Councilor Sally Robinson

Legal Counsel:

Chris Crean

1. Call to Order/Roll Call

Chair Jean Simson called the meeting to order at 7:02 pm.

2. Consent Agenda

Chair Simson suggested the minutes in the Consent Agenda could be approved at once or individually when the following motion was received.

Motion: From Commissioner Beth Cook to accept the Consent Agenda, Seconded by Vice Chair James Copfer.

Chair Simson noted a scrivener error on the December 9, 2014 failing to list Connie Randall as staff.

Commissioner Clifford pointed to two locations where he was labeled as John Clifford instead of Commissioner Clifford in the September 9, 2014 minutes.

Chair Simson asked for vote approving the Consent Agenda with the changes.

All present Planning Commissioners voted in favor (Commissioners Walker was absent).

3. Council Liaison Announcements

Julia Hajduk, Community Development Director introduced Sally Robinson as a former Planning Commissioner and newly sworn in councilor and elected Council President.

Ms. Robinson said she had volunteered to continue meeting with the Planning Commission in the liaison capacity as she enjoyed the work before the Planning Commission.

Ms. Robinson commented on Ms.Hajduk's presentation at the Chamber of Commerce breakfast regarding long range growth in Sherwood and indicated that a City Council work session scheduled for the evening was cancelled due to Council Henderson and Commissioner Griffin's objections.

Commissioner Griffin asked for clarification and said he did not have any involvement in the meeting cancellation. Ms.Hajduk explained that there was a work session scheduled and there were comments raised about proper notice which resulted in rescheduling the meeting.

Commissioner Griffin asked to clear the record and objected to claims that he did something to sabotage the meeting. He explained that he had emailed the city recorder inquiring about an agenda for the work session and received a list of topics for the work session. Commissioner Griffin noted that the list of topics was also on a weekly email from the city manager to staff and board members and that he later received an agenda from the city recorder. Commissioner Griffin stated that he was upset by the accusation and that he was unaware that the meeting had not taken place.

4. Staff Announcements

Brad Kilby, Planning Manager, said there were several announcements.

- Sherwood West Preliminary Concept Plan
 - An informational meeting for Community Advisory Committee applicants on January 26, 2015.
 - There were 43 applicants for 13 open positions. This meeting is open to the public.
 - The first Community Advisory Committee meeting is scheduled for February 5, 2015 at Edy Ridge cafeteria at 6pm.
 - Discussion will include the project objectives, schedule, existing conditions, and how the buildable lands inventory for the housing needs analysis was being conducted.
- Joint Planning Commission and City Council Work Session on February 3, 2015
 - Topics include the Code Update recently recommended by the Planning Commission to City Council and Marijuana regulation. The city must have regulations in place on marijuana before a moratorium ends in May 2015.
- Planning Commission Vacancies
 - Subject to his appointment by the City Council, Mayor Clark and Chair Simson have chosen Dr. Alan Pearson to fill Sally Robinson's seat.
 - Commissioner John Clifford has decided not renew his term as a Planning Commissioner and hopes to serve on the Parks and Recreation Board.
 - Commissioner Cooke has registered to be on the ballot for the open City Council position.
- Tonquin Employment Area (Julia Hajduk) –
 - The City and Washington County received a grant for \$371,446 for large lot industrial site assessments throughout Washington County. The City's focus is an implementation and marketing strategy for the Tonquin Employment Area (TEA) to identify what is preventing the area from developing and what the city can do to assist.
 - The study may identify if there are adjustments that can be made to the development code and what can be done to bring the area and jobs online.
 - The consultants are nearly done with the large lot site assessments and will move to the TEA focus in the next few months. If changes to the code are recommended a public process will take place.

- Tannery Environmental Protection Agency Grant (Julia Hajduk)
 - The City received a \$200,000 grant from the federal government through the Environmental Protection Agency Grant (EPA) to do a site assessment on the orphan properties of the tannery site [on Oregon Street].
 - The properties are owned by Washington County due to foreclosure.
 - The site assessments will identify potential clean-up plans with the intent of helping the city decide about acquiring the property. One of the internal discussions has been to move the public works yard to that location and open the existing location to redevelopment that is more consistent with the Old Town vision.
 - The project is just starting and the City is beginning the contracting negotiation process with a consultant.
- To learn more about land use activities which include applications before the Planning Commission, Hearing Officer, and Staff decisions there is a new email service that will send weekly email with information about those activities on from the website. To sign up for the e-news list go to www.sherwoodoregon.gov/newsletter/subscriptions or find the link on the [Planning Department](#) or the [Planning Commission](#) websites.

Chair Simson indicated that the traffic calming process, as brought to light by Lynnly Way residents, has not been budgeted yet. Staff hopes to have a more formal policy and budgeting in place within the next budget cycle.

5. Community Comments

There were no community comments.

6. New Business

a. Election of new Chair and Vice Chair

Chair Simson indicated that per the Sherwood Zoning and Community Development Code a Planning Commission chair and vice chair should be elected in odd calendar years. She opened the floor for nominations.

Nominations were received, seconded and accepted for Commissioner Simson to continue as chair and for Commissioner Griffin to be vice chair. All present Planning Commissioners voted in favor (Commissioners Walker was absent).

b. Public Hearing – SP 14-03 Lam Research Major Modification

Chair Simson read the public hearing statement and asked for any ex parte contact, bias, or conflicts of interest. Commissioner Cooke and Clifford indicated they had visited the site, Vice Chair Griffin had Googled it, and Chair Simson indicated she drives passed it regularly.

Chair Simson revealed that the Planning Commission was the decision making body, any appeals would go to the City Council, and asked staff for a report.

Senior Planner, Michelle Miller gave a presentation (see record, Exhibit 1) and said the applicant, Lam Research, was proposing to add fifty four parking spaces to an existing industrial site by re-striping the existing driveways around the perimeter of the building. She indicated that the review was a Site Plan

Major Modification, because Lam Research would be adding over one hundred average daily trips to the site; a criterion for a major modification. Ms. Miller explained that major modifications require the same decision maker as in the original decision which was the Planning Commission and the review entailed only the code criteria for the changes that the applicant was proposing; the parking lot and parking lot landscaping.

Ms. Miller showed aerial views of the site which is off of Tualatin Sherwood Road in the northeast portion of the city at 20551 SW Wildrose Place. She communicated that it was part of a development from 1998 and was the former distributions center for Pacific Foods. The site is just less than five acres with an existing 100,400 square feet building. Ms. Miller said the property is zoned General Industrial and surrounded by other General Industrial properties. She disclosed that the site currently has 21 parking spaces, a water quality facility and three large delivery bays.

Ms. Miller described Lam Research as a company in the semiconductor industry that wished to put warehousing and light assembly in the building. Lam Research is based in California with another building in Tualatin. Ms. Miller indicated they would run three shifts of twenty five employees arriving at different times of the day and most of the added traffic was for deliveries occurring during the course of the day. She said the City did not receive any citizen comments on the proposal.

Ms. Miller showed a site plan with the proposed parking which surrounded the perimeter of the building and explained that the applicant would convert the drive ways into one-way drive aisles and most of the recommended conditions of approval were regarding adequate signage, ensuring that the landscape islands were the proper size, and that the tree canopy requirements were met. The conditions were listed in the staff report.

Ms. Miller revealed that comments from Clean Water Services were received; they were satisfied with the existing water quality facility on site and Tualatin Valley Fire and Rescue had made recommendations found in the staff report. She said one of the main issues with the project concerned the Traffic Impact Analysis (TIA) that indicated failed traffic wait times or mobility targets on Wildrose Place at the intersection with Tualatin Sherwood Road. Ms. Miller explained that the mitigation proposed was to install a traffic light at Wildrose Place, but it was too close the traffic lights at Cipole Road and Oregon Street to install a light at Wildrose place. She said another option that was discussed in the transportation study was to restripe Wildrose Place to add a left turn lane on (towards Tualatin). Ms. Miller suggested that Bob Galati, City Engineer, could answer questions, but in weighing that alternative he found that restriping would not meet the mobility targets and it would be problematic for trucks turning, because they would use both lanes anyway. Ms. Miller stated that the mitigation measure would not achieve the desired result and the recommendation was to look at a long term solution instead; there is property to the east that may develop and amend the traffic patterns as the area develops over time. Ms. Miller pointed to a letter from Washington County (see planning record, Exhibit G, SP 14-03) and said the County recommended the Planning Commission consider the restriping because of mobility targets, but that was the County's standard answer.

Ms. Miller indicated that Staff recommended approval of the site plan modification with the conditions of approval identified in the staff report, offered to answer questions from the Planning Commission, and asked the Commission to hold a public hearing.

Commissioner Clifford commented that during high traffic time the left turn signal onto Oregon Street backed up and said it would likely interfere with traffic turning left from Wildrose Place. Bob Galati responded that most of the traffic from the development was towards Tualatin as the site will be used as a storage warehouse and packaging assembly for the Tualatin location. He said most of

their turning movements were in the left hand lane from Wildrose onto Tualatin Sherwood Road and, based on conversation with the traffic engineer and Washington County, congestion at Oregon Street would not be affected as much. Mr. Galati expressed that the concern involved fifty foot long trucks making a right hand turn onto Wildrose Place from Tualatin Sherwood Road and encroaching into the left turn lane should the striping occur. If a car were in that lane waiting to turn left on to Tualatin Sherwood Road the truck would have to wait until there is room; congestion would be towards Cipole Road. He pointed out that the big issue was traffic backing up on Wildrose Place, which is a dead end street coming onto a major road without a signal. Mr. Galati said congestion at Cipole Road and Oregon Street will basically remain the same. He said the long term solution was to mitigate for the future by getting a route through development towards Cipole Road along the back of the property, allowing for a right in/right out at Wildrose Place by diverting traffic to Cipole Road. Mr. Galati recommended not providing the left turn lane on Wildrose Place, because it will be an issue with backing up on Tualatin Sherwood Road for the right turn into the development.

Chair Simson commented that the letter from Washington County calls for the restriping of Wildrose Place, but the restriping was not in the conditions of approval nor was it in agreement with staff's recommendation. She asked if the City could ignore the County, because Wildrose Place was a city road. Discussion followed regarding exiting Wildrose Place onto Tualatin Sherwood Road, with a reminder that shifts would be staggered and most of the truck traffic from Lam Research would be toward Tualatin.

Lance Forney, All County Surveyors & Planners, PO Box 955, Sandy Oregon came forward and said All County Surveyors had been hired by the owner, Brad Picking, to complete the planning, surveying, and on site civil engineering portions of the project and had teamed up with Makenzie for the traffic analysis.

Mr. Forney thanked staff for the conditions of approval and said everything on site was straight forward and would be easy to complete through the final engineering and design process. He stated that changing the use of the existing warehouse would create added average daily trips and the only obstacle faced onsite was fire department access. Mr. Forney indicated they had come up with a plan that the fire chief had agreed upon regarding aisle widths and offered to answer questions.

Chair Simson asked for confirmation that Mr. Forney was in agreement with the conditions of approval, as written by staff and that the fire lane would be around the entire perimeter of the property. Mr. Forney confirmed.

Commissioner Clifford asked if approval from the fire department was before or after the addition of wheel stops which added three feet of parking stall space. Mr. Forney responded that the design was standard, the length of the spaces was taken into consideration, and he did not see any issues. He added that it was up to the client to ensure that the fire lane stayed clear.

Commissioner Clifford asked if All County would take care of the landscape island dimensions. Mr. Forney confirmed and said they were laid out on the site plan to meet code. Commissioner Clifford asked regarding the tree canopies and encroachment of the trees selected. Mr. Forney replied that one of the proposed trees would hinder parking and they were working with a landscape architect to select a tree that would not hinder movement.

Commissioner Cooke complemented the applicant on the design given the constraints of the site and the number of spaces required.

The applicant had twenty eight minutes of rebuttal time remaining.

Chair Simson acknowledge that bringing these jobs into Sherwood would increase the number of average daily trips by three hundred, said there would be three staggered shifts, and said she assumed there would be consideration of shift change time and rush hour traffic times. Mr. Forney responded that Lam Research was familiar with the traffic patterns on Tualatin Sherwood Road and should take that into consideration.

Chair Simson asked if there were any questions for Makenzie and commented that the executive summary was easy to understand. None were received.

Chair Simson asked for any citizen testimony. Seeing none, Chair Simson closed the public comment portion of the hearing and asked if there were any questions for staff.

Commissioner Cooke asked if there were any potential issues if the City decided not to accept the County's recommendation to create a left turn lane on Wildrose Place. Ms. Miller answered that the impacts were not on the County road and the County's comments were a recommendation based on the transportation study.

Motion: From Commissioner James Copfer to approve the application, SP 14-03 Lam Research Major Modification, based on the applicant's testimony, public testimony received, and the analysis, finding and conditions in the Staff Report. Seconded by Commissioner Beth Cooke. All present Planning Commissioners voted in favor (Commissioners Walker was absent).

Chair Simson called for a recess at 7:50 pm and reconvened at 7:55 pm.

c. Public Hearing – PUD 14-01/SUB 14-01, Cedar Brook PUD Final Development Plan

Chair Simson read the public hearing statement and asked for any ex parte contact, bias, or conflicts of interest.

Chair Simson disclosed that she works for a company that distributes building materials for new construction and those customers at some time may sell to DR Horton, but the company does not sell directly to DR Horton. She said she did not think it would affect her ability to make an impartial decision. She asked if anyone in the audience wished to challenge the any Planning Commission member's ability to participate. None were received.

Senior Planner, Michelle Miller gave a presentation (see record, Exhibit 2) and said the issue before the Planning Commission was the approval of the Final Development Plan for the Cedar Brook Planned Unit Development to ensure that it was in compliance with the preliminary approval of the Planned Unit Development (PUD). She gave some project background and said the Planning Commission forwarded a recommendation of approval to Council of the project in June 2014 which they approved in August 2014. Ms. Miller stated that the hearing would determine if the final development plan was in compliance with all of the conditions that were set forth in the original notice of decision and said all of the conditions in that approval were still in effect.

Ms. Miller explained that the final development materials had been submitted by the applicant and the evaluation would include the CCR's, the architectural details found in the architectural pattern book and the proposed elevations. She said the Planning Commission should ensure the housing design fit with the community's standards. Ms. Miller indicated that the applicant's final plat was also included as a reference against the original preliminary approval. She added that the final plat was currently in

review by city staff through a Type I review process which will be forwarded to Washington County for their review and approval.

Ms. Miller showed an aerial view of the site and said it was on the north side of 99W, located next to the Woodhaven Crossing II development (Creekview Crossing) near the roundabout on Meinecke Road. The proposal was for a 65 lot residential development with a mix of single family attached and detached homes. Ms. Miller showed a layout of the site plan and said it would be a combination of two story, two car garage town homes in the interior of the site with single family detached on the outside of the site along Cedar Brook Way. She said Street A where the front loaded single car garage townhomes were located would be named Berkshire Terrace and along Meinecke Parkway were the single garage townhomes.

Ms. Miller stated that parking would be allowed on both sides of Cedar Brook Way and on one side of SW Berkshire Terrace which accounted for 77 parking spaces. Combined with the on-site parking it totaled 261 parking spaces with an average of four parking spaces per dwelling unit.

Ms. Miller displayed illustrations of the single family front loaded garage units and said the applicant submitted an architectural pattern book which described the material the applicant was proposing to use. Sample material boards were available along the wall in the community room that included siding and stonework. She commented that the color palate used in the overall design of the site was called "Northwest" cottage style. The buildings will have at least three different materials, porches will be covered, and there will be three different colors with no repeated colors next to each other. Ms. Miller said the architectural pattern book contained a checklist that would be submitted with each building permit application. She explained that the checklist included setback requirements for each of the different lots; varied setbacks were approved by the Planning Commission in the preliminary approval. The checklist will aid with the plot plan review for each building permit application and ensure that the townhome standards were met.

Chair Simson asked about the front yard setbacks for lots 29-38 showing a 15 feet setback. Ms. Miller reminded the Commission that a text amendment changed the front yard setback in the Medium Density Residential High and High Density Residential zones to a minimum of 14 feet.

Ms. Miller showed a rendering of the rear loaded townhomes and a single family detached unit. She showed the fencing plan with perimeter fencing at the multi-family development, side yard fencing along the Cedar Brook Way properties, and rear fencing along SW Meinecke Parkway. Ms. Miller said the applicant had agreed to break up some of the wooden fencing along SW Meinecke Parkway with masonry pillars to make it a little nicer for the pedestrian view and as part of the visual corridor requirement. She stated that there are easements over all of the pathways for public access.

Ms. Miller explained that the Covenants, Conditions and Restrictions (CCR's) discussed how the property is to be maintained, about the open space areas, as well as the condition requested by the Planning Commission to ensure that garages would be used exclusively for parking. Ms. Miller noted that the CCR's noted that the garage receptacles would need to be kept out of view, so one of the recommended conditions was to account for room in the garages for those types of extra items in the garages.

Ms. Miller showed open space areas, known as tracts E and F in the center of the site. She said the tracts included activity centers and garbage receptacles.

Ms. Miller showed tract K which was proposed to be a fenced in dog park area with landscaping. She said she had questions about the materials that the applicant has proposed and contacted Tualatin Hills Park and Recreation District (THPRD) about the material they use. Ms. Miller discovered that bark mulch is a good material instead of grass because grass can be overused by the dogs, but THPRD indicated that the proposed bark mulch was problematic to the dogs' paws. She asked the Planning Commission to review.

Ms. Miller indicated that staff was recommending approval with conditions; the applicant should provide dimensions of the one and two car garages to show there was adequate space for garbage/recycling receptacles, a Landscape Plan showing the types of trees to ensure the tree canopy requirements were met, open space maintenance and irrigation schedules, continue to receive Final Plat approval and comply with the preliminary Planned Unit Development conditions of approval. Ms. Miller offered to answer questions from the Commission.

Chair Simson asked for clarification on the height of fences along Meinecke Parkway. Ms. Miller replied that the houses along Meinecke Parkway faced the interior alleyway without access on to Meinecke and the fences would be six foot tall. Ms. Miller added that there would also be a visual corridor on Meinecke Parkway and the portion of the fencing in the corridor was allowed. Chair Simson commented that the fencing would create visual breaks using different fencing materials and asked if there would be shrubbery for screening as well. Ms. Miller confirmed and explained that there would be landscaping and street trees.

Commissioner Clifford asked regarding the water quality facility. Ms. Miller commented that there had been some changes to storm water management that took place at the City Council level and referred to the City Engineer. Mr. Galati Galati responded that site development requires management of storm water runoff and the plan presented to the Planning Commission was rough in design and changes were made make it fit better. He said the design changes would account for requirements and constructability; the final plan reflects a more refined design pattern to the storm water facility based on the City's criteria, Clean Water Services' criteria and constructability. Commissioner Clifford asked if the storm water would be treated first in this water quality facility and any overflow would go into the existing water quality facility or if it was designed for a certain area of the project. Mr. Galati responded that the area would be treated for the two year storm flow where everything would go to the water quality facility for the two year level. At a twenty five year storm event the water quality facility would discharge. Mr. Galati said he did not think it discharged to the existing system, but into to the stream corridor, which was allowed and the engineer of record could confirm.

Chair Simson noted the City Council had approved a few minor changes from what the Planning Commission had recommended and asked if there were any other significant changes. Mr. Galati replied that the storm water was the only major change and commented that the changes were refinements made during the process of development to layout the site, design storm water management, and confirm constructability.

Ms. Miller added that besides the addition of the water quality facility, the percentage of open space was reduced near the SW Cedar Brook Way on the east side of the property, but still met the requirement and City Council expressed concern regarding signage for the proposed use of tract K, the Dog Park and the dedication of the pedestrian pathways.

Vice Chair Griffin asked if the dog park would be exclusive use for the residents. Ms. Miller clarified that the dog park would be exclusive, but the pedestrian pathway would be public so people could walk from Meinecke Parkway and Cedar Brook Way to the school or along the trail.

With no other questions from the Commission, Chair Simson called for applicant testimony.

Andy Tiemann, Project Manager for DR Horton came forward and gave a presentation (see record, Exhibit 3). He indicated he read and agreed with the staff report and the conditions of approval and would satisfy those conditions when they go through the remainder of the development with building permits and other plan approvals. Mr. Tiemann showed the proposed site plan, what the three, four, and five-plexes looked like, as well as the single family detached homes.

Mr. Tiemann stated that the architect was making revisions to the plans for the single car garage townhomes to ensure that the garbage receptacles had room in the garage and the detached homes would store garbage receptacles in the side yard. He said the change would be reflected on the plans when building permits were applied for. The garage door would be shifted about a foot for the front loaded townhomes (the proposed elevations showed the garage doors centered).

Commissioner Clifford asked if the receptacles could be removed from the garages while a car was parked inside the garage. Mr. Tiemann responded that the car would have to be outside the garages and indicated that the townhomes had been built in other jurisdictions and homeowners did it on a regular basis. He communicated that the open spaces would be irrigated and maintained by the homeowners association and a detailed maintenance plan would be provided describing the homeowner's responsibilities. Chair Simson asked if the all of the pocket parks in the project would be maintained and owned by the homeowners association. Mr. Tiemann confirmed.

Commissioner Cooke stated that the illustrations were beautiful, but she did not think they were an accurate representation. She said the amount of space illustrated did not show how close the buildings were, they were not representative of the reality and she would like the industry to show a more accurate representation when testifying before planning commissions of how the neighborhoods would impact each other and how the homes are set next to each other. Commissioner Cooke conveyed her struggle after the initial approval, which she voted for, because she felt the Commission was constrained by Metro's guidelines. She commented that it felt like a tight development and she was concerned about the livability it would bring to our community.

Mr. Tiemann responded that the property was zoned High Density Residential and they tried to implement detached homes, but it was a very difficult project to design and it would be a dense community.

Commissioner Copfer commented that this was why the city had codes in place and the applicant had met the code requirements.

Chair Simson stated that the Planning Commission would not revisit the PUD, but look to see if the applicant had met the code. She said in the Townhomes code Section 16.44.010E.4.b it specifically stated that *the roofs of each attached townhome must be distinct from the other through either separation of roof pitches or direction, variation in roof design, or architectural feature. Hipped, gambrel, gabled, or curved roofs are required. Flat roofs are not permitted.*

Chair Simson stated she had looked at the building designs and expressed concern for two buildings not meeting the criteria. She commented that she was not a structural engineer, but what was shown in the pictures with the split roof looked like two homes even though it represented four or five homes. Chair Simson acknowledged that creating five distinct roofs would look busy and she could appreciate the compromise between a roof design that created distinct features and a busy design. She pointed to the three-plex facing SW Berkshire Terrace had no roof distinction and the five-plex at lots

58-62. Chair Simson noted that one of the four-plexes had three distinct roof lines with architectural interest that met the intent of the code.

Mr. Tiemann said roof breaks could be added to the interior units. Discussion followed. Staff was asked to draft a condition of approval.

Commissioner Clifford asked regarding the landscape plan provided and commented that there was a conflict between the renderings and the landscape plan. He said the renderings had a number of plants and the landscape plan had only lawn and he would like to see more ground cover or shrubs at utility box locations, not rock, gravel, or fake plants. Commissioner Clifford suggested there should be something in the CCR's that prohibited things in the yard that would not be cohesive with the rest of the neighborhood. Mr. Tiemann responded that certain materials could be restricted, but the intent was to have grass, ground cover and shrubs in the front yard.

Commissioner Clifford conveyed his understanding that DR Horton would maintain the project site until the last house or townhouse was sold and asked if a management company would oversee maintenance of the development along with the homeowners association. Mr. Tiemann confirmed and indicated that a property management company would be contracted as soon as the open spaces were landscaped and the management company would hire landscapers to maintain the areas during construction. Mr. Tiemann said the management company would be retained until the last home was sold and at that point the board will be turned over to the community.

Commissioner Clifford disclosed that he lived in a community with CCR's and the original purchaser of the home was required to live in the home for a year before it could be rented. He asked if there was anything preventing a person from buying a number of townhomes and rent them. Mr. Tiemann replied that he was not aware of any restrictions, that it was not a typical restriction, and that he did not think DR Horton sold to a high number of investors; their typical buyer was a home buyer, not an investor who would buy a whole block or subdivision. Mr. Tiemann commented that about forty percent of the population rents, so in general there may be forty percent of the development in rentals.

With no other questions for the applicant, chair Simson asked how much time the applicant had for rebuttal. She was told there was approximately 23:30 minutes left prior to questions from the commission. 1:30

Chair Simson asked for public testimony.

Bill Sweet, Sherwood resident came forward and asked for the plat map to be shown on the screen. Mr. Sweet said the trail going passed the dog trail went down a hill, crossed the wetlands and came back and connected to the trail that runs behind the Vineyards subdivision. He asked who would maintain that portion of the trail and said it was right behind his backyard. Mr. Sweet expressed concern because he already had people on the trail late at night smoking, drinking, and going off into the trees. He revealed that he could be out on any summer night at one or two o'clock in the morning as just happened on New Year's. Mr. Sweet asked if the trail would be patrolled.

Mr. Sweet expressed concern regarding the dog park, said it should not be exclusive, and that he owned two Siberian Huskies that should be able to use the dog park. He asked if the trail was going through regardless, because he saw the city there doing some flagging. Chair Simson asked staff to respond.

Ms. Miller replied that this trail was mislabeled and the Cedar Creek Trail was a different project. She said the trail Mr. Sweet was referring to was a local connection to the school and the current local trail. They are public trails owned and maintained by the City. Ms. Miller recommended that he contact the authorities for issues he was having so activity in the area can be monitored. She advised that when there are more trail users there is less crime, because there are more eyes on the trail, similar to a public street. Ms. Miller indicated that the hope was that the trail will be used by people in the neighborhood.

With respect to the dog park, Ms. Miller reported that the Parks and Recreation Board made the decision that the dog park would be owned by the homeowners association because the City did not want to take on the maintenance responsibility. They saw the site as too small for more than just the neighborhood to use. Some of the smaller parks are harder for city staff to maintain.

Commissioner Copfer asked regarding the trail marked as the Cedar Creek Trail. Ms. Miller responded that the trail for this project was a “spur” and the main corridor of the trail followed the Cedar Creek corridor and this wetland was a tributary to the creek. She indicated that people could use this trail and connect along Meinecke Parkway to 99W and connect to the trail or in the future it might be a connection through the Vineyards and cross over to connect with main Cedar Creek Trail. Ms. Miller said at this point it was not part of the federal grant project known as the Cedar Creek Trail.

Chair Simson added that this trail was part of the City’s Transportation System Plan for pedestrian street connectivity. Mr. Sweet asked if the connection was part of the project and if it was in that location so the children could walk to the school.

Chair Simson explained that this local trail was part of the master plan through the Transportation Plan which included transportation for pedestrians, bicycles and vehicles and in this location there was a connection identified. As development occurs it is the responsibility of the developer to provide services deemed appropriate as part of the master plan; roads, trails, bike and pedestrian pathways have to connect. Mr. Sweet pointed out that it was being used even as a dirt trail.

Bob Galati, City Engineer, added that it was being located there because there is an existing access. Mr. Sweet said if the connection was to make it easier for the kids to get to school it would make more sense to put it at the other end where it comes out by a park that has a sidewalk that goes right to the school.

Commissioner Copfer said that there was a connection to Sherwood High School through Meinecke Parkway specifying that the trail does not go through the new development, but alongside it.

Mr. Sweet commented that he was the one that lived in the area and would have to deal with problems. He suggested that he should have paid more attention or someone should have knocked on his door to inform him of the new path. Mr. Sweet asked if the pathway would have lighting. When the answer was no he asked how that would deter crime and people going down there and doing what they do now. He said it would still be a dark hole and the illicit activity would continue.

Commissioner Copfer commented that the walking trails through the Woodhaven subdivision were not lit. Mr. Sweet said he had lived in Sherwood for over twenty years. Sherwood has changed a great deal, and was not very different from Orange County, California. The city was so big and congested.

With no other public comments, Chair Simson asked if the applicant would care to provide rebuttal. The applicant declined.

Chair Simson closed the public hearing and the Commission began deliberation. She asked staff for the condition of approval that was requested.

Ms. Miller asked for clarification on which units the Planning Commission would like the condition to apply to. Commissioner Copfer commented that there should not be more than two units without a roof break. Commissioner Cooke said she was most concerned about the five-plex. Chair Simson said the code called for each roof being distinct, but in looking at the other design elements (gables and glazing on the end) she felt the other criteria had been met. By providing the roof breaks at least every two units in conjunction with the gables and architectural features, they would be in compliance with a distinct roof per unit.

Chair Simson asked for any other discussion points while staff drafted language.

Vice Chair Griffin asked to talk about the dog park. Chair Simson commented that the Commission was not dismissing the citizen's concerns, but that the local trail was part of the master plan. Vice Chair Griffin said he had questions about the proposed materials for the dog park and asked and what materials might be used instead. Commissioner Cooke commented that the dog park in Tualatin used bark chips and users were discovering that bark chips were not good for the dog's paws, but smaller dog parks have a hard time with grass.

Commissioner Copfer added that he understood Mr. Sweet's concerns about the trail in his backyard and said Woodhaven had trails go behind people's backyards. Chair Simson said trails added to livability so people could walk to schools and exercise. Commissioner Copfer said a lot of communities would love to have the trails that Sherwood has.

The following sixth condition of approval was drafted as part of the approval. *Prior to issuance of building permits, submit plans that show that there is at least one roof break at a minimum of every two townhome units.*

With no other discussion, the following motion was received.

Motion: From Vice Chair Russell Griffin to approve the application for Cedar Brook PUD Final Development Plan (PUD 14-01/SUB 14-01), based on the applicant's testimony, public testimony received, and the analysis, finding and existing conditions and new condition now in the Staff Report. Seconded by Commissioner James Copfer.

Commissioner Beth Cooke stated that while she felt the applicant had met the code requirements she had concerns about how the development impacted the livability of the community. She said she recognized that there was a zoning change to the property, she would not vote against it, but could not cast a yes vote and would abstain.

All other present Planning Commissioners voted in favor (Commissioners Walker was absent).

7. Planning Commissioner Announcements

Chair Simson commented that when the Commission moves forward with code amendments and other community wide actions a citizen had suggested having a note in the utility bills. She explained there are sometimes notifications in a big red font on the bill and it would be nice if the Planning Department could use the utility bills as an additional way to say code amendments were coming.

Ms.Hajduk responded that staff had looked into the option and there was a cost associated with it adding flyers to the utility bills, but she would talk to other managers about the feasibility of adding a note on to the bills.

Vice Chair Griffins reported that, Mary Poppins, the first official show in the new cultural center, would be the first two weekends of March, Thursday through Saturday. He said casting took place the week previous and rehearsals had begun. He commented that it would be a great way to open up the brand new center. The auditorium can seat almost four hundred people and the stage is forty feet wider than the one at Stella Olsen Park. Vice Chair Griffin said there would be about seventy five people on stage, singing, at the same time.

8. Adjourn

Chair Simson adjourned the meeting at 8:56 pm.

Submitted by:

Kirsten Allen

Planning Department Program Coordinator

Approval Date: _____

City of Sherwood, Oregon
Planning Commission
Work Session
February 24, 2015

Planning Commissioners Present:

Chair Jean Simson
Commissioner John Clifford
Commissioner Alan Pearson
Commissioner Lisa Walker

Staff Present:

Julia Hajduk, Community Development Director
Rich Sattler, Operations Supervisor of Water
Brad Kilby, Planning Manager
Michelle Miller, Senior Planner
Kirsten Allen, Planning Dept. Program Coordinator

Planning Commission Members Absent:

Vice Chair Russell Griffin
Commissioner James Copfer

Council Members Present:

Council President Sally Robinson

Legal Counsel:

None

1. Call to Order/Roll Call

Chair Jean Simson called the meeting to order at 7:04 pm.

2. Council Liaison Announcements

Council President Sally Robinson stated that the initial meeting for the Sherwood West Preliminary Concept took place on February 5, 2015. She said the project would utilize an online survey tool that might be useful to determine public sentiment about medical marijuana and other projects in Sherwood.

3. Staff Announcements

Brad Kilby, Planning Manager introduced Commissioner Alan Pearson as a new planning commissioner. Commissioner Pearson has called Sherwood his home for a couple of years; he said he hopes to help guide the city as it grows, he was not opposed to development, but opposed to bad development.

Mr. Kilby commented that Commissioner John Clifford would be leaving the Planning Commission to serve on the Parks and Recreation Board which leaves two open Planning Commission seats. Applications will be accepted by the City Recorder's office through March 13, 2015. Commissioner Lisa Walker suggested previous Planning Commission applicants be contacted regarding their interest in serving.

Mr. Kilby disclosed that the new Police Advisory Committee has been invited to participate in the medical and recreational marijuana discussions, but none were present as they have not yet met as a committee.

4. Water System Master Plan Update

The Planning Commission was provided with an electronic copy of the February 2015 Draft Water System Master Plan Update prior to the meeting (see record, Exhibit 1)

Rich Sattler, Operations Supervisor for Water explained that in 2005 when the previous master planning was completed, the City was looking for a source of water. The City now takes water from the Willamette River Water Treatment Plant (WRWTP) in Wilsonville and a number of improvements in the plan have been built. He said a water system plan is used to determine future demand for the next 20 years, identify deficiencies, update the City's Capital Improvement Program (CIP) and evaluate water rates and System Development Charges (SDC).

Mr. Sattler reported that staff was working with the City Finance Department to assess rate costs and SDC's. He introduced consultants, Heidi Springer and Brian Ginter of Murray, Smith & Associates, Inc. (MSA) and said there would be an open house the following evening on February 25, 2015 at the Police Facility to receive citizen input.

Ms. Springer gave a presentation (see record, Exhibit 2). Discussion followed which included current and anticipated demand, capital improvements, potable water, water rates, resilience plan, water storage, current capacity, regional coordination and fund allocation. The Planning Commission asked for more information about how different revenue sources pay for capital improvements and how those projects are prioritized.

5. Medical Marijuana Dispensaries

Michelle Miller, Senior Planner gave a presentation (see record, Exhibit 3), reminded the Commission that the discussion was limited to Medical Marijuana Dispensaries (MMD) as the City was bumping up against the May 1, 2015 deadline to have legislation in place.

Ms. Miller reviewed the state regulations, options for legislation, pros and cons for locating dispensaries in the commercial or industrial zones, process options, and actions from other jurisdictions. Discussion followed.

Staff was directed to provide official recommendations from the police department, a clear definition of education facilities, buffer maps within commercial and industrial zones and discussion points for the Medical Marijuana Public Work Session on March 10, 2015 at 6:30pm.

6. Planning Commissioner Announcements

Chair Simson commented the Sherwood West Preliminary Concept Plan Open House was well attended and recommended viewing the video on the website at www.sherwoodoregon.gov/sherwoodwest.

The next meeting for the Sherwood West Citizen Advisory Committee (CAC) will be on April 2, 2015 at the Police Facility.

7. Adjourn

Chair Simson adjourned the meeting at 9:20pm.

Submitted by:

Kirsten Allen
Planning Department Program Coordinator

Approval Date: _____

Planning Commission Meeting DRAFT Minutes
February 24, 2015
Page 2 of 2

City of Sherwood, Oregon
Planning Commission
Public Work Session Meeting Minutes
March 10, 2015

Planning Commission Members Present:

Chair Jean Simson
Vice Chair Russell Griffin
Commissioner James Copfer
Commissioner Alan Pearson
Commissioner Lisa Walker

Staff Present:

Joseph Gall, City Manager
Julia Hajduk, Community Development Director
Ty Hanlon, Police Captain
Brad Kilby, Planning Manager
Michelle Miller, Senior Planner
Kirsten Allen, Planning Dept. Program Coordinator

Planning Commission Members Absent:

None. Two seats vacant

Legal Counsel:

None

Council Members Present:

Councilor Sally Robinson
Councilor Dan King

Others Present:

Bob Silverforb, Police Advisory Committee member
Sean Garland, Police Advisory Committee member
Chris West, Police Advisory Committee member
Laurie Zwingli, Police Advisory Committee member

Public Work Session

Planning Commission Chair Jean Simson began the work session at 6:30 pm.

Michelle Miller, Senior Planner gave a presentation with an overview of the state Medical Marijuana Dispensary (MMDs) program, (see record, Exhibit 1).

Ms. Miller advised that dispensaries:

- Must be located in Commercial, Industrial, Mixed use or Agricultural zone (there are no agricultural zones within Sherwood)
- Cannot be in same location as a Grow site
- Cannot be 1,000 feet from a school (public or private)
- Cannot be 1,000 feet from another medical marijuana dispensary
- Must be a registered business in Oregon
- Must install a security system
- Cannot be mobile

Members of the community, Planning Commissioners, and Staff split up into four table groups. Groups discussed the state rules regarding Medical Marijuana Dispensaries, existing and additional buffer locations, where Medical Marijuana Dispensaries could be located, hours of operation, and what approval process should be used.

Participants were provided information for the discussion (see record, Exhibit 2 – Public Discussion on Medical Marijuana Dispensaries, Exhibit 3 – Commercial Properties 1000 Foot School Buffer Map,

Exhibit 4 – Industrial Properties 1000 Foot School Buffer Map, Exhibit 5 – Commercial and Industrial Properties 1000 Foot School Buffer Map, Exhibit 6 – Commercial and Industrial Properties 1000 Foot School and Parks Buffer Map, Exhibit 7 – Email from Police Chief Groth regarding Medical Marijuana Dispensaries)

After the roundtable discussion, each Commissioner at the table group gave a summary of the ideas and concerns expressed in the dialogue.

Buffers

A majority of participants were in favor of an additional 1000-foot buffer around City parks and the YMCA. Others were in favor of no park buffers and to maintain buffers established by the State. About a quarter wanted to add residential buffers or to increase the 1000 foot school or park buffers.

Hours of Operation

A third of the participants were in favor of no regulations for hours of operation. The remaining participants wanted restrictions for hours of operation. Two scenarios offered were to be open six days a week during normal business hours or open seven days a week between 7am -10 pm. The latter is the same hours that the Oregon Liquor Control Commission (OLCC) allows.

Process

The approval process for MMDs could include a staff level decision or require a public hearing with a hearings officer, the Planning Commission or City Council. Each subsequent approval process having increased fees and public notice. The participants were in favor of a process that allowed staff level decision with clear criteria that must be met and required notification to property owners within 1000 feet of the proposed location.

Zoning

State law prescribes that MMDs are permitted in Sherwood's Industrial or Commercial Zones. Most of the participants preferred MMDs to be allowed in both Industrial and Commercial zones, with the second option of limiting dispensaries to industrial zoned property only.

3. Adjourn

Chair Simson adjourned the meeting at 8:08 pm.

Submitted by:

Kirsten Allen
Planning Department Program Coordinator

Approval Date: _____

New Business Agenda

Item A

City of Sherwood
Staff Report to the Planning Commission:
File No: PA 15-01 Code Update

March 13, 2015

Proposal: The City is proposing to amend the Table of Contents and Chapter 7 *Community Facilities and Services*, of the Sherwood Comprehensive Plan, Part 2, and to adopt the 2015 City of Sherwood Water Master Plan as a technical appendix to the Comprehensive Plan. The proposed amendments coincide with an update of the City's Water System Master Plan. Although the Water System Plan was updated in 2005, the language within the Comprehensive Plan was never updated to reflect the changes to the system in 2005. The proposed amendments to the text would delete and replace the existing language within the Comprehensive Plan to be aligned with the 2015 Water Master Plan Update. Adoption of the plan as a technical appendix is consistent with the single goal and eight policies that related to community facilities and services.

I. BACKGROUND

- A. Applicant: This is a City initiated text amendment.
- B. Location: The proposed amendment is to the text of the Comprehensive Plan and applies citywide.
- C. Review Type: The proposed text amendments are legislative and require a Type V review, which involves public hearings before the Planning Commission and City Council. Any appeal of the City Council's decision relating to this matter will be considered by the Oregon Land Use Board of Appeals.
- D. Public Notice and Hearing: Notice of the March 24, 2015 Planning Commission hearing on the proposed amendment was published in *The Times* on February 26, 2015 and March 19, 2015. Notice was also posted in five public locations around town on March 4, 2015, and on the City of Sherwood web site on February 18, 2014.

Oregon Department of Land Conservation and Development (DLCD) notice was submitted on February 3, 2015.

- E. Review Criteria:
The required findings for the Plan Amendment are identified in Section 16.80.030 of the SZCDC.
- F. Background:
The City Public Works Department along with the consultant, Murray Smith and Associates, have been working on the plan for the past year, and were charged with ensuring that the plan complies with the Oregon Administrative Rules (OAR) for Public Water Systems, Chapter 333, Division 61.

II. AFFECTED AGENCY, PUBLIC NOTICE, AND PUBLIC COMMENTS

Agencies:

DLCD notice was submitted on February 3, 2015, but has not submitted any comments as of the date of this report..

Public:

The Planning Commission held a Work Session to discuss the Water System Plan Update on February 24, 2015. In addition, a public meeting hosted by Public Works and the Project team was conducted on February 25, 2015. Individual invitations to that meeting were provided to all customers of the Sherwood Water System. Many of the comments raised in the public open house were related to a frustration with the existing water rates.

III. REQUIRED FINDINGS FOR A PLAN TEXT AMENDMENT

The applicable Plan Text Amendment review criteria are 16.80.030.A and C

16.80.030.A - Text Amendment Review

An amendment to the text of the Comprehensive Plan shall be based upon the need for such an amendment as identified by the Council or the Commission. Such an amendment shall be consistent with the intent of the Comprehensive Plan, and with all other provisions of the Plan and Code, and with any applicable State or City statutes and regulations.

With respect to the proposed changes, the Comprehensive Plan would be updated with current language that reflects the Master Plan. Specific changes include:

- Updating the table of contents page
- Updating Objective B.7 to remove old plan dates and make relevant to the current time period
- Update Table VII-1 to reflect the name change of “unified sewerage agency” to “clean water services” and to remove reference to telephone and cable providers (housekeeping)
- Replace entire section under “water service plan”, including the introduction, existing water system conditions, analysis of the existing water system and recommended improvements to the existing water system, with up to date information from the 2015 Master Plan
- Adopt the 2015 Water Master Plan by reference

It should be noted that the Comprehensive Plan was not updated with the 2005 update to the Water System Plan, and that the Comprehensive Plan is in dire need of a complete update. Staff has identified recommended changes to reflect the updated Water Master Plan and some minor housekeeping items but it is recognized that there are other areas within the comprehensive plan that are out of date. Staff is currently working with the Council, the Planning Commission, and the State of Oregon to enter into the periodic review process to update the Sherwood Comprehensive Plan.

The proposal seeks to amend chapter 7 of Volume II of the Comprehensive Plan to reflect the updated Water Master Plan. The Council authorized the Water System Master Plan by both approving a budget that included the update and by authorizing contracts for the update, therefore it can be assumed that the Council identified a need to update the Master Plan.

There is only one stated goal in chapter 7 which is “To insure the provision of quality community services and facilities of a type, level and location which is adequate to support

existing development and which encourages efficient and orderly growth at the least public cost.”

There are 8 objectives under this policy statement:

1. Develop and implement policies and plans to provide the following public facilities and services; public safety fire protection, sanitary facilities, water supply, governmental services, health services, energy and communication services, and recreation facilities.
2. Establish service areas and service area policies so as to provide the appropriate kinds and levels of services and facilities to existing and future urban areas.
3. Coordinate public facility and service plans with established growth management policy as a means to achieve orderly growth.
4. Coordinate public facility and service provision with future land use policy as a means to provide an appropriate mix of residential, industrial and commercial uses.
5. Develop and implement a five-year capital improvements and service plan for City services which prioritizes and schedules major new improvements and services and identifies funding sources.
6. The City will comply with the MSD Regional Solid Waste Plan, and has entered into an intergovernmental agreement with Washington County to comply with the County's Solid Waste and Yard Debris Reduction Plan, 1990.
7. Based on the Sewer, Water and Transportation Plan updates in 1989 and 1990, the City shall prepare a prioritized list of capital improvement projects to those systems and determine funding sources to make the improvements by the end of 1991.
8. It shall be the policy of the City to seek the provision of a wide range of public facilities and services concurrent with urban growth. The City will make an effort to seek funding mechanisms to achieve concurrency.

The updated Master Plan is necessary to the achieving the objectives with the exception of objective 7. The language within this policy has been updated to reflect the 2014 update to the Transportation System Plan, and the 2015 updates to the Sewer and Water Plans.

The need to update the policy language, and in turn the background language of Chapter 7 as it relates to the City's Water System Master Plan is evident in the fact that the current language speaks to plans that were to be adopted in 1989 and 1990. That is over 25 years ago, adding additional evidence that a clear need for the update has been established.

Applicable Regional (Metro) Standards

There are no specific Metro standards that would conflict with the proposed amendments. The Urban Growth Management Functional Plan does not speak specifically to subarea Water System Master planning.

Consistency with Statewide Planning Goals

Because the comprehensive plan policies and strategies are not changing and the comprehensive plan has been acknowledged by the State, there are no known conflicts with these proposed changes. Below is an analysis of how the proposed Water Master Plan update

and Comprehensive Plan amendments are consistent with the applicable statewide planning goals 1, 2 and 11.

Goal 1

The Planning Commission held a public work session, and the project team held a city-wide meeting on the plan. Formal notice was also published in *The Times* two weeks prior to the hearing and again five days prior to the hearing. The hearing has been posted around town in five conspicuous places and on the City's website since March 4, 2015. Public works also maintained a project website for the course of the project.

Goal 2

Goal 2 speaks to comprehensive planning and acknowledges that plans for public facilities are more specific than those included in the comprehensive plan. They are intended to show the size, location, and capacity serving the City, but are not as detailed as construction drawings. The Water System Master Plan is a tool that helps communities to implement their plan.

In Sherwood's case, the plan is being updated to ensure compliance with the requirements outlined by the state as they relate to water system master plans. The requirement to prepare a Water System Master Plan can be found in Oregon Administrative Rules (OAR) Chapter 333, Division 61. The Water System Master Plan itself, is a much more technical document that Public Works staff is charged with preparing and ensuring compliance with these rules. The subject of this review is to ensure that the proposed plan is consistent with the current Comprehensive Plan.

One could argue that because the Comprehensive Plan is out of date, that the policy assumptions are not correct, but we will not know this until we go through a formal goals and policy update with the community as part of a periodic review. There have been many plans updated without thought to the Comprehensive Plan, goals, policies, and community assumptions in the past, and as currently drafted there are no conflicts with the proposed language and the current language as it applies to the single goal and policies that are affected by this change.

Goal 11

Goal 11 of state land use planning relates to Public Facilities and Services. Within this goal, communities are charged with preparing facilities plans that coordinates the type, locations and delivery of public facilities and services in a manner that best supports the existing and proposed land uses. In this case, the plan considers the existing needs of the community as well as those of the Tonquin Employment Area, the Brookman area, and urban reserves associated with both Tonquin and Sherwood West. The numbers assumed for these areas were derived from previously adopted plans and the best available information at the time that they were being prepared.

It should be noted that information is constantly being updated and refined with new information and it is possible that current projects underway or updated plans result in more or less growth than the Water System Master Plan assumes. For these reasons, the Water System Master Plan is a flexible document. If all improvements envisioned in the Water System Master plan are not needed, they will not be constructed and if improvements are needed sooner than envisioned, they will be planned for.

FINDING: As discussed above in the analysis, there is a need for the proposed amendments in order to update the language within the Comprehensive Plan. The proposed amendments are not applicable to Metro's Urban Growth Management Functional Plan. The proposed amendments are consistent with the applicable Comprehensive Plan and applicable City, regional and State regulations and policies.

16.80.030.3 – Transportation Planning Rule Consistency

A. Review of plan and text amendment applications for effect on transportation facilities. Proposals shall be reviewed to determine whether it significantly affects a transportation facility, in accordance with OAR 660-12-0060 (the TPR). Review is required when a development application includes a proposed amendment to the Comprehensive Plan or changes to land use regulations.

FINDING: The proposed amendments do not affect the functional classification of any street and is not triggered by any single development application.

IV. RECOMMENDATION

Based on the above findings of fact, and the conclusion of law based on the applicable criteria, the staff recommends approval of PA 15-01.

- V. EXHIBITS**
- A. PA 15-01 Proposed Code Amendments –track change version
 - B. PA 15-01 Proposed Code Amendments – clean version
 - C. Letter to the Planning Commission from Craig Sheldon dated March 11, 2015
 - D. Draft Water System Master Plan - 2015

Exhibit A

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COMMUNITY FACILITIES AND SERVICES

A. GENERAL INTRODUCTION

Community facilities and services in the Sherwood Planning Area are provided by Washington County, the City of Sherwood, special service districts, semi-public agencies and the State and Federal government, (see Table VII-1). Public facilities and services include sewer, water, fire and police protection, libraries, drainage, schools, parks and recreation, solid waste and general governmental administrative services. Semi-public facilities and services are those which are privately owned and operated but which have general public benefit. They include health facilities, energy and communication utilities, and day care.

Although a small community, Sherwood has learned well the importance of adequate community facilities and services to orderly urban growth. Lack of sewer treatment capacity curtailed growth in the City in the 1970's. Planning for public facilities and services in response to growth rather than in advance of growth results in gaps in facilities and services. As population growth and density increase in the Sherwood Planning Area, greater facility and service support will be required. In recognition of this basic fact, the Plan stresses the need for provision of necessary facilities and services in advance of, or in conjunction with, urban development.

The Community Facilities and Services element identifies general policy goals and objectives; service areas and providers, problems, and service plans, and potential funding for key public and semi-public facilities and services. Park and recreation facilities are treated in Chapter 5, Environmental Resources. Transportation facilities are treated in Chapter 6, Transportation. This element was updated in 1989 to comply with OAR 197.712(2)(e).

B. POLICY GOAL AND OBJECTIVES

To insure the provision of quality community services and facilities of a type, level and location which is adequate to support existing development and which encourages efficient and orderly growth at the least public cost.

OBJECTIVES

1. Develop and implement policies and plans to provide the following public facilities and services; public safety fire protection, sanitary facilities, water supply, governmental services, health services, energy and communication services, and

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- b. Bikeways
 - (1) City of Sherwood
 - (2) Washington County
 - (3) State of Oregon

- c. Public Transit
 - Tri-Met

Sherwood Comprehensive Plan, Part 2

- 4. Public Health and Safety
 - a. Police Protection
 - (1) City of Sherwood
 - (2) Washington County
 - (3) State of Oregon
 - b. Fire Protection
 - Tualatin -Valley Fire and Rescue
 - c. Animal Control
 - Washington County
- 5. Recreation
 - a. Parks and Recreation
 - City of Sherwood
 - b. Library
 - City of Sherwood
- 6. Schools
 - Sherwood School District 88J

Sherwood Comprehensive Plan, Part 2

insert map

July of 1984, at points throughout the Durham Basin.

The July 1979 Sewer Service Plan used values ranging from 500 gallons per acre per day (gpad) to 700 gpad for inflow and infiltration (I&I), depending on land use designation. These values were concurrent with past EPA design standards and were based on the assumption that rehabilitation measures would remove 60 to 90 percent of excessive I&I. According to USA's 1985 Master Plan these abatement techniques proved to be ineffective. USA's review of the Durham treatment facility led to the design rate of 4000 gpad for the existing peak annual occurrence for infiltration and inflow. This value is not anticipated to decrease for the Durham basin and is therefore also used for the future design flowrates.

Two areas of special concern exist inside the current City of Sherwood UGB. Both areas are recent additions to the UGB and have not yet been assigned a land use. Rather than assume zoning designations for the areas they were both excluded from the model. Both areas can be served by gravity and neither will cause deficiencies in the system. Their service routes are discussed below.

The first area is located in the southwest corner of the UGB in the Cedar Creek Basin, between Pacific Highway and Old Highway 99W. This area can be served by line number 1 in area A (Figure VII-2). The northern half of this area may also be served by connecting to the southern most extension of line number 2 in area B. The second area is located east of Pacific Highway and north of Edy Road, in the Rock Creek Basin. The southern portion should be incorporated in line number 3 extending from Rock Creek west along Edy Road (Figure VII-2). The northern half must be served using a direct lateral to the area from the Rock Creek trunk.

RECOMMENDED IMPROVEMENTS TO EXISTING SEWER SYSTEM

The analysis of the existing system shows no size deficiencies in any of the City maintained pipes. City officials have confirmed that there are areas of surcharge in the system due to pipe under sizing. Surcharge due to blockage of the system has occurred but has since been remedied.

Improvements are recommended to the existing sewer systems main trunk lines. These improvements are required due to very slight slips which occur in the northern sections of the Rock Creek and Cedar Creek main trunk lines.

The Rock Creek trunk requires improvements from manhole number 11663, which is located at the confluence of the Rock Creek and Cedar Creek trunk lines, south to a manhole located near the Southern Pacific crossing of Rock Creek. The existing 18-inch diameter pipe has a length of 6,035 feet and an existing slope of 0.0031 feet/feet. The USA master plan recommends that a 15-inch diameter pipe be placed parallel to the existing 18-inch in order to convey future flows based on 20-year ultimate development peak flowrates. Our analysis is based on total ultimate development of the Sherwood UGB and therefore suggests that an 18-inch diameter pipe parallel the existing 18-inch at the existing slope of 0.0031 feet/feet.

Sherwood Comprehensive Plan, Part 2

insert Figure VII-2

Sherwood Comprehensive Plan, Part 2

insert Figure VII-3

~~in currently served areas of the City. Major water lines required as extensions to areas without service are also identified. The cost of all recommended and identified improvements are listed in 1990 dollars.~~

~~The amount of growth that can occur within distinct areas and neighborhoods within the City's Urban Growth Boundary without creating pressure or overall supply problems is also estimated.~~

~~1. The City's existing reservoir capacity of 2.5 million gallons (MG) is adequate to cover the needs of the City until a population of 8,200 is reached.~~

EXISTING WATER SYSTEM CONDITIONS

Pressure Zones

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The City's existing distribution system is divided into three major pressure zones. Pressure zone boundaries are defined by ground topography in order to maintain service pressures within an acceptable range for all customers in the zone. The hydraulic grade line (HGL) of a zone is designated by overflow elevations of water storage facilities or outlet settings of pressure reducing valves (PRVs) serving the zone.

The majority of Sherwood customers are served from the 380 Pressure Zone which is supplied by gravity from the City's Sunset Reservoirs. The 535 Pressure Zone, serving the area around the Sunset Reservoirs, is supplied constant pressure by the Sunset Pump Station, and the 455 Pressure Zone serves higher elevation customers on the western edge of the City by gravity from the Kruger Reservoir.

Storage Reservoirs

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Sherwood's water system has three reservoirs with a total combined storage capacity of approximately 9.0 million gallons (MG). Two reservoirs, Sunset Nos. 1 and 2, provide 6.0 million gallons (MG) of gravity supply to the 380 Pressure Zone. The other reservoir, Kruger Road, provides 3.0 mg of gravity supply to the 455 Pressure Zone.

Pump Stations

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Sherwood's water system includes two booster pump stations, the Sunset Pump Station and the Wyndham Ridge Pump Station.

The Sunset Pump Station is located in Snyder Park adjacent to the Sunset Reservoir complex and has an approximate total capacity of 3,770 gallons per minute (gpm). This station provides constant pressure service and fire flow to the 535 Pressure Zone.

horizon with an additional 1 mgd of capacity required at 20 years and an additional 4 mgd needed at build-out. Existing City groundwater wells provide an effective emergency supply to complement emergency storage in the City's reservoirs.

Pumping and Storage

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The City's distribution system has adequate storage and pumping capacity to meet existing service area demands through 2034. Due to significant uncertainty related to long-term growth and system expansion, minor storage and pumping deficiencies at build-out should be re-evaluated with the next Water Master Plan Update or as development warrants. Additional pump stations are recommended to serve proposed high-elevation closed pressure zones in the water service expansion areas: Brookman Annexation and West Urban Reserve.

Distribution Piping

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Sherwood's distribution piping is sufficiently looped to provide adequate fire flow capacity to commercial, industrial and residential customers. Few piping improvement projects are needed to meet fire flow criteria. Extensive large diameter mains will be needed to expand the City's water service area to supply the Brookman Annexation, TEA and West Urban Reserve as development occurs.~~Peak Domestic Flows Analysis~~

~~The total peak domestic flow rate for the year 2008 used in this analysis is 3,000 gallons per minute. The domestic flow is the combination of all residential, commercial, and industrial uses other than those for fire protection. Domestic use also accounts for summertime irrigation of lawns and landscaping.~~

~~The total peak domestic flow rate of 3,000 gallons per minute is derived from the detailed data published in the 1979 Water Service Plan and has been increased by approximately 15 percent as a conservative measure for unexpected conditions such as excessive water line leakage, high volume users, etc.~~

~~The 1979 Water Service Plan estimated the water usage by the City's commercial and industrial customers to be 30 percent of the residential use when the City's population reached 7,800 people. This percentage was used in the determination of the peak domestic flow rates in this analysis. The total peak domestic flow rate is based on a maximum peak consumption of 410 gallons per capita per day, and is consistent with the 1979 Water Service Plan.~~

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The total 3,000 gallons per minute peak domestic flow was proportioned throughout the existing developed areas of the City, based on knowledge of the amounts and types of potential development that can occur in each area. Within each area of the City the proportioned flow was concentrated at "worst case" locations so that deficiencies in the City's water system would be highlighted.

Computer models require calibration to known data to assure that they represent the physical system. Known information on the pumping capacity and characteristics of the City's three wells, including their effect on the groundwater table and the historical operation of the wells and the water storage reservoir, was used to calibrate the factors in the computer model. The computer model accurately matches the operation of the City's wells and water storage reservoir during peak use.

Peak Domestic Flows Results

The existing water system for the City of Sherwood meets the needs of the peak domestic flows in the year 2008. There are no areas requiring improvements to meet these domestic needs. The resulting operating pressures during the peak flows range from 40 to 85 psi (pounds per square inch) throughout the City. The acceptable range for water line pressures is 20 to 100 psi.

Fire Protection Flows Analysis

The flow rate required to provide adequate fire protection varies with the type of building. Single family residential requires fire flows of only 1,500 gallons per minute, whereas large industrial and commercial structures without fire sprinklers can require fire flows in excess of 4,000 gallons per minutes. Most new construction of larger structures is required to have fire sprinklers for increased fire/life safety. Fire sprinklers reduce the flow requirements for fire protection.

For a City the size of Sherwood, it can only be expected that adequate flows for one major fire at a time can be provided. The low probability of multiple major fires at one time does not warrant the major expense of providing the additional supply sources and the larger diameter pipe lines. Also, because of the expense, it is cost effective to require fire sprinklers in structures that would require excessive amounts of flow for fire protection.

For this analysis, a fire flow of 2,000 gallons per minute is used to determine the adequacy of the water supply and distribution system to provide fire flows at an adequate operating pressure. The fire flow is assumed to be concurrent in time with the peak domestic flows.

Fire Protection Flows Results

The computer model was used to simulate the need for fire flows to every area of the city. In general, the ability to adequately supply fire flows in most areas of the City is good. There are three

~~Emergency stand-by power would provide an additional margin of safety during periods of total power loss. The booster pump at the water storage reservoir is the only source of pressure for the residents in the E. Division Street and upper S. Pine Street area. During power outages, this area is without adequate water service. Stand-by power is recommended for this booster pump to eliminate this potential problem.~~

~~Although the water storage reservoir provides ample volumes of water for emergencies, it is recommended that stand-by power be provided at one of the wells as an added precautionary measure for extended periods of power outage. Since Well No. 3 is the City's largest well, stand-by power is recommended for that well. Completion of a manually-operated interconnect at Cipole Road with the City of Tualatin water system is also recommended as an additional safeguard against a catastrophic interruption in the City of Sherwood's system.~~

RECOMMENDED IMPROVEMENTS TO EXISTING WATER SYSTEM

Recommended improvements for the City's water system include proposed supply, pump station and water line projects.

Cost Estimating Data

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An estimated project cost has been developed for each improvement project recommended. Cost estimates represent opinions of cost only, acknowledging that final costs of individual projects will vary depending on actual labor and material costs, market conditions for construction, regulatory factors, final project scope, project schedule and other factors. The cost estimates presented have an expected accuracy range of -30 percent to +50 percent. As the project is better defined, the accuracy level of the estimates can be narrowed. Estimated project costs include approximate construction costs and an aggregate 45 percent allowance for administrative, engineering and other project related costs.

Capital Improvement Program

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A summary of all recommended improvement projects and estimated project costs is presented in Table ES-3 of the 2015 City of Sherwood Water System Master Plan Update. The table provides for project sequencing by showing fiscal year-by-year project priorities for the first five fiscal years, then prioritized projects in 5-year blocks for the 10-year, 20-year and Beyond 20 year timeframes. The total estimated cost of these projects is approximately \$24.6 million through FY 2034. Approximately \$19.9 million of the total estimated cost is for projects needed within the 10-year timeframe and \$5.4 million of these improvements are required in the next 5 years.~~Improvements are recommended to the existing water system to provide adequate fire protection capability to three areas of the City. Improvements are not necessary for year 2008 population projections. These recommendations are based upon the assumption that water lines are not required to be extended~~

Sherwood Comprehensive Plan, Part 2

Recommended Improvements to Existing Water System

1. Loop Projects

— Tualatin-Sherwood	3800 LF	\$238,000
— Scholls-Sherwood	2800 LF	\$178,500
— Murdock/Roy	600 LF	\$ 59,500
— Highland Extension	2700 LF	\$178,500
— Tualatin-sherwood Relocate	2130 LF	\$ 74,100

2. Supply Projects

— Well No. 6 (Murdock)	800' deep	\$236,500
— Reservoir Booster Pump	35 hp gen.	\$ 59,500
— Well No. 3 Standby Power	75 hp gen.	\$119,000
— Cipole Road Intertie with City of Tualatin		\$ 23,400 (50%)

3. 4 Inch Waterline Replacements

— Old Town (8")	1600 LF	\$ 76,800
— Ladd Hill (12")	1300 LF	\$ 92,300
— Meinecke/99W (8")	2000 LF	\$ 96,000
— W. Sunset (10")	1500 LF	\$ 88,500

4. 6-Inch Waterline Replacements (all 8")

— Old Town	1600 LF	\$ 76,800
— Lower Lincoln	1000 LF	\$ 48,000
— Lower Roy	1300 LF	\$ 62,400
— Oregon	1300 LF	\$ 62,400
— Upper Washington	1300 LF	\$ 62,400
— Gleneagle	3000 LF	\$144,000
— Upper Roy	900 LF	\$ 43,400

5. Other Waterline Extensions

— 12 Inch	18,500 LF	\$1,313,500
— 10 Inch	32,800 LF	\$1,935,200
— 8 Inch	25,400 LF	\$1,219,200

Beyond these recommended improvements, the City should continue its existing undersized water lines replacement program.

Sherwood Comprehensive Plan, Part 2

| -insert Fig. VII-5

Sherwood Comprehensive Plan, Part 2

| -Insert Fig VII-6

4. The rational method formula was used to estimate runoff to proposed storm sewers. This method has a tendency to overestimate design flows when applied to large basins. Runoff coefficients used in the rational method are predicted on the City's Comprehensive Plan. During final design of storm sewers, actual development within the basin should be reviewed to verify previous assumptions in selection of a runoff coefficient.

5. Cost estimates for proposed storm sewer improvements have been prepared, based on 1980 construction costs and increased in 1990 by 1.25%, and on Engineering News Record (ENR) index of 3264. These estimates are presented in Table 2 of the Appendix.

6. Design of relief culverts in Cedar Creek and Rock Creek may significantly alter hydraulic control sections used by the U.S. Army Corps of Engineers to establish water surface elevations and limits of the flood plain as set forth in Flood Insurance Study, City of Sherwood, Oregon, and provided to the City in preliminary draft, dated December 17, 1980. Design of relief culverts should be coordinated with the U.S. Army Corps of Engineers to insure integrity of their flood insurance study.

Implementation

1. The City will endeavor to establish a source of revenue to finance the cost of storm sewer construction, acquisition of lands along creeks, maintenance of storm sewers and waterways, and administration of the storm plan in accordance with the regional Surface Water Drainage Management Plan.

2. Until user fees are in effect, the City should obtain waivers of remonstrance to future storm drainage improvements projects from all property owners wishing to develop their land, and the City should also require all developers to provide adequate storm sewers to serve their property as well as those properties that would naturally drain to the proposed storm sewer.

SOLID WASTE

Solid waste disposal is a regional concern requiring regional solutions. The City of Sherwood recognizes MSD's responsibility and authority to prepare and implement a solid waste management plan and supports the MSD Solid Waste Facilities Model Siting Ordinance and will participate in these procedures as appropriate. There are no landfills in Sherwood.

The Model Siting Ordinance will be incorporated into this Plan when approved by METRO. In addition, the City conducted extensive hearings on solid waste incineration in 1990 and determined incineration is generally not a form of solid waste disposal environmentally compatible in the community except in limited circumstances. Therefore, solid waste incineration is generally prohibited by this Plan.

Sherwood Comprehensive Plan, Part 2

ELEMENTARY AGE STUDENTS (K-5)

J. Clyde Hopkins Elementary School has a capacity to house 600 students. Currently, 670 students are enrolled in grades K-5. Three double portable classrooms and one single portable classroom are utilized to address the growing elementary age population.

INTERMEDIATE AGE STUDENTS (6-8)

Approximately 300 students are enrolled in grades 6-8. The Intermediate School building capacity is 400 students. This capacity can be accessed by relocating District office services, which occupy a four classroom wing of the building.

HIGH SCHOOL AGE STUDENTS (9-12)

Sherwood High School has a capacity of 500 students. Approximately 420 students are currently enrolled. No major housing issues exist in this 1971 constructed facility.

SCHOOL FACILITY PLANNING

The School District is preparing to undertake a detailed facility development plan. The most immediate need for the District is to expand housing of elementary age school children (K-5). During the Fall of the 1990-91 school year, the District completed the purchase of a new elementary school site located within the City limits of Sherwood. The District also owns a school site (purchased in 1971) in the proximity of the Tualatin portion of the school district.

The intent of the District is to seek voter approval of a bond measure to address short and long-term housing needs. The measure is planned to be submitted in the Fall of 1991 or the Spring of 1992 in order to construct an additional elementary school.

I. PUBLIC SAFETY

POLICE PROTECTION

The City of Sherwood, Washington County and the State Police co-ordinate police protection within the Planning Area. In 1989 the Sherwood Police Force consisted of five officers. In order to meet future demand it is anticipated that the department will need additional patrolmen proportional to the projected increase in population. The State formula for City police protection is one officer per 500 people. The police force should expand accordingly.

FIRE PROTECTION

The Planning Area is wholly contained within the Tualatin Valley Consolidated Fire and Rescue

K. HEALTH FACILITIES

The local health system is linked to a number of organizations and institutions that can and do affect how it will develop. The latest planning legislation P.L. 93-641 and its recent amendments has placed Health care delivery systems planning are under the auspices of the State Certificate of Need laws and the Federal Health System Agency (HSA) planning regulations. Sherwood is located in the six county Northwest Oregon Health Systems Agency (NOHS) which is charged with reviewing new service proposals, expenditures involving public funds and the development of a health system plan for the area. The first HSA plan was adopted in 1978. State agencies administer HSA regulations. NOHS established subdistricts within the six county service area. Sherwood is located in the south-rural sub-district (see Figure VII-8). The only hospital located in the sub-district is Meridian Park Hospital in Tualatin.

Sherwood is served by various Metropolitan area hospitals depending on local physician affiliations. The City currently has only one doctor with offices in the Planning Area. St. Vincent's Hospital in Beaverton has expressed interest in establishing a satellite clinic in Sherwood.

The City will encourage the decentralization of Metropolitan health care delivery to assure that a broad range of inpatient, outpatient and emergency medical services are available to Sherwood residents. To that end the City will support the location of a St. Vincent's Satellite Center in Sherwood and encourage the appropriate expansion of Meridian Park facilities to meet the growing needs of the Planning Area.

L. SOCIAL FACILITIES AND SERVICES

A broad range of social services will be needed in the Planning Area to serve a growing urban population. Sherwood will continue to depend on metropolitan area services for which the demand does not justify a decentralized center. Multi-purpose social and health services and referral are offered by the Washington County Satellite Center in Tigard. The City will encourage the continued availability of such services.

Sherwood is located in Region 8 of the State Department of Human Resources Service Area and benefits from that agency's services. State services are administered through the County's Washington County office located in Hillsboro. In addition to public social service programs, many private organizations serve the Sherwood area.

Exhibit B

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COMMUNITY FACILITIES AND SERVICES

A. GENERAL INTRODUCTION

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Although a small community, Sherwood has learned well the importance of adequate community facilities and services to orderly urban growth. Lack of sewer treatment capacity curtailed growth in the City in the 1970's. Planning for public facilities and services in response to growth rather than in advance of growth results in gaps in facilities and services. As population growth and density increase in the Sherwood Planning Area, greater facility and service support will be required. In recognition of this basic fact, the Plan stresses the need for provision of necessary facilities and services in advance of, or in conjunction with, urban development.

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B. POLICY GOAL AND OBJECTIVES

To insure the provision of quality community services and facilities of a type, level and location which is adequate to support existing development and which encourages efficient and orderly growth at the least public cost.

OBJECTIVES

1. Develop and implement policies and plans to provide the following public facilities and services; public safety fire protection, sanitary facilities, water supply, governmental services, health services, energy and communication services, and

recreation facilities.

2. Establish service areas and service area policies so as to provide the appropriate kinds and levels of services and facilities to existing and future urban areas.
3. Coordinate public facility and service plans with established growth management policy as a means to achieve orderly growth.
4. Coordinate public facility and service provision with future land use policy as a means to provide an appropriate mix of residential, industrial and commercial uses.
5. Develop and implement a five-year capital improvements and service plan for City services which prioritizes and schedules major new improvements and services and identifies funding sources.
6. The City will comply with the MSD Regional Solid Waste Plan, and has entered into an intergovernmental agreement with Washington County to comply with the County's Solid Waste and Yard Debris Reduction Plan, 1990.
7. Based on Sewer, Water, Stormwater, and Transportation Plan updates, the City shall prepare a prioritized list of capital improvement projects to those systems and determine funding sources to realize the improvements envisioned in those plans.
8. It shall be the policy of the City to seek the provision of a wide range of public facilities and services concurrent with urban growth. The City will make an effort to seek funding mechanisms to achieve concurrency.

C. PUBLIC AND SEMI-PUBLIC UTILITIES

Public utilities including water, sanitary sewer, drainage, and solid waste, as well as semi-public utilities including power, gas and telephone services are of most immediate importance in the support of new urban development. Water, sewer collection, and drainage facilities are the major services for which the City of Sherwood has responsibility. Service plans for these key services are contained in this section. The other utilities referred to above are the principal responsibilities of those agencies listed in Table VII-1. These agencies have been contacted for the purpose of coordinating their service planning and provision with the level and timing of service provision required to properly accommodate growth anticipated by the Plan.

**TABLE VII-1
FACILITY AND SERVICE PROVIDERS
IN THE SHERWOOD PLANNING AREA**

1. Public Utilities
 - a. Public Water Supply
City of Sherwood
 - b. Sanitary Sewer System
 - (1) Clean Water Services
 - (2) City of Sherwood
 - c. Storm Drainage System
 - (1) City of Sherwood
 - (2) Washington County
 - (3) State of Oregon
2. Private/Semi-Public Utilities
 - a. Natural Gas
Northwest Natural Gas Co.
 - b. Electric Power
Portland General Electric
 - c. Solid Waste: Pride Disposal Co.
3. Transportation
 - a. Paved Streets, Traffic Control, Sidewalks, Curbs,
Gutters, Street Lights
 - (1) City of Sherwood
 - (2) Washington County
 - (3) State of Oregon
 - b. Bikeways
 - (1) City of Sherwood
 - (2) Washington County
 - (3) State of Oregon

- c. Public Transit
 - Tri-Met

- 4. Public Health and Safety
 - a. Police Protection
 - (1) City of Sherwood
 - (2) Washington County
 - (3) State of Oregon

 - b. Fire Protection
 - Tualatin Valley Fire and Rescue

 - c. Animal Control
 - Washington County

- 5. Recreation
 - a. Parks and Recreation
 - City of Sherwood

 - b. Library
 - City of Sherwood

- 6. Schools
 - Sherwood School District 88J

D. SEWER SERVICE PLAN

INTRODUCTION

The Sewer Service Plan of the Comprehensive Plan was updated in 1990 and is included as an appendix to the Plan, and is incorporated into this chapter. The following describes the existing sewer system, recommended improvements to the existing system, recommended expansion of the sewer system and estimated costs.

EXISTING SEWER SYSTEM

The City of Sherwood's existing sewer system is as shown on Figure VII-1. The system is located in USA's Durham South Basin which consists of two sub-basins are centered around Cedar Creek and Rock Creek, respectively, and will be referred to as the Cedar Creek basin and the Rock Creek basin throughout the remainder of this section.

The Rock Creek Basin system currently serves a residential area bounded by Lincoln Street to the west, West Sunset Boulevard to the south, Oregon Street to the north and the UGB to the east. Rock Creek Basin also contains approximately 71.2 acres of land, north of Oregon Street, which is currently zoned and developed for industrial use. The remaining northern portion of the Basin is essentially undeveloped and zoned primarily for industrial use. Flow is by gravity from south to north, eventually connecting to USA's Rock Creek trunk. This trunk then follows Rock Creek until it connects with the Upper Tualatin Interceptor which transports sewage to the Durham treatment plant.

The Cedar Creek Basin system serves the majority of Sherwood. Drainage is again from south to north and the main trunk of the system follows Cedar Creek from Sunset Boulevard under Pacific Highway continuing north until it connects with the Upper Tualatin Interceptor. From this point sewage is transported to the Durham Treatment plant.

insert map

ANALYSIS OF EXISTING SEWER SYSTEM

The population for the City of Sherwood in the year 2008 is estimated to be 7,000 people. The 1979 Sewer Service Plan estimated a population of 10,600 people in the year 2008, and a full-development population within the Sherwood Urban Growth Boundary (UGB) of 18,900 people.

In order to accentuate any deficiencies in the existing sanitary sewer system, peak flowrates were generated based on full development or saturation of the Sherwood UGB. This analysis was used for the following reasons. Maximum design flows for sanitary sewers are far less than peak storm sewer flows. Very often sanitary sewer pipes are sized at a minimum 8-inch diameter for maintenance purposes; consequently the majority of these pipes are flowing at a minimum of their capacity. A full-development demand analysis was the most conservative and efficient way of analyzing the system for all deficiencies.

Wastewater flow criteria for the analysis was taken from USA's 1985 Master Sewer Plan Update and is based on land use designation as listed below:

**TABLE VII-2
 WASTEWATER FLOW DESIGN CRITERIA
 DESIGN UNIT FLOW RATE**

<u>LAND USE DESIGNATION</u>	<u>EXISTING</u>	<u>FUTURE</u>
RESIDENTIAL	75 gpcd	75 gpcd
COMMERCIAL	1000 gpad	1000 gpad
INDUSTRIAL	3000 gpad	3000 gpad
INSTITUTIONAL	500 gpad	500 gpad
PEAK ANNUAL	4000 gpad	4000 gpad

The City of Sherwood Zoning Map was used to determine the amount of acreage of each land use designation. This acreage was then applied to tributary basins contributing to their respective sewers and multiplied by the appropriate land use design unit flowrate in order to generate the total design flowrate. An average of residential densities per tributary basin was used to account for the five different residential zoning densities shown on the current City Zoning Map.

The domestic sewage flow allowance for the 1979 Sewer Plan followed the 1969 USA Master Plan value of 90 gallons per capita per day (gpcd). The updated, June 1985 USA Master Plan, has reduced this value to 75 gpcd.

In order to account for periods of maximum use, flowrates are multiplied by factors which result in peak flowrates. The 1979 Sewer Service Plan used peak factors of 3.0 for lateral sewers and 2.7 for trunk sewer lines. The 1985 USA Master Plan Update requires peak factors ranging from 1.5 to 2.0. These lower values are based on actual dry-weather flow monitoring, performed in June and

July of 1984, at points throughout the Durham Basin.

The July 1979 Sewer Service Plan used values ranging from 500 gallons per acre per day (gpad) to 700 gpad for inflow and infiltration (I&I), depending on land use designation. These values were concurrent with past EPA design standards and were based on the assumption that rehabilitation measures would remove 60 to 90 percent of excessive I&I. According to USA's 1985 Master Plan these abatement techniques proved to be ineffective. USA's review of the Durham treatment facility led to the design rate of 4000 gpad for the existing peak annual occurrence for infiltration and inflow. This value is not anticipated to decrease for the Durham basin and is therefore also used for the future design flowrates.

Two areas of special concern exist inside the current City of Sherwood UGB. Both areas are recent additions to the UGB and have not yet been assigned a land use. Rather than assume zoning designations for the areas they were both excluded from the model. Both areas can be served by gravity and neither will cause deficiencies in the system. Their service routes are discussed below.

The first area is located in the southwest corner of the UGB in the Cedar Creek Basin, between Pacific Highway and Old Highway 99W. This area can be served by line number 1 in area A (Figure VII-2). The northern half of this area may also be served by connecting to the southern most extension of line number 2 in area B. The second area is located east of Pacific Highway and north of Edy Road, in the Rock Creek Basin. The southern portion should be incorporated in line number 3 extending from Rock Creek west along Edy Road (Figure VII-2). The northern half must be served using a direct lateral to the area from the Rock Creek trunk.

RECOMMENDED IMPROVEMENTS TO EXISTING SEWER SYSTEM

The analysis of the existing system shows no size deficiencies in any of the City maintained pipes. City officials have confirmed that there are areas of surcharge in the system due to pipe under sizing. Surcharge due to blockage of the system has occurred but has since been remedied.

Improvements are recommended to the existing sewer systems main trunk lines. These improvements are required due to very slight slips which occur in the northern sections of the Rock Creek and Cedar Creek main trunk lines.

The Rock Creek trunk requires improvements from manhole number 11663, which is located at the confluence of the Rock Creek and Cedar Creek trunk lines, south to a manhole located near the Southern Pacific crossing of Rock Creek. The existing 18-inch diameter pipe has a length of 6,035 feet and an existing slope of 0.0031 feet/foot. The USA master plan recommends that a 15-inch diameter pipe be placed parallel to the existing 18-inch in order to convey future flows based on 20-year ultimate development peak flowrates. Our analysis is based on total ultimate development of the Sherwood UGB and therefore suggests that an 18-inch diameter pipe parallel the existing 18-inch at the existing slope of 0.0031 feet/foot.

The Cedar Creek Trunk presents similar slope problems along the northern trunk. USA's Master Plan breaks these into three sections but this report will combine them for simplicity. The section of sewer begins at manhole 11663, which is located at the confluence of the Rock Creek and Cedar Creek trunks, and continues south to manhole number 11752 which is 200 feet south of Edy Road and slightly west of the UGB. (see Fig.1) The entire 12,640 feet of this line is outside of the UGB, and has a slope averaging between 0.0016 feet/feet and 0.0025 feet/feet. Depending on existing slopes a parallel system will be required ranging from 18 to 30-inches in diameter.

insert Figure VII-2

RECOMMENDED SEWER SYSTEM EXPANSION

The City of Sherwood's Urban Growth Boundary includes significant areas that are currently not served by the existing sanitary sewer system. All of these areas are part of either the Rock Creek Basin system or the Cedar Creek Basin system and can be easily served by extending laterals off the respective trunk lines of each basin. These new laterals have no special priority except to serve those who require sewer service. The locations of the recommended sewers are shown on Figure VII-3.

All new sewer lines should have a minimum diameter of 8-inches for ease of serviceability. These new laterals were designed by setting the slope of the sewer pipe invert, equal to the slope of the existing ground along the sewer line path. Individual pipe slopes may be required to be less than natural ground slopes in order to serve isolated areas of low ground elevation.

The sewer expansions are listed below under the basin in which they occur. The costs are listed by pipe diameter and are in 1990 dollars. These costs are typically paid for by the land developments that create the need for the extensions. The costs include design and construction. Land acquisition may be required but those costs are not included in the estimates below.

1.	Sewer Trunk Lines		
	Cedar Creek Parallel (15"-30")	12,640LF	\$991,000
	Rock Creek Parallel (18")	6,750 LF	\$378,000
2.	Rock Creek Basin Lines (All 8")		
	Tonquin	1400 LF	\$ 47,000
	Highland/12th	3000 LF	\$100,800
	Tualatin-Sherwood	2300 LF	\$ 77,300
	Onion Flats W.	5000 LF	\$168,000
	Onion Flats E.	2900 LF	\$ 97,500
3.	Cedar Creek Basin Lines (8" except as noted)		
	Steeplechase S. (10")	4100 LF	\$160,700
	Steeplechase N. (12")	650 LF	\$ 29,100
	Steeplechase N. (10")	4100 LF	\$161,000
	E. Sunset	1300 LF	\$ 43,700
	W. Sunset	3500 LF	\$117,600
	Scholls-Sherwood W.	1200 LF	\$ 40,300
	Scholls-Sherwood E.	3100 LF	\$104,200
	BPA#	3500 LF	\$117,600

insert Figure VII-3

WATER SERVICE PLAN

INTRODUCTION

The City draws the majority of its water supply from the Willamette River Water Treatment Plant (WRWTP) in the City of Wilsonville, approximately 6 miles southeast of Sherwood. The City owns 5 million gallons per day (MGD) of production capacity in the existing WRWTP facilities. Sherwood also maintains four groundwater wells within the city limits for back-up supply. Prior to 2011, the City also purchased water from the Portland Water Bureau (PWB) through the City of Tualatin's water system and maintains an emergency connection and transmission piping associated with this supply source.

The City's future water service area is comprised of five different planning areas:

1. Sherwood city limits
2. Tonquin Employment Area (TEA)
3. Brookman Annexation Area
4. West Urban Reserve
5. Tonquin Urban Reserve

Each of these areas has their own land use characteristics, approximate development timelines and existing planning information. Estimates of future growth and related water demand are developed using the best available information for each area including Sherwood buildable lands geographic information system (GIS) data, population growth projections, development area concept plans and current water demand data.

Water demand growth is projected at 10 years, 20 years and at saturation development. Estimated water demands at saturation development are used to size recommended transmission and distribution improvements. .

EXISTING WATER SYSTEM CONDITIONS

Pressure Zones

The City's existing distribution system is divided into three major pressure zones. Pressure zone boundaries are defined by ground topography in order to maintain service pressures within an acceptable range for all customers in the zone. The hydraulic grade line (HGL) of a zone is designated by overflow elevations of water storage facilities or outlet settings of pressure reducing valves (PRVs) serving the zone.

The majority of Sherwood customers are served from the 380 Pressure Zone which is supplied by gravity from the City's Sunset Reservoirs. The 535 Pressure Zone, serving the area around the

Sunset Reservoirs, is supplied constant pressure by the Sunset Pump Station, and the 455 Pressure Zone serves higher elevation customers on the western edge of the City by gravity from the Kruger Reservoir.

Storage Reservoirs

Sherwood's water system has three reservoirs with a total combined storage capacity of approximately 9.0 million gallons (MG). Two reservoirs, Sunset Nos. 1 and 2, provide 6.0 million gallons (MG) of gravity supply to the 380 Pressure Zone. The other reservoir, Kruger Road, provides 3.0 mg of gravity supply to the 455 Pressure Zone.

Pump Stations

Sherwood's water system includes two booster pump stations, the Sunset Pump Station and the Wyndham Ridge Pump Station.

The Sunset Pump Station is located in Snyder Park adjacent to the Sunset Reservoir complex and has an approximate total capacity of 3,770 gallons per minute (gpm). This station provides constant pressure service and fire flow to the 535 Pressure Zone.

The Wyndham Ridge Pump Station is located on SW Handley Street west of Highway 99W. Two 40-hp pumps supply a total capacity of approximately 1,200 gpm from 380 Zone distribution piping to the Kruger Road Reservoir.

Distribution System

The City's distribution system is composed of various pipe materials in sizes up to 24 inches in diameter. The total length of piping in the service area is approximately 77.4 miles. Pipe materials include cast iron, ductile iron, PVC and copper. The majority of the piping in the system is ductile iron.

ANALYSIS OF EXISTING WATER SYSTEM

Water Supply

Sherwood's supply from the WRWTP is sufficient to meet MDD through the 10-year planning horizon with an additional 1 mgd of capacity required at 20 years and an additional 4 mgd needed at build-out. Existing City groundwater wells provide an effective emergency supply to complement emergency storage in the City's reservoirs.

Pumping and Storage

The City's distribution system has adequate storage and pumping capacity to meet existing service area demands through 2034. Due to significant uncertainty related to long-term growth and system expansion, minor storage and pumping deficiencies at build-out should be re-evaluated with the next Water Master Plan Update or as development warrants. Additional pump stations are recommended to serve proposed high-elevation closed pressure zones in the water service expansion areas: Brookman Annexation and West Urban Reserve.

Distribution Piping

Sherwood's distribution piping is sufficiently looped to provide adequate fire flow capacity to commercial, industrial and residential customers. Few piping improvement projects are needed to meet fire flow criteria. Extensive large diameter mains will be needed to expand the City's water service area to supply the Brookman Annexation, TEA and West Urban Reserve as development occurs.

RECOMMENDED IMPROVEMENTS TO EXISTING WATER SYSTEM

Recommended improvements for the City's water system include proposed supply, pump station and water line projects.

Cost Estimating Data

An estimated project cost has been developed for each improvement project recommended. Cost estimates represent opinions of cost only, acknowledging that final costs of individual projects will vary depending on actual labor and material costs, market conditions for construction, regulatory factors, final project scope, project schedule and other factors. The cost estimates presented have an expected accuracy range of -30 percent to +50 percent. As the project is better defined, the accuracy level of the estimates can be narrowed. Estimated project costs include approximate construction costs and an aggregate 45 percent allowance for administrative, engineering and other project related costs.

Capital Improvement Program

A summary of all recommended improvement projects and estimated project costs is presented in Table ES-3 of the 2015 City of Sherwood Water System Master Plan Update. The table provides for project sequencing by showing fiscal year-by-year project priorities for the first five fiscal years, then prioritized projects in 5-year blocks for the 10-year, 20-year and Beyond 20 year timeframes. The total estimated cost of these projects is approximately \$24.6 million through FY 2034. Approximately \$19.9 million of the total estimated cost is for projects needed within the 10-year timeframe and \$5.4 million of these improvements are required in the next 5 years.

F. DRAINAGE PLAN

INTRODUCTION

The Sherwood Planning Area is located within the Willamette River-Tualatin River Basin as identified in the Portland-Vancouver Metropolitan Area Water Resources Study (PMAWRS). The Cedar Creek and Rock Creek sub-basins channel surface runoff to the Tualatin River just north of the Planning Area. Within these sub-basins there exists considerable variation in slope. A highland area known as Washington Hill has some erosion and sedimentation potential. High groundwater and poorly drained soils in portions of the northern half of the Planning Area will require measures to regulate excavation and site drainage.

In March 1989, DEQ issued draft rules for storm water quality control to all jurisdictions in the Tualatin River sub-basin. The City of Sherwood is required to comply with the rules and participate in the development of a Surface Water Drainage Management Plan for the region. When the Plan is completed and adopted this section will be amended accordingly.

Objectives

1. Comply with DEQ Storm water quality control rules until completion of a Drainage Management Plan.
2. Cooperate with United Sewerage Agency, Washington County, and DEQ in the preparation of a Drainage Management Plan.

Findings

1. A storm drainage plan for the City's urban growth area has been developed and is illustrated on Figure VII-7. Major storm sewers are recommended for construction in accordance with the Plan; minor storm sewers are not shown on the proposed storm drainage plan. This Plan will be updated upon completion of the regional Drainage Plan.
2. Cedar Creek, Rock Creek, and Chicken Creek shall continue to be the City's primary conveyance systems for storm runoff.
3. Existing flood areas have been identified and are analyzed and described in Section VII Background Data and Analysis. It is anticipated, all but one of the problem areas will be eliminated by implementation of the Plan. An area of flooding at N.W. 12th Street and Highway 99W remains to be resolved by construction of a minor storm sewer, which is not shown on the Plan.
4. The rational method formula was used to estimate runoff to proposed storm sewers. This method has a tendency to overestimate design flows when applied to large basins. Runoff

coefficients used in the rational method are predicted on the City's Comprehensive Plan. During final design of storm sewers, actual development within the basin should be reviewed to verify previous assumptions in selection of a runoff coefficient.

5. Cost estimates for proposed storm sewer improvements have been prepared, based on 1980 construction costs and increased in 1990 by 1.25%, and on Engineering News Record (ENR) index of 3264. These estimates are presented in Table 2 of the Appendix.

6. Design of relief culverts in Cedar Creek and Rock Creek may significantly alter hydraulic control sections used by the U.S. Army Corps of Engineers to establish water surface elevations and limits of the flood plain as set forth in Flood Insurance Study, City of Sherwood, Oregon, and provided to the City in preliminary draft, dated December 17, 1980. Design of relief culverts should be coordinated with the U.S. Army Corps of Engineers to insure integrity of their flood insurance study.

Implementation

1. The City will endeavor to establish a source of revenue to finance the cost of storm sewer construction, acquisition of lands along creeks, maintenance of storm sewers and waterways, and administration of the storm plan in accordance with the regional Surface Water Drainage Management Plan.

2. Until user fees are in effect, the City should obtain waivers of remonstrance to future storm drainage improvements projects from all property owners wishing to develop their land, and the City should also require all developers to provide adequate storm sewers to serve their property as well as those properties that would naturally drain to the proposed storm sewer.

SOLID WASTE

Solid waste disposal is a regional concern requiring regional solutions. The City of Sherwood recognizes MSD's responsibility and authority to prepare and implement a solid waste management plan and supports the MSD Solid Waste Facilities Model Siting Ordinance and will participate in these procedures as appropriate. There are no landfills in Sherwood.

The Model Siting Ordinance will be incorporated into this Plan when approved by METRO. In addition, the City conducted extensive hearings on solid waste incineration in 1990 and determined incineration is generally not a form of solid waste disposal environmentally compatible in the community except in limited circumstances. Therefore, solid waste incineration is generally prohibited by this Plan.

Electrical Power

The Sherwood Planning Area is well served by major power facilities. Portland General Electric Co. (PGE) runs and operates a major regional sub-station in the northern portion of the Planning Area and has a network of major transmission lines which cross the Planning Area. Minor sub-station siting and construction, if needed in response to development, will be coordinated with PGE.

Natural Gas

The Sherwood Planning Area is served by Northwest Natural Gas Co. (NNG) lines. The existing system consists of a 6" high pressure line extended to the Planning Area via Tualatin-Sherwood Road, So. Sherwood Blvd. and Wilsonville Road. The distribution system is adequate to serve immediate development. NNG reports that the 6" main will be adequate to serve growth projected by the Plan with new lateral line extensions and attention to proper "looping" of existing lines.

Telephone

General Telephone services the Sherwood Planning Area. Planned improvements should have the capability of handling projected growth demands in the Area.

H. SCHOOLS

INTRODUCTION

The Sherwood Planning Area is wholly contained within Sherwood School District 88J. Although the City of Sherwood is the only currently urbanized area within the district, district boundaries include approximately 44 square miles and parts of Washington, Clackamas, and Yamhill Counties. The District is currently predominately rural but, by the year 2000, the Sherwood Planning Area will contribute most of the total student enrollment.

FUTURE ENROLLMENT/FACILITY NEEDS

The School District completed a School Enrollment Study (Metro Service District Analysis) in the Fall of 1990. Revisions were made in the Spring of 1991. The study data suggests that school enrollments will be increasing sharply in the coming years. The growth assumption is supported by record-setting residential building permit issuance during 1990. Major arterial road improvements between I-5 and 99W will also cause further growth and development.

ELEMENTARY AGE STUDENTS (K-5)

J. Clyde Hopkins Elementary School has a capacity to house 600 students. Currently, 670 students

are enrolled in grades K-5. Three double portable classrooms and one single portable classroom are utilized to address the growing elementary age population.

INTERMEDIATE AGE STUDENTS (6-8)

Approximately 300 students are enrolled in grades 6-8. The Intermediate School building capacity is 400 students. This capacity can be accessed by relocating District office services, which occupy a four classroom wing of the building.

HIGH SCHOOL AGE STUDENTS (9-12)

Sherwood High School has a capacity of 500 students. Approximately 420 students are currently enrolled. No major housing issues exist in this 1971 constructed facility.

SCHOOL FACILITY PLANNING

The School District is preparing to undertake a detailed facility development plan. The most immediate need for the District is to expand housing of elementary age school children (K-5). During the Fall of the 1990-91 school year, the District completed the purchase of a new elementary school site located within the City limits of Sherwood. The District also owns a school site (purchased in 1971) in the proximity of the Tualatin portion of the school district.

The intent of the District is to seek voter approval of a bond measure to address short and long-term housing needs. The measure is planned to be submitted in the Fall of 1991 or the Spring of 1992 in order to construct an additional elementary school.

I. PUBLIC SAFETY

POLICE PROTECTION

The City of Sherwood, Washington County and the State Police co-ordinate police protection within the Planning Area. In 1989 the Sherwood Police Force consisted of five officers. In order to meet future demand it is anticipated that the department will need additional patrolmen proportional to the projected increase in population. The State formula for City police protection is one officer per 500 people. The police force should expand accordingly.

FIRE PROTECTION

The Planning Area is wholly contained within the Tualatin Valley Consolidated Fire and Rescue District. One engine house is located within the City. The District feels that present physical facilities will be adequate to serve the projected year 2000 growth in the area with some increase in manpower and equipment. The District currently employs a 5-year capital improvement planning

process which is updated annually. The City will co-ordinate its planning with the district to assure the adequacy of fire protection capability in the Planning Area.

J. GENERAL GOVERNMENTAL SERVICES

As a general purpose governmental unit, the City of Sherwood intends to fulfill its responsibilities in the principal areas of general administration, planning, public works, and library services. With expected growth in Sherwood, additional manpower and facilities will be required.

1. Manpower Needs

In 1989 there are currently seventeen (17) City staff in general governmental services. A review of cities which have reached Sherwood's projected five and twenty year growth levels indicate that new staffing will be needed proportional to population increases in most departments. Using this assumption a full-time staff of 15-20 persons will be required by 1985 and a staff of 20-40 will be needed by the year 2000. Most critical immediate needs are in the area of clerical staff to support existing departmental work loads.

2. Space Needs

The City offices, water department, police department, planning department and public works, are currently housed in a remodeled turn-of-the-century house. Although the structure is significant historically and should be saved, it may not meet the long term functional or space needs of a City Hall.

In 1982 the Senior and Community Center was built and provides meeting space for the City Council and Planning Commissions.

K. HEALTH FACILITIES

The local health system is linked to a number of organizations and institutions that can and do affect how it will develop. The latest planning legislation P.L. 93-641 and its recent amendments has placed Health care delivery systems planning are under the auspices of the State Certificate of Need laws and the Federal Health System Agency (HSA) planning regulations. Sherwood is located in the six county Northwest Oregon Health Systems Agency (NOHS) which is charged with reviewing new service proposals, expenditures involving public funds and the development of a health system plan for the area. The first HSA plan was adopted in 1978. State agencies administer HSA regulations. NOHS established subdistricts within the six county service area. Sherwood is located in the south-rural sub-district (see Figure VII-8). The only hospital located in the sub-district is Meridian Park Hospital in Tualatin.

Sherwood is served by various Metropolitan area hospitals depending on local physician affiliations. The City currently has only one doctor with offices in the Planning Area. St. Vincent's Hospital in Beaverton has expressed interest in establishing a satellite clinic in Sherwood.

The City will encourage the decentralization of Metropolitan health care delivery to assure that a broad range of inpatient, outpatient and emergency medical services are available to Sherwood residents. To that end the City will support the location of a St. Vincent's Satellite Center in Sherwood and encourage the appropriate expansion of Meridian Park facilities to meet the growing needs of the Planning Area.

L. SOCIAL FACILITIES AND SERVICES

A broad range of social services will be needed in the Planning Area to serve a growing urban population. Sherwood will continue to depend on metropolitan area services for which the demand does not justify a decentralized center. Multi-purpose social and health services and referral are offered by the Washington County Satellite Center in Tigard. The City will encourage the continued availability of such services.

Sherwood is located in Region 8 of the State Department of Human Resources Service Area and benefits from that agency's services. State services are administered through the County's Washington County office located in Hillsboro. In addition to public social service programs, many private organizations serve the Sherwood area.

The City is particularly interested in locating a multi-purpose social and health service referral agency in Sherwood so that residents of Sherwood would be able to get timely information on the available services. The City also supports the development of a Comprehensive Social and health services delivery plan for the Planning Area to identify gaps in needed services and develop an ongoing strategy for their provision. Of particular concern are day care and senior citizens services.

Day Care

A growing need exists for day care. State standards for the establishment of day care centers are supplemented by City standards. Currently day care has been carried on by churches and small home operations. The City recognizes and supports the proper siting and housing of day care services.

Senior Citizens Services

With an increasing proportion of the Planning Areas population reaching the age of 60, Sherwood will require additional specialized services and facilities for senior citizens. The City was awarded a grant from HUD for a Senior Citizen Community Center was completed in 1982. Community Center functions will be carried out under the authority of the City. It is the intent of the City that the Center be the focus for the Community activities requiring meeting and multi-purpose areas with particular emphasis on Senior Citizens programs and activities.

Exhibit C



City of Sherwood
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March 11, 2015

Mayor
Krisanna Clark

Mr. Brad Kilby and
City of Sherwood Planning Commission
22560 SW Pine Street
Sherwood, OR 97140

Council President
Sally Robinson

Councillors
Linda Henderson
Dan King
Jennifer Harris
Jennifer Kuiper
Beth Cooke

Re: Sherwood Water System Master Plan Update (WSMPU)

Brad and Members of the Planning Commission:

City Manager
Joseph Gail, ICMA-CM

Assistant City Manager
Tom Pessemier, P.E.

The following questions are paraphrased from discussion at the Sherwood Planning Commission work session regarding the Water System Master Plan Update. The answers given herein are intended to provide clarification for the commissioners in advance of a Planning Commission Public Hearing anticipated on March 24, 2015.

Questions

1. *What is a Water System Master Plan Update and what is the process for water master planning in Sherwood?*



2009 Top Ten Selection



2007 18th Best Place to Live

The City of Sherwood (City) is required to maintain a current water system master plan as a drinking water provider in the State of Oregon with more than 300 customers. The City's water master plan must comply with Oregon Administrative Rule (OAR) 333-061-0060(5). This OAR stipulates certain elements that must be part of the plan, including, an evaluation of the water system for at least a 20 year period and an estimate of projected growth in the water system during that time.



The completed plan must be reviewed and approved by the Oregon Health Authority's Drinking Water Services for compliance with the OAR. Prior plan adoption by the governing body of the water system, such as a city council, is not expressly required by the OAR for State approval. However, most if not all water providers, including the City of Sherwood, will seek water master plan adoption by their governing body before submitting the plan to the Oregon Health Authority.

Funding for the capital improvement program (CIP) recommended in the Sherwood Water System Master Plan Update (WSMPU) is being assessed through a water rate and system development charge (SDC) analysis independent of the Master Plan Update document. This rate and SDC analysis will be presented to the budget committee, City Council for review, public hearing, and adoption, in coordination with the Water System Master Plan Update, consistent with Sherwood policies.

2. *What is being approved if the Water System Master Plan Update is recommended for adoption by the Planning Commission?*

The Water System Master Plan Update will serve as an amendment to the Public Facilities Chapter of the Sherwood Comprehensive Plan (Part 2). Any addendum to Sherwood's comprehensive plan must be reviewed and approved by the Oregon State Department of Land Conservation and Development (DLCD) and recommended by Sherwood's Planning Commission for adoption by the City Council.

Water rates, SDCs and water utility funding are independent of the Water System Master Plan Update document and will be presented to the budget committee, City Council for review, public hearing and adoption consistent with Sherwood policies.

3. *Why are we planning for so much growth?*

Public water system master plans are required to evaluate water system needs for a minimum of 20 years. The Sherwood WSMPU considers 4 growth areas; the existing city limits, Tonquin Employment Area (TEA), Brookman Annexation Area and Sherwood West Urban Reserve. The Sherwood city limits, TEA and Brookman fall within the existing Metro Urban Growth Boundary (UGB) which is drawn to accommodate anticipated Portland metro area growth within 20 years. Thus, any of these areas may be expected to experience growth within 20 years.

Sherwood West was identified by City Planning staff as the next likely area to develop after TEA and Brookman. Although this area remains outside of the Metro UGB, it is prudent for the City to consider the long range water system needs to serve potential customers in Sherwood West. With a basic water infrastructure plan in place for Sherwood West, the City can ensure that appropriately-sized water facilities are built when and if development occurs.

Any project in the water system CIP designated 100% for growth would only be constructed if development occurred in the area served by that project. Projects in the CIP may be re-prioritized or delayed based on

where or if growth is occurring in the Sherwood water system but additional projects would not be added to the CIP without updating the Water System Master Plan. Review and re-prioritization of projects will occur annually as part of the budgeting process, in addition to longer-range prioritization of projects by the Engineering and Public Works Departments.

4. *What is the total CIP cost to existing Sherwood water customers?*

Of the \$36.2 million total estimated cost for recommended capital improvement projects, only \$2.2 million is anticipated to be paid by existing customers through saturation development. The remaining projects in the CIP are for water system expansion to serve growth, as development occurs. These improvements will be funded through the collection of System Development Charges (SDCs).

Note:

A typo was identified in the CIP summary table presented in the Draft Water System Master Plan Update. Water main projects M-3, 4 & 5 which replace existing 8-inch mains in order to provide adequate fire flow for future development in Brookman Annexation should be 100% allocated to growth. An updated CIP summary table showing this 100% allocation is attached. The attached table replaces Table ES-3 on page 7 of the draft Executive Summary and Table 5-3 on page 13 of Section 5.

A second version of the CIP summary table showing the total estimated CIP cost to existing customers is also attached with the M-3, 4 & 5 allocation correction. The uncorrected table was displayed as a poster at the WSMPU public open house February 25, 2015, and a specific question related to this typo was asked by a Sherwood citizen during the open house.

Sincerely,



Craig Sheldon
Public Works Director

**Table ES-3
CIP Summary**

DRAFT

Project Category	Project ID	Project Description	CIP Schedule and Project Cost Summary								% Allocated to Growth
			FY1 (2016)	FY2 (2017)	FY3 (2018)	FY4 (2019)	FY5 (2020)	10-Year (2024)	20-Year (2034)	Beyond 20 years	
Supply	S-1	Existing WRWTP upgrades to achieve max 15 mgd capacity				\$ 250,000	\$ 250,000	\$ 500,000			21%
	S-2	WRWTP purchase 5 mgd intake capacity			\$ 100,000	\$ 150,000	\$ 150,000	\$ 1,600,000			100%
	S-3	WRWTP treatment expansion - Sherwood 5 mgd share			\$ 440,000	\$ 550,000	\$ 550,000	\$ 6,160,000			100%
	S-4	Install hydrants at Wells 3 and 5	\$ 25,000								0%
	S-5	Abandon Well 4 and transfer water rights	\$ 25,000								0%
		Subtotal	\$ 50,000	\$ -	\$ 540,000	\$ 950,000	\$ 950,000	\$ 8,260,000	\$ -	\$ -	
Pump Station	P-1	Proposed 1,600 gpm Ladd Hill Pump Station to serve future 400 Brookman Zone customers							\$ 477,000		100%
	P-2	Proposed 2,400 gpm Kruger Pump Station to serve future 630 Zone customers								\$ 2,547,000	100%
	P-3	Proposed 1,600 gpm Edy Road Pump Station to serve future 475 Zone customers								\$ 1,505,000	100%
		Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 477,000	\$ 4,052,000	
Water Main	M-1	Fire flow capacity - Sherwood Senior Center		\$ 36,000							0%
	M-2	Fire flow capacity - Norton Ave			\$ 92,000						0%
	M-60	Fire flow capacity - June Court				\$ 43,000					0%
	M-7	Expansion to TEA - Loop with existing Oregon Street mains		\$ 68,000							100%
	M-8				\$ 204,000						100%
	M-9				\$ 239,000						100%
	M-29				\$ 154,000						100%
	M-30					\$ 264,000					100%
	M-31					\$ 438,000					100%
	M-32						\$ 267,000				100%
	M-33						\$ 162,000				100%
	M-34					\$ 178,000				100%	
	M-3, 4 & 5	10-Year (2024) - upgrade existing mains						\$ 300,000			100%
	M-6, 10 to 19B, 35 to 37, 40 to 42	10-Year (2024)						\$ 5,275,000			100%
	M-20 to 28, 43 to 45	20-Year (2034)							\$ 3,295,000		100%
M-38, 39, 46 to 59	Beyond 20 years								\$ 7,183,000	100%	
	Routine Pipe Replacement Program	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000	\$ 500,000	\$50K annually	57%	
	Subtotal	\$ 50,000	\$ 154,000	\$ 739,000	\$ 795,000	\$ 657,000	\$ 5,825,000	\$ 3,795,000	\$ 7,183,000		
PRV	V-1	SW Sherwood PRV			\$ 150,000						100%
	V-2	Handley PRV						\$ 150,000			100%
	V-3	Haide PRV							\$ 150,000		100%
	V-4	195th PRV							\$ 150,000		100%
	Subtotal	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000	\$ -	\$ 300,000		
Other	Upgrade SCADA System		\$ 75,000								35%
	Subtotal	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Planning		Update Water Master Plan						\$ 150,000	\$ 150,000		35%
		Update Water Management and Conservation Plan			\$ 150,000				\$ 150,000		35%
		Update Vulnerability Assessment						\$ 60,000	\$ 60,000		35%
		Resiliency Plan	\$ 150,000						\$ 150,000		35%
	Subtotal	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -	\$ 210,000	\$ 510,000	\$ -		
Capital Improvement Program (CIP) Total			\$ 250,000	\$ 229,000	\$ 1,579,000	\$ 1,745,000	\$ 1,607,000	\$ 14,445,000	\$ 4,782,000	\$ 11,535,000	\$ 36,172,000

Annual Average CIP Cost		
\$1,082,000	\$1,985,500	\$1,231,850
over 5 years	over 10 years	over 20 years

Water System Master Plan Update
Proposed Capital Improvement Program (CIP) Summary

DRAFT

Project Category	Project ID	Project Description	CIP Schedule and Project Cost Summary							% Allocated to Future Growth	
			FY1 (2016)	FY2 (2017)	FY3 (2018)	FY4 (2019)	FY5 (2020)	10-Year (2024)	20-Year (2034)		Beyond 20 years
Supply	S-1	Existing WRWTP upgrades to achieve max 15 mgd capacity				\$ 250,000	\$ 250,000	\$ 500,000			21%
	S-2	WRWTP purchase 5 mgd intake capacity			\$ 100,000	\$ 150,000	\$ 150,000	\$ 1,600,000			100%
	S-3	WRWTP treatment expansion - Sherwood 5 mgd share			\$ 440,000	\$ 550,000	\$ 550,000	\$ 6,160,000			100%
	S-4	Install hydrants at Wells 3 and 5	\$ 25,000								0%
	S-5	Abandon Well 4 and transfer water rights	\$ 25,000								0%
		Subtotal	\$ 50,000	\$ -	\$ 540,000	\$ 950,000	\$ 950,000	\$ 8,260,000	\$ -	\$ -	
Pump Station	P-1	Proposed 1,600 gpm Ladd Hill Pump Station to serve future 400 Brookman Zone customers							\$ 477,000		100%
	P-2	Proposed 2,400 gpm Kruger Pump Station to serve future 630 Zone customers								\$ 2,547,000	100%
	P-3	Proposed 1,600 gpm Edy Road Pump Station to serve future 475 Zone customers								\$ 1,505,000	100%
		Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 477,000	\$ 4,052,000	
Water Main	M-1	Fire flow capacity - Sherwood Senior Center		\$ 36,000							0%
	M-2	Fire flow capacity - Norton Ave			\$ 92,000						0%
	M-60	Fire flow capacity - June Court				\$ 43,000					0%
	M-7	Expansion to Brookman - Loop from prop SW		\$ 68,000							100%
	M-8	Sherwood PRV to Hwy 99			\$ 204,000						100%
	M-9				\$ 239,000						100%
	M-29				\$ 154,000						100%
	M-30					\$ 264,000					100%
	M-31	Expansion to TEA - Loop with existing Oregon Street mains				\$ 438,000					100%
	M-32						\$ 267,000				100%
	M-33						\$ 162,000				100%
	M-34						\$ 178,000				100%
	M-3, 4 & 5	10-Year (2024) - upgrade existing mains						\$ 300,000			100%
	M-6, 10 to 19B, 35 to 37, 40 to 42	10-Year (2024)						\$ 5,275,000			100%
M-20 to 28, 43 to 45	20-Year (2034)							\$ 3,295,000		100%	
M-38, 39, 46 to 59	Beyond 20 years								\$ 7,183,000	100%	
	Routine Pipe Replacement Program	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000	\$ 500,000	\$50K annually	57%	
	Subtotal	\$ 50,000	\$ 154,000	\$ 739,000	\$ 795,000	\$ 657,000	\$ 5,825,000	\$ 3,795,000	\$ 7,183,000		
PRV	V-1	SW Sherwood PRV			\$ 150,000						100%
	V-2	Handley PRV					\$ 150,000				100%
	V-3	Haide PRV							\$ 150,000		100%
	V-4	195th PRV							\$ 150,000		100%
	Subtotal	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000	\$ -	\$ 300,000		
Other		Upgrade SCADA System		\$ 75,000							35%
	Subtotal	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Planning		Update Water Master Plan					\$ 150,000	\$ 150,000			35%
		Update Water Management and Conservation Plan			\$ 150,000				\$ 150,000		35%
		Update Vulnerability Assessment					\$ 60,000	\$ 60,000			35%
		Resiliency Plan	\$ 150,000						\$ 150,000		35%
	Subtotal	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -	\$ 210,000	\$ 510,000	\$ -		
Capital Improvement Program (CIP) Total			\$ 250,000	\$ 229,000	\$ 1,579,000	\$ 1,745,000	\$ 1,607,000	\$ 14,445,000	\$ 4,782,000	\$ 11,535,000	

Overall CIP Total	\$ 36,172,000
Total Allocated to Future Growth	\$ 34,020,000
Total Allocated to Current Customers	\$ 2,152,000

Exhibit D

DRAFT Water System Master Plan – 2015

To view the draft document, click on the City's website link below. The draft can be found under the supporting documents at the bottom of the page.

<http://www.sherwoodoregon.gov/publicworks/page/water-system-master-plan-update>

A hard copy of the document is available for viewing at City Hall.